

ORIGINAL



Your Touchstone Energy® Cooperative 

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

**APPLICATION OF BIG RIVERS)
ELECTRIC CORPORATION FOR) Case No. 2011-00036
A GENERAL ADJUSTMENT IN)
RATES)**

**Response to Kentucky Industrial Utility Customers'
Initial Rehearing Request for Information
dated
March 9, 2012**

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MAR 22 2012

**PUBLIC SERVICE
COMMISSION**

FILED: March 22, 2012

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BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
FOR A GENERAL ADJUSTMENT IN RATES
CASE NO. 2011-00036**

**Response to Kentucky Industrial Utility Customers'
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dated March 9, 2012**

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- 1 **Item 1) *Refer to page 8 lines 7-8 of Mr. Hite's Rehearing Testimony***
2 ***regarding the CWIP amount at the end of the test year for which the***
3 ***Company sought depreciation expense.***
- 4 ***a. Please confirm that the Company maintains its***
5 ***accounting books in accordance with Generally Accepted***
6 ***Accounting Principles ("GAAP").***
- 7 ***b. Please provide a copy of the Company's most recent***
8 ***audited financial statements along with the auditor's***
9 ***opinion and management's representations that the***
10 ***financial statements comply in all material respects with***
11 ***GAAP.***
- 12 ***c. Please identify all loan agreements and/or covenants that***
13 ***require the Company to maintain its accounting books in***
14 ***accordance with GAAP, if any.***
- 15 ***d. Please confirm that the Company maintains its***
16 ***accounting books in accordance with the requirements of***
17 ***the RUS Uniform System of Accounts ("USOA").***
- 18 ***e. Please provide a copy of the Company's most recent***
19 ***annual Form 7 along with the auditor's opinion and***
20 ***management's representations that the financial***
21 ***statements comply in all material respects with the RUS***
22 ***USOA.***
- 23 ***f. Please identify all loan agreements and/or covenants that***
24 ***require the Company to maintain its accounting books in***
25 ***accordance with the RUS USOA, if any.***

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1 **Response)**

- 2 a. Yes. As noted in Big Rivers’ April 15, 2011, response to Item 13
3 of the Attorney General’s Initial Request for Information, “Big
4 Rivers maintains its books on the basis of the RUS Uniform
5 System of Accounts and GAAP...”
- 6 b. Big Rivers’ most recent audited financial statements were
7 provided on a CD in Big Rivers’ June 24, 2011, supplemental
8 response to Item 8 of the Attorney General’s Initial Request for
9 Information. A paper copy was filed in the record on June 29,
10 2011. The two most recent management letters from external
11 auditors (2009 from Deloitte & Touche and 2010 from KPMG)
12 are attached to Big Rivers’ April 15, 2011, response to Item 14 of
13 the Attorney General’s initial request for information. As noted
14 in that response, “No recommendations were noted [in those
15 letters] by the external auditors.”
- 16 c. The following agreements between Big Rivers and its creditors
17 require Big Rivers to maintain its accounting books in
18 accordance with GAAP and USOA:
- 19 i. Indenture;
 - 20 ii. Amended and Consolidated Loan Contract;
 - 21 iii. CFC Revolving Line of Credit Agreement; and
22 CoBank Revolving Credit Loan Facility.
- 23 d. Yes. As noted in Big Rivers’ April 15, 2011, response to Item 13
24 of the Attorney General’s initial request for information, “Big
25 Rivers maintains its books on the basis of the RUS Uniform

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- 1 System of Accounts and GAAP...”; and in Big Rivers’ March 18,
2 2011, response to Item 6 of Commission Staff’s initial request for
3 information, which states, “Big Rivers’ accrual basis accounting
4 policies follow the Uniform System of Accounts prescribed by the
5 Rural Utilities Service (“RUS”)...”
- 6 e. RUS Form 7 is for distribution cooperatives. Big Rivers, as a
7 generation and transmission cooperative, files the RUS Form
8 12. Big Rivers’ 2010 Annual RUS Form 12 is provided on the
9 CD accompanying these responses. Please see Big Rivers’
10 response to part 1b, above.
- 11 f. Please see Big Rivers’ response to part 1c, above.
- 12
13
14 **Witness)** Mark A. Hite
15

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- 1 **Item 2)** *Refer to page 8 lines 9-12 of Mr. Hite's Rehearing Testimony*
2 *wherein he states that \$18,654,607 of the CWIP balance at the end of the*
3 *test year was in-service.*
- 4 a. *Were the Company's accounting books in error at the end*
5 *of the test year for GAAP accounting purposes? Please*
6 *explain your response and provide a copy of all*
7 *authorities relied on to support your response.*
- 8 b. *Were the Company's accounting books in error at the end*
9 *of the test year for RUS USOA accounting purposes?*
10 *Please explain your response and provide a copy of all*
11 *authorities relied on to support your response.*
- 12 c. *Please identify and describe the test the Company applied*
13 *to determine that \$18,654,607 of the CWIP balance at the*
14 *end of the test year was in service for purposes of the*
15 *Company's rehearing request.*
- 16 d. *Is the test identified and described in response to part (c)*
17 *of this question for purposes of the Company's rehearing*
18 *request different in any respect than the test the Company*
19 *applied for GAAP accounting purposes? If so, then please*
20 *describe each such difference and how the Company*
21 *applied this difference so that it resulted in a different*
22 *result for the rehearing request than the Company*
23 *recorded on its accounting books.*
- 24 e. *Is the test identified and described in response to part (c)*
25 *of this question for purposes of the Company's rehearing*

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1 *request different in any respect than the test the Company*
2 *applied for RUS USOA purposes? If so, then please*
3 *describe each such difference and how the Company*
4 *applied this difference so that it resulted in a different*
5 *result for the rehearing request than the Company*
6 *recorded for RUS accounting purposes.*

7

8 **Response)**

9 a. and b. No. When a project has been completed and is
10 performing its intended function, the project manager reports
11 the project as complete and provides the in-service date and a
12 list of retirement units (assets) installed and retired. The
13 project status is changed from active to complete, but remains
14 open to capture any remaining costs that are yet to be received.
15 The project costs are monitored for such additional costs. If,
16 after a few months, no charges have been made to the project
17 and the costs charged are comparable to the estimate, the
18 project is then closed to completed plant and depreciation
19 expense is adjusted retroactive to the in-service date. It is not
20 unusual to have completed projects remain in CWIP for a period
21 of time after completion to ensure all expenditures are captured
22 in the final project cost. Big Rivers' employment of the
23 aforementioned (long-standing) process of closing and
24 transferring CWIP to plant in service has not resulted in a
25 material misstatement of the financial statements and is

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- 1 therefore not inconsistent with USOA and GAAP. Please see
2 Big Rivers' response to KIUC Rehearing 1-1b and e.
3 c. The "test" applied is the completion date of each project, also
4 referred to as in-service date, as described in the response to
5 parts 2a and 2b, above. When the in-service date is used, a total
6 of \$18,654,607 of the 10/31/10 CWIP balance was in service for
7 purposes of Big Rivers' rehearing request. Please see Big Rivers'
8 responses to parts 2a and 2b, above.
9 d. No.
10 e. No.

11
12
13
14

Witness) Mark A. Hite

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1 **Item 3)** *Please confirm that a difference in whether costs are*
2 *accounted for as CWIP or plant-in-service is that CWIP cannot be*
3 *depreciated and plant-in-service must be depreciated for GAAP*
4 *accounting purposes. Please explain your response and provide a copy of*
5 *all authorities relied on for your response.*

6

7 **Response)** Yes. CWIP is not depreciable and plant in service is depreciable for
8 GAAP accounting purposes. All CWIP projects are closed to plant in service after
9 the completion date. When a project is closed to plant in service, depreciation
10 expense is adjusted retroactive to the in-service date. Big Rivers relies on GAAP
11 and the RUS USOA, which are publicly-available documents.

12

13

14 **Witness)** Mark A. Hite

15

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1 **Item 4)** *Please confirm that a difference in whether costs are*
2 *accounted for as CWIP or plant-in-service is that CWIP cannot be*
3 *depreciated and plant-in-service must be depreciated for RUS USOA*
4 *accounting purposes. Please explain your response and provide a copy of*
5 *all authorities relied on for your response.*

6

7

8 **Response)** Yes, CWIP is not depreciable and plant in service is depreciable for
9 RUS USOA accounting purposes. All CWIP projects are closed to plant in service
10 after the completion date. When the project is closed to plant in service,
11 depreciation expense is adjusted retroactive to the in-service date. Please see Big
12 Rivers' response to KIUC Rehearing Item 3.

13

14

15 **Witness)** Mark A. Hite

16

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1 **Item 5)** *Refer to page 8 lines 1-12 of Mr. Hite's Rehearing Testimony.*
2 *Please provide the effect on the Company's TIER for the test year of the*
3 *\$359,678 in depreciation expense. Provide all computations, including*
4 *electronic spreadsheets with formulas intact.*

5

6 **Response)** Please see the attached table. Because the table is straightforward,
7 and because the formulas are shown in the comment field, no electronic
8 spreadsheets are provided.

9

10 **Witness)** Mark A. Hite

11

Big Rivers Electric Corporation
TIER Calculation
Case No. 2011-00036

<u>Line #</u>	<u>Item</u>	<u>Amount</u>	<u>Formula</u>
1	Interest Expense on Long-Term Debt	\$ 47,693,118	
2	Margins	\$ 11,446,348	
3	TIER	1.24	$(1 + 2) / 1$
4			
5	Test Year Depreciation	\$ 36,279,438	
6	Original Proforma Depreciation Adjustment	\$ 6,252,651	
7	Revenue Requirement for Depreciation	\$ 42,532,089	5 + 6
8	Depreciation on 10/31/10 CWIP Disallowed	\$ (2,313,311)	
9	Order for Depreciation	\$ 40,218,778	7 + 8
10	Depreciation on 10/31/10 CWIP In Service at 10/31/10	\$ 359,678	
11	Depreciation on 10/31/10 CWIP In Service 11/1/10-8/31/11	\$ 1,284,476	
12	Rehearing Depreciation	\$ 41,862,932	9+10+11
13			
14	Margins if 10/31/10 CWIP In Service at 10/31/10 is Denied	\$ 11,086,670	2 - 10
15	Margins if 10/31/10 CWIP In Service 11/1/10-8/31/11 is Denied	\$ 10,161,872	2 - 11
16	Margins if Both Portions of 11/31/10 CWIP are Denied	\$ 9,802,194	2 - 10 - 11
17			
18	TIER if 10/31/10 CWIP In Service at 10/31/10 is Denied	1.23	$(1 + 14) / 1$
19	TIER if 10/31/10 CWIP In Service 11/1/10-8/31/11 is Denied	1.21	$(1 + 15) / 1$
20	TIER if Both Portions of 10/31/10 CWIP are Denied	1.21	$(1 + 16) / 1$

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1 **Item 6)** *Refer to page 9 lines 7-8 of Mr. Hite's Rehearing Testimony.*
2 *Please provide the effect on the Company's TIER for the test year of the*
3 *\$1,284,476 in depreciation expense. Provide all computations, including*
4 *electronic spreadsheets with formulas intact.*

5

6 **Response)** Please see Big Rivers' response to KIUC Rehearing Item 5.

7

8 **Witness)** Mark A. Hite

9

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- 1 **Item 7)** *Refer to Exhibit Hite Rehearing-1, which provides a summary*
2 *table of rate case expenses incurred through August 2011.*
- 3 *a. Please reconcile the amounts through August 2011 to the*
4 *amounts requested in the Company's filing.*
- 5 *b. Please provide a copy of any variance analysis performed*
6 *by the Company comparing the actual to the estimated*
7 *amounts requested in the Company's filing prepared prior*
8 *to the receipt of this request. If the Company did not*
9 *prepare such an analysis prior to the receipt of this*
10 *request, then please explain why it did not do so.*
- 11 *c. For each variance identified in response to part (a) of this*
12 *question, please provide a detailed explanation of why the*
13 *actual cost was greater than the estimated cost included*
14 *in the Company's filing.*
- 15 *d. Please provide a copy of all engagement letters and*
16 *purchase orders for each outside firm retained to assist*
17 *the Company in its rate case, including all subsequent*
18 *modifications and revisions, if any.*
- 19 *e. The summary table indicates that rate case expense was*
20 *charged to account 928. Please indicate whether the*
21 *Company expensed the rate case expenses or deferred*
22 *them as they were incurred. Please provide a copy of the*
23 *monthly journal entries for each month during which rate*
24 *case expenses were incurred showing the accounts and*
25 *amounts, including any journal entries for deferrals.*

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1 **Response)**

2 a. The rate case expense amounts through August 2011 are the
3 amounts Big Rivers requested in its rate case filing, because Big
4 Rivers requested its actual rate case expenses. See Big Rivers'
5 August 11, 2011, Brief, page 48. This request was made
6 consistent with customary Commission practice. Per the March
7 2011 Application, the initial estimate of the third-party rate case
8 expense cost was \$898,930.

9 The changes in actual rate case expenses incurred are
10 documented in the record of this case. In response to
11 Information Request PSC 1-52, Big Rivers provided details
12 concerning the costs of preparing this case. Big Rivers' March
13 18, 2011, response to that information request shows rate case
14 costs from September 2010 through February 2011 of
15 \$264,128.91. The response states that Big Rivers' "preliminary
16 estimate of [its] third-party engineering, legal and consulting
17 expenses" is \$898,930.

18 Big Rivers filed updates to that information request in
19 accordance with the direction of PSC 1-52c. Those updates show
20 actual rate case expenses of \$577,199.73 through March 2011
21 (Big Rivers' May 11, 2011, Second Supplemental Response);
22 actual rate case expenses of \$647,199.19 through April 2011 (Big
23 Rivers' June 24, 2011, Third Supplemental Response); and
24 actual rate case expenses of \$890,985.29 through May 2011 (Big
25 Rivers' July 18, 2011, Fourth Supplemental Response). As Mr.

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1 Wolfram acknowledged on behalf of Big Rivers at the hearing in
2 this matter on cross-examination by Commission counsel, Mr.
3 Raff, while at the time of the filing the rate case Big Rivers’ total
4 anticipated costs were estimated at roughly \$890,000, by the
5 end of May the actual costs incurred were roughly \$890,000.
6 See transcript of hearing, testimony of John Wolfram, July 27,
7 2011, 11:33:00-11:35:00. Revised Exhibit Wolfram Rebuttal-1
8 and page 6 (Reference Schedule 2.13) of revised Exhibit Wolfram
9 Rebuttal-2, filed at the hearing on July 27, 2011, show the
10 original and updated pro forma adjustments for rate case
11 expenses as \$281,719 and \$482,076, respectively. As noted in
12 the revised Reference Schedule 2.13, the \$482,076 adjustment is
13 based on anticipated rate case costs of \$1,500,000, which is
14 based on actual costs through June 2011 and estimated
15 expenses for July and August 2011. Big Rivers’ final update to
16 PSC 1-52 was filed August 18, 2011, and shows actual rate case
17 costs of \$1,976,029.71 through August 15, 2011. The attached
18 table compares the actual such cost incurred through the August
19 15, 2011, to the original cost estimate.

20 b. Please see the response to part 7a above.

21 c. Big Rivers’ rate case was the first it had filed in approximately
22 20 years that involved its generation costs. Big Rivers
23 underestimated the level of time commitment that would be
24 required of its consultants and professionals in the case. Big
25 Rivers does not have a rates and tariffs department or in-house

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1 counsel. When Big Rivers began to prepare the rate case filing,
2 Big Rivers was still working through the complex transition that
3 resulted from the Unwind, including increasing the size of the
4 company and converting to Oracle R12. It was also in the
5 process of integrating into the Midwest Independent
6 Transmission System Operator, Inc. Many of the additional
7 demands resulting from the hundreds of information requests in
8 the rate case were necessarily assigned to outside consultants
9 and professionals. The complexity of the case, the large volume
10 of the data requests and the information sought through them
11 (that required thorough review), and preparations for the
12 hearing were among the reasons that the costs were higher than
13 Big Rivers originally projected. In addition, Big Rivers
14 mistakenly thought that involving the smelters in the
15 development of its depreciation study would reduce the amount
16 of time that Big Rivers and its consultants would have to devote
17 to that subject during the case, but that assumption proved
18 incorrect. Once Big Rivers started down the path that resulted
19 in the filing of the rate case, it concluded, due to the case's
20 importance to Big Rivers' financial health, that it must do what
21 was required to effectively prosecute the case, and that involved
22 more extensive use of outside consultants and professionals than
23 was originally anticipated.

24 d. Please see the CD that accompanies Big Rivers' March 18, 2011,
25 response to PSC 1-42.

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1 e. Big Rivers expensed these amounts because it was required to
2 do so by the RUS USOA pending action by the Commission. As
3 an RUS borrower, Big Rivers is subject to the accounting
4 prescribed by RUS Bulletin 1767B-1, Uniform System of
5 Accounts - Electric. Accordingly, Big Rivers currently expenses
6 (expense as incurred) all such costs until such time as (a) there
7 is an "action" by this Commission (an order) approving the
8 deferral of all or a portion of such costs in a regulatory asset and
9 the associated accounting, including the related inclusion in
10 rates (generally based on a three-year amortization), and (b) a
11 determination is made by Big Rivers that it is probable that the
12 RUS will approve its request (in writing) to establish such
13 regulatory asset and the associated accounting.

14 Pending such specific Commission action in an order, as
15 well as a Big Rivers conclusion that it was probable that RUS
16 written approval would be forthcoming, any attempt to defer all
17 or a portion of such costs in a regulatory asset would be
18 improper and an item of accounting uncertainty. Big Rivers
19 contends that currently expensing such costs until the
20 aforementioned matters are resolved is not only required by
21 RUS and GAAP, but is consistent with the accounting principle
22 of conservatism. Potential uncertainties associated with such
23 costs being incurred over multiple calendar years, the potential
24 for the Commission disallowing all or a portion of such costs,
25 etc., further justify the prudence of Big Rivers' accounting

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1 treatment of currently expensing such costs. The accounting
2 treatment is to expense (debit) the rate case expenses as
3 incurred to account 928 – Regulatory Commission Expenses and
4 to credit account 131 – Cash.

5

6 **Witness)** Mark A. Hite

7

Big Rivers Electric Corporation

Case No. 2011-00036

Reconciliation of Rate Case Expenses through August 2011 versus Amounts Requested in Big Rivers' Application

Line No.	Vendor	August 18, 2011 Submittal	Original Estimate	Difference	Description
1	Burns & McDonnell	\$ 187,151.58	\$ 120,000.00	\$ 67,151.58	Engineering
2	GDS Associates	4,341.66	5,000.00	(658.34)	Engineering
3	The Prime Group	399,971.50	300,000.00	99,971.50	Consulting
4	Sullivan Mountjoy Stainback & Miller	386,316.92	300,000.00	86,316.92	Legal
5	Hogan & Lovells	897,199.84	173,930.00	723,269.84	Legal
6	D.R. Eicher Consulting	1,160.00	0.00	1,160.00	Consulting
7	American Management Consulting	18,281.25	0.00	18,281.25	Consulting
8	Orrick Herrington & Sutcliffe	2,440.92	0.00	2,440.92	Legal
9	Public Financial Management	79,166.04	0.00	79,166.04	Consulting
10	Total	\$ 1,976,029.71	\$ 898,930.00	\$ 976,051.50	

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Witness: Mark A. Hite

Attachment for Response to KIUC Rehearing Item 7a

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- 1 **Item 8)** *Please describe how the Company managed its rate case*
2 *expenses, including, but not limited to, the following:*
- 3 *a. Overall control of the case and the cost of outside services.*
4 *In addition to the general description, please identify the*
5 *names and positions of the people responsible for each*
6 *aspect of this process, and describe specifically how each*
7 *such person managed the case and the cost of outside*
8 *services.*
- 9 *b. Control over the scope of work and cost of individual*
10 *firms and attorneys/consultants employed by those firms.*
11 *Please identify the names and positions of the people*
12 *responsible for each aspect of this process, and describe*
13 *specifically how each such person managed the scope of*
14 *work and the cost of each firm and its employees.*
- 15 *c. Copies of all documents related to the Company's control*
16 *over the scope of work and cost of outside services,*
17 *including, but not limited to, reports used for this purpose*
18 *and all correspondence between the Company and*
19 *individual firms and all correspondence internally within*
20 *the Company.*
- 21 *d. Please describe in detail the Company's decision criteria*
22 *applied to select each individual firm and the*
23 *attorneys/consultants applied by those firms. Provide a*
24 *copy of all documents that address these criteria and the*
25 *weighting that was applied, if any.*

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- 1 *e. Please indicate if the Company engaged in competitive*
2 *bids for its attorneys and consultants. If so, then please*
3 *provide a copy of all bid documents. If not, then please*
4 *explain why it did not do so.*
- 5 *f. Please provide a copy of all correspondence between the*
6 *Company and individual outside firms regarding the*
7 *Company's evaluation of or satisfaction with the firm's*
8 *performance.*
- 9 *g. Please provide a copy of all internal correspondence*
10 *regarding the Company's evaluation of or satisfaction*
11 *with each outside firm's performance and/or individual*
12 *attorney/consultant performance.*
- 13 *h. Please provide a copy of the Company's written policies*
14 *and guidelines addressing the retention of outside*
15 *services, and more specifically, professional outside*
16 *services.*

17
18

19 **Response)**

20 a - h. Mark Hite, Vice President Accounting & Interim Chief Financial
21 Officer, is responsible for the work of Burns & McDonnell on the
22 Depreciation Study and for the work of D.R. Eicher and The Prime
23 Group on the Cost of Service and Rate Design Study. Both studies
24 were competitively bid. Copies of the bidder proposals are provided
25 on the CD accompanying these responses. The evaluation worksheet

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1 for each study is also provided on the CD. The expertise of D.R.
2 Eicher was utilized solely to assist in drafting the Request For
3 Quotes ("RFQ") for the Cost of Service and Rate Design Study. C.
4 William Blackburn (Chief Financial Officer for Big Rivers at the time
5 of the filing but since having retired from Big Rivers in February
6 2012) had primary responsibility for the remainder of the consultants
7 and professionals.

8 Professionals that were not selected through a bidding process
9 were retained because of their institutional knowledge of Big Rivers
10 and their expertise. For example, Big Rivers chose Mr. Spen to
11 testify regarding the credit rating process because of his experience
12 and superior reputation in that area. Hogan Lovells was selected to
13 assist with the case as co-counsel because Big Rivers required
14 additional counsel with expertise in rate-making issues. The
15 attorneys with that firm who performed services in the rate case had
16 long experience with Big Rivers, knew the company well, had
17 previously represented Big Rivers with respect to Midwest ISO
18 issues, had worked as co-counsel with Big Rivers' corporate counsel
19 in the unwind transaction, and had knowledge of the smelter
20 contracts and smelter issues. Because that experience related
21 directly to many of the issues in the rate case, Big Rivers engaged
22 that firm to assist. When the volume of work in the case expanded
23 significantly, primarily due to the hundreds of data requests, the
24 lawyers of that firm enabled Big Rivers to respond in a timely
25 manner. Big Rivers did not hire other Kentucky regulatory counsel

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
FOR A GENERAL ADJUSTMENT IN RATES
CASE NO. 2011-00036**

**Response to Kentucky Industrial Utility Customers'
Initial Rehearing Request for Information
dated March 9, 2012**

March 22, 2012

1 for this role because of limited options due to conflicts of interest,
2 lack of expertise in the field, and lack of basic knowledge about Big
3 Rivers and cooperatives in general.

4 Sullivan, Mountjoy, Stainback & Miller is Big Rivers' regular
5 corporate counsel. That firm is Big Rivers' regular counsel for
6 regulatory matters and had considerable knowledge about and
7 experience with the issues that were involved in the rate case.

8 The Prime Group was selected because it has extensive
9 experience with cooperative rate-making, experience with regulation
10 in Kentucky, a local presence, experience with Big Rivers in previous
11 proceedings, availability of personnel and rates that were more
12 competitive than out-of-state consulting firms Big Rivers had
13 employed in the past.

14 The rate case costs attributable to Big Rivers' consultants and
15 professionals were driven by the amount of work that had to be
16 performed, which was heavily impacted by the actions of the
17 intervenors and the Commission, not Big Rivers. Big Rivers did take
18 what steps it reasonably could to monitor and control costs. As the
19 documents filed with Big Rivers' responses to PSC 1-42 and 1-52
20 show, there were caps on certain tasks performed by Burns &
21 McDonnell and Mr. Spen, and discounts on invoices from Orrick,
22 Herrington & Sutcliffe and Hogan Lovells. Because the Hogan
23 Lovells attorneys were located in Washington, DC, under the terms
24 of Big Rivers' engagement agreement with that firm, Big Rivers was
25 not billed for travel time between Washington and Kentucky.

BIG RIVERS ELECTRIC CORPORATION
APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
FOR A GENERAL ADJUSTMENT IN RATES
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dated March 9, 2012

March 22, 2012

1 Big Rivers kept track of rate case expenses, and that
2 information was provided in the record of this case in the form of the
3 updates to Big Rivers’ response to PSC 1-52. Those expenses were
4 reflected in various routine management reporting, including the
5 monthly Departmental Actual vs. Budget Variance Reports, the
6 monthly Re-Forecast, the monthly Financial Forecast, and the
7 monthly Financial Report. Big Rivers’ management was acutely
8 aware of the magnitude of the outside professional costs being
9 incurred in connection with this case in part because overruns in
10 those expenses were met by deferring or cancelling other budgeted
11 expenditures in order for the company to meet its lender MFIR
12 requirements. The expenses for outside consultants and
13 professionals in the rate case was a topic of regular discussion
14 between and among members of management, at the monthly
15 Internal Risk Management Committee meetings, and at the monthly
16 board of directors meetings.

17 There is no correspondence or documents involving evaluation
18 of the performance of outside consultants or professionals that has
19 not been filed in the record of this case.

20

21 **Witness)** Mark A. Hite

22

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
FOR A GENERAL ADJUSTMENT IN RATES
CASE NO. 2011-00036**

**Response to Kentucky Industrial Utility Customers'
Initial Rehearing Request for Information
dated March 9, 2012**

March 22, 2012

1 **Item 9)** *Refer to page 8 lines 4-5 of Mr. Wolfram's Rehearing Testimony*
2 *wherein he asserts that the Company's requested rate increase expenses*
3 *are "reasonable" and "should be accepted by the Commission." Please*
4 *describe and provide a copy of all analyses performed by or on behalf of*
5 *Mr. Wolfram to assess the reasonableness of the Company's requested rate*
6 *case expenses prior to the filing of his testimony.*

7
8 **Response)** Please see the response of Big Rivers to KIUC Rehearing Item 8. The
9 assessment of reasonableness is a qualitative analysis. The conclusion that the
10 rate case expenses are reasonable is based on several points. Many of these points
11 were noted in Big Rivers' Post-Hearing Brief, filed on August 11, 2011, in this
12 proceeding, on pages 48-49, and are repeated below for convenience:

13
14 Big Rivers' rate case expenses have been reasonable. This rate case
15 was unusual for Big Rivers. It has been over 20 years since Big Rivers
16 filed a general rate case. Also, Big Rivers emerged from the Unwind
17 Transaction a mere two years ago, and since that time, it has joined
18 the Midwest ISO. And, in accordance with the Unwind Order, this
19 rate case involved a cost of service study and a depreciation study. Big
20 Rivers has no in-house rate department or legal counsel. Big Rivers
21 brought in legal counsel from Washington, D.C. because of their
22 familiarity with Big Rivers' history, the Unwind Transaction, and the
23 Smelter agreements; their experience in dealing with RUS and CFC
24 borrowers; and their expertise with the Federal Energy Regulatory
25 Commission ("FERC") in relation to Big Rivers' Midwest ISO
26 membership. No party has controverted this proposed adjustment, it
27 is reasonable, and it should be approved.

28
29 **Witness)** John Wolfram

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
FOR A GENERAL ADJUSTMENT IN RATES
CASE NO. 2011-00036**

**Response to Kentucky Industrial Utility Customers'
Initial Rehearing Request for Information
dated March 9, 2012**

March 22, 2012

1 **Item 10)** *Please refer to the Company's response and updated responses*
2 *to Staff 1-52(c). Please provide copies of the invoices from the outside*
3 *attorneys with the descriptions of the activities related to the rate case*
4 *unredacted. The non-rate case activities may remain redacted.*

5

6 **Response)** Redacted invoices are provided in Big Rivers' original and
7 supplemental responses to PSC 1-52. Big Rivers objects to providing un-redacted
8 invoices on the ground that such documents are protected by the attorney-client
9 and attorney work product privileges.

10

11 **Witness)** Mark A. Hite / Counsel

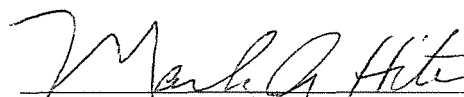
12

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
FOR A GENERAL ADJUSTMENT IN RATES
CASE NO. 2011-00036**

VERIFICATION

I, Mark A. Hite, verify, state, and affirm that I prepared or supervised the preparation of my rehearing data responses filed with this Verification, and that those rehearing data responses are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.


Mark A. Hite

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Mark A. Hite on this the 16 day of March, 2012.


Notary Public, Ky. State at Large
My Commission Expires 1-12-13

RECEIVED

MAR 22 2012

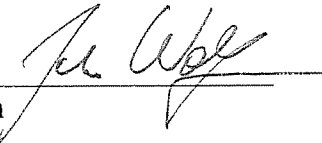
**PUBLIC SERVICE
COMMISSION**

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
FOR A GENERAL ADJUSTMENT IN RATES
CASE NO. 2011-00036**

VERIFICATION


I, John Wolfram, verify, state, and affirm that I prepared or supervised the preparation of my rehearing data responses filed with this Verification, and that those rehearing data responses are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



John Wolfram

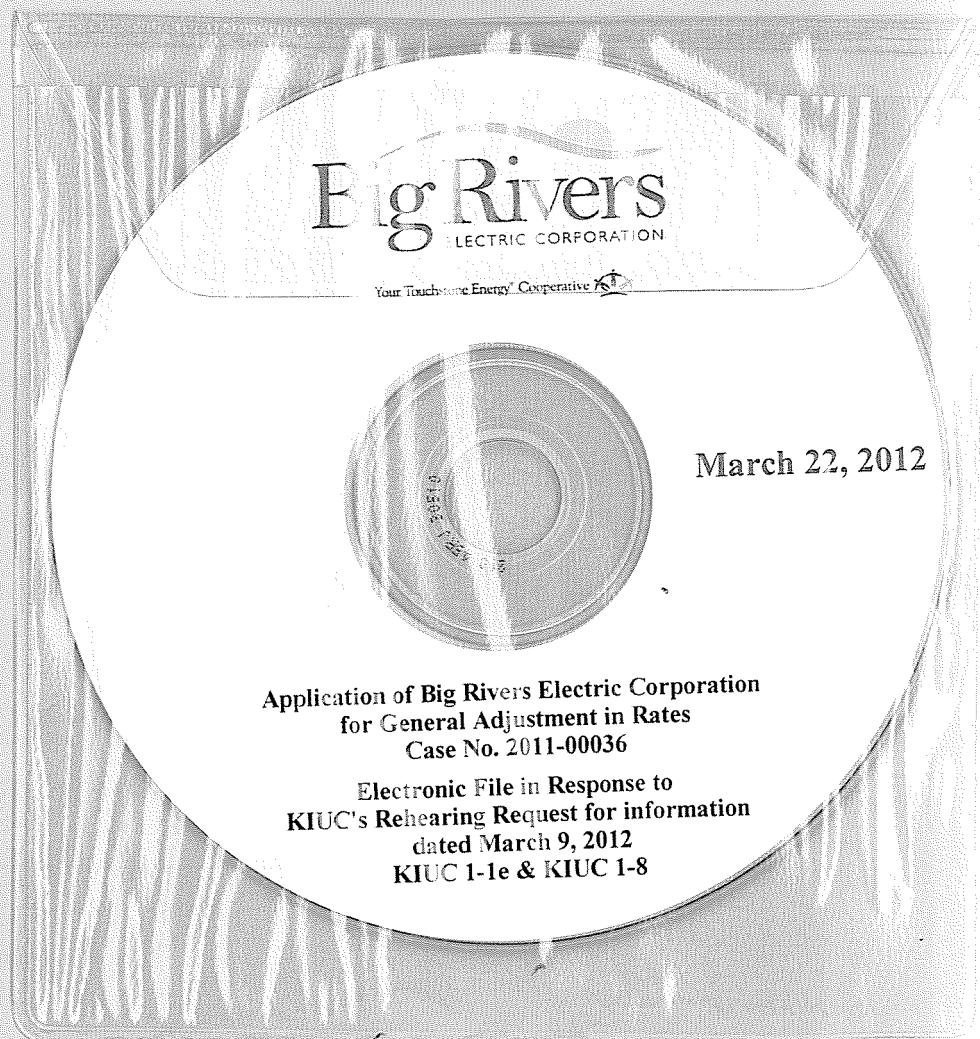
COMMONWEALTH OF KENTUCKY)
COUNTY OF OLDHAM)

SUBSCRIBED AND SWORN TO before me by John Wolfram on this the 16 day of
March, 2012.



Notary Public, Ky. State at Large
My Commission Expires 4-25-2013

CHRISTIE K. McCORMICK
NOTARY PUBLIC
STATE AT LARGE
KENTUCKY
MY COMMISSION EXPIRES APRIL 25, 2013



BIG RIVERS ELECTRIC CORPORATION
APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
FOR A GENERAL ADJUSTMENT IN RATES
CASE NO. 2011-00036

Response to Kentucky Industrial Utility Customers' Initial Rehearing Request for Information dated March 9, 2012

March 22, 2012

Information filed on CD accompanying responses

KIUC 1-1e - Annual 2010 RUS Form 12	KIUC 1-8 - Burns & McDonnell COS-Rate Design Proposal - 2010-10
KIUC 1-8 - Alliance Consulting Group Depreciation Study Proposal - 2010-06	KIUC 1-8 - Enervision COS-Rate Design Proposal - 2010-10
KIUC 1-8 - Big Rivers COS-Rate Design Ltr to Members - 2010-10	KIUC 1-8 - Gannett Fleming Depreciation Study Proposal - 2010-06
KIUC 1-8 - Big Rivers COS-Rate Design RFQ - 2010-09	KIUC 1-8 - GDS Associates COS-Rate Design Proposal - 2010-10
KIUC 1-8 - Big Rivers COS-Rate Design RFQ Responses Details	KIUC 1-8 - MR Valuation Consulting COS-Rate Design Proposal - 2010-10
KIUC 1-8 - Big Rivers COS-Rate Design RFQ Responses Summary	KIUC 1-8 - MR Valuation Consulting Depreciation Study Proposal - 2010-06
KIUC 1-8 - Big Rivers Depreciation Study Proposal Comparison	KIUC 1-8 - Prime Group COS-Rate Design Proposal - 2010-10
KIUC 1-8 - Big Rivers Depreciation Study RFQ - 2010-05	KIUC 1-8 - RW Beck COS-Rate Design Proposal - 2010-10
KIUC 1-8 - Big Rivers Scoring for Vendor Proposals	KIUC 1-8 - Shaw Consultants COS-Rate Design Proposal - 2010-10

Ronald M. Sullivan
Jesse T. Mountjoy
Frank Stainback
James M. Miller
Michael A. Fiorella
Allen W. Holbrook
R. Michael Sullivan
Bryan R. Reynolds
Tyson A. Kamuf
Mark W. Starnes
C. Ellsworth Mountjoy
Mary L. Moorhouse

March 22, 2012

Federal Express

Jeff DeRouen
Executive Director
Public Service Commission
211 Sower Boulevard, P.O. Box 615
Frankfort, Kentucky 40602-0615

Re: *In the Matter of: Application of Big Rivers
Electric Corporation for a General Adjustment in Rates,
PSC Case No. 2011-00036*

Dear Mr. DeRouen:

Enclosed for filing on behalf of Big Rivers Electric Corporation ("Big Rivers") are an original and ten copies of Big Rivers' responses to (i) the Commission Staff's First Request for Information on Big Rivers Electric Corporation's Rehearing Request, and (ii) Kentucky Industrial Utility Customers, Inc.'s First Set of Data Requests on Rehearing to Big Rivers Electric Corporation ("KIUC Rehearing Data Requests"). The attachments to Big Rivers' responses to Items 1 and 8 of the KIUC Rehearing Data Requests are on a CD filed with the responses. Also enclosed is a motion for deviation from the requirement that Big Rivers file an original and ten copies of those attachments, along with two hard copies of each attachment. A copy of this letter, a copy of Big Rivers' responses to the Commission Staff's First Request for Information and the KIUC Rehearing Data Requests, and a copy of the motion for a deviation have been served on the attached service list.

Sincerely,



Tyson Kamuf

TAK/ej
Enclosures

Telephone (270) 926-4000
Telecopier (270) 683-6694

cc: Mark A. Hite
Albert Yockey
John Wolfram

100 St Ann Building
PO Box 727
Owensboro, Kentucky
42302-0727

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BIG RIVERS ELECTRIC CORPORATION
PSC CASE NO. 2011-00036

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According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0032. The time required to complete this information collection is estimated to average 21 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE

BORROWER DESIGNATION
KY0062

FINANCIAL AND OPERATING REPORT
ELECTRIC POWER SUPPLY

PERIOD ENDED
December, 2010

INSTRUCTIONS - See help in the online application.

BORROWER NAME
Big Rivers Electric Corporation

This information is analyzed and used to determine the submitter's financial situation and feasibility for loans and guarantees. You are required by contract and applicable regulations to provide the information. The information provided is subject to the Freedom of Information Act (5 U.S.C. 552)

CERTIFICATION

We recognize that statements contained herein concern a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious or fraudulent statement may render the maker subject to prosecution under Title 18, United States Code Section 1001.

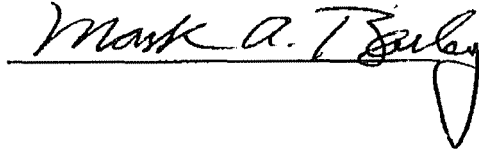
We hereby certify that the entries in this report are in accordance with the accounts and other records of the system and reflect the status of the system to the best of our knowledge and belief.


ALL INSURANCE REQUIRED BY PART 1788 OF 7 CFR CHAPTER XVII, RUS, WAS IN FORCE DURING THE REPORTING PERIOD AND RENEWALS HAVE BEEN OBTAINED FOR ALL POLICIES DURING THE PERIOD COVERED BY THIS REPORT PURSUANT TO PART 1718 OF 7 CFR CHAPTER XVII

(check one of the following)

All of the obligations under the RUS loan documents have been fulfilled in all material respects.

There has been a default in the fulfillment of the obligations under the RUS loan documents. Said default(s) is/are specifically described in Part A Section C of this report.




DATE

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART A - FINANCIAL		BORROWER DESIGNATION KY0062		
		PERIOD ENDED December, 2010		
INSTRUCTIONS - See help in the online application				
SECTION A. STATEMENT OF OPERATIONS				
ITEM	YEAR-TO-DATE			THIS MONTH (d)
	LAST YEAR (a)	THIS YEAR (b)	BUDGET (c)	
1. Electric Energy Revenues	326,729,694	514,490,437	501,361,209	47,174,666
2. Income From Leased Property (Net)	15,888,814			
3. Other Operating Revenue and Income	14,603,910	12,834,016	7,481,496	152,251
4. Total Operation Revenues & Patronage Capital (1 thru 3)	357,222,418	527,324,453	508,842,705	47,326,917
5. Operating Expense - Production - Excluding Fuel	22,381,368	52,506,942	56,902,941	3,921,117
6. Operating Expense - Production - Fuel	80,654,643	207,748,520	167,029,133	19,006,961
7. Operating Expense - Other Power Supply	115,826,139	99,421,265	116,943,877	8,561,428
8. Operating Expense - Transmission	8,256,704	7,625,518	7,908,802	550,191
9. Operating Expense - RTO/ISO		496,064		494,378
10. Operating Expense - Distribution				
11. Operating Expense - Customer Accounts				
12. Operating Expense - Customer Service & Information	716,704	446,300	728,706	17,299
13. Operating Expense - Sales	551,735	239,803	613,792	50,329
14. Operating Expense - Administrative & General	24,190,595	26,461,943	29,634,145	2,800,334
15. Total Operation Expense (5 thru 14)	252,577,888	394,946,355	379,761,396	35,402,037
16. Maintenance Expense - Production	24,400,170	42,156,863	37,404,868	3,108,770
17. Maintenance Expense - Transmission	5,225,597	4,473,124	4,576,332	242,509
18. Maintenance Expense - RTO/ISO				
19. Maintenance Expense - Distribution				
20. Maintenance Expense - General Plant	170,492	250,361	57,598	78,442
21. Total Maintenance Expense (16 thru 20)	29,796,259	46,880,348	42,038,798	3,429,721
22. Depreciation and Amortization Expense	18,464,743	34,242,192	34,832,349	2,856,800
23. Taxes	1,831,467	262,798	249,228	65,000
24. Interest on Long-Term Debt	60,027,927	47,064,226	48,078,208	4,103,492
25. Interest Charged to Construction - Credit	(133,263)	(683,535)	(575,035)	(102,592)
26. Other Interest Expense	3,453	189,162		21,246
27. Asset Retirement Obligations				
28. Other Deductions	2,168,814	166,390	104,448	67,700
29. Total Cost Of Electric Service (15 + 21 thru 28)	364,737,288	523,067,936	504,489,392	45,843,404
30. Operating Margins (4 less 29)	(7,514,870)	4,256,517	4,353,313	1,483,513
31. Interest Income	316,407	391,494	454,517	57,206
32. Allowance For Funds Used During Construction				
33. Income (Loss) from Equity Investments				
34. Other Non-operating Income (Net)	13,042	2,321,612		620,709
35. Generation & Transmission Capital Credits				
36. Other Capital Credits and Patronage Dividends	537,417	21,292		1,182
37. Extraordinary Items	537,978,261			
38. Net Patronage Capital Or Margins (30 thru 37)	531,330,257	6,990,915	4,807,830	2,162,610

RUS Financial and Operating Report Electric Power Supply - Part A - Financial

Revision Date 2010

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE		BORROWER DESIGNATION KY0062		
FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART A - FINANCIAL		PERIOD ENDED December, 2010		
INSTRUCTIONS – See help in the online application.				
SECTION B. BALANCE SHEET				
ASSETS AND OTHER DEBITS		LIABILITIES AND OTHER CREDITS		
1	Total Utility Plant in Service	1,946,193,027	33. Memberships	75
2.	Construction Work in Progress	54,874,458	34. Patronage Capital	
3.	Total Utility Plant (1 + 2)	2,001,067,485	a. Assigned and Assignable	0
4.	Accum. Provision for Depreciation and Amortization	909,501,402	b. Retired This year	0
5.	Net Utility Plant (3 - 4)	1,091,566,083	c. Retired Prior years	0
6.	Non-Utility Property (Net)	0	d. Net Patronage Capital (a - b - c)	0
7.	Investments in Subsidiary Companies	0	35. Operating Margins - Prior Years	(251,616,737)
8.	Invest in Assoc. Org. - Patronage Capital	3,595,315	36. Operating Margin - Current Year	4,277,809
9.	Invest. in Assoc. Org. - Other - General Funds	684,993	37. Non-Operating Margins	638,837,732
10.	Invest. in Assoc. Org. - Other - Nongeneral Funds	0	38. Other Margins and Equities	(4,923,484)
11.	Investments in Economic Development Projects	10,000	39. Total Margins & Equities (33 +34d thru 38)	386,575,395
12.	Other Investments	5,334	40. Long-Term Debt - RUS (Net)	667,523,045
13.	Special Funds	218,166,328	41. Long-Term Debt - FFB - RUS Guaranteed	0
14.	Total Other Property And Investments (6 thru 13)	222,461,970	42. Long-Term Debt - Other - RUS Guaranteed	0
15.	Cash - General Funds	5,877	43. Long-Term Debt - Other (Net)	142,100,000
16.	Cash - Construction Funds - Trustee	0	44. Long-Term Debt - RUS - Econ. Devel. (Net)	0
17.	Special Deposits	572,263	45. Payments – Unapplied	0
18.	Temporary Investments	44,774,114	46. Total Long-Term Debt (40 thru 44 - 45)	809,623,045
19.	Notes Receivable (Net)	0	47. Obligations Under Capital Leases Noncurrent	0
20.	Accounts Receivable - Sales of Energy (Net)	43,733,009	48. Accumulated Operating Provisions and Asset Retirement Obligations	19,661,867
21.	Accounts Receivable - Other (Net)	778,278	49. Total Other NonCurrent Liabilities (47 + 48)	19,661,867
22.	Fuel Stock	37,328,441	50. Notes Payable	10,000,000
23.	Renewable Energy Credits		51. Accounts Payable	31,298,484
24.	Materials and Supplies - Other	23,217,652	52. Current Maturities Long-Term Debt	7,372,871
25.	Prepayments	3,000,688	53. Current Maturities Long-Term Debt - Rural Devel.	0
26.	Other Current and Accrued Assets	1,397,509	54. Current Maturities Capital Leases	0
27.	Total Current And Accrued Assets (15 thru 26)	154,807,831	55. Taxes Accrued	659,009
28.	Unamortized Debt Discount & Extraordinary Property Losses	2,185,564	56. Interest Accrued	11,133,555
29.	Regulatory Assets	0	57. Other Current and Accrued Liabilities	9,967,770
30.	Other Deferred Debits	1,163,678	58. Total Current & Accrued Liabilities (50 thru 57)	70,431,689
31.	Accumulated Deferred Income Taxes	0	59. Deferred Credits	185,893,130
32.	Total Assets and Other Debits (5+14+27 thru 31)	1,472,185,126	60. Accumulated Deferred Income Taxes	0
			61. Total Liabilities and Other Credits (39 + 46 + 49 + 58 thru 60)	1,472,185,126

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY	BORROWER DESIGNATION KY0062
INSTRUCTIONS - See help in the online application.	PERIOD ENDED December, 2010
SECTION C. NOTES TO FINANCIAL STATEMENTS	
Footnote to RUS Form 12a	
Financial Ratios: <u>2010</u>	
Margins For Interest Ratio (MFI) 1.15	
Footnote to RUS Form 12a	
Kenergy "IF" Contract termination date is March 31, 2011.	
Footnote to RUS Form 12h, Section H	
In June, 2010, \$83.3 million of the Ohio County of Kentucky Note, Series 2001A was refunded with proceeds of the Ohio County of Kentucky Note, Series 2010A.	

<p style="text-align: center;">UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY</p>	<p style="text-align: center;">BORROWER DESIGNATION KY0062</p>
<p>INSTRUCTIONS - See help in the online application.</p>	<p>PERIOD ENDED December, 2010</p>
<p>SECTION C. CERTIFICATION LOAN DEFAULT NOTES</p>	
Empty space for notes	

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY				BORROWER DESIGNATION KY0062				
INSTRUCTIONS - See help in the online application.				PERIOD ENDED December, 2010				
PART B SE - SALES OF ELECTRICITY								
Sale No.	Name Of Company or Public Authority	RUS Borrower Designation	Statistical Classification	Renewable Energy Program Name	Primary Renewable Fuel Type	Average Monthly Billing Demand (MW)	Actual Average Monthly NCP Demand	Actual Average Monthly CP Demand
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Ultimate Consumer(s)							
2	Jackson Purchase Energy Corp	KY0020	RQ			130	140	126
3	Meade County Rural E C C	KY0018	RQ			93	98	89
4	Kenergy Corporation (KY0065)	KY0065	RQ			365	376	372
5	Kenergy Corporation (KY0065)	KY0065	IF					
6	Kenergy Corporation (KY0065)	KY0065	LF					
7	Associated Electric Coop, Inc	MO0073	OS					
8	East Kentucky Power Coop, Inc	KY0059	OS					
9	Oglethorpe Power Corporation	GA0109	OS					
10	PowerSouth Energy Cooperative	AL0042	OS					
11	AmerenUE (MO)		OS					
12	Cargill-Alliant LLC		OS					
13	Constellation Energy Commodities		OS					
14	EDF Trading North America, LLC		OS					
15	Henderson Munic Power & Light		OS					
16	Midwest Independent		OS					
17	PJM Interconnection (PA)		OS					
18	Southern Company Services		OS					
19	Tenaska Power Services		OS					
20	Tennessee Valley Authority		OS					
21	The Energy Authority		OS					
	Total for Ultimate Consumer(s)							
	Total for Distribution Borrowers					588	614	587
	Total for G&T Borrowers					0	0	0
	Total for Other					0	0	0
	Grand Total					588	614	587

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY				BORROWER DESIGNATION KY0062	
INSTRUCTIONS - See help in the online application				PERIOD ENDED December, 2010	
PART B SE - SALES OF ELECTRICITY					
Sale No	Electricity Sold (MWh) (i)	Revenue Demand Charges (j)	Revenue Energy Charges (k)	Revenue Other Charges (l)	Revenue Total (j + k + l) (m)
1					
2	716,681	11,593,926	20,909,611		32,503,537
3	509,286	8,249,322	14,928,228		23,177,550
4	2,185,591	37,292,240	58,027,552		95,319,792
5	35,272		1,434,193		1,434,193
6	6,348,431		279,664,932		279,664,932
7	4,068		145,929		145,929
8	66,846		2,791,834		2,791,834
9	7,440		299,857		299,857
10	14,830		508,790		508,790
11	26,380		881,410		881,410
12	216,581		7,989,749		7,989,749
13	252,383		8,843,259		8,843,259
14	229,516		8,700,799		8,700,799
15	4,297		191,046		191,046
16	1,059,721		41,001,812		41,001,812
17	100,713		3,737,060		3,737,060
18	11,723		463,388		463,388
19	12,437		446,928		446,928
20	142,179		5,366,103		5,366,103
21	25,045		1,022,469		1,022,469
	9,795,261	57,135,488	374,964,516	0	432,100,004
	93,184	0	3,746,410	0	3,746,410
	2,080,975	0	78,644,023	0	78,644,023
	11,969,420	57,135,488	457,354,949	0	514,490,437

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY	BORROWER DESIGNATION KY0062
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INSTRUCTIONS - See help in the online application	PERIOD ENDED December, 2010
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PART B SE - SALES OF ELECTRICITY

Sale No	Comments
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UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY	BORROWER DESIGNATION KY0062
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INSTRUCTIONS - See help in the online application	PERIOD ENDED December, 2010
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PART B PP - PURCHASED POWER

Purchase No.	Name Of Company or Public Authority (a)	RUS Borrower Designation (b)	Statistical Classification (c)	Renewable Energy Program Name (d)	Primary Renewable Fuel Type (e)	Average Monthly Billing Demand (MW) (f)	Actual Average Monthly NCP Demand (g)	Actual Average Monthly CP Demand () (h)
1	Associated Electric Coop, Inc (MO0073)	MO0073	OS					
2	Cargill-Alliant LLC		OS					
3	Constellation Energy Commodities Group		OS					
4	East Kentucky Power Coop, Inc (KY0059)	KY0059	OS					
5	EDF Trading North America, LLC (TX)		OS					
6	Henderson Munic Power & Light		RQ					
7	Louisville Gas & Electric Co		OS					
8	Midwest Independent Transmission System Operator (IN)		OS					
9	PJM Interconnection (PA)		OS					
10	RRI Energy Services (TX)		SF					
11	Southeastern Power Admin		LF					
12	Southern Illinois Power Coop (IL0050)	IL0050	OS					
13	The Energy Authority		OS					
Total for Distribution Borrowers						0	0	0
Total for G&T Borrowers						0	0	0
Total for Other						0	0	0
Grand Total						0	0	0

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY				BORROWER DESIGNATION KY0062			
INSTRUCTIONS - See help in the online application.				PERIOD ENDED December, 2010			
PART B PP - PURCHASED POWER							
Purchase No	Electricity Purchased (MWh) (i)	Electricity Received (MWh) (j)	Electricity Delivered (MWh) (k)	Demand Charges (l)	Energy Charges (m)	Other Charges (n)	Total (i + m + n) (o)
1	1,006				41,758		41,758
2	5,309				210,264		210,264
3	1,502				67,184		67,184
4	208				16,016		16,016
5	815				27,160		27,160
6	1,601,484				59,689,911		59,689,911
7	235				11,922		11,922
8	181,095				8,135,986		8,135,986
9	47,419				1,918,598		1,918,598
10	30,483				2,239,878		2,239,878
11	333,359				7,354,903		7,354,903
12	17,720				599,480		599,480
13	359				14,529		14,529
	0	0	0	0	0	0	0
	18,934	0	0	0	657,254	0	657,254
	2,202,060	0	0	0	79,670,335	0	79,670,335
	2,220,994	0	0	0	80,327,589	0	80,327,589

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY		BORROWER DESIGNATION KY0062
INSTRUCTIONS - See help in the online application.		PERIOD ENDED December, 2010
PART B PP - PURCHASED POWER		
Purchase No	Comments	
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UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART C - SOURCES AND DISTRIBUTION OF ENERGY		BORROWER DESIGNATION KY0062		
INSTRUCTIONS - See help in the online application.		PERIOD ENDED December, 2010		
SOURCES OF ENERGY (a)	NO. OF PLANTS (b)	CAPACITY (kW) (c)	NET ENERGY RECEIVED BY SYSTEM (MWh) (d)	COST (\$) (e)
Generated in Own Plant (Details on Parts D, E, F IC, F CC, and G)				
1 Fossil Steam	4	1,489,000	9,888,514	367,776,994
2 Nuclear	0	0	0	0
3. Hydro	0	0	0	0
4. Combined Cycle	0	0	0	0
5. Internal Combustion	1	70,000	6,998	1,900,102
6 Other	0	0	0	0
7. Total in Own Plant (1 thru 6)	5	1,559,000	9,895,512	369,677,096
Purchased Power				
8. Total Purchased Power			2,220,994	80,327,589
Interchanged Power				
9. Received Into System (Gross)			2,856,433	0
10. Delivered Out of System (Gross)			2,846,570	0
11. Net Interchange (9 - 10)			9,863	0
Transmission For or By Others - (Wheeling)				
12. Received Into System			1,986,938	12,693,137
13. Delivered Out of System			1,986,938	12,693,137
14. Net Energy Wheeled (12 - 13)			0	0
15. Total Energy Available for Sale (7 + 8 + 11 + 14)			12,126,369	
Distribution of Energy				
16. Total Sales			11,969,420	
17. Energy Furnished to Others Without Charge			0	
18. Energy Used by Borrower (Excluding Station Use)			0	
19. Total Energy Accounted For (16 thru 18)			11,969,420	
Losses				
20. Energy Losses - MWh (15 - 19)			156,949	
21. Energy Losses - Percentage ((20 / 15) * 100)			1.29 %	

RUS Financial and Operating Report Electric Power Supply -- Part C - Sources and Distribution of Energy

Revision Date 2010

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART D - STEAM PLANT	BORROWER DESIGNATION KY0062 PLANT Coleman PERIOD ENDED December, 2010
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INSTRUCTIONS - See help in the online application.

SECTION A. BOILERS/TURBINES											
NO.	UNIT NO. (a)	TIMES STARTED (b)	FUEL CONSUMPTION				TOTAL (g)	OPERATING HOURS			
			COAL (1000 Lbs.) (c)	OIL (1000 Gals.) (d)	GAS (1000 C.F.) (e)	OTHER (f)		IN SERVICE (h)	ON STANDBY (i)	OUT OF SERVICE SCHED. (j)	UNSCH. (k)
1.	1	13	946,718.40		25,343.60			8,033	307		420
2.	2	16	823,479.90		30,929.50			7,294	389	664	413
3.	3	9	1,030,908.30		34,183.80			8,358	73		328
4.											
5.											
6.	Total	38	2,801,107	0.00	90,456.90	0.00		23,685	769	664	1,161
7.	Average BTU		11,223		1,000.00						
8.	Total BTU (10 ⁶)		31,436,819.00		90,457.00		31,527,276				
9.	Total Del. Cost (\$)		74,269,736		502,473.00						

SECTION A. BOILERS/TURBINES (Continued)					SECTION B. LABOR REPORT			SECTION C. FACTORS & MAX. DEMAND		
NO.	UNIT NO. (l)	SIZE (kW) (m)	GROSS GEN. (MWh) (n)	BTU PER kWh (o)	NO.	ITEM	VALUE	NO.	ITEM	VALUE
1.	1	160,000	1,072,065.00		1.	No Employees Full-Time (Include Superintendent)	109	1	Load Factor (%)	72.91%
2.	2	160,000	912,906.00		2.	No Employees Part-Time		2	Plant Factor (%)	74.41%
3.	3	165,000	1,176,392.00		3.	Total Employee Hours Worked	221,502	3	Running Plant Capacity Factor (%)	82.51%
4.								4	15 Minute Gross Max Demand (kW)	495,001
5.								5	Indicated Gross Max Demand (kW)	
6.	Total	485,000	3,161,363.00	9,973						
7.	Station Service (MWh)		299,457.00		4.	Operating Plant Payroll (\$)	7,467,931			
8.	Net Generation (MWh)		2,861,906.00	11,016.18	5.	Maintenance Plant Payroll (\$)	4,497,781			
9.	Station Service (%)	9.47			6.	Other Accts. Plant Payroll (\$)				
					7.	Total Plant Payroll (\$)	11,965,712			

SECTION D. COST OF NET ENERGY GENERATED					
NO.	PRODUCTION EXPENSE	ACCOUNT NUMBER	AMOUNT (\$) (a)	MILLS/NET kWh (b)	\$/10 ⁶ BTU (c)
1.	Operation, Supervision and Engineering	500	1,541,639		
2.	Fuel, Coal	501.1	76,472,056		2.43
3.	Fuel, Oil	501.2			
4.	Fuel, Gas	501.3	502,473		5.55
5.	Fuel, Other	501.4			
6.	Fuel SubTotal (2 thru 5)	501	76,974,529	26.89	2.44
7.	Steam Expenses	502	6,566,348		
8.	Electric Expenses	505	1,947,334		
9.	Miscellaneous Steam Power Expenses	506	2,040,603		
10.	Allowances	509	117,685		
11.	Rents	507			
12.	Non-Fuel SubTotal (1 + 7 thru 11)		12,213,609	4.26	
13.	Operation Expense (6 + 12)		89,188,138	31.16	
14.	Maintenance, Supervision and Engineering	510	1,587,444		
15.	Maintenance of Structures	511	1,243,736		
16.	Maintenance of Boiler Plant	512	8,484,787		
17.	Maintenance of Electric Plant	513	1,529,839		
18.	Maintenance of Miscellaneous Plant	514	1,995,498		
19.	Maintenance Expense (14 thru 18)		14,841,304	5.18	
20.	Total Production Expense (13 + 19)		104,029,442	36.34	
21.	Depreciation	403.1, 411.10	4,767,639		
22.	Interest	427	6,921,789		
23.	Total Fixed Cost (21 + 22)		11,689,428	4.08	
24.	Power Cost (20 + 23)		115,718,870	40.43	

Remarks

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART D - STEAM PLANT	BORROWER DESIGNATION KY0062
	PLANT Green
	PERIOD ENDED December, 2010

INSTRUCTIONS - See help in the online application.

SECTION A. BOILERS/TURBINES											
NO.	UNIT NO. (a)	TIMES STARTED (b)	FUEL CONSUMPTION					OPERATING HOURS			
			COAL (1000 Lbs.) (c)	OIL (1000 Gals.) (d)	GAS (1000 C.F.) (e)	OTHER (f)	TOTAL (g)	IN SERVICE (h)	ON STANDBY (i)	OUT OF SERVICE SCHED. (j)	UNSCH. (k)
1.	1	10	1,658,255.50	357.37				8,401		182	177
2.	2	2	1,694,706.90	95.61				8,682			78
3.											
4.											
5.											
6.	Total	12	3,352,962	452.98	0.00	0.00		17,083	0	182	255
7.	Average BTU		11,755	137,999.47							
8.	Total BTU (10 ⁶)		39,414,073.00	62,511			39,476,584				
9.	Total Del Cost (\$)		66,777,911	1,033,843.00							

SECTION A. BOILERS/TURBINES (Continued)					SECTION B. LABOR REPORT			SECTION C. FACTORS & MAX. DEMAND		
NO.	UNIT NO. (l)	SIZE (kW) (m)	GROSS GEN. (MWh) (n)	BTU PER kWh (o)	NO.	ITEM	VALUE	NO.	ITEM	VALUE
1.	1	250,000	1,933,032.50		1.	No. Employees Full-Time (Include Superintendent)	112	1.	Load Factor (%)	88.60%
2.	2	242,000	1,963,238.00		2.	No. Employees Part-Time		2.	Plant Factor (%)	90.36%
3.					3.	Total Employee Hours Worked	227,599	3.	Running Plant Capacity Factor (%)	92.69%
4.					4.	Operating Plant Payroll (\$)	7,423,605	4.	15 Minute Gross Max. Demand (kW)	501,733
5.					5.	Maintenance Plant Payroll (\$)	4,832,687	5.	Indicated Gross Max. Demand (kW)	
6.	Total	492,000	3,894,270.50	10,137	6.	Other Accts. Plant Payroll (\$)				
7.	Station Service (MWh)		353,077.50		7.	Total Plant Payroll (\$)	12,256,292			
8.	Net Generation (MWh)		3,541,193.00	11,147.82						
9.	Station Service (%)	9.07								

SECTION D. COST OF NET ENERGY GENERATED					
NO.	PRODUCTION EXPENSE	ACCOUNT NUMBER	AMOUNT (\$) (a)	MILLS/NET kWh (b)	\$/10 ⁶ BTU (c)
1.	Operation, Supervision and Engineering	500	1,880,536		
2.	Fuel, Coal	501.1	68,736,596		1.74
3.	Fuel, Oil	501.2	1,030,074		16.47
4.	Fuel, Gas	501.3			
5.	Fuel, Other	501.4			
6.	Fuel SubTotal (2 thru 5)	501	69,766,670	19.70	1.76
7.	Steam Expenses	502	14,101,781		
8.	Electric Expenses	505	2,136,552		
9.	Miscellaneous Steam Power Expenses	506	1,871,473		
10.	Allowances	509	38,805		
11.	Rents	507			
12.	Non-Fuel SubTotal (7 thru 11)		20,029,147	5.65	
13.	Operation Expense (6 + 12)		89,795,817	25.35	
14.	Maintenance, Supervision and Engineering	510	1,372,653		
15.	Maintenance of Structures	511	1,301,730		
16.	Maintenance of Boiler Plant	512	8,734,818		
17.	Maintenance of Electric Plant	513	1,000,630		
18.	Maintenance of Miscellaneous Plant	514	282,608		
19.	Maintenance Expense (14 thru 18)		12,692,439	3.58	
20.	Total Production Expense (13 + 19)		102,488,256	28.94	
21.	Depreciation	403.1, 411.10	6,833,287		
22.	Interest	427	8,493,137		
23.	Total Fixed Cost (21 + 22)		15,326,424	4.32	
24.	Power Cost (20 + 23)		117,814,680	33.26	

Remarks

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART D - STEAM PLANT	BORROWER DESIGNATION KY0062
	PLANT Reid
	PERIOD ENDED December, 2010

INSTRUCTIONS - See help in the online application.

SECTION A. BOILERS/TURBINES											
NO.	UNIT NO. (a)	TIMES STARTED (b)	FUEL CONSUMPTION				TOTAL (g)	OPERATING HOURS			
			COAL (1000 Lbs.) (c)	OIL (1000 Gals.) (d)	GAS (1000 C.F.) (e)	OTHER (f)		IN SERVICE (h)	ON STANDBY (i)	OUT OF SERVICE SCHED. (j)	UNSCH. (k)
1.	1	21	166,041.60	205.32				3,535	4,710		515
2.											
3.											
4.											
5.											
6.	Total	21	166,042	205.32	0.00	0.00		3,535	4,710	0	515
7.	Average BTU		12,460	137,999.22							
8.	Total BTU (10 ⁶)		2,060,878.00	28,334			2,097,212				
9.	Total Del. Cost (\$)		4,225,725	528,372.00							

SECTION A. BOILERS/TURBINES (Continued)					SECTION B. LABOR REPORT			SECTION C. FACTORS & MAX. DEMAND		
NO.	UNIT NO. (l)	SIZE (kW) (m)	GROSS GEN. (MWh) (n)	BTU PER kWh (o)	NO.	ITEM	VALUE	NO.	ITEM	VALUE
1.	1	72,000	176,082.00		1.	No. Employees Full-Time (Include Superintendent)	17	1.	Load Factor (%)	26.14%
2.					2.	No. Employees Part-Time		2.	Plant Factor (%)	27.92%
3.					3.	Total Employee Hours Worked	34,546	3.	Running Plant Capacity Factor (%)	69.18%
4.					4.	Operating Plant Payroll (\$)	1,137,693	4.	15 Minute Gross Max Demand (kW)	76,900
5.					5.	Maintenance Plant Payroll (\$)	866,883	5.	Indicated Gross Max Demand (kW)	
6.	Total	72,000	176,082.00	11,910	6.	Other Accts. Plant Payroll (\$)				
7.	Station Service (MWh)		29,249.00		7.	Total Plant Payroll (\$)	2,004,576			
8.	Net Generation (MWh)		146,833.00	14,282.97						
9.	Station Service (%)		16.61							

SECTION D. COST OF NET ENERGY GENERATED					
NO.	PRODUCTION EXPENSE	ACCOUNT NUMBER	AMOUNT (\$) (a)	MILLS/NET kWh (b)	\$/10 ⁶ BTU (c)
1.	Operation, Supervision and Engineering	500	301,475		
2.	Fuel, Coal	501.1	4,489,863		2.17
3.	Fuel, Oil	501.2	527,931		18.63
4.	Fuel, Gas	501.3			
5.	Fuel, Other	501.4			
6.	Fuel SubTotal (2 thru 5)	501	5,017,794	34.17	2.39
7.	Steam Expenses	502	611,776		
8.	Electric Expenses	505	293,495		
9.	Miscellaneous Steam Power Expenses	506	242,834		
10.	Allowances	509	80,098		
11.	Rents	507			
12.	Non-Fuel SubTotal (7 thru 11)		1,529,678	10.41	
13.	Operation Expense (6 + 12)		6,547,472	44.59	
14.	Maintenance, Supervision and Engineering	510	278,009		
15.	Maintenance of Structures	511	120,544		
16.	Maintenance of Boiler Plant	512	1,611,365		
17.	Maintenance of Electric Plant	513	242,434		
18.	Maintenance of Miscellaneous Plant	514	164,464		
19.	Maintenance Expense (14 thru 18)		2,416,816	16.45	
20.	Total Production Expense (13 + 19)		8,964,288	61.05	
21.	Depreciation	403.1, 411.10	405,813		
22.	Interest	427	733,037		
23.	Total Fixed Cost (21 + 22)		1,138,850	7.75	
24.	Power Cost (20 + 23)		10,103,138	68.80	

Remarks

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE

FINANCIAL AND OPERATING REPORT
ELECTRIC POWER SUPPLY
PART D - STEAM PLANT

BORROWER DESIGNATION

KY0062

PLANT Wilson

PERIOD ENDED

December, 2010

INSTRUCTIONS - See help in the online application.

SECTION A. BOILERS/TURBINES

NO.	UNIT NO. (a)	TIMES STARTED (b)	FUEL CONSUMPTION				TOTAL (g)	OPERATING HOURS			
			COAL (1000 Lbs.) (c)	OIL (1000 Gals.) (d)	GAS (1000 C.F.) (e)	OTHER (f)		IN SERVICE (h)	ON STANDBY (i)	OUT OF SERVICE SCHED. (j)	UNSCH. (k)
1.	1	13	3,059,658.70	626.40				8,186		166	408
2.											
3.											
4.											
5.											
6.	Total	13	3,059,659	626.40	0.00	0.00		8,186	0	166	408
7.	Average BTU		11,867	137,999.68							
8.	Total BTU (10 ⁶)		36,308,970.00	86,443			36,395,433				
9.	Total Del. Cost (\$)		51,720,521	1,474,433.00							

SECTION A. BOILERS/TURBINES (Continued)

SECTION B. LABOR REPORT

SEC. C. FACTORS & MAX. DEMAND

NO.	UNIT NO. (l)	SIZE (kW) (m)	GROSS GEN. (MWh) (n)	BTU PER kWh (o)	NO.	ITEM	VALUE	NO.	ITEM	VALUE
1.	1	440,000	3,577,666.80		1	No Employees Full-Time (Include Superintendent)	107	1.	Load Factor (%)	89.49%
2.					2	No Employees Part-Time		2.	Plant Factor (%)	92.82%
3.					3.	Total Employee Hours Worked	217,439	3.	Running Plant Capacity Factor (%)	99.33%
4.					4.	Operating Plant Payroll (\$)	6,719,997	4.	15 Minute Gross Max Demand (kW)	456,376
5.					5.	Maintenance Plant Payroll (\$)	4,774,266	5.	Indicated Gross Max Demand (kW)	
6.	Total	440,000	3,577,666.80	10,173	6.	Other Accts. Plant Payroll (\$)				
7.	Station Service (MWh)		239,084.70		7.	Total Plant Payroll (\$)	11,494,263			
8.	Net Generation (MWh)		3,338,582.10	10,901.46						
9.	Station Service (%)		6.68							

SECTION D. COST OF NET ENERGY GENERATED

NO.	PRODUCTION EXPENSE	ACCOUNT NUMBER	AMOUNT (\$) (a)	MILLS/NET kWh (b)	\$/10 ⁶ BTU (c)
1.	Operation, Supervision and Engineering	500	901,334		
2.	Fuel, Coal	501.1	53,854,493		1.48
3.	Fuel, Oil	501.2	1,474,433		17.05
4.	Fuel, Gas	501.3			
5.	Fuel, Other	501.4			
6.	Fuel SubTotal (2 thru 5)	501	55,328,926	16.57	1.52
7.	Steam Expenses	502	12,957,087		
8.	Electric Expenses	505	1,501,144		
9.	Miscellaneous Steam Power Expenses	506	3,176,105		
10.	Allowances	509	165,030		
11.	Rents	507			
12.	Non-Fuel SubTotal (1 + 7 thru 11)		18,700,700	5.60	
13.	Operation Expense (6 + 12)		74,029,626	22.17	
14.	Maintenance, Supervision and Engineering	510	707,580		
15.	Maintenance of Structures	511	1,061,672		
16.	Maintenance of Boiler Plant	512	7,983,472		
17.	Maintenance of Electric Plant	513	1,325,931		
18.	Maintenance of Miscellaneous Plant	514	335,474		
19.	Maintenance Expense (14 thru 18)		11,414,129	3.41	
20.	Total Production Expense (13 + 19)		85,443,755	25.59	
21.	Depreciation	403.1, 411.10	16,294,914		
22.	Interest	427	22,401,637		
23.	Total Fixed Cost (21 + 22)		38,696,551	11.59	
24.	Power Cost (20 + 23)		124,140,306	37.18	

Remarks

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART F IC - INTERNAL COMBUSTION PLANT	BORROWER DESIGNATION KY0062 PLANT Reid PERIOD ENDED December, 2010
INSTRUCTIONS - See help in the online application.	

SECTION A. INTERNAL COMBUSTION GENERATING UNITS

NO.	UNIT NO. (a)	SIZE (kW) (b)	FUEL CONSUMPTION				OPERATING HOURS					
			OIL (1000 Gals.) (c)	GAS (1000 C.F.) (d)	OTHER (e)	TOTAL (f)	IN SERVICE (g)	ON STANDBY (h)	OUT OF SERVICE SCHED. (i) UNSCH. (j)		GROSS GENER.(MWh) (k)	BTU PER kWh (l)
1.	1	70,000	13.82	110,881.00			203	7,919	52	586	7,839	
2.												
3.												
4.												
5.												
6.	Total	70,000	13.82	110,881.00	0.00		203	7,919	52	586	7,839	
7.	Average BTU		138,060.78	1,000.00			Station Service (MWh)					841.00
8.	Total BTU (10 ⁶)		1,908.00	110,881.00		112,789.00	Net Generation (MWh)					6,997.50
9.	Total Del. Cost (\$)		49,347.00	610,881.00			Station Service % of Gross					10.73

SECTION B. LABOR REPORT

NO.	ITEM	VALUE
1.	No. Employees Full Time (Include Superintendent)	
2.	No. Employees Part Time	
3.	Total Employee Hours Worked	1,834
4.	Operating Plant Payroll (\$)	971

SECTION C. FACTORS & MAXIMUM DEMAND

NO.	ITEM	VALUE
5.	Maintenance Plant Payroll (\$)	90,178
6.	Other Accounts Plant Payroll (\$)	
7.	Total Plant Payroll (\$)	91,149
1.	Load Factor (%)	1.32%
2.	Plant Factor (%)	1.28%
3.	Running Plant Capacity Factor (%)	55.16%
4.	15 Min. Gross Max. Demand (kW)	67,600
5.	Indicated Gross Max. Demand (kW)	

SECTION D. COST OF NET ENERGY GENERATED

NO.	PRODUCTION EXPENSE	ACCOUNT NUMBER	AMOUNT (\$) (a)	MILLS/NET (kWh) (b)	\$/10 ⁶ BTU (c)
1.	Operation, Supervision and Engineering	546	0		
2.	Fuel, Oil	547.1	49,347		25.86
3.	Fuel, Gas	547.2	611,254		5.51
4.	Fuel, Other	547.3	0		0.00
5.	Energy for Compressed Air	547.4	0	0.00	
6.	Fuel SubTotal (2 thru 5)	547	660,601	94.40	5.85
7.	Generation Expenses	548	33,807		
8.	Miscellaneous Other Power Generation Expenses	549	0		
9.	Rents	550	0		
10.	Non-Fuel SubTotal (1 + 7 thru 9)		33,807	4.83	
11.	Operation Expense (6 + 10)		694,408	99.23	
12.	Maintenance, Supervision and Engineering	551	0		
13.	Maintenance of Structures	552	0		
14.	Maintenance of Generating and Electric Plant	553	792,175		
15.	Maintenance of Miscellaneous Other Power Generating Plant	554	0		
16.	Maintenance Expense (12 thru 15)		792,175	113.20	
17.	Total Production Expense (11 + 16)		1,486,583	212.44	
18.	Depreciation	403.4, 411.10	192,323		
19.	Interest	427	221,196		
20.	Total Fixed Cost (18 + 19)		413,519	59.09	
21.	Power Cost (17 + 20)		1,900,102	271.54	

Remarks (including Unscheduled Outages)

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE

FINANCIAL AND OPERATING REPORT
ELECTRIC POWER SUPPLY
PART H - ANNUAL SUPPLEMENT

BORROWER DESIGNATION
KY0062

PERIOD ENDED
December, 2010

INSTRUCTIONS - See help in the online application

SECTION A. UTILITY PLANT

ITEM	BALANCE BEGINNING OF YEAR (a)	ADDITIONS (b)	RETIREMENTS (c)	ADJUSTMENTS AND TRANSFERS (d)	BALANCE END OF YEAR (e)
1. Total Intangible Plant (301 thru 303)	66,895				66,895
2. Total Steam Production Plant (310 thru 317)	1,667,805,311	40,077,053	26,852,236		1,681,030,128
3. Total Nuclear Production Plant (320 thru 326)	0				0
4. Total Hydro Production Plant (330 thru 337)	0				0
5. Total Other Production Plant (340 thru 347)	7,927,719	82,633	16,838		7,993,514
6. Total Production Plant (2 thru 5)	1,675,733,030	40,159,686	26,869,074		1,689,023,642
7. Land and Land Rights (350)	13,409,811	447,004			13,856,815
8. Structures and Improvements (352)	6,540,238	323,952	4,372		6,859,818
9. Station Equipment (353)	108,040,443	14,372,705	310,037		122,103,111
10. Other Transmission Plant (354 thru 359.1)	89,166,974	6,095,549	393,318		94,869,205
11. Total Transmission Plant (7 thru 10)	217,157,466	21,239,210	707,727		237,688,949
12. Land and Land Rights (360)	0				0
13. Structures and Improvements (361)	0				0
14. Station Equipment (362)	0				0
15. Other Distribution Plant (363 thru 374)	0				0
16. Total Distribution Plant (12 thru 15)	0				0
17. RTO/ISO Plant (380 thru 386)					
18. Total General Plant (389 thru 399.1)	18,200,899	891,758	155,084		18,937,573
19. Electric Plant in Service (1 + 6 + 11 + 16 thru 18)	1,911,158,290	62,290,654	27,731,885		1,945,717,059
20. Electric Plant Purchased or Sold (102)	0				0
21. Electric Plant Leased to Others (104)	0				0
22. Electric Plant Held for Future Use (105)	475,968				475,968
23. Completed Construction Not Classified (106)	19,482,130			(19,482,130)	0
24. Acquisition Adjustments (114)	0				0
25. Other Utility Plant (118)	0				0
26. Nuclear Fuel Assemblies (120.1 thru 120.4)	0				0
27. Total Utility Plant in Service (19 thru 26)	1,931,116,388	62,290,654	27,731,885	(19,482,130)	1,946,193,027
28. Construction Work in Progress (107)	55,256,847	(382,389)			54,874,458
29. Total Utility Plant (27 + 28)	1,986,373,235	61,908,265	27,731,885	(19,482,130)	2,001,067,485

SECTION B. ACCUMULATED PROVISION FOR DEPRECIATION AND AMORTIZATION - UTILITY PLANT

ITEM	COMP. RATE (%) (a)	BALANCE BEGINNING OF YEAR (b)	ANNUAL ACCRUALS (c)	RETIREMENTS LESS NET SALVAGE (d)	ADJUSTMENTS AND TRANSFERS (e)	BALANCE END OF YEAR (f)
1. Depr. of Steam Prod. Plant (108.1)	1.79	773,418,472	28,388,533	33,158,632		768,648,373
2. Depr. of Nuclear Prod. Plant (108.2)		0				0
3. Depr. of Hydraulic Prod. Plant (108.3)		0				0
4. Depr. of Other Prod. Plant (108.4)	2.40	5,418,913	192,324	21,538		5,589,699
5. Depr. of Transmission Plant (108.5)	2.46	104,212,525	5,061,776	998,343		108,275,958
6. Depr. of Distribution Plant (108.6)		0				0
7. Depr. of General Plant (108.7)		6,114,761	411,177	154,294		6,371,644
8. Retirement Work in Progress (108.8)		(123,675)		164,860		(288,535)
9. Total Depr. for Elec. Plant in Serv. (1 thru 8)		889,040,996				888,597,139
10. Depr. of Plant Leased to Others (109)		0				0
11. Depr. of Plant Held for Future Use (110)		0				0
12. Amort. of Elec. Plant in Service (111)	1.88	19,058,504	2,210,414	364,655		20,904,263
13. Amort. of Leased Plant (112)		0				0
14. Amort. of Plant Held for Future Use		0				0
15. Amort. of Acquisition Adj. (115)		0				0
16. Depr. & Amort. Other Plant (119)		0				0
17. Amort. of Nuclear Fuel (120.5)		0				0
18. Total Prov. for Depr. & Amort. (9 thru 17)		908,099,500	36,264,224	34,862,322		909,501,402

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART H - ANNUAL SUPPLEMENT	BORROWER DESIGNATION KY0062 PERIOD ENDED December, 2010
INSTRUCTIONS - See help in the online application	

SECTION B. ACCUMULATED PROVISION FOR DEPRECIATION AND AMORTIZATION - UTILITY PLANT (Continued)		
19. Amount of Annual Accrual Charged to Expense \$ 33,828,638	20. Amount of Annual Accrual Charged to Other Accounts \$ 2,435,586	21. Book Cost of Property Retired \$ 27,731,885
22. Removal Cost of Property Retired \$ 7,218,078	23. Salvage Material from Property Retired \$ 84,775	24. Renewal and Replacement Cost \$ 35,645,218

SECTION C. NON-UTILITY PLANT					
ITEM	BALANCE BEGINNING OF YEAR (a)	ADDITIONS (b)	RETIREMENTS (c)	ADJUSTMENTS AND TRANSFERS (d)	BALANCE END OF YEAR (e)
1. NonUtility Property (121)					
2. Provision For Depr. & Amort. (122)					

SECTION D. DEMAND AND ENERGY AT POWER SOURCES						
MONTH	PEAK DEMAND (MW) (a)	MONTHLY PEAKS			ENERGY OUTPUT (MWh) (e)	
		DATE (b)	TIME (c)	TYPE OF READING (d)		
1. January	1,367	01/05/2010	7	Coincident	1,075,061	
2. February	1,327	02/09/2010	19	Coincident	1,031,157	
3. March	1,248	03/04/2010	7	Coincident	1,041,104	
4. April	1,146	04/14/2010	18	Coincident	924,053	
5. May	1,261	05/26/2010	18	Coincident	975,049	
6. June	1,356	06/21/2010	18	Coincident	1,009,947	
7. July	1,357	07/15/2010	18	Coincident	1,060,952	
8. August	1,393	08/31/2010	17	Coincident	1,080,068	
9. September	1,311	09/23/2010	16	Coincident	944,186	
10. October	1,165	10/29/2010	7	Coincident	911,150	
11. November	1,225	11/30/2010	21	Coincident	934,161	
12. December	1,395	12/14/2010	7	Coincident	1,129,359	
13. Annual Peak	1,395			Annual Total	12,116,247	

SECTION E. DEMAND AND ENERGY AT DELIVERY POINTS						
MONTH	DELIVERED TO RUS BORROWERS		DELIVERED TO OTHERS		TOTAL DELIVERED	
	DEMAND (MW) (a)	ENERGY (MWh) (b)	DEMAND (MW) (c)	ENERGY (MWh) (d)	DEMAND (MW) (e)	ENERGY (MWh) (f)
1. January	974	899,424	1,087	161,098	2,061	1,060,522
2. February	1,024	800,347	1,215	217,565	2,239	1,017,912
3. March	673	825,732	1,068	202,947	1,741	1,028,679
4. April	696	740,345	1,152	173,954	1,848	914,299
5. May	718	798,185	1,334	164,972	2,052	963,157
6. June	611	836,343	1,120	158,763	1,731	995,106
7. July	812	867,160	1,267	173,991	2,079	1,041,151
8. August	893	872,310	1,496	196,654	2,389	1,068,964
9. September	758	797,572	1,223	134,695	1,981	932,267
10. October	650	772,678	1,183	127,329	1,833	900,007
11. November	822	788,812	1,325	132,376	2,147	921,188
12. December	637	889,537	505	236,631	1,142	1,126,168
13. Peak or Total	1,024	9,888,445	1,496	2,080,975	2,389	11,969,420

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE		BORROWER DESIGNATION KY0062			
FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART H - ANNUAL SUPPLEMENT		PERIOD ENDED December, 2010			
INSTRUCTIONS - Reporting of investments is required by 7 CFR 1717, Subpart N. Investment categories reported on this Part correspond to Balance Sheet items in Part A Section B. Identify all investments in Rural Development with an 'X' in column (e). Both 'Included' and 'Excluded' Investments must be reported. See help in the online application.					
SECTION F. INVESTMENTS, LOAN GUARANTEES AND LOANS					
SUB SECTION I. INVESTMENTS					
No	Description (a)	Included (\$) (b)	Excluded (\$) (c)	Income Or Loss (\$) (d)	Rural Development (e)
2	Investments in Associated Organizations				
	United Utility Supply Capital	31,773	0		
	Ky Assn for Electric Coop Capital Credit	15,200	0		
	Jackson Purchase Capital Credit	0	3,646		
	Kenergy Capital Credit	0	17,651		
	Meade County Capital Credit	0	958		
	Rural Cooperatives Credit Union Deposit	5	0		
	Touchstone Energy (NRECA) Capital Credit	1,742	0		
	CoBank Capital Credit	0	3,475,487		
	NRUCFC	0	2,039		
	Cooperative Membership Fees	2,280	0		
	ACES Power Marketing Membership Fees	678,000	0		
	Federated Rural Electric Insurance Exchange Capital Credit	4,713	40,580		
	National Renewables Cooperative Organization Capital Credit	0	6,234		
	Totals	733,713	3,546,595		
3	Investments in Economic Development Projects				
	Breckinridge Co. Development Corp. Stock	5,000	0		X
	Hancock Co. Industrial Foundation Stock	5,000	0		X
	Totals	10,000	0		
4	Other Investments				
	Southern States Coop Capital Credit	5,334	0		X
	Totals	5,334	0		
5	Special Funds				
	Other Special Funds-Deferred Compensation	0	204,692		X
	Other Special Funds-Economic Reserve	11,347,298	109,228,008		
	Other Special Funds-Rural Economic Reserve	765,918	60,941,045		
	Other Special Funds-Transition Reserve	699,240	34,580,127		
	Other Special Funds-Station Two O&M Fund	150,000	250,000		
	Totals	12,962,456	205,203,872		
6	Cash - General				
	General Fund	0	1,152		
	Right of Way Fund	0	1,000		
	Working Fund	3,725	0		
	Totals	3,725	2,152		
7	Special Deposits				
	TVA Transmission Reservation	572,263	0		
	Totals	572,263	0		
8	Temporary Investments				
	Fidelity-US Treasury Only (#2014)	0	44,774,114		
	Totals	0	44,774,114		
9	Accounts and Notes Receivable - NET				
	Accts Receivable-Employees Other	752	0	0	
	Accts Receivable-Employees-Computer Assist Program	20,696	0	0	
	Accts Receivable-Other-Oracle	6,942	0	0	
	Other Accts Receivable-Misc	276,334	0	0	

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE		BORROWER DESIGNATION KY0062	
FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART H - ANNUAL SUPPLEMENT		PERIOD ENDED December, 2010	
INSTRUCTIONS - Reporting of investments is required by 7 CFR 1717, Subpart N. Investment categories reported on this Part correspond to Balance Sheet items in Part A Section B. Identify all investments in Rural Development with an 'X' in column (e). Both 'Included' and 'Excluded' Investments must be reported. See help in the online application.			
SECTION F. INVESTMENTS, LOAN GUARANTEES AND LOANS SUB SECTION I. INVESTMENTS			
	Accts Receivable-HMPL Sta Two Operation	(549,475)	0
	Accts Receivable-HMPL Sta Two Other	783,363	0
	Accts Receivable-HMPL Litigation	239,666	
	Totals	778,278	0
11	TOTAL INVESTMENTS (1 thru 10)	15,065,769	253,526,733

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART H - ANNUAL SUPPLEMENT	BORROWER DESIGNATION KY0062
	PERIOD ENDED December, 2010

INSTRUCTIONS - Reporting of investments is required by 7 CFR 1717, Subpart N. Investment categories reported on this Part correspond to Balance Sheet items in Part A Section B. Identify all investments in Rural Development with an 'X' in column (e). Both 'Included' and 'Excluded' Investments must be reported. See help in the online application.

SECTION F. INVESTMENTS, LOAN GUARANTEES AND LOANS
SUB SECTION II. LOAN GUARANTEES

No	Organization (a)	Maturity Date (b)	Original Amount (\$) (c)	Loan Balance (\$) (d)	Rural Development (e)
	TOTAL				
	TOTAL (Included Loan Guarantees Only)				

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE			BORROWER DESIGNATION KY0062		
FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART H - ANNUAL SUPPLEMENT			PERIOD ENDED December, 2010		
INSTRUCTIONS - Reporting of investments is required by 7 CFR 1717, Subpart N. Investment categories reported on this Part correspond to Balance Sheet items in Part A Section B. Identify all investments in Rural Development with an "X" in column (e). Both "Included" and "Excluded" Investments must be reported. See help in the online application.					
SECTION F. INVESTMENTS, LOAN GUARANTEES AND LOANS SUB SECTION III. RATIO					
RATIO OF INVESTMENTS AND LOAN GUARANTEES TO UTILITY PLANT [Total of Included Investments (Sub Section I, 11b) and Loan Guarantees - Loan Balance (Sub Section II, 5d) to Total Utility Plant (Part A, Section B, Line 3 of this report)]					0.75 %
SECTION F. INVESTMENTS, LOAN GUARANTEES AND LOANS SUB SECTION IV. LOAN					
No	Organization (a)	Maturity Date (b)	Original Amount (\$) (c)	Loan Balance (\$) (d)	Rural Development (e)
TOTAL					

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART H - ANNUAL SUPPLEMENT	BORROWER DESIGNATION KY0062
	PERIOD ENDED December, 2010

INSTRUCTIONS - See help in the online application.

SECTION G. MATERIALS AND SUPPLIES INVENTORY

ITEM	BALANCE BEGINNING OF YEAR (a)	PURCHASED & SALVAGED (b)	USED & SOLD (c)	BALANCE END OF YEAR (d)
1. Coal	24,496,042	216,712,467	212,598,251	28,610,258
2. Other Fuel	13,333,602	22,469,283	27,084,702	8,718,183
3. Production Plant Parts and Supplies	17,457,066	10,600,761	7,274,249	20,783,578
4. Station Transformers and Equipment	0			0
5. Line Materials and Supplies	741,789	351,949	424,093	669,645
6. Other Materials and Supplies	2,213,683	14,999,978	15,449,232	1,764,429
7. Total (1 thru 6)	58,242,182	265,134,438	262,830,527	60,546,093

RUS Financial and Operating Report Electric Power Supply - Part H - Annual Supplement

Revision Date 2010

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART H - ANNUAL SUPPLEMENT			BORROWER DESIGNATION KY0062		
INSTRUCTIONS - See help in the online application.			PERIOD ENDED December, 2010		
SECTION H. LONG-TERM DEBT AND DEBT SERVICE REQUIREMENTS					
No	Item	Balance End Of Year (a)	Interest (Billed This Year) (b)	Principal (Billed This Year) (c)	Total (Billed This Year) (d)
1	RUS (Excludes RUS - Economic Development Loans)	674,895,916	33,545,421	38,054,579	71,600,000
2	National Rural Utilities Cooperative Finance Corporation	0	0	0	0
3	CoBank, ACB	0	0	0	0
4	Federal Financing Bank	0	0	0	0
5	RUS - Economic Development Loans	0	0	0	0
6	Payments Unapplied	0			
7	Ohio County Kentucky Bonds-Series 1983	58,800,000	1,981,689	0	1,981,689
8	Ohio County Kentucky Bonds-Series 2001A (Footnote)	0	1,757,075	0	1,757,075
9	Ohio County Kentucky Bonds-Series 2010A (Footnote)	83,300,000	0		0
	TOTAL	816,995,916	37,284,185	38,054,579	75,338,764

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART H - ANNUAL SUPPLEMENT	BORROWER DESIGNATION KY0062
INSTRUCTIONS - See help in the online application.	PERIOD ENDED December, 2010

SECTION I. ANNUAL MEETING AND BOARD DATA

1 Date of Last Annual Meeting 9/16/2010	2 Total Number of Members 3	3 Number of Members Present at Meeting 3	4 Was Quorum Present? Yes
5 Number of Members Voting by Proxy or Mail 0	6 Total Number of Board Members 6	7 Total Amount of Fees and Expenses for Board Members \$ 170,785	8 Does Manager Have Written Contract? No

SECTION J. MAN-HOUR AND PAYROLL STATISTICS

1. Number of Full Time Employees 611	4 Payroll Expensed 45,948,181
2 Man-Hours Worked - Regular Time 1,056,303	5. Payroll Capitalized 761,826
3 Man-Hours Worked - Overtime 149,985	6. Payroll Other 2,691,295

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART H - ANNUAL SUPPLEMENT		BORROWER DESIGNATION KY0062	
INSTRUCTIONS - See help in the online application.		PERIOD ENDED December, 2010	
SECTION K. LONG-TERM LEASES			
No	Name Of Lessor (a)	Type Of Property (b)	Rental This Year (c)
1	Louisville Gas & Electric	Interconnect Facilities-Cloverport Sub	21,111
TOTAL			21,111

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART H - ANNUAL SUPPLEMENT	BORROWER DESIGNATION KY0062
	PERIOD ENDED December, 2010
INSTRUCTIONS - See help in the online application.	

SECTION L. RENEWABLE ENERGY CREDITS					
ITEM	BALANCE BEGINNING OF YEAR (a)	ADDITIONS (b)	RETIREMENTS (c)	ADJUSTMENTS AND TRANSFER (d)	BALANCE END OF YEAR (e)
I. Renewable Energy Credits					

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE				BORROWER DESIGNATION KY0062			
FINANCIAL AND OPERATING REPORT ELECTRIC POWER SUPPLY PART I - LINES AND STATIONS				PERIOD ENDED December, 2010			
INSTRUCTIONS - See help in the online application.							
SECTION A. EXPENSES AND COSTS							
ITEM		ACCOUNT NUMBER	LINES (a)	STATIONS (b)			
Transmission Operation							
1.	Supervision and Engineering	560	376,043	344,975			
2.	Load Dispatching	561	1,634,089				
3.	Station Expenses	562		1,043,674			
4.	Overhead Line Expenses	563	970,450				
5.	Underground Line Expenses	564					
6.	Miscellaneous Expenses	566	224,479	216,811			
7.	Subtotal (1 thru 6)		3,205,061	1,605,460			
8.	Transmission of Electricity by Others	565	3,051,502				
9.	Rents	567		26,460			
10.	Total Transmission Operation (7 thru 9)		6,256,563	1,631,920			
Transmission Maintenance							
11.	Supervision and Engineering	568	247,163	290,759			
12.	Structures	569		20,997			
13.	Station Equipment	570		1,625,828			
14.	Overhead Lines	571	2,174,112				
15.	Underground Lines	572					
16.	Miscellaneous Transmission Plant	573	52,860	61,406			
17.	Total Transmission Maintenance (11 thru 16)		2,474,135	1,998,990			
18.	Total Transmission Expense (10 + 17)		8,730,698	3,630,910			
19.	RTO/ISO Expense - Operation	575.1-575.8	233,099				
20.	RTO/ISO Expense - Maintenance	576.1-576.5					
21.	Total RTO/ISO Expense (19 + 20)		233,099				
22.	Distribution Expense - Operation	580-589					
23.	Distribution Expense - Maintenance	590-598					
24.	Total Distribution Expense (22 + 23)						
25.	Total Operation And Maintenance (18 + 21 + 24)		8,963,797	3,630,910			
Fixed Costs							
26.	Depreciation - Transmission	403.5	2,678,835	2,382,941			
27.	Depreciation - Distribution	403.6					
28.	Interest - Transmission	427	2,909,815	3,538,265			
29.	Interest - Distribution	427					
30.	Total Transmission (18 + 26 + 28)		14,319,348	9,552,116			
31.	Total Distribution (24 + 27 + 29)						
32.	Total Lines And Stations (21 + 30 + 31)		14,552,447	9,552,116			
SECTION B. FACILITIES IN SERVICE				SECTION C. LABOR AND MATERIAL SUMMARY			
TRANSMISSION LINES		SUBSTATIONS		1. Number of Employees 49			
VOLTAGE (kV)	MILES	TYPE	CAPACITY(kVA)	ITEM	LINES	STATIONS	
1. 345 KV	68.40	13 Distribution Lines		2 Oper Labor	1,853,185	974,249	
2. 161 KV	349.60			3 Maint Labor	1,183,299	1,483,952	
3. 69 KV	833.10			14. Total (12 + 13)	1,265.50		
4. 138 KV	14.40	15 Stepup at Generating Plants	1,879,800	4 Oper Material	4,636,477	657,672	
5.				16. Transmission	3,540,000	5 Maint Material	1,290,836
6.		17 Distribution		SECTION D. OUTAGES			
7.				1. Total			251,160.10
8.				2. Avg. No. of Distribution Consumers Served			112,413.00
9.		18. Total (15 thru 17)	5,419,800	3. Avg. No. of Hours Out Per Consumer			2.20
10.							
11.							
12. Total (1 thru 11)	1,265.50						

Proposal to Conduct a Depreciation Study
for
Big Rivers Electric Corporation



June 7, 2010

**ALLIANCE CONSULTING GROUP
REQUEST FOR PROPOSAL
DEPRECIATION STUDY FOR BIG RIVERS ELECTRIC
CORPORATION**

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June 7, 2010

Big Rivers Electric Corporation
Attn: Purchasing Department
201 Third Street
Henderson, KY 42419

RE: Invitation to Propose - Depreciation Study

To Whom It May Concern:

Alliance Consulting Group ("Alliance") is pleased to respond to this Invitation to Propose ("RFP") to conduct a comprehensive depreciation study for Big Rivers Electric Cooperative, Inc. ("Big Rivers") assets. We understand that you are requesting a consultant to conduct and support a depreciation study to determine the appropriate capital recovery requirements for Big Rivers' properties. We understand the results of this study will require approval from both the Rural Utilities Service ("RUS") and the Kentucky Public Service Commission ("KPSC") and needs to be completed on or before October 15, 2010.

Alliance Consulting Group is one of the premier consulting firms serving the natural gas and electric industries in the United States. Our firm's experience as utility personnel and as consultants gives us a strong background into the requirements of utilities including hands on experience with utility assets. With the engagement partner having years of experience as an Accounting Manager for a large regulated electric utility, we clearly understand the goals and objectives of utilities.

Our approach, qualifications, professionalism, resources and dedication will be utilized to see this engagement through to a successful completion. We look forward to the opportunity to serve you.

Yours truly,

A handwritten signature in black ink that reads "Dane A. Watson". The signature is written in a cursive, flowing style.

Dane A. Watson, PE CDP
Partner - Alliance Consulting Group

Section 1 – Company Profile

Section 1.1 – Background

Alliance Consulting Group is a Texas limited partnership formed in 2004 by Dane Watson and has two full-time Senior Consultants, Dr. Karen Ponder and Rhonda Watts. Alliance is dedicated to providing quality consulting and expert services to the utility industry. Our professionals have over one hundred years of combined experience around the utility industry, and we have been employed in the industry as utility employees and consultants. Alliance has the necessary resources to perform the services required by Big Rivers, and we have demonstrated our ability to perform such services for many highly-satisfied clients. We have a proven track record of winning our issues at regulatory commissions by gaining a deep knowledge of our subject matter, doing our research on the issues-at-hand, and committing our 100% effort to proving and supporting our arguments.

Alliance Consulting Group has been in business for nearly 7 years. As seen by the list of recent engagements, our company has clients across the US and continues to grow each year. We are a stable, financially secure company with continued expectations for significant growth in the future. We are not engaged in any litigation relevant to the scope of this request. As seen by our recent engagement list, we provide services to a number of regulated natural gas utilities across the country. Attached as Appendix C is a list of our most recent depreciation engagements where Alliance Personnel have participated in the depreciation area.

General Information

- | | | |
|----|--|--|
| A. | <i>Company Name:</i> | Legal Name - MAC Consulting LP,
DBA - Alliance Consulting Group |
| B. | <i>Mailing Address:
(and Physical Address)</i> | 1410 Avenue K
Suite 1105-B
Plano, Texas 75074 |
| C. | <i>Telephone Number:</i> | Phone: 214 473-6771 x10 |
| D. | <i>Fax Number:</i> | 214 279-0535 |
| E. | <i>URL:</i> | www.alliancecpg.net |
| F. | <i>Primary Contact Name:</i> | Mr. Dane Watson, PE CDP |
| G. | <i>Telephone Number:</i> | Phone: 214 473-6771 x10 |
| H. | <i>Alternate Number:</i> | Cell: 214 316-1444 |
| I. | <i>Contact e-mail:</i> | dwatson@alliancecpg.net |

Section 1.2 – Personnel Experience

Alliance's project team will consist of three highly experienced consultants. Although we do not anticipate using other consultants during this engagement, additional Alliance personnel are available to provide backup and additional assistance to this project, as needed. Brief descriptions of each Alliance consultant who will participate in this project are provided below. Resumes of each of these individuals are provided in Appendix A to this proposal.

As the Partner/Principal of Alliance, Mr. Watson is ultimately responsible for the services we provide. Mr. Watson will be part of the initial consultations with management, interviews, site visits and ultimately making the depreciation recommendations. Mr. Watson can/will provide Expert Witness testimony if needed. He was previously employed as a Property Accounting Services Manager for TXU and has twenty years experience at a Fortune 100 utility in property accounting, depreciation and valuation. He has managed fixed asset accounting for regulated entities and non-regulated entities. He has an industry-wide reputation with significant experience as an expert witness in depreciation, valuation and rate base areas and has provided testimony and support in many state regulatory commission dockets. Mr. Watson is a Licensed Professional Engineer in the State of Texas (PE) and a Certified Depreciation Professional (CDP). The attached resume provides a more complete description of Mr. Watson's experience.

With our team approach at Alliance, Dr. Karen Ponder and Ms. Rhonda Watts, both Senior Consultants, will be working on this project. The following provides a brief summary of their background and experience in the field of depreciation and utility related issues. Resumes have been provided

Dr. Karen Ponder, Senior Consultant, will participate in the various activities related to the completion of the depreciation study from start to finish and any necessary regulatory work. Dr. Ponder can also provide Expert Witness testimony if needed. Karen has over thirty years of experience in utility financial matters. Dr. Ponder has a doctorate degree in engineering valuation from Iowa State University. She is considered a subject matter expert in depreciation and capital recovery in the utility industry and has performed studies for regulated entities involving gas, electric and mining properties. She has provided support during rate case litigation including study write-up, testimony, and responses to interrogatories. She was an instructor for many years at Depreciation Programs, Inc. in Kalamazoo, Michigan. Dr. Ponder's resume is attached for your information and reference.

Rhonda Watts, Senior Consultant, will also participate in the various activities related to the completion of the depreciation study and any necessary regulatory work. Ms. Watts can also provide Expert Witness testimony if needed. Rhonda has nearly twenty years of experience in utility accounting, depreciation and regulatory matters. She is considered a subject matter expert in depreciation and capital recovery in the utility industry and has performed studies for regulated entities involving property of gas, electric, water and communication utilities. She has provided support during rate case litigation including study write-up, testimony, and responses to interrogatories. Rhonda's resume is attached for your information and reference.

Section 1.3 – Customer References

We have provided in Appendix B the names and contact information of three companies we have recently completed depreciation studies for as well as provided regulatory support through the filing of written testimony, responses to data requests and settlement discussions. We believe their scopes of work are similar to what Big Rivers is requesting in this RFP.

Section 2 – Proposal Deliverables

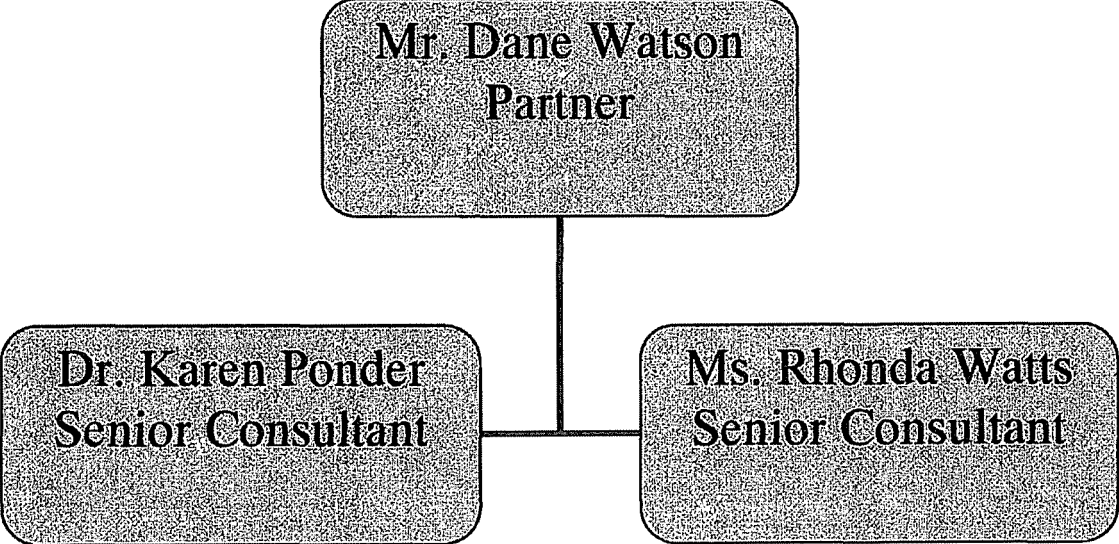
Section 2.1 – Scope of Work

The scope of this engagement is to perform a comprehensive depreciation study for all facilities accounted for in accordance with RUS Bulletin 1767B-1, Uniform System of Accounts as provided in Exhibit B of the RFP for Big Rivers. We will discuss our approach to performing a depreciation study in more detail in Section 2.3 but the following is a broad overview of the items to be included in the study and as requested in the RFP.

- Discuss each facilities design and equipment supply;
- Review Big Rivers' retirement records and history of Big Rivers' assets;
- Review and analyze current operating and maintenance programs as well as each facilities current operating conditions;
- Review and analyze external or environmental factors that may impact the determination of life expectancy and impact on the depreciation rates;
- Provide an estimate of the remaining service life of each generation facility incorporating Company plans and expectations and external factors noted above;
- Review the adequacy of Big Rivers' current depreciation rates, procedures and depreciation reserves;
- Final recommendations on what changes, if any, should be made to Big Rivers' depreciation rates, methods and procedures for adequate and timely recovery of capital assets in accordance with RUS and KPSC rules and regulations; and
- Support the depreciation rate recommendations, which result from the study to the RUS and KPSC and other interested parties where agreements require such support. Such support can include written and oral testimony and response to information requests in support of the results and recommendations of the study.

Section 2.2 – Project Team Organization

Alliance’s project team will consist of three highly experienced consultants as shown in the diagram below.



Our core team has extensive experience serving electric and gas utilities, specifically developing and testifying on depreciation studies to determine capital recovery requirements and consulting on other fixed asset related issues.

Section 2.3 - Methodology, Standards and Procedures

Approach

Our approach has been used successfully in numerous depreciation studies and is a standard methodology used in the industry. In undertaking this study for Big Rivers, we anticipate performing the following procedures.

- Collect historical retirement and net salvage transactional data as well as current surviving plant balances and reserve balances by account and function and reconcile to books and records of Big Rivers as of December 31, 2009 and load data into system;
- Perform statistical analysis of data for life and net salvage for transmission, distribution, and general plant assets;
- In conjunction with Big Rivers' personnel, determine if there have been situations which required data adjustment: sales, reimbursed retirements for relocations, and/or outliers.
- Conduct site visits and discussions with operations, maintenance and accounting personnel;
- Analyze operating and maintenance programs and external and environmental factors that may affect the depreciation study;
- Make evaluation of statistical data analysis along with information from Big Rivers' personnel during site visits to make life and net salvage depreciation parameter selections;
- Perform preliminary calculation of book depreciation accrual rates.
- Review assumptions and preliminary results with Big Rivers;
- Calculate annual depreciation expense accrual and rates for Electric Production, Transmission and General Plant;
- Provide final depreciation study report and supporting workpapers documenting method, process and results; and
- Examine precedents and positions taken in prior Big Rivers' proceedings with the regulatory entities which have oversight of Big Rivers.

In addition to depreciation expertise, our depreciation professionals bring a strong understanding of engineering and accounting issues, and property accounting expertise. Through interaction with Big Rivers' staff, we will couple our expertise in depreciation theory with knowledge of the property being studied, Big Rivers' policies and procedures, and general trends in technology and industry practice.

We utilize the PowerPlant depreciation study module. If you use PowerPlant fixed asset accounting module, we can provide a data extract to move data to us and then back to the Company which will simplify and streamline data exchange process.

There will likely be potentially contentious issues arising out of this study in any contested hearing. Our goal will be to foresee these issues and proactively provide the fullest support possible within the study report to explain and counter many of the objections before they become contested issues. Everyone named in Section 2.2 will be involved throughout the study process and can provide assistance to Big Rivers in support of the study through the regulatory phase.

Project Plan

These depreciation studies will encompass four distinct phases. The first Phase involves analysis of precedents, Company policies, data collection and field interviews. The second Phase involves initial data analysis. The third Phase evaluates this information and analyzes the data. Once the first three stages are complete, the fourth Phase will begin. This Phase involves the calculation of depreciation rates and the documentation of the corresponding recommendations.

Phase 1

During the Phase 1 data collection process, historical data (for example, transactional data and balances by FERC account and depreciation study databases retained from previous studies) will be requested from Big Rivers' personnel. Alliance uses the PowerPlant Depreciation Module as its analysis tool. For Big Rivers' property, we will request information regarding unusual plant activity: sales of facilities, unusual events such as account classification change, information regarding retirements and amounts received for relocations of facilities. Alliance will reconcile this data to validate against historical data from other sources, historical general ledger sources, and field personnel discussions. To analyze large data sets developed from CPR history, we will use Microsoft Access and Excel to combine data, either by plant account or property unit. This data will be reviewed extensively to format and to begin examination for unusual activity (such as outliers, one time events or other anomalies) by running basic levels of statistical analysis on the transactions. Removing anomalous data allows us to focus on interpreting results from normal retirements. As part of the Phase 1 data collection process, discussions will be conducted with engineers and field operations personnel to obtain information related to their expectations for the life of the assets, the operations and maintenance practices related to the assets, changes in construction practices or any change in usage of the assets. This is helpful in formulating realistic life and salvage recommendations in this study. Information gleaned in these discussions will be incorporated in the selection of life and net salvage parameters.

Phase 2

Phase 2 is where the life analysis is performed. Depending on how the historical data has been maintained we will perform either Actuarial Analysis or Simulated Plant Record (SPR). Phases 1, 2 and 3 may overlap to a significant degree. The detailed property records information gathered in Phase 1 is used in Phase 2 to develop observed life tables for life analysis and statistics. Data from larger data sets will be formatted and input into software from PowerPlant. Within the depreciation module, we will analyze the historical data. Throughout the process of life and net salvage analysis, we will rely on Big Rivers to answer our interrogatories, provide access to field and operations personnel, and assist in scheduling field trip visits to inspect facilities.

For Production facilities, the life span procedure will be used for the components that are expected to have a retirement date concurrent with the planned retirement date of the generating unit. The terminal retirement date refers to the year that each unit will cease operations. The terminal retirement date, along with the interim retirement characteristics of the assets that will retire prior to the facilities ceasing operations describes the pattern of retirement of the assets that comprise a generating unit. The estimated terminal retirement

dates for the various generating units will be determined based on consultation with Big Rivers' management, financial, and engineering staff.

Actuarial analysis (retirement rate method) will be used in evaluating historical asset retirement experience for Transmission assets where vintage data are available and sufficient retirement activity is present. Actuarial data analysis develops observed life tables. All accounts eligible for actuarial analysis will be analyzed using retirement rate computations. Extensive computer fitting capabilities exist to minimize least squares difference or perform polynomial fitting. Alliance uses this information in conjunction with visual fitting to develop historical life analysis. Placement bands and experience band analyses will also be performed. The results of the analysis will be to find a range of lives and retirement characteristics for each account based on the historical data. It may be necessary to cycle back to Phase 1 or 2 based on additional input needed in the evaluation process performed in Phase 3. For some accounts where insufficient history exists to conduct historical life analysis, we will examine precedents, similar accounts, and judgment to develop life estimates for those accounts.

If SPR data analysis is required due to the unavailability of vintaged (actuarial) transactional data, the balances approach is one of the commonly accepted approaches to analyze mortality characteristics of utility property. In this method, an Iowa Curve and average service life are selected as a starting point of the analysis and its survivor factors applied to the actual annual additions to give a sequence of annual balance totals. These simulated balances are compared with the actual balances by using both graphical and statistical analysis. Through multiple comparisons, the mortality characteristics (as defined by an average life and Iowa Curve) that are the best match to the property in the account can be found.

Preliminary net salvage analysis will be conducted which consists of compiling historical salvage and removal data by functional group and plant account to determine values and trends in gross salvage and removal cost. Again, sales or other anomalous events will be removed from the study data base as possible. Analysis will be performed to calculate the net salvage values expected at the average age retirement of assets. This information will then be carried forward into Phase 3 for the evaluation process.

Phase 3

Phase 3 is where the historical analysis is combined with future expectations for the property to determine the life and Iowa curve that best models the future retirement pattern of the assets within an account. The evaluation process will synthesize analysis, interviews, and experience with like assets and operational characteristics into a final selection of asset lives and net salvage parameters using Actuarial Analysis as the basis. The historical analysis from Phase 2 is further enhanced by the incorporation of recent or future changes in the characteristics or operations of assets that were revealed in Phase 1. The preliminary results will then be discussed with accounting and operations personnel to allow validation (from the Company's perspective) of the assumptions made in the study and for the Company to gain a level of comfort with the preliminary study results. An evaluation of property units and mass asset retirement methodology will also be made in this phase.

Phase 4

Finally, Phase 4 involves calculating depreciation accrual rates, cost of removal rates, salvage rates for all asset groups, making recommendations, and documenting the conclusions in a draft final report which is reviewed by Company personnel in each jurisdiction. With input from Company personnel, a final report will be published and presented to the Company along with supporting work papers and a data extract from the PowerPlant Depreciation Module can be provided. Any required testimony and other work related to litigation will be developed after the completion of Phase 4.

Section 2.4 – Schedule

Timeline

Below is a draft timeline for the study. Individual activities (such as site visits) will be adjusted to fit Company requirements.

**Big Rivers Electric Corporation
Timeline - Depreciation Study**

Activity	Month Week	June		July			August					September				October		
		4	2	3	4	5	1	2	3	4	5	1	2	3	4	1	2	
Request Accounting Information		X																
Data Collection, Reconciliation & Load			X	X														
Data Analysis				X	X	X	X											
Life and Net Salvage Analysis							X	X	X									
Interview Personnel & Site Visit								X										
Evaluation								X	X	X	X							
Preliminary Rate Calculations												X						
Review Preliminary Results												X						
Calculate Final Depreciation Rates													X					
Prepare Preliminary Report & Draft Testimony												X	X	X				
Finalize Report and Deliver														X	X	X		

Participation of Utility Personnel

The active participation of utility personnel is critical to the thoroughness and accuracy of the depreciation study. We understand that Big Rivers has experienced personnel available help with this engagement. Understanding that participation by company personnel is generally over and above their normal work effort, Alliance will be diligent in minimizing the time requirements as much as possible while maximizing Big Rivers' ability to contribute to the outcome of the study through their personnel's experience, detailed understanding of Big Rivers' system and their knowledge of the Company's depreciation history.

At the beginning of the engagement, Alliance will provide a detailed data request describing the types and level of accounting information needed for the study. The list of items requested will include historical asset transactional information related to additions, retirements, salvage

and removal cost, plant and reserve balances. Our requests for information will also include accounting policy information, historical and future capital budgets, and operations policy information. In addition, periodic emails or phone calls may arise as questions develop when the studies are underway. Discussions with Big Rivers operational and field personnel in interviews as well as site visits and field trips will come into play. As we develop an understanding of factors that might impact life and net salvage characteristics of Big Rivers' plant, interviews will be sought from a range of Big Rivers' personnel, from engineering standards, to procurement, to resource recovery, to environmental. We go beyond the process of looking at numbers to determine how gross salvage and removal cost amounts are determined within the accounting system and affected by changes in operations. Many times accounting results do not tell the whole story, and operations personnel are key to determining if any process improvements can be made. Alliance will rely on Big Rivers to assist in scheduling interviews with key operational personnel, to assist in scheduling site visits and field trips as well as sharing detailed information concerning the Company's asset history. An active and detailed review and discussion of the preliminary results of the study is also expected.

Section 2.5 – Pricing

Alliance has developed a price estimate for the requested professional services as well as estimated travel expenses and PowerPlant software licensing fees. We propose to bill on a time and expense basis at the end of each calendar month after the start of the project. Travel expenses will be billed at cost, as incurred. Work (as directed and authorized by the Company) outside of the scope will be billed monthly at Alliance's standard rates (shown below).

We estimate our Professional Service fees, based on the scope included in Big Rivers' RFP related to conducting the depreciation study, to be \$43,125. We do not expect to exceed this estimate. Agreement by both parties would be obtained for time incurred and billed above this estimate.

This price is calculated with 74 hours for Mr. Watson and 159 hours for Dr. Ponder and/or Ms. Rhonda Watts at the billing rates shown in the cost estimate on page 13 of this proposal. This includes all professional fees related to the development of the depreciation study and work papers. Detailed time estimates for Mr. Watson and Dr. Ponder and/or Rhonda Watts on which this price is based are shown on page 13 of this Proposal.

In an effort to provide an estimate of total cost, we have estimated travel expenses to be approximately 10% of Professional Fees or approximately \$4,313. However, as previously stated these will be billed at cost, when incurred. The PowerPlant Depreciation Module royalty fee (software licensed by Alliance from PowerPlant) is estimated at \$2,000 and will be billed separately if Big Rivers does not own the PowerPlant Depreciation Module.

Due to the highly variable nature of the work effort related to litigation or the regulatory phase, the above price range does not include an estimate of cost for those services. Activities such

as testimony, interrogatories, rebuttal testimony and all other regulatory related services, after the preparation of study, will be based on Alliance's standard hourly billing rates shown below with any expenses billed at cost.

Partner	\$250
Senior Consultants	\$175
Administrative	\$ 50

This pricing structure is valid for the longer of the duration of the project or one year.

<u>Activity</u>	<u>Partner</u>	<u>Consultant</u>	<u>Admin.</u>	<u>Total</u>
Request initial data feed	1	1		2
Planning and discussions with Company	2	2		4
Reconciliation, analysis and load data.	2	24		26
Conduct life analysis and salvage and removal analysis	2	32		34
Conduct Interviews and field visits	24	0		24
Conduct Evaluations	24	12		36
Calculate preliminary rates	4	16		20
Review preliminary rates with the Company	4	4		8
Prepare Report & Direct Testimony	8	20	12	40
Re-run analysis and update as needed.	1	8		9
Preparation of work papers; submit final report and draft of testimony	2	16	8	26
Total Estimated Hours	74	135	20	229
Hourly Rates	\$ 250.00	\$ 175.00	\$ 50.00	
Total Estimated Cost	\$ 18,500.00	\$ 23,625.00	\$ 1,000.00	\$ 43,125.00
Travel & Out of Pocket Expenses - 10%				\$ 4,312.50
Total Estimated Project Costs				\$ 47,437.50

Section 2.6 – Potential Conflicts of Interest

We do not have any conflicts or potential conflicts of interest.

Appendix A – Project Team Resumes

Dane A. Watson, P.E., MBA, C.D.P. **Managing Partner, Alliance Consulting Group**

PROFILE

- 24 years experience in utility property accounting, depreciation and valuation.
- Industry wide reputation with significant experience as Expert Witness in depreciation, valuation and rate base areas.
- Proven experience in effectively merging property systems and reengineering processes/systems to achieve significant cost savings.
- Goal-oriented, “outside-the-box” thinker with demonstrated strong leadership capabilities.
- Organized, highly motivated, and focused problem solver.

RELEVANT EXPERIENCE AND ACCOMPLISHMENTS

DEPRECIATION & ASSET ACCOUNTING

- Conducted depreciation studies for generation, electric transmission, electric distribution, gas transmission, gas distribution, and mining companies and supported in numerous Commission dockets.
- Led or served in numerous national industry roles related to depreciation and property accounting including twice chairing the Plant Accounting and Valuation Committee of the Edison Electric Institute.
- Served as gas and electric industry Project Manager for the implementation of SFAS 143.
- Served as general editor for “Introduction to Depreciation and Net Salvage”.
- Managed fixed asset accounting, depreciation accounting and analysis, lease accounting, inventory accounting, transportation accounting and records management for one of the largest electric and gas utilities in the US.

SYSTEM/PROCESS REENGINEERING

- Reengineered fixed asset process and managed redesign of a Fixed Asset system to create a \$1.5-\$2.0 million savings per year.
- Designed and implemented a new leased asset tracking and payment system that enabled reduction of errors in lease payments by \$3-\$4 million per year.
- Designed and implemented an internal shared asset tracking and allocation system to meet stringent affiliate transaction rules.
- Championed, designed and implemented imaging system to replace paper and microfilm document storage system saving over \$1 million per year.

EMPLOYMENT HISTORY

2004-present

Partner
Alliance Consulting Group, Plano, TX

1996-2004

Manager of Property Accounting Services
TXU Business Services, Dallas, TX

Testified in 15 rate or restructuring proceedings before various Commissions including the Texas Railroad Commission, the Texas Public Utilities Commission and the FERC. Led Sarbanes-Oxley implementation for property processes. During tenure, increased scope to managing all fixed asset and construction accounting, inventory accounting, transportation accounting, fixed asset accounting systems. Led efforts to convert 14 companies to a new fixed asset system. Restructured valuation system to provide 90% faster response time. Implemented new construction/fixed asset systems that facilitated a 12 FTE reduction in staff. Built state-of-the-art lease accounting system to handle reporting and payment of all TXU leases. Built highly automated imaging system to replace microfilm and paper document storage and retrieval system reducing costs and shortening response time.

1992-1996

Technical Support Manager
Texas Utilities Generating Company Dallas, TX
Managed group responsible for depreciation and valuation analysis for TXU. Responsible for teaching and running engineering economics analysis for large capital projects. Managed nuclear plant decommissioning studies, and electrical line loss allocation studies.

1985-1992

Associate Engineer to Senior Engineer
Texas Utilities Generating Company Dallas, TX
Given increasing responsibility related to depreciation and valuation program creation, valuation analysis, depreciation analysis, training TXU employees in engineering economics, report preparation, writing and supporting depreciation testimony before the Texas Public Utilities Commission.**EDUCATION**M.B.A., General Business, Amberton University, Garland, TX.
B.S., Electrical Engineering, University of Arkansas Fayetteville**HONORS AND AWARDS**

Professional Engineer (TX) • Certified Depreciation Professional • Institute of Electronics and Electrical Engineers ("IEEE") Dallas Young Engineer of the Year • IEEE 3rd Millennium Medal • Senior Member of IEEE • IEEE Chair and Region 5 Audit Committee Chair • Twice Chair of the Edison Electric Institute (EEI) Property Accounting and Valuation Committee • Board member of the Society of Depreciation Professionals • Past President Society of Depreciation Professionals

Karen Hallaman Ponder

Senior Consultant

Alliance Consulting Group
1410 Avenue K, Suite 1105-B
Plano, TX 75074
Phone 214 473 6771 Fax 214 722 0363
www.utilityalliance.com

Previous experience:

Property Accounting Specialist
TXU Business Services

Faculty Member
Depreciation Services, Inc.

Experience includes:

- Performed depreciation studies for regulated entities, involving property of various types: electric generation, electric transmission and distribution, gas distribution, gas transmission, and mining. Conducted statistical analysis of life and net salvage components. Incorporated knowledge of equipment failure, new technological trends, and company practice to develop life and net salvage estimates. Provided support during rate case litigation including study write-up, testimony, and responses to interrogatories.
- Taught classes for training seminar on public utility depreciation practices to participants from the United States and Canada for Society of Depreciation Professionals and nationally recognized seminar.
- Developed algorithms for computerization of equal life group depreciation and reserve allocation methodologies used in regulatory proceedings.
- Monitor the capital recovery patterns of domestic TXU companies, both regulated and non-regulated. Analyze activity for forecasting purposes and compliance with GAAP.
- Performed periodic valuations of company property such as unbundling of company assets, sale or transfer of assets, and economic analyses.
- Developed and maintained client relationships in the course of special projects, valuation requests, or depreciation studies.
- Conducted special analyses of historic or current property transactions. This frequently involved the identification of data from archive retrieval or accessing data from computer systems no longer in use.
- Coordinated response to external consultants and company personnel for domestic companies in fair market value studies.
- Subject matter expert for depreciation theory and property accounting data to TXU groups (regulatory, property tax, and risk management).
- Subject matter expert for determining the impact of accounting policy decisions on capital recovery.
- Maintained databases for depreciation studies for all regulated entities and generation assets.

- Developed course materials for seminar classes. Subject matter included actuarial analysis, simulated plant record method, depreciation systems, and net salvage estimation.
- Subcontractor and subject matter expert to accounting firm during a consulting engagement. Developed a cost of service study for Texas water utility. Performed depreciation study on water utility plant.
- Economic research department - load forecasting and time series analysis.
- Budgets - developed in-house program for analyzing construction budgets. Productivity studies on corporate performance.

Education:

Iowa State University, Ph.D., Industrial Engineering
Iowa State University, M.S., Statistics
McNeese State University, B.S., Mathematical Statistics

Rhonda Watts
1410 Avenue K, Suite 1105B, Plano, Texas 75074
(214) 473-6771 rwatts@alliancecg.net

Professional Experience:

Alliance Consulting Group – 5/09 to present

Ms. Watts is a Senior Consultant responsible for depreciation study related activities.

Deloitte & Touche LLP – 8/96 – 4/09

Ms. Watts was a Senior Manager in the Energy and Resources Group. She concentrated in the areas of depreciation and fixed asset accounting systems. She dealt with the principles and procedures of capital recovery, utility organization, accounting and information systems and regulatory practices.

Major Projects

- Assisting various audit teams in the review of client's implementation of FASB Interpretation No. 47. This review encompasses the company's processes, assessments, calculations and supporting documentation.
- Managed teams in the conduct of Sarbanes Oxley Section 404 readiness testing for this international advertising, marketing and communication services companies in 2004 and 2005.
- Conducted multiple depreciation studies and assisted in regulatory support through information discovery and rate proceedings for various electric, gas and/or water utility companies.

Nevada Power Company

Prior to her association with Deloitte & Touche, Ms. Watts was employed by Nevada Power Company for six years. She had a variety of assignments and responsibilities, including plant capitalization and depreciation study update; fuel inventory accounting for generation; and analysis and preparation of regulatory compliance reports, rate case schedules and data request responses.

UNLV Foundation

Ms. Watts held the primary accountant position at the UNLV Foundation prior to her employment with Nevada Power Company. She was responsible for the proper processing and accounting for donations to the Foundation in support of academic excellence. Other responsibilities included compilation of financial reports, which were presented to the Board of Directors and Trustees.

Education

- University of Nevada, Las Vegas, B.S., Business Administration, Accounting and Finance emphasis

Certifications and Memberships

- Member of the American Gas Association and Society of Depreciation Professionals
- Past President of the Society of Depreciation Professionals

Appendix B – References

Company: Consumers Energy

Project Description: Depreciation Studies – Gas & Electric

Project Timeframe: 2005 to present

Client Contact: Jan Anderson (517) 788-2285

Client Address: One Energy Plaza EP9-284, Jackson, MI 49201

Company: Xcel Energy Services

Project Description: Electric and Gas Depreciation Studies

Project Timeframe: Mid 2005 to present

Client Contact: Lisa Perkett (612) 330-6950

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Project Timeframe: 2004-present

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Appendix C – Recent Alliance Depreciation Engagements

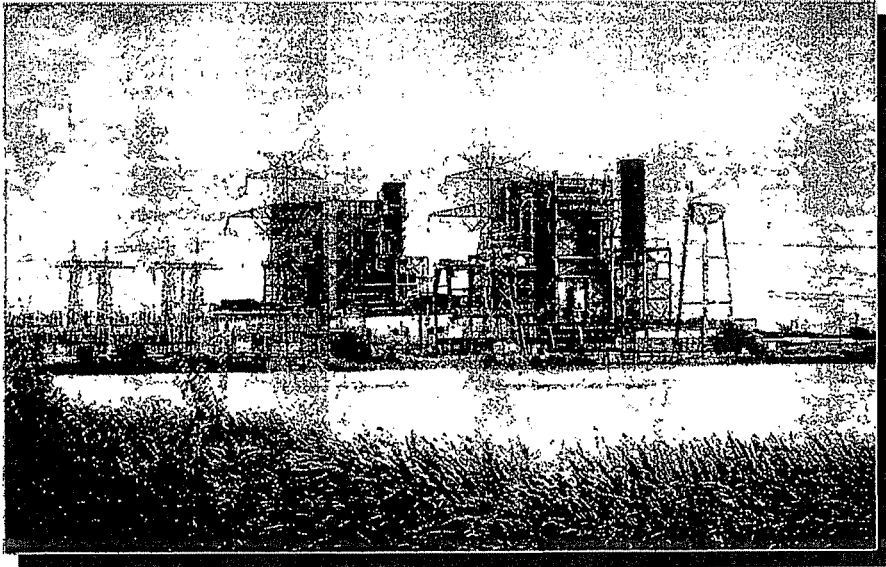
Asset Location	Commission	Docket (If Applicable)	Company	Year	Description
Michigan	Michigan Public Service Commission	In Progress	Edison Sault Utility Services of Alaska	2009	Electric Depreciation Study
Alaska		In Progress	AGL -- Chattanooga Gas	2009	Water Depreciation Study
Tennessee		In Progress	Consumers Energy/ DTE Energy	2009	Gas Depreciation Study
Michigan	Michigan Public Service Commission	U-16055	Consumers Energy	2009	Ludington Pumped Storage Depreciation Study
Michigan	Michigan Public Service Commission	U-16054	Consumers Energy	2009	Electric Depreciation Study
Michigan	Michigan Public Service Commission	U-15963	Michigan Gas Utilities Corporation	2009	Gas Depreciation Study
New York	PSNY	NA	Key Span	2009	Generation Depreciation Study
Michigan	Michigan Public Service Commission	U-15989	Upper Peninsula Power Company	2009	Electric Depreciation Study
Texas	Railroad Commission of Texas	9869	Atmos Energy	2009	Shared Services Depreciation Study
Mississippi	Mississippi Public Service Commission	09-UN-334	CenterPoint Energy Mississippi	2009	Gas Depreciation Study
Texas	Railroad Commission of Texas	9902	CenterPoint Energy Houston	2009	Gas Depreciation Study
Iowa	NA		Cedar Falls Utility	2009	Telecommunications, Water, and Cable Utility

Asset Location	Commission	Docket (If Applicable)	Company	Year	Description
Colorado	Colorado Public Utilities Commission	09AL-299E	Public Service of Colorado	2009	Electric Depreciation Study
Louisiana	Louisiana Public Service Commission	U-30689	Cleco	2008	Electric Depreciation Study
Texas	Public Utility Commission of Texas	35763	SPS	2008	Electric Production, Transmission, Distribution and General Plant Depreciation Study
Wisconsin	Wisconsin	05-DU-101	WE Energies	2008	Electric, Gas, Steam and Common Depreciation Studies
Arizona	NA	NA	Arizona Public Service	2008	Fixed Asset Consulting
Multiple States	NA	NA	Constellation Energy	2008	Generation Depreciation Study
North Dakota	North Dakota Public Service Commission	PU-07-776	Northern States Power	2008	Net Salvage
New Mexico	New Mexico Public Regulation Commission	07-00319-UT	SPS	2008	Testimony - Depreciation
Multiple States	Railroad Commission of Texas	9762	Atmos Energy	2007-2008	Shared Services Depreciation Study
Colorado	Colorado Public Utilities Commission	Filed – no docket to date	Public Service of Colorado	2007-2008	Electric Depreciation Study
Colorado	Colorado Public Utilities Commission	Filed – no docket to date	Public Service of Colorado	2007-2008	Gas Depreciation Study
Minnesota	Minnesota Public Utilities Commission	E015/D-08-422	Minnesota Power	2007-2008	Electric Depreciation Study
Texas	Public Utility Commission of Texas	35717	Oncor	2008	Electric Depreciation Study
Multiple States	NA	NA	Constellation Energy	2007	Generation Depreciation Study

Asset Location	Commission	Docket (If Applicable)	Company	Year	Description
Michigan	Michigan Public Service Commission	U-15629	Consumers Energy	2006-2009	Gas Depreciation Study
Colorado	Colorado Public Utilities Commission	06-234-EG	Public Service of Colorado	2006	Electric Depreciation Study
Multiple States	Multiple	NA	CenterPoint Energy	2006	Shared Services Depreciation Study
Arkansas	Arkansas Public Service Commission	06-161-U	CenterPoint Energy – Arkla Gas	2006	Gas Distribution Depreciation Study and Removal Cost Study
Nevada	NA	NA	Nevada Power/Sierra Pacific	2006	ARO Consulting
Pennsylvania	NA	NA	Safe Harbor	2006	Hydro Depreciation Study
Utah, Nevada, California	NA	NA	Intermountain Power Authority	2006	Generation Depreciation Study
Texas, New Mexico	Public Utility Commission of Texas	32766	Xcel Energy	2005-2006	Electric Production, Transmission, Distribution and General Plant Depreciation Study
Texas	Railroad Commission of Texas	9670/9676	Atmos Energy Corp	2005-2006	Gas Distribution Depreciation Study



COMPANY
Book Depreciation Accrual Rate Study
At December 31, 2005



████████████████████ COMPANY
DEPRECIATION RATE STUDY
AT DECEMBER 31, 2005

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PURPOSE

The purpose of this study is to develop functional depreciation rates for the depreciable production, transmission, distribution, and general property as recorded on the books of [REDACTED] Company ([REDACTED] or Company) as of December 31, 2005. The depreciation rates were designed to recover the total remaining undepreciated investment, adjusted for net salvage, over the remaining life of [REDACTED]'s property on a straight-line basis. Non-depreciable property and property that is amortized, such as intangible software, were excluded from this study. [REDACTED] is engaged in the generation, transmission, and distribution of electricity within [REDACTED] and [REDACTED]. Company-wide [REDACTED], [REDACTED] provides electricity to more than [REDACTED] wholesale and retail customers.

Assets for [REDACTED] at December 31, 2005 include: [REDACTED] megawatts of generation; [REDACTED] conductor miles of 345 kV transmission lines with supporting structures; [REDACTED] conductor miles of 230 kV transmission lines with supporting structures; [REDACTED] conductor miles of 115 kV transmission line with supporting structures; [REDACTED] conductor miles of less than 115 kV line and [REDACTED] transmission and distribution substations. In addition, SPS needs associated equipment such as feeders, primary switches, poles, conductor, line transformers, services, meters, and streetlights to serve its [REDACTED] customers.

General property such as buildings, office furniture, transportation equipment, and other miscellaneous property is located throughout the Company's service territory.

STUDY RESULTS

Recommended depreciation rates for all [REDACTED] depreciable property are shown in Appendix A. These rates translate into an annual depreciation accrual (total company) for Generation of \$[REDACTED] million and for Transmission, Distribution and General plant of \$[REDACTED] million. These accruals are based on [REDACTED]'s depreciable investment at September 30, 2005 (test year end) as shown in Appendix C. The proposed lives and curves on which these calculations are based are shown in Appendix B. The annual depreciation expense calculated by the same method using the existing approved depreciation rates was \$[REDACTED] million for Generation and \$[REDACTED] million for Transmission, Distribution, and General plant. Appendix C shows the effect of the change in lives and curves on depreciation accrual by account. Appendix D shows the Production unit retirement dates. Appendices F and G address the development of net salvage parameters for all plant accounts.

This study also recommends that [REDACTED] convert its depreciation process for general plant (excluding Accounts 389 and 390) to a general plant amortization process. This recommended process provides for the amortization of general plant over the same life as recommended in this study (with a separate amortization to allocate the deficit or excess reserve should it exist). At the end of the amortized life, property will be retired from the books. Implementing this approach will not affect the annual expense accrued by [REDACTED] and will provide for the timely retirement of assets and the simplification of accounting for general property. Both the Federal Energy Regulatory Commission (FERC) and the [REDACTED] Commission have approved this approach for [REDACTED]. The study's workpapers include the amortization schedules required to implement the approach.

GENERAL DISCUSSION

Definition

The term "depreciation" as used in this study is considered in the accounting sense; that is, a system of accounting that distributes the cost of assets, less net salvage (if any), over the estimated useful life of the assets in a systematic and rational manner. It is a process of allocation, not valuation. This expense is systematically allocated to accounting periods over the life of the properties. The amount allocated to any one accounting period does not necessarily represent the loss or decrease in value that will occur during that particular period. The Company accrues depreciation on the basis of the original cost of all depreciable property included in each functional property group. At retirement, the full cost of depreciable property, less the net salvage value, is charged to the depreciation reserve.

Basis of Depreciation Estimates

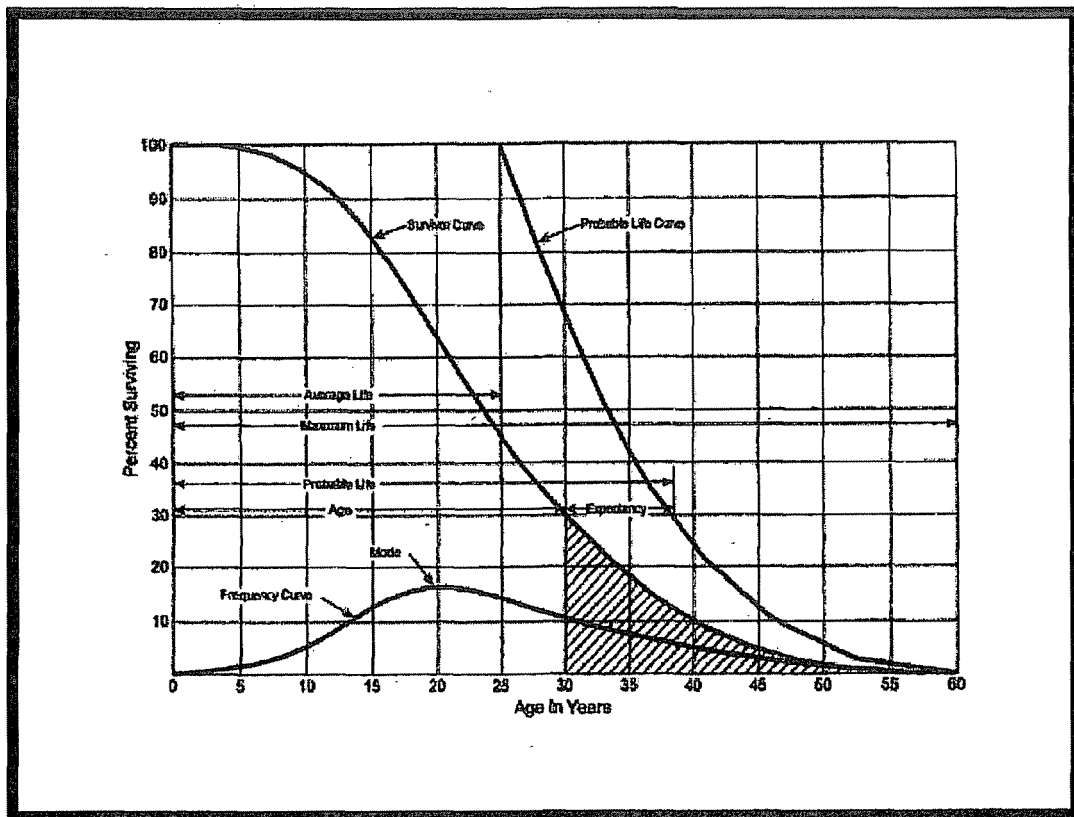
Annual and accrued depreciation were calculated in this study by the straight-line, broad group, remaining-life depreciation system. In this system, the annual depreciation expense for each group is computed by dividing the original cost of the asset group less allocated depreciation reserve less estimated net salvage by its respective average remaining life. The resulting annual accrual amounts of all depreciable property within a function were accumulated and the total was divided by the original cost of all functional depreciable property to determine the depreciation rate. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group, and were computed in a direct weighting by multiplying each vintage or account balance times its remaining life and dividing by the plant investment in service at December 31, 2005. The computations of the annual functional depreciation rates are shown in Appendix A, and the weighted remaining life calculations are shown in Appendix B.

A variety of life estimation approaches were incorporated into analyses of [REDACTED] data. Both Simulated Plant Record (SPR) analysis and Actuarial Analysis are commonly used mortality analysis techniques for electric utility property. Historically, [REDACTED] has used

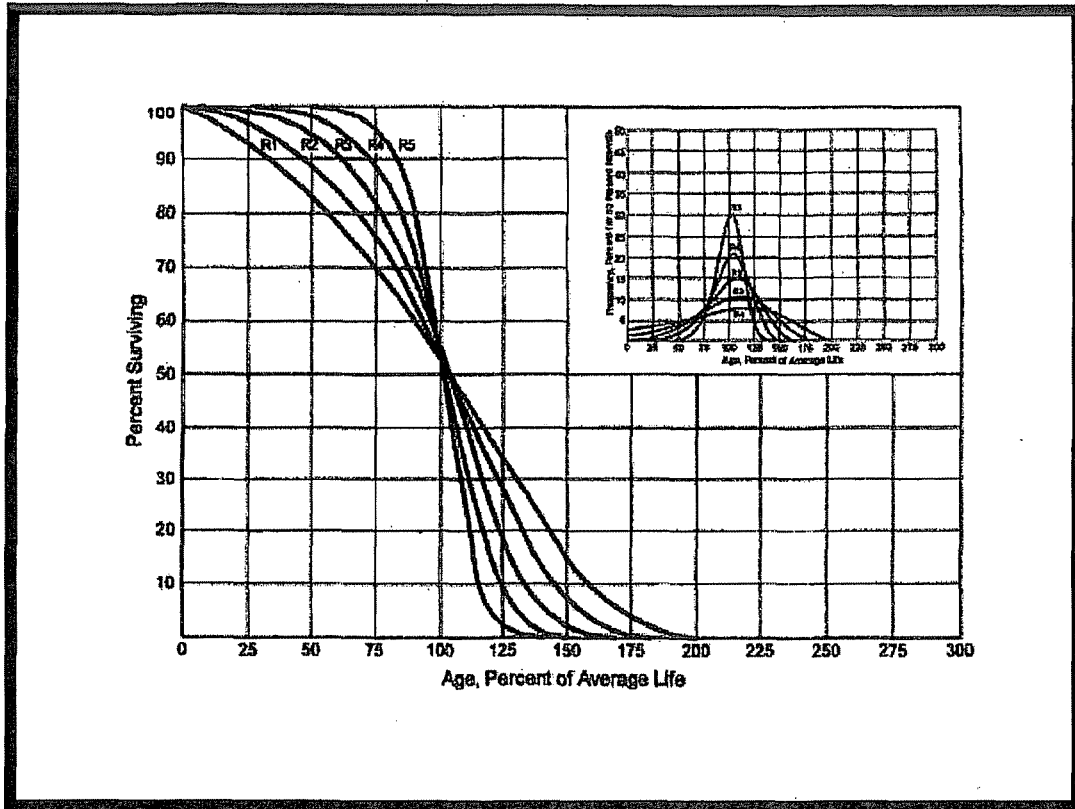
SPR analysis to evaluate lives of most asset groups. Where vintaged information is available, actuarial analysis was performed. Transmission, Distribution substation, and General property accounts were analyzed in this study using actuarial analysis. Mass Distribution accounts (account 364 – 373) were analyzed using SPR analysis. For the accounts using actuarial analysis, experience bands varied depending on the amount of data. The 1968-2005 experience band was the maximum used for accounts 352-362 and 390-398. Judgment was used to a greater or lesser degree on all accounts. Each approach used in this study is more fully described in a later section.

Survivor Curves

To fully understand depreciation projections in a regulated utility setting, there must be a basic understanding of survivor curves. Individual assets within a group do not normally have identical lives or investment amounts. The average life of a group can be determined by comparing actual experience against various survivor curves. A survivor curve represents the percentage of property remaining in service at various age intervals. The most widely used set of representative survivor curves are the Iowa Survivor Curves (Iowa Curves). The Iowa Curves are the result of an extensive investigation of life characteristics of physical property made at Iowa State College Engineering Experiment Station in the first half of the twentieth century. Through common usage, revalidation, and regulatory acceptance, these curves have become a descriptive standard for the life characteristics of industrial property. An example of an Iowa Curve is shown below.



There are four families in the Iowa Curves which are distinguished by the relation of the age at the retirement mode (largest annual retirement frequency) and the average life. The four families are designated as "R"— Right, "S" — Symmetric, "L" — Left, and "O" — Origin Modal. First, for distributions with the mode age greater than the average life, an "R" designation (i.e., Right modal) is used. The family of "R" moded curves is shown below.



Second, an "S" designation (i.e., Symmetric modal) is used for the family whose mode age is symmetric about the average life. Third, an "L" designation (i.e., Left modal) is used for the family whose mode age is less than the average life. Fourth, a special case of left modal dispersion is the "O" or origin modal curve family. Within each curve family, numerical designations are used to describe the relative magnitude of the retirement frequencies at the mode. A "6" indicates that the retirements are not greatly dispersed from the mode (i.e., high mode frequency) while a "1" indicates a large dispersion about the mode (i.e., low mode frequency). For example, a curve with an average life of 30 years and an "L3" dispersion is a moderately dispersed, left modal curve that can be designated as a 30 L3 Curve. An SQ, or square, survivor curve occurs where no dispersion is present (i.e., units of common age retire simultaneously).

For Production interim retirement curves, and Transmission, Distribution, and General property accounts, a survivor curve pattern was selected based on analyses of historical data, as well as other factors, such as general changes relevant to the Company's operations. The blending of judgment concerning current conditions and future trends, along with the matching of historical data permits the depreciation analyst to make an informed selection of an account's average life and retirement dispersion pattern. Iowa Curves were used to depict the estimated survivor curves for each account.

Life Span Procedure

The life span procedure was used for production facilities for which most components are expected to have a retirement date concurrent with the planned retirement date of the generating unit. The terminal retirement date refers to the year that each unit will cease operations. The terminal retirement date, along with the interim retirement characteristics of the assets that will retire prior to the facility ceasing operation, describe the pattern of retirement of the assets that comprise a generating unit. The estimated terminal retirement dates for the various generating units were determined based on consultation with [REDACTED] management, financial, and engineering staff. Those estimated terminal retirement dates are shown in Appendix D.

Interim Retirement Curves

Interim retirement curves were used to model the retirement of individual assets within primary plant accounts for each generating unit prior to the terminal retirement of the facility. The life span procedure assumes all assets are depreciated (straight-line) for the same number of periods and retire at the same time (the terminal retirement date). Adding interim retirement curves to the procedure reflects the fact that some of the assets at a power plant will not survive to the end of the life of the facility and should be depreciated (straight-line) more quickly and retired earlier than the terminal life of the facility. The goal of interim retirement curves is to project how many of the assets that are currently in service will retire each year in the future using historical analysis and judgment. These curves were chosen based primarily on an analysis of the historical

retirement pattern of the Generation assets and consultation with [REDACTED] personnel. Interim retirements for each plant account were modeled using Iowa Curves discussed above. By applying interim retirements, recognition is given to the obvious fact that generating units will have retirements of depreciable property before the end of their lives.

Although interim retirements have been recognized in the study, interim additions (i.e. future additions) have been excluded from the study. The estimated amount of future additions might or might not occur. However, there is no uncertainty as to whether the full level of interim retirements will happen. The assets that are being modeled for retirement are already in rate base. Depreciation rates using interim retirements are known and measurable in the same way that setting depreciation rates for transmission or distribution property using Iowa Curves is known and measurable. There is no depreciable asset that is expected to live forever. All assets at a power plant will retire at some point. Interim retirements simply model when those retirements will occur in the same way that is done for transmission or distribution assets.

There is precedent, both within [REDACTED] and from the [REDACTED], for the inclusion of interim retirements in life span calculations (as was done in this study). [REDACTED]'s previous depreciation study for generation assets reflected a 75 year interim survivor curve in the calculation of depreciation rates. The [REDACTED] has also approved depreciation rates using the life span method with interim retirements ([REDACTED]).

Actuarial Analysis

Actuarial analysis (retirement rate method) was used in evaluating historical asset retirement experience where vintage data were available and sufficient retirement activity was present. In actuarial analysis, interval exposures (total property subject to retirement at the beginning of the age interval, regardless of vintage) and age interval retirements are calculated. The complement of the ratio of interval retirements to interval exposures establishes a survivor ratio. The survivor ratio is the fraction of property surviving to the end of the selected age interval, given that it has survived to the beginning of that age interval. Survivor ratios for all of the available age intervals were chained by successive

multiplications to establish a series of survivor factors, collectively known as an observed life table. The observed life table shows the experienced mortality characteristic of the account and may be compared to standard mortality curves such as the Iowa Curves. Many accounts were analyzed using this method. Placement bands were used to illustrate the composite history over a specific era, and experience bands were used to focus on retirement history for all vintages during a set period. Matching data in observed life tables for each experience and placement band to an Iowa Curve requires visual examination. As stated in Depreciation Systems by Wolf and Fitch, “the analyst must decide which points or sections of the curve should be given the most weight. Points at the end of the curve are often based on fewer exposures and may be given less weight than those points based on larger samples” (page 46). Some analysts chose to use mathematical fitting as a tool to narrow the population of curves using a least squares technique. Use of the least squares approach does not imply a statistical validity, however, because the underlying data does not meet criteria for independence between vintages and the same average price for property units through time. Thus, Depreciation Systems cautions, “... the results of mathematical fitting should be checked visually and the final determination of best fit made by the analyst” (page 48). This study uses the visual matching approach to match Iowa Curves, since mathematical fitting produces theoretically possible curve matches. Visual examination and experienced judgment allow the depreciation professional to make the final determination as to the best curve type.

Detailed information for each account is shown later in this study and in workpapers.

Simulated Plant Record Procedure

The SPR - Balances approach is one of the commonly accepted approaches to analyze mortality characteristics of utility property. SPR was applied to several accounts within the Distribution function due to the unavailability of vintaged transactional data. In this method, an Iowa Curve and average service life are selected as a starting point of the analysis and its survivor factors applied to the actual annual additions to give a sequence of annual balance totals. These simulated balances are compared with the actual balances by using both graphical and statistical analysis. Through multiple comparisons, the mortality characteristics (as defined by an average life and Iowa Curve) that are the best match to the property in the account can be found.

The Conformance Index (CI) is one measure used to evaluate various SPR analyses. CIs are also used to evaluate the "goodness of fit" between the actual data and the Iowa Curve being referenced. The sum of squares difference (SSD) is a summation of the difference between the calculated balances and the actual balances for the band or test year being analyzed. This difference is squared and then summed to arrive at the SSD.

$$SSD = \sum_i^n (\text{Calculated Balance}_i - \text{Observed Balance}_i)^2$$

Where n is the number of years in the test band.

This calculation can then be used to develop other calculations, which the analyst feels might give a better indication for the "goodness of fit" for the representative curve under consideration. The residual measure (RM) is the square root of the average squared differences as developed above. The residual measure is calculated as follows:

$$RM = \sqrt{\left(\frac{SSD}{n} \right)}$$

The CI is developed from the residual measure and the average observed plant balances for the band or test year being analyzed. The calculation of conformance index is shown below:

$$CI = \frac{\sum_i^n Balances_i / n}{RM}$$

The retirement experience index (REI) gives an indication of the maturity of the account and is the percent of the property retired from the oldest vintage in the band at the end of the test year. Retirement indices range from 0 percent to 100 percent and an REI of 100 percent indicates that a complete curve was used. A retirement index less than 100 percent indicates that the survivor curve was truncated at that point. The originator of the SPR method, Alex Bauhan, suggests ranges of value for the CI and REI. The relationship for CI proposed by Bauhan is shown below¹:

CI	Value
Over 75	Excellent
50 to 75	Good
25 to 50	Fair
Under 25	Poor

The relationship for REI proposed by Bauhan² is shown below:

REI	Value
Over 75	Excellent
50 to 75	Good
33 to 50	Fair
17 to 33	Poor
Under 17	Valueless

Despite the fact there has not been empirical research to validate Bauhan's conclusions, depreciation analysts have used these measures in analyzing SPR results for nearly 60 years, since the SPR method was developed.

¹ Public Utility Depreciation Practices, p. 96.

² Public Utility Depreciation Practices, p. 97.

Each of these statistics provides the analyst with a different perspective of the comparison between a band of simulated or calculated balances and the observed or actual balances in the account being studied. Although one statistic is not necessarily superior over the others, the conformance index is the one many analysts use in depreciation studies. The depreciation analyst should carefully weigh the data from REIs to ensure that a mature curve is being used to estimate life.

Statistics are useful in analyzing mortality characteristics of accounts as well as determining a range of service lives to be analyzed using the detailed graphical method. However, these statistics boil all the information down to one, or at most, a few numbers for comparison. Visual matching through comparison between actual and calculated balances expands the analysis by permitting the analyst to view many points of data at a time. The goodness of fit should be visually compared to plots of other Iowa Curve dispersions and average lives for the selection of the appropriate curve and life. Detailed information for each account is shown later in this study and in workpapers.

Judgment

Any depreciation study requires informed judgment by the analyst conducting the study. A knowledge of the property being studied, company policies and procedures, general trends in technology and industry practice, and a sound basis of understanding depreciation theory are needed to apply this informed judgment. In this depreciation study, judgment was used in areas such as survivor curve modeling and selection, depreciation method selection, simulated plant record method analysis, and actuarial analysis.

Where there are multiple factors, activities, actions, property characteristics, statistical inconsistencies, property mix in accounts or a multitude of other considerations that affect the analysis (potentially in various directions), judgment is used to take all of these considerations and synthesize them into a general direction or understanding of the characteristics of the property. Individually, no one consideration in these cases may have a substantial impact on the analysis, but overall, the collective effect of these considerations may shed light on the use and characteristics of assets. Judgment may also be defined as deduction, inference, wisdom, common sense, or the ability to make sensible decisions. There is no single correct result from statistical analysis; hence, there is no answer absent judgment.

As discussed in more detail later, between the time of the merger with [REDACTED]

[REDACTED] did not retire assets in its Continuing Property Record (CPR) for many accounts. Although a significant effort has been made in 2005 to determine the retirements that should have been made and to reflect them on the Company's books, there are still a number of accounts that have not been fully addressed. Because these physical retirements were not made on the books, the analysis of the historical data would indicate a longer life than actually occurred in many cases. The selection of lives for these accounts will require additional judgment to temper the statistical analysis with the understanding of the underlying data issue.

Theoretical Depreciation Reserve

The book accumulated provision for depreciation within each function was allocated among generation, transmission, distribution, and general accounts through the use of the theoretical depreciation reserve model. This study used a reserve model that relied on a prospective concept relating future retirement and accrual patterns for property, given current life and salvage estimates.

The theoretical reserve of a property group is developed from the estimated remaining life of the group, the total life of the group, and estimated net salvage. The theoretical reserve represents the portion of the group cost that would have been accrued if current forecasts were used throughout the life of the group for future depreciation accruals. The computation involves multiplying the vintage balances within the group by the theoretical reserve ratio for each vintage. The straight-line remaining-life theoretical reserve ratio at any given age (RR) is calculated as:

$$RR = 1 - \frac{(Average\ Remaining\ Life)}{(Average\ Service\ Life)} * (1 - Net\ Salvage\ Ratio)$$

DETAILED DISCUSSION

Depreciation Study Process

This depreciation study encompassed four distinct phases. The first phase involved data collection and field interviews. The second phase was where the initial data analysis occurred. The third phase was where the information and analysis was evaluated. After the first three stages were complete, the fourth phase began. This phase involved the calculation of depreciation rates and documenting the corresponding recommendations.

During the Phase I data collection process, historical data was compiled from continuing property records and general ledger systems. Data was validated for accuracy by extracting and comparing to multiple financial system sources: Projects System (Construction ledger), Fixed Asset System (continuing property ledger), General Ledger, and interfaces from other operating systems. Audit of this data was validated against historical data from prior periods, historical general ledger sources, and field personnel discussions. This data was reviewed extensively so that it could be put in the proper format for a depreciation study. Further discussion on data review and adjustment is found in the Salvage Consideration section of this study. Also as part of the Phase I data collection process, numerous discussions were conducted with engineers and field operations personnel to obtain information that would be helpful in formulating life and salvage recommendations in this study. One of the most important elements in performing a proper depreciation study is to understand how the Company utilizes assets and the environment of those assets. Understanding industry and geographical norms for mortality characteristics are important factors in selecting life and salvage recommendations; however, care must be used not to apply them rigorously to any particular company since no two companies would have the same exact forces of retirement acting upon their assets. Interviews with engineering and operations personnel are important ways to allow the analyst to obtain information that is helpful when evaluating the output from the life and net salvage programs in relation to the Company's actual asset utilization and environment. Information that was gleaned in these discussions is found both in the Detailed Discussion portions of the Life Analysis and Salvage Analysis sections and also in workpapers. In addition, Alliance personnel possess a significant understanding of the property and its forces of retirement due to years of day-to-day exposure to property and operations of electric utility property.

Phase 2 is where the SPR and actuarial analysis are performed. Phase 2 and Phase 3 (to be discussed in the next paragraph) overlap to a significant degree. The detailed property records information is used in Phase 2 to develop observed life tables for life analysis and SPR graphs and statistics. It is possible that the analyst would cycle back to this phase based on the evaluation process performed in Phase 3. Net salvage analysis consists of compiling historical salvage and removal data by functional group and account to determine values and trends in gross salvage and removal cost. This information was then carried forward into Phase 3 for the evaluation process.

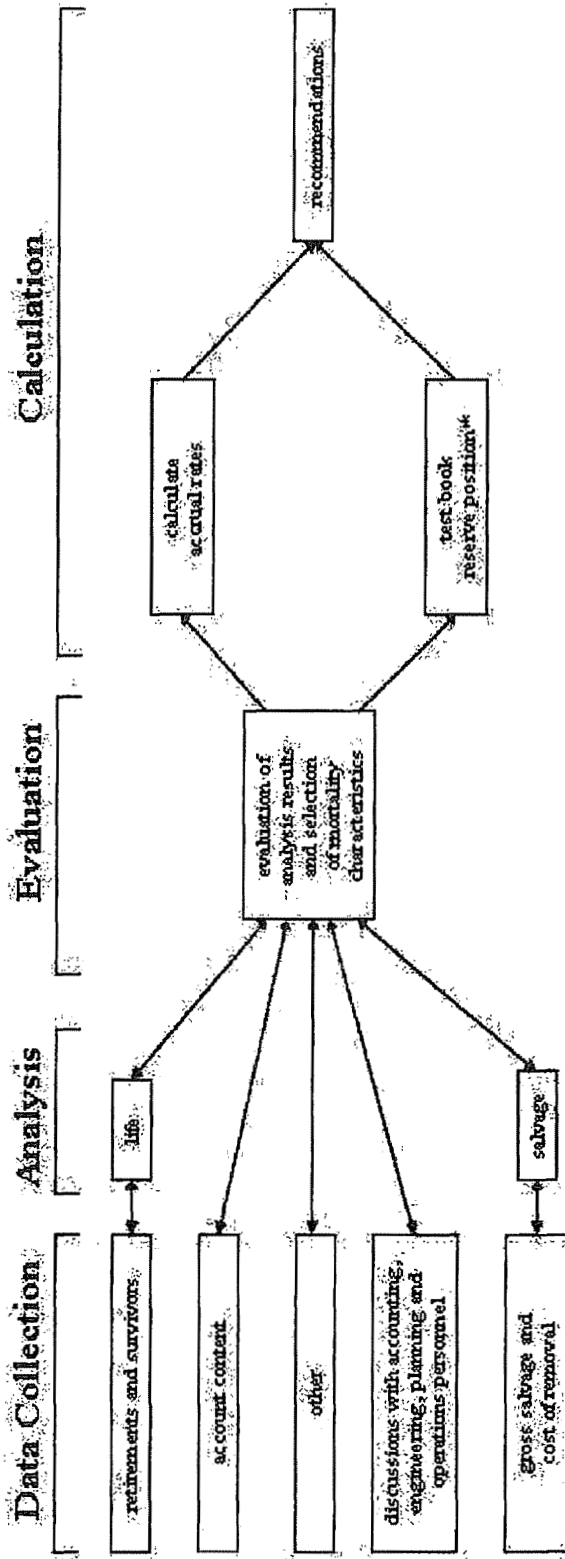
Phase 3 is the evaluation process, which synthesizes analysis, interviews, and operational characteristics into a final selection of asset lives and net salvage parameters. The historical analysis from Phase 2 is further enhanced by the incorporation of recent or future changes in the characteristics or operations of assets that were revealed in Phase 1. The preliminary results are then reviewed by the depreciation analyst and discussed with accounting and operations personnel. Phases 2 and 3 allow the depreciation analyst to validate the asset characteristics as seen in the accounting transactions with actual Company operational experience.

Finally, Phase 4 involved the calculation of accrual rates, making recommendations and documenting the conclusions in a final report. The calculation of accrual rates is found in Appendix A. Recommendations for the various accounts are contained within the Detailed Discussion of this report. The depreciation study flow diagram shown as Figure 1³ documents the steps used in conducting this study. Depreciation Systems on page 289

³ Public Utility Finance & Accounting, A Reader

documents the same basic processes in performing a depreciation study.

Book Depreciation Study Flow Diagram



* based on the difference between the book value and the actual value

Source: Public Utility Finance & Accounting
A. P. Edgar

Production Depreciation Calculation Process

Annual depreciation expense amounts for the Steam Production and Other Production accounts were calculated by the straight line, remaining life procedure. In a whole life representation, the annual accrual rate is computed by the following equation,

$$\text{AnnualAccrualRate} = \frac{(100\% - \text{NetSalvagePercent})}{\text{AverageServiceLife}}$$

In the case of steam production facilities with a terminal life and interim retirement curve, each vintage within the group has a unique average service life and remaining life determined by computing the area under the truncated Iowa Curve coupled with the group's terminal life.

Use of the remaining life depreciation system adds a self-correcting mechanism, which accounts for any differences between theoretical and book depreciation reserve over the remaining life of the group. For each vintage modeled with an interim retirement curve and terminal life,

$$\text{RemainingLife}(i) = \frac{\text{AreaUnderSurvivorCurve to the Right of Age}(i)}{\text{Survivors}(i)},$$

and

$$\text{AverageServiceLife} = \frac{\text{AreaUnderSurvivorCurve}}{\text{Survivors at age zero}}$$

With the straight line, remaining life, average life group system using Iowa Curves, composite remaining lives were calculated by computed a direct weighted average of each remaining life by vintage within the group. Within each group (plant account/ unit), for each plant account, the difference between the surviving investment, adjusted for estimated net salvage, and the allocated book depreciation reserve, was divided by the composite remaining life to yield the annual depreciation expense as noted in this equation.

$$\text{AnnualDepreciationExpense} = \frac{\text{OriginalCost} - \text{Book Reserve} - (\text{OriginalCost}) * (1 - \text{NetSalvage}\%)}{\text{RemainingLife}}$$

where the net salvage percent represents future net salvage.

Within a group, the sum of the group annual depreciation expense amounts, as a percentage of the depreciable original cost investment summed, gives the annual depreciation rate depreciation rate as shown below:

$$\text{AnnualDepreciationRate} = \frac{\sum \text{AnnualDepreciationExpense}}{\sum \text{OriginalCost}}$$

These calculations are shown in Appendix A. The calculations of the theoretical depreciation reserve values and the corresponding remaining life calculations are shown in the workpapers and Appendix B respectively. Book depreciation reserves are maintained on a plant account/unit level basis and theoretical reserve computations were used to compute remaining life for each group. Minor reallocation was done between unit/accounts within each state's reserves.

Transmission, Distribution and General Calculation Process

Annual depreciation expense amounts for Transmission excluding Substations, Transmission Substations, Distribution Substation, Distribution excluding Substations, and General accounts were calculated by the straight line, remaining life procedure.

In a whole life representation, the annual accrual rate is computed by the following equation,

$$\text{AnnualAccrualRate} = \frac{(100\% - \text{NetSalvagePercent})}{\text{AverageServiceLife}}$$

Use of the remaining life depreciation system adds a self-correcting mechanism, which accounts for any differences between theoretical and book depreciation reserve over the remaining life of the group. With the straight line, remaining life, average life group system using Iowa Curves, composite remaining lives were calculated according to standard broad group expectancy techniques, noted in the formula below:

$$\text{Composite RemainingLife} = \frac{\sum \text{OriginalCost} - \text{Theoretical Reserve}}{\sum \text{WholeLifeAnnualAccrual}}$$

For each plant account, the difference between the surviving investment, adjusted for estimated net salvage, and the allocated book depreciation reserve, was divided by the composite remaining life to yield the annual depreciation expense as noted in this equation.

$$\text{AnnualDepreciationExpense} = \frac{\text{OriginalCost} - \text{Book Reserve} - (\text{OriginalCost}) * (1 - \text{NetSalvage\%})}{\text{Composite RemainingLife}}$$

where the net salvage percent represents future net salvage.

Within a group, the sum of the group annual depreciation expense amounts, as a percentage of the depreciable original cost investment summed, gives the annual depreciation rate as shown below:

$$\text{AnnualDepreciationRate} = \frac{\sum \text{AnnualDepreciationExpense}}{\sum \text{OriginalCost}}$$

These calculations are shown in Appendix A. The calculations of the theoretical depreciation reserve values and the corresponding remaining life calculations are shown in the workpapers for this study. Book depreciation reserves are maintained on a plant account level basis and theoretical reserve computation was used to compute composite remaining life for each account.

LIFE ANALYSIS

Steam Production, FERC Accounts 311-316

Terminal Retirement Date

The terminal retirement date refers to the year in which a generating unit will be retired from service. The retirement can be for a number of reasons such as the physical end of the generating unit but will generally be driven by economic retirement of the unit. ■■■ personnel provided their estimated retirement dates for each generating unit. These dates are based on the current plans and investment in the generating units. Retirement dates for generating units can be found in Appendix D. As new investment is committed to these units or decisions made that units are not economically viable, these lives may change. At this time, these retirement dates are the best estimate of the current lives remaining in the generating assets.

Interim Retirement Curve

Historical data used to develop interim retirement curves represent an aggregate of many property units in a group. Some of those assets may be long lived, and others may have a short life. The average of those is represented by an interim retirement curve for the group. A group can be a plant account or a functional group. The interim retirement curve is “truncated” (i.e. cut off) at the age the unit will retire. In other words, if one finds through the analysis that 10 percent of the property in an account will be retired and replaced prior to the end of the life of the unit, the interim retirement curve will model those retirements across the rest of the life of the unit. If a pump is only going to last 10 years but the unit is projected to last 20 years, the shorter life of the pump should affect the depreciation expense charged over the next 10 years. When analyzing a large pool of assets like power plant accounts, these shorter lived items can be accurately modeled together statistically. Thus, given that interim retirements will occur, this statistical analysis enables one to measure the interim retirement curves applicable to property groups. ■■■’s previous study reflected a 75 year interim life.

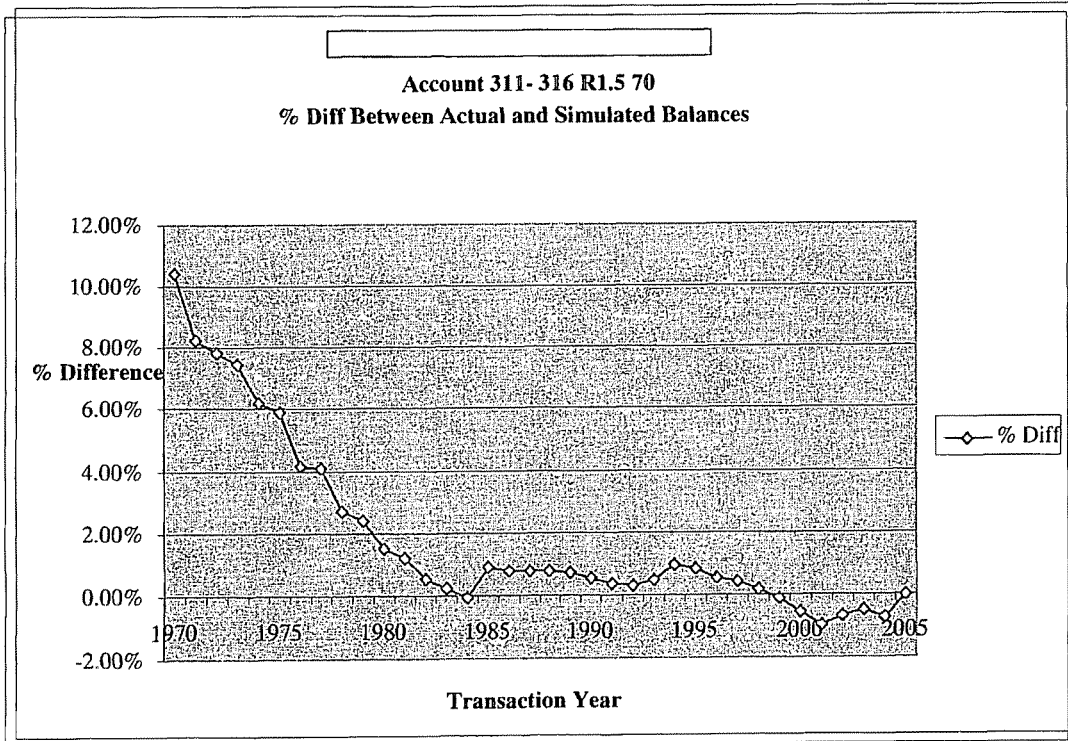
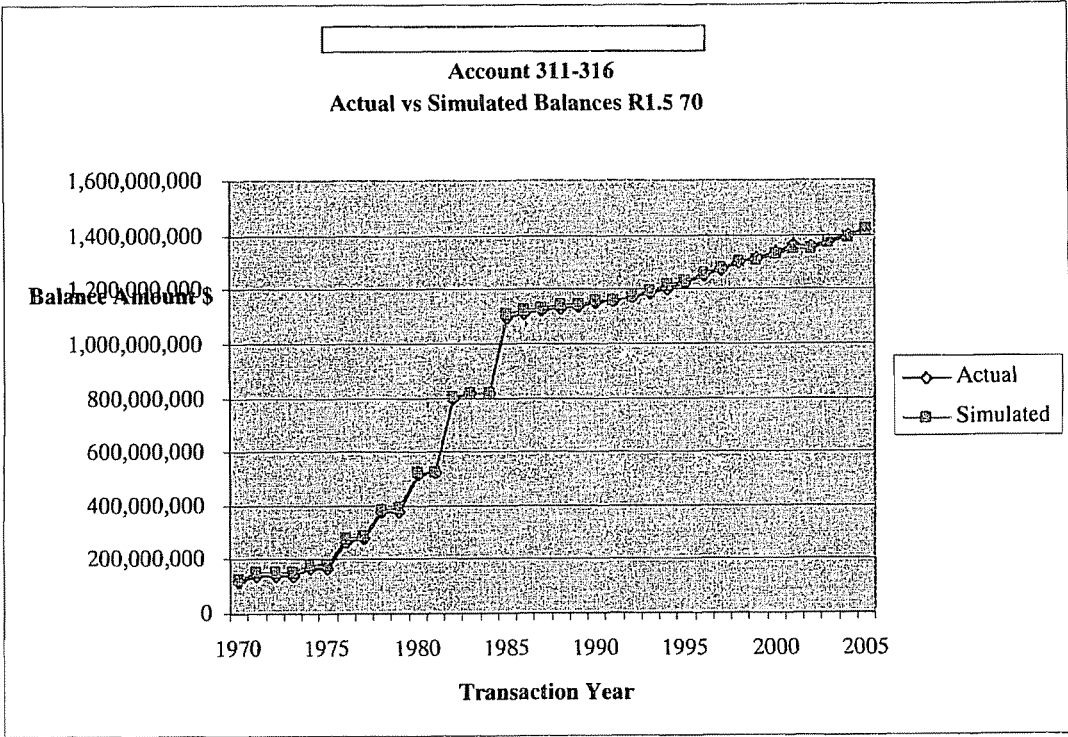
Some examples of “long lived” property that are projected to last until the retirement of a unit are: Roads, Bridges, Railroad track, Intake/Discharge Structures, Structural Steel (and misc. steel), Cooling towers, Buildings, Cranes, Dams, Ponds, Basins, Canals, Foundations,

Stacking and Reclaiming equipment, Surge Silos, Crushers, Transfer Towers, Fly Ash and Bottom Ash Systems, Precipitators, Bag Houses, Stack, Turbine (except blades) and Piping, Generator Cooling System, Vacuum Systems, Generator and Main Leads, Station Transformers, Conduits and Ducts, Station Grounding System, Start-up Diesel Generators, and Stores Equipment.

Some examples of “shorter lived” property that are projected to retire prior to the retirement of the unit are: fences, signs, sprinkler systems, security systems, Intake screens, roofs, cooling fan units, air compressors, fuel oil heaters, heating, ventilation and air conditioners, piping, motors, pumps, conveyors, pulverizers, air preheaters, economizers, control equipment, feedwater heaters, boiler feedwater pumps, forced draft (FD) and induced draft (ID) fans, scrubbers, continuous emissions monitoring systems (CEM), turbine blades and buckets, turbine plant instruments, condensers, control equipment, station service switchgear, and universal power supply (UPS) batteries.

█ has only unaged data available for historical analysis in this category. For each generating unit within the group, annual additions, retirements, transfers, and balances were available from 1970 forward. Since the goal of the life analysis was to model retirement activity for non-terminal events, units which were retired (even though they may have been returned to service later), such as Moore County were not aggregated into the group. Assets from FERC Accounts 311-316 were combined for SPR analysis. Conformance indices across various bands were excellent, but lives that were higher or lower than judgment would indicate as reasonable were not considered. For instance, in some of the SPR analysis a curve such as S5 38 produced an excellent CI and REI, but falls well below the range of reasonableness for an interim retirement curve of generating units that will last 50-60 years.

To further analyze the data, various plots of actual versus simulated balances were performed. In addition, the percent difference between actual and simulated balances were plotted for a variety of dispersion and life characteristics. R1.5 70 interim retirement curve was picked to model the retirement of assets prior to the terminal retirement of the generating unit based on plots and reasonableness of the results for assets in the production function. Plot results are shown below.



Other Production, FERC Accounts 340-346

Terminal Retirement Date

The terminal retirement date refers to the year in which a generating unit will be retired from service. The retirement can be for a number of reasons such as the physical end of the generating unit, but will generally be driven by economic retirement of the unit. ■■■ personnel provided their estimated retirement dates for each generating unit. These dates are based on the current plans and investment in the generating units. Retirement dates for generating units can be found in Appendix D. As new investment is committed to these units or decisions made that units are not economically viable, these lives may change. At this time, these retirement dates are the best estimate of the current lives remaining in the generating assets.

Interim Retirement Curve

In examining data for Other Production, FERC Accounts 340-346 very few retirements have occurred over the available data since 1970. The only significant retirement was excluded from the study since it was related to Riverview's retirement (which was later returned to service). Given the lack of retirement data, no interim retirement curve was used in developing depreciation estimates for other production facilities.

Transmission Accounts, FERC Accounts 350-358

█ has a wide service territory across two states after the sale of the Kansas/Oklahoma territory. There are significant Transmission assets in substation equipment as well as poles and overhead conductor. During the late 1990s and early 2000s, (after the merger with █ data reflected a dramatic decrease in retirements (and in some cases no retirements) due to resource constraints causing retirements not to be made by the predecessor accounting group. Although █ has found and retired a number of the larger assets, it appears that there may be more retirements that should be made. This delay in the book retirement of assets as well as the delay in the book retirement of the assets subsequently found by █ would cause the analysis to reflect a longer life than was really experienced by the assets. This was factored into the selection of lives for the Transmission accounts. The plot of the observed life tables for the selected lives and curves can be found in Appendix E.

FERC Account 350 Transmission Depreciable Land Rights (R4 70)

This account consists of land rights and easements associated with Transmission lines or Transmission substations. There was minimal retirement activity in this account, which did not produce sufficient data for an actuarial or SPR analysis. The 1984 depreciation study established a life of 50 years. Given the increasing lives experienced in Transmission substations, a longer life is recommended. Based on judgment, R4 70 was selected.

FERC Account 352 Transmission Substation Structures and Improvements (R4 55)

This account includes buildings, fencing and other structures found in a transmission substation. The approved life and curve from the 1984 study is R2 45. The expected average life has increased in the intervening 20 years. The actuarial analysis shows R4 55 to be a good match across all placement and experience bands. Although a 55-year life is on the high side of what would be expected in the industry, the indications would move the choice to R4 55 curve for this account.

FERC Account 353 Transmission Substation Equipment (R4 55)

This account contains a wide variety of transmission substation equipment, from circuit breakers to switchgear. The last depreciation study yielded a life characteristic of R3 50. SPS has an excellent inspection and maintenance program related to substation equipment. This program detects and corrects problems with large substation components in a timely manner to keep equipment in service longer than without this program. This program would have a tendency to reduce early failures. It appears that because of this program, the indicated life of substation equipment has lengthened since the last study and is longer than the expectations of many other utilities in [REDACTED]. R4 55 year curve is a good match for all of the placement and experience band combinations. To reflect the inspection and maintenance practices, a 55-year life with an R4 curve was chosen for this account.

FERC Account 354 Transmission Towers and Fixtures (R3 60)

This account consists of Transmission towers, which are used to transmit electricity at a voltage of 69 kV and above. Most of the Transmission line assets are in FERC Account 355, poles. There are currently two lines in this account: one 69 kV line and one 230 kV line. With limited retirement data, the last of which occurred in 1989, judgment was used on this account. The prior depreciation study established R3 75 life, which is beyond the upper end of current industry norms. Judgment was used to lower the life to R3 60, bringing its life more in line with the rest of the transmission assets and the experience of other utilities.

FERC Account 355 Transmission Poles and Fixtures (S3 35)

This account consists of Transmission poles and fixtures, which are used to transmit electricity at a voltage of 69 kV and above. The 1984 depreciation study used R3 40 curve. Examining actuarial results for the full placement band shows an R3 or S3 dispersion with approximately a 35-year life in most experience bands. The 1950 to 2005 placement band matches the S3 35 across all but the shortest experience band. In the shortest experience band, the dispersion begins to shift to a higher dispersion (R4 or S4) with approximately the same life. A 35-year is a reasonable expected life for this account. Based on the best fitting curves for the majority of the placement and experience band combinations, S3 35 was selected.

FERC Account 356 Transmission Overhead Conductor (R2.5 42)

This account consists of Transmission overhead conductors, which are used to transmit electricity at voltages of 69 kV and above. The approved life and curve for this account is a R3 35. Based on the actuarial analysis, the life indication seems to be moving from a life in the mid to high 30s to a 40 to 42 year life, as the experience band looks at newer experience. When examining the 1986-2005 and 1996-2005 experience bands, the R2.5 42 is a good match. Based on more recent experience bands, R2.5 42 curve was selected for this account.

FERC Account 357 Transmission Underground Conduit (R3 75)

This account consists of underground conduit used with two underground transmission lines in Amarillo. There has been no retirement activity over the study period, rendering both actuarial and SPR analysis of no aid in examining life characteristic. The prior depreciation study established and maintained a life of R3 75 through judgment. Even though the currently approved life is at the high end compared to expectations for this account, judgment was again used to retain the same life for this account.

FERC Account 358 Transmission Underground Conductor (R3 45)

This account consists of underground conductor used in two underground transmission lines in [REDACTED]. The lines are low pressure oil filled, paper wrapped 500 MCM copper cable. The prior depreciation study established and maintained a life of R3 45 through judgment. There has been no retirement activity over the study period, rendering both actuarial and SPR analysis of no aid in examining life characteristic. Even though the currently approved life is at the high end compared to expectations for this account, judgment was again used to retain the same life for this account.

Distribution Accounts, FERC Accounts 360-373

█ has a wide service territory across two states after the sale of the █ territory. There are significant Distribution assets in substation equipment, poles, overhead conductor, services, line transformers, meters, and street lighting. During the late 1990s and early 2000s, (prior to the merger creating █ data reflected a dramatic decrease in retirements (and in some cases no retirements) due to resource constraints causing retirements not to be made by the predecessor accounting group. Although █ has found and retired a number of the larger assets, it appears that there may be more retirements that should be made. This delay in the book retirement of assets as well as the delay in the book retirement of the assets subsequently found by █ would cause the analysis to reflect a longer life than was really experienced by the assets. This was factored into the selection of lives for the Distribution accounts. For mass Distribution accounts, FERC Accounts 364 through 373, only unaged data is available.

FERC Account 360 Distribution Depreciable Land Rights (R4 60)

This account consists of land rights and easements associated with Distribution property or Distribution substations. There was minimal retirement activity, which did not produce sufficient data for an actuarial or SPR analysis. The previous depreciation study established a life of 50-year life. As will be discussed in the other Distribution accounts, many Distribution accounts are experiencing a longer life in this study. While some of the indicated increases are due to the asset retirement issue, lives appear to be extending since the 1984 study. Judgment was used to raise the life to a R4 60 for consistency with other distribution assets.

FERC Account 361 Distribution Substation Structures and Improvements and FERC Account 362 Distribution Substations (R2 52)

This grouping contains facilities ranging from fencing and other structures to a wide variety of distribution substation equipment, from circuit breakers to switchgear. Since the life of the equipment in FERC Accounts 361 and 362 are generally tied together and there was a low level of activity in the individual accounts, these accounts were combined for actuarial analysis. The last depreciation study yielded a life characteristic of R4 60 and R2 45, respectively for FERC Accounts 361 and 362. Visual matching revealed the R2 52 as the best choice across all bands. Based on visual matching, R2 52 life was picked for these accounts.

FERC Account 364 Distribution Poles, Towers, and Fixtures (R3 36)

This account contains poles and towers of various material types: wood, concrete, and steel. Most of the poles across the system are made of wood but there are a few steel and concrete poles in highly specialized situations. The height of these assets can range generally from 30 feet to 60 feet with the prevalent sizes being 40 feet and 45 feet. The currently approved life for this account is R1 30. SPR analysis did not yield curves with high conformance indices. By beginning with a plot of actual versus simulated plant balances over time using the currently approved R1-30 Iowa curve and moving the analysis to test higher and lower lives, it was apparent that there had been a steady increase in life from the mid 1980s on. Since the period prior to the merger is more representative of plant activity, focus was on matching various curve combinations in the 1990s. A number of curve combinations were plotted. Higher modal curves such as the R2.5 or R3 matched data from the 1990s better than the lower modal curves. Whether looking at test period of a one-year interval or several years, the conformance index remains very low, indicating data that reflected a shift in life over time. Plots of simulated balances versus actual, as well as the percent difference, were used to narrow the population of curves to examine. R3 36 was selected to model this account, reflecting a 20 percent increase in life and also selecting a life remaining in the range experienced by other companies.

FERC Account 365 Distribution Overhead Conductor (R3 36)

This account consists of overhead conductor of various thickness, as well as various switches and reclosers. The currently approved life for this account is R1 30. SPR analysis did not yield curves with high conformance indices. By beginning with a plot of actual versus simulated plant balances over time using the currently approved R1-30 Iowa curve and moving the analysis to test higher and lower lives, it was apparent that there has been a steady increase in life from the mid 1980s on. Since the period prior to the mergers is more representative of plant activity, focus was on matching various curve combinations in the 1990s, just as was done in account 364. A number of curve combinations were plotted. Higher modal curves such as the R2.5 or R3 matched data from the 1990s better than the lower modal curves. Whether looking at test period of a one-year interval or several years, the conformance index remains very low, indicating data that reflected a shift in life over time. Plots of simulated balances versus actual, as well as the percent difference, were used to narrow the population of curves to examine. R3 36 was selected to model this account, reflecting a 20 percent increase in life and also reflecting a life remaining in the range experienced by other companies.

FERC Account 366 Distribution Underground Conduit (R4 40)

This account consists of Distribution conduit, duct banks, vaults, manholes, and ventilating system equipment. The currently approved life estimate is R4 40. Plots of actual versus simulated balances and percent differences were used to narrow the curves under consideration. The plot of the currently approved R4 40 modeled current year actual versus simulated balances well. After review, the R4 40 curve was retained for this account.

FERC Account 367 Distribution Underground Conductor (R3 36)

This account consists of Distribution conductor, switches, and switchgear. The currently approved life estimate is R3 30. SPR analysis of this account did not yield any curve choices that produced an excellent CI and REI combination. The data issues discussed earlier are evident in this account. By beginning with a plot of actual versus simulated plant balances over time using the currently approved R3-30 Iowa curve and moving the analysis to test higher and lower lives, it was apparent that there has been an increase in life from the mid 1990s on. Since the period prior to the mergers is more representative of plant activity,

focus was on matching various curve combinations in the 1990s. A number of curve combinations were plotted. Graphing the differences between actual versus projected balances helped narrow the selection of life and curve choices. The R3-36 produced a good match during the 1990s and increased the life of this account by 20%. After examining a number of combinations, R3 36 was selected for this account factoring in the curve fit and the delay in retirements.

FERC Account 368 Distribution Line Transformer (R4 37)

This account consists of line transformers, regulators, and capacitors. The currently approved life is R1.5 45. SPR analysis of this account did not yield any curve choices that produced an excellent CI and REI combination. Graphing the differences between actual versus projected balances helped narrow the selection of life and curve choices. By beginning with a plot of actual versus simulated plant balances over time using the currently approved R1.5-45 Iowa curve and moving the analysis to test higher and lower lives, it was apparent that there has been a decrease in life from the 1990s on. Since the period prior to the mergers is more representative of plant activity, focus was on matching various curve combinations in the 1990s. A number of curve combinations were plotted producing similar visual results. The account balance has grown rapidly in recent years. Interviews revealed that in recent years, transformers with aluminum windings began to be purchased in large quantities. These transformers are failing at a more rapid rate than seen in the past. After examining a number of combinations and assimilating information from operations interviews, a R4 37 was selected for this account.

FERC Account 369 Distribution Services (R4 35)

This account includes all Distribution services, both overhead and underground. The currently approved life for this account is R1 30. SPR analysis of this account did not yield any curve choices that produced an excellent CI and REI combination. Most CIs were in the fair to poor range. The data issues discussed earlier are evident in this account. Graphing the differences between actual versus projected balances helped narrow the selection of life and curve choices. By beginning with a plot of actual vs. simulated plant balances over time using the currently approved R1-30 Iowa curve and moving the analysis to test higher and lower lives, it is apparent that there has been an increase in life from the mid 1980s on. Since

the period prior to the mergers is more representative of plant activity, focus was on matching various curve combinations in the 1990s. A number of curve combinations were plotted. Higher modal curves such as the R2.5 or R3 matched data from the 1990s better than the lower modal curves. The R4 35 produces a good match during the 1990s and increases the life of this account by 17%. After examining a number of combinations, a R4 35 was selected for this account factoring in the curve fit and the delay in retirements.

FERC Account 370 Distribution Meters (R5 38)

This account includes all Distribution meters. The currently approved life for this account is R1.5 40. The current life is on the very high end of electric utility experience. SPR analysis of this account did not yield any curve choices that produced an excellent CI and REI combination. Most CIs were in the fair to poor range. The data issues discussed earlier are evident in this account. By beginning with a plot of actual versus simulated plant balances over time using the currently approved R1.5-40 Iowa curve and moving the analysis to test higher and lower lives, it is apparent that there has been a change in life from the mid 1980s on. Since the period prior to the mergers is more representative of plant activity, focus was on matching various curve combinations in the 1990s. A number of curve combinations were plotted. A higher mode curve, the R5, matched data from the 1990s better than the lower modal curves. Graphing the differences between actual versus projected balances helped narrow the selection of life and curve choices. A curve life combination of R5 38 was selected.

FERC Account 371 Installation on Customer Premises (Guard Lights) (R2 18)

This account consists of guard lights and guard light standards. The current life is R0.5 14. SPR analysis of this account did not yield any curve choices that produced an excellent CI and REI combination. Most CIs were in the poor range, while REIs were uniformly excellent since this is a short-lived account. The high additions in some years did not produce a curve that modeled Company experience well. The 1996 and 2001 bands reflect a 20 to 22 year life with the older bands consistently reflecting an 18 to 19 year life. By beginning with a plot of actual versus simulated plant balances over time using an R1-14 (close to the currently approved R0.5-14) Iowa curve and moving the analysis to test higher and lower lives, it is apparent that there has been a change in life from the mid 1980s on. Since the period prior to the mergers is more representative of plant activity, focus was on matching various curve combinations in the 1990s. A number of curve combinations were plotted. With an understanding that the lack of retirements in the early 2000 periods would create a tendency of the analysis to overstate the life of an account, R2 18 curve is recommended for this account. This increases the life of the account by over 25 percent from the approved life. If the trend of lengthening life continues and it is not driven solely by the retirement issues in the early 2000s, a longer life may be indicated in the next study.

FERC Account 373 Distribution Street Lighting (R3 38)

This account includes all Distribution streetlights, conductor, conduit, luminaire, and standards. The current life is R0.5 30. SPR analysis of this account did not yield any curve choices that produced an excellent CI and REI combination. Most CIs were in the poor range, and curve fitting focused on graphs. Erratic addition and retirement patterns did not produce any curves that modeled Company experience well. The shorter bands reflect a 40 to 43 year life, while the older bands reflect a 38 to 40 year life. By beginning with a plot of actual versus simulated plant balances over time using from an R1-30 (close to the currently approved R0.5-30) Iowa curve and moving the analysis to test higher and lower lives, it is apparent that there has been a change in life from the mid 1980s on. Since the period prior to the mergers is more representative of plant activity, focus was on matching various curve combinations in the 1990s. A number of curve combinations were plotted. With an understanding that the lack of retirements in the early 2000s would create a tendency of the analysis to overstate the life of an account, R3 38 curve which is a good fit in the longer

bands was selected for this account. This increases the life of the account by over 25 percent from the approved life. If the trend of lengthening life continues and it is not driven solely by the retirement issues in the early 2000's, a longer life may be indicated in the next study.

General Plant, FERC Account 390-398

General plant accounts have been analyzed using actuarial analysis for all accounts except account 389, which was based on judgment. The plot of the observed life table for the selected life and curve can be found in Appendix E.

FERC Account 389 General Plant Depreciable Land Rights (R4 50)

This account consists of land rights and easements associated with general property or general structures and improvements. Currently land rights are depreciated over a 50-year life. In many cases, the lives of individual land rights are tied to the structures that rest on them. It is recommended that a 50-year life be retained, with an R4 dispersion.

FERC Account 390 General Structures and Improvements (45 R2)

This account consists of general structures and improvements for buildings, including roofing, plumbing, and air conditioning systems. The current life is L0.5 30. Actuarial analysis over the 1911 to 2005 placement band and various experience bands shows no curve matches well from age 30 to 50, but R2 45 or S1.5 45 match well at all other ages. In the 1950 to 2005 placement band, the R2 45 again matches well through age 35. The 1968 to 2005 placement band also matches the R2 45 well through age 30. The Company has consolidated operations in 2002 and sold some buildings, but this activity is a one-time event and should be discounted from the analysis. Given the matches across all placement bands, a R2 45 is recommended for this account.

FERC Account 391 General Plant Furniture and Fixtures (L1.5 20)

This account consists of furniture and fixtures such as desks, tables, chairs, and cabinets. The current life is L0 25. Actuarial analysis over the 1900 to 2005 placement band and various experience bands shows a low modal curve with life between 20 and 24 or 25 matches well. In the 1950 to 2005 placement band, the various low-modal curves match well across all experience bands and the observed life table goes to 0 percent surviving. The 1968-2005 placement band matches the various low modal curves with a life range between 20 and 23. Based on visual fitting, the L1.5 20 curve is recommended for this account.

FERC Account 391 Computer Hardware and Personal Computer Equipment (5)

This account consists of computer hardware and personal computers. Amortization is used on this group, and vintages are segregated into subgroups. Many vintages are fully accrued, and retirements have not been made for all subgroups. From interviews, nationwide computer usage, and knowledge of the change in technology over time, this group retains a five-year amortization life.

FERC Account 392 Transportation Equipment (L3 11)

This account consists of automobiles, trucks, trailers, and other transportation equipment that is a licensed vehicle. The current life is a L2 10. Actuarial analysis over the 1900 to 2005 placement band and various experience bands shows an L curve with a life between ten to 12 years. That is also true when viewing the 1950 to 2005 and 1968 to 2005 placement band with various experience band combinations. L3 11 curve fits well across many bands, and field personnel interviews confirm that vehicles are replaced on an 8 year cycle for autos and small trucks and a 12 to 15 year cycle for large trucks. Thus, L3 11 is recommended for this account.

FERC Account 393 Stores Equipment (R2.5 45)

This account consists of general property related to stores such as cabinets, shelving materials, ramps, and material storage units. The current life is R3 50. Actuarial analysis over the 1900 to 2005 placement band and various experience bands shows a mid mode dispersion curve with a life between 40 to 50 years. The narrowest experience band from 1996 to 2005 did not have enough activity for a good match. Given the strong visual match across most bands, R2.5 45 is recommended for this account.

FERC Account 394 Tools, Shop, and Garage Equipment (R2 30)

This account consists of various items or tools used in shop and garages such as air compressors, grinders, mixers, hoists, and cranes. The current life is R1 35. Actuarial analysis over the 1900 to 2005 placement band and various experience bands shows a mid-mode dispersion curve with a life between 30 to 50 years. The narrowest experience band, 1996 to 2005, which will reflect the most recent experience shows R2 30 to be a good fit across all placement bands. After reviewing various placement and experience band combinations, the R2 30 was selected for this account.

FERC Account 395 Laboratory Equipment (R1 25)

This account consists of laboratory equipment such as centrifuges, testing equipment, and other laboratory devices. The current life is R1.5 45. Actuarial analysis over the 1900 to 2005 placement band and various experience bands shows a low modal curve with a 30 to 35 year life. From field visits to labs and interviews, it is apparent that this account is especially impacted by technological change as instruments and testing equipment are replaced. Many of the larger, more expensive testing equipment currently in place is expected to have a very short life (three to five years for some equipment). Projecting the future retirement characteristics based on interviews with field personnel and technological change, R1 25 is recommended for this account.

FERC Account 396 Power Operated Equipment (L2 18)

This account consists of power-operated equipment such as bulldozers, forklifts, pile drivers, and tractors. The current life is L2 10. Actuarial analysis over the 1900 to 2005 placement band and various experience bands shows an L1.5 or L2 curve. For the widest experience bands, a 17 or an 18 year life fits wells, but in the narrowest experience band 1996 to 2005, the life shortens. That is also true when viewing the 1950 to 2005 and 1968 to 2005 placement band with various experience band combinations. Based on actuarial analyses and fits across various band combinations, L2 18 is recommended for this account.

FERC Account 397 Communication Equipment (R4 23)

This account consists of assorted communication equipment such as antennas, tower, fiber optic cable, microwave equipment, and mobile radio equipment. The current life is S1.5 25. Actuarial analysis over the 1900 to 2005 placement band and various experience bands shows a good match with a high modal curve with life between 22 and 24 years. The same type of match occurs in the 1950 to 2005 placement band across all experience bands. In the 1968 to 2005 placement band with various experience band combinations, the R4 23 matches well through. Based on actuarial analyses and fits across various band combinations, R4 23 is recommended for this account.

FERC Account 398 Miscellaneous Equipment (L0.5 24)

This account consists of miscellaneous equipment such as kitchen equipment, fire extinguishers, portable buildings, photographic equipment, and portable lighting systems. The current life is L0.5 25. Actuarial analysis over the 1900 to 2005 placement band and various experience bands shows a low modal L curve with a life between 22 to 25 matches well. In the 1950 to 2005 placement band, the L0.5 24 matches well across all experience bands and the observed life table goes to 0 percent surviving. The 1968 to 2005 placement band matches the L0.5 24 across various experience bands that extend to 20 percent surviving. Based on visual fitting, the L0.5 24 curve is recommended for this account.

Salvage Analysis

When a capital asset is retired, physically removed from service, and finally disposed of, terminal retirement is said to have occurred. The residual value of a terminal retirement is called gross salvage. Net salvage is the difference between the gross salvage (what the asset was sold for) and the removal cost (cost to remove and dispose of the asset).

Gross salvage and cost of removal related to retirements are recorded to the general ledger in the accumulated provision for depreciation at the time retirements occur within the system.

Net salvage data by plant account for Transmission, Distribution, and General Plant is shown in Appendix G. Removal cost percentages are calculated by dividing the current cost of removal by the original installed cost of the asset. Some plant assets can experience significant negative removal cost percentages due to the timing of the addition versus the retirement. For example, a Transmission asset in FERC Account 356 with a current installed cost of \$500 (2005) would have had an installed cost of \$55⁴ in 1954. A removal cost of \$50 for the asset calculated (incorrectly) on current installed cost would only have a -10 percent removal cost ($\$50/\500). However, a correct removal cost calculation would show a -90.9 percent removal cost for that asset ($\$50/\55). Inflation from the time of installation of the asset until the time of its removal must be taken into account in the calculation of the removal cost percentage because the depreciation rate, which includes the removal cost percentage, will be applied to the original installed cost of assets.

⁴ Using the Handy-Whitman Bulletin No. 160, E-4, line 37, $\$55 = \$500 \times 55/497$,

Salvage - Steam Production and Other Production Property

The concept behind the net salvage cost component of depreciation rates for power plants is different from that of Transmission or Distribution assets. Power plants are discrete units that will need to be dismantled after the end of their useful lives. Because of this, instead of statistically analyzing the historical cost for salvaging and removing assets with rolling and shrinking bands, engineering studies are conducted to determine the cost to dismantle the individual units or plants.

The current net salvage rates for Production are -10 percent, -10 percent, and -5 percent as approved by FERC, [REDACTED] jurisdictions, respectively. These percentages (set in the mid 1980s) are significantly lower than the detailed engineering studies performed by an independent engineering firm at [REDACTED]'s request and the current expectations of utilities in general. The most current Fossil Power Plant Demolition Cost Study for [REDACTED] was completed on [REDACTED], by [REDACTED]. The results of this study were trended 2005 to match the period of the asset balance. The demolition cost for each plant was divided by the depreciable investment at that plant to create a net salvage percentage for the plant. Based on the engineering study, the average net salvage percentages for Steam Production and Other Production plant are -15.7 percent and -16.8 percent, respectively. The calculations of the individual plant net salvage percentages are shown in Appendix E. These net salvage percentages were used in the calculation of the depreciation expense for each plant.

Salvage - Transmission Property

Increasing levels of removal cost are experienced in nearly all accounts in this function. These net salvage rates have been in effect since 1984 and are outdated. As seen in the salvage analysis, nearly all accounts have exhibited a significant swing in salvage received and removal cost in the last 20 years. The salvage received for retired assets has decreased over that time while the removal cost of assets has increased dramatically. Also, asset lives have generally lengthened over the past 20 years which has the effect of increasing the net removal cost (creating a more negative net salvage percentage) for the assets.

Moving averages, which smooth out yearly fluctuations between retirements and net salvage are used to examine data over the 1995 to 2005 period and determine net salvage estimates for each account. Detailed analysis and results by account are shown in Appendix F and individual account results are discussed below.

FERC Account 350 Transmission Depreciable Land Rights (0 percent)

Retirement activity has been very limited in this account. Since land rights intrinsically have no removal costs (removal costs are attributed to the property on the land) and have no salvage value, a 0 percent net salvage was assigned to this account.

FERC Account 352 Transmission Substation Structures and Improvements (-20 percent)

The current net salvage estimate for this account is -5 percent. Transactional history shows a much higher negative net salvage in recent years, with moving averages of -138 percent and -142 percent for the most recent three-year and five-year periods, respectively. Since the amount of retirements is not a large proportion of the plant balance in this account, a moderated amount of net salvage is recommended. A proposed negative net salvage of -20 percent is recommended, reflecting experience in transaction year 2005 and conservatively estimating future removal cost.

FERC Account 353 Transmission Station Equipment (-10 percent)

The current net salvage estimate for this account is 0 percent. Transactional history from 1968 forward shows negative net salvage increasing over the years. Moving averages in the most recent period range from -11 percent for the three-year to -17.63 percent for the five-year moving average. A proposed negative net salvage rate of -10 percent is recommended, reflecting recent experience of lower salvage proceeds.

FERC Account 354 Transmission Tower and Fixtures (-20 percent)

The current net salvage estimate for this account is 0 percent. Transaction history shows only one retirement in 1989. With insufficient data in this account to provide meaningful information, data from FERC Account 355 was used as a proxy for FERC Account 354. Since the process of removing transmission towers is similar to the process of removing transmission poles, an estimate of -20 percent net salvage is recommended for this account.

FERC Account 355 Transmission Poles and Fixtures (-20 percent)

The current net salvage estimate for this account is 10 percent. In almost every year since 1985, the Company has experienced negative net salvage for this account. The most recent three and five year moving averages show -142 percent net salvage. Moving in the direction of the actual net salvage, a conservative net salvage of -20 percent is recommended for this account, reflecting recent experience of lower salvage proceeds.

FERC Account 356 Transmission Overhead Conductor (-15 percent)

The current net salvage estimate for this account is 15 percent. In almost every year since 1984, the Company has experienced negative net salvage for this account. The most recent four and five year moving averages show -17 percent net salvage. Net salvage of -15 percent is recommended for this account, reflecting recent experience of lower salvage proceeds and higher labor costs.

FERC Account 357 Transmission Underground Conduit (0 percent)

The current net salvage estimate for this account is 0 percent. There have been no retirements during the study period. Since no data exists to predict net salvage for this account, a 0 percent net salvage was assigned to this account.

FERC Account 358 Transmission Underground Conductor and Devices (0 percent)

The current net salvage estimate for this account is 10 percent. There have been no retirements during the study period. Since no data exists to predict net salvage for this account, a 0 percent net salvage was assigned to this account.

(1) Salvage - Distribution Property

Increasing levels of removal cost are experienced in all accounts in this function. Current net salvage rates have been in effect since 1984 and are outdated. As seen in the salvage analysis, nearly all accounts have exhibited a significant swing in salvage received and removal cost in the last 20 years. The salvage received for retired assets has decreased over that time while the removal cost of assets has increased dramatically. Also, asset lives have generally lengthened over the past 20 years, which has the effect of increasing the net removal cost (creating a more negative net salvage percentage) for the assets. Detailed analysis and results by account are shown in Appendix F and individual account results are discussed below.

FERC Account 360 Distribution Depreciable Land Rights (0 percent)

Retirement activity has been very limited in this account. Since land rights intrinsically have no removal costs (removal costs are attributed to the property on the land) and have no salvage value, a 0 percent net salvage was assigned to this account.

FERC Account 361 Distribution Substation Structures and Improvements (-10 percent)

The current net salvage estimate for this account is -5 percent. Transactional history shows a negative net salvage in all years, with moving averages of -11 percent for the most recent four-year and five-year periods. Based on the transactional history, at least a -10% net salvage is indicated. Since there is a low level of retirements in this account, a comparison of salvage and removal cost for account 352 was done since this equipment in both accounts are similar. Since account 352 reflects a -20% net salvage which would support at least of -10% net salvage for account 361, a proposed net salvage of -10 percent is recommended for Account 361.

FERC Account 362 Distribution Substation Equipment (-10 percent)

The current net salvage estimate for this account is -5 percent. Since the 1980s, this account has demonstrated negative net salvage. In the most recent period, moving averages of -12 and -10 percent are apparent for the four-year and five-year intervals. After examining Company history, a net salvage of -10 percent is recommended for this account.

FERC Account 364 Distribution Poles, Towers, and Fixtures (-20 percent)

The current net salvage estimate for this account is 5 percent. Since the 1980s, this account has demonstrated increasing levels of negative net salvage. In the most recent period, moving averages of -83 and -57 percent are apparent for the three-year and five-year intervals. Although many utilities have approved levels of negative net salvage in that range, such a significant change would cause a drastic increase in [REDACTED]'s depreciation expense for this account. To conservatively treat net salvage, -20 percent net salvage is recommended which mitigates the increase in net salvage while very conservatively modeling Company experience.

FERC Account 365 Distribution Overhead Conductor and Devices (-22 percent)

The current net salvage estimate for this account is 5 percent. Since the 1980s, this account has demonstrated increasing levels of negative net salvage. In the most recent period, moving averages of -24 and -21 percent are apparent for the three-year and five-year intervals. Viewing moving averages for 2003-2005 show a strong trend between -20 and -25 percent. A -20 percent net salvage is recommended which models recent Company experience.

FERC Account 366 Distribution Underground Conduit (0 percent)

The current net salvage estimate for this account is 5 percent. This account has demonstrated erratic levels of net salvage. Positive salvage ended in 1998, and subsequent years show increasing negative net salvage. In the most recent period, moving averages of -64 percent and -53 percent are apparent for the three-year and five-year intervals. In many cases, conduit can be left in place or reused. This creates very little removal cost. Viewing moving averages for 2000 to 2005 show a decreasing net salvage. To conservatively model net salvage in the future, a 0 percent net salvage is recommended for this account at this time.

FERC Account 367 Distribution Underground Conductor and Devices (-10 percent)

The current net salvage estimate for this account is 0 percent. This account has demonstrated erratic levels of net salvage. Positive salvage ended in 1998, and subsequent years show increasing negative net salvage. In the most recent period, moving averages of -

29 and -25 percent are apparent for the three-year and five-year intervals. Viewing moving averages for 2000 to 2005 show a decreasing net salvage. To conservatively model net salvage in the future, a -10 percent net salvage is recommended for this account.

FERC Account 368 Distribution Line Transformers (0 percent)

The current net salvage estimate for this account is 15 percent. Line transformer gross salvage proceeds have become smaller, while removal costs have risen. In the most recent period, a moving average of 3 percent exists for the three-year and five-year intervals. Viewing moving averages from 1995 to 2005 shows reduced net salvage in almost every year. To conservatively model net salvage in the future, a 0 percent net salvage is recommended for this account.

FERC Account 369 Distribution Services (-40 percent)

The current net salvage estimate for this account is 5 percent. In every year except 1963, net salvage has been negative for this account. In the most recent period, a moving average of -43 percent exists for the three-year, four-year, and five-year intervals. Prior to 1998, negative net salvage was even higher for the moving averages, -100 percent and -115 percent for the three-year and five-year intervals respectively, ending in 1998. After little activity between 1999 and 2002, net salvage is consistently -40 percent for the most recent period. To conservatively model net salvage in the future, a -40 percent net salvage is recommended for this account.

FERC Account 370 Distribution Meters (0 percent)

The current net salvage estimate for this account is 0 percent. After examining transactional history for this account, little if any salvage has been received in nearly a decade. In the most recent period, a moving average of 0 percent exists for the three-year, four-year, and five-year intervals. To model net salvage in the future, a 0 percent net salvage is recommended for this account.

FERC Account 371 Distribution Installation on Customer Premises (-15 percent)

The current net salvage estimate for this account is 10 percent. After examining transactional history for this account, no positive net salvage has been received since 1982.

In the most recent period, a moving average of -14 percent and -10 percent exists for the three-year and five-year intervals, respectively. In 1998, negative net salvage was at a higher level, -35 percent and -55 percent, for the three-year and five-year intervals, respectively. To model net salvage in the future, a -15 percent net salvage is recommended for this account.

FERC Account 373 Distribution Street Lighting (-25 percent)

The current net salvage estimate for this account is 5 percent. Transactional history shows diminishing positive salvage for this account, with a sharp increase in removal cost between 2001 to 2005. In the most recent period, a moving average of -39 percent and -33 percent exists for the three-year and five-year intervals, respectively. To model net salvage in the future, a -15 percent net salvage is recommended for this account.

(a) Salvage - General Property

Most accounts in the general function current have 0 percent net salvage value. Detailed analysis and results by account are shown in Appendix F and individual account results are discussed below.

FERC Account 389 Land Rights (0 percent)

The current net salvage estimate for this account is 0 percent. Land rights generally have no salvage value at retirement and none is shown in the analysis. A 0 percent net salvage is recommended for this account.

FERC Account 390 Structures and Improvements (2 percent)

The current net salvage estimate for this account is 0 percent. This account consists of all general plant structures, which may range from buildings to building components such as HVAC systems or roofs. In 2003, a consolidation of facilities occurred which produced a large positive salvage. This is a one-time event related to merger activity and Company cost reduction initiatives. Since that is not anticipated to recur, the recommended net salvage is 2 percent for this account, reflecting that there will be some very small residual salvage associated with buildings and structures.

FERC Account 391 Furniture and Fixtures (0 percent)

The current net salvage estimate for this account is 5 percent. What little positive salvage has been received over time for office furniture has resulted in a very small net salvage amount. It is recommended that the net salvage for this account is 0 percent.

FERC Account 391 Computer Hardware (0 percent)

The current net salvage estimate for this account is 0 percent. Nationwide, there is little or no value for used computer hardware, which has been rendered obsolete by newer equipment. In addition, the Company is not experiencing any positive salvage for this type of equipment. A net salvage of 0 percent is recommended for this account.

FERC Account 392 Transportation Equipment (10 percent)

The current net salvage estimate for this account is 20 percent. Proceeds for used transportation equipment have been higher in transactional history for almost every year. In the most recent period, a moving average of 19 percent and 25 percent exists for the three-year and five-year intervals, respectively. To model net salvage in the future, a 10 percent net salvage is recommended for this account.

FERC Account 393 Stores Equipment (0 percent)

The current net salvage estimate for this account is 0 percent. Minimal if any positive salvage has been experienced for this account since the late 1980s. In the most recent period, a moving average of 0 percent exists for the three-year and five-year intervals, respectively. To model net salvage in the future, a 0 percent net salvage is recommended for this account.

FERC Account 394 Tools, Shop, and Garage Equipment (0 percent)

The current net salvage estimate for this account is 0 percent. Small amounts of positive salvage have been recorded in 2004 and 2005, but nearly all of it (\$12,650) is miscoded salvage for circuit breakers. Excluding those circuit breakers, the historical data reflects generally no net salvage for this account through history. Therefore a 0 percent net salvage is recommended for this account.

FERC Account 395 Laboratory Equipment (0 percent)

The current net salvage estimate for this account is 0 percent. Minimal if any positive salvage has been experienced for this account since the early 1980s. In the most recent period, a moving average of 0 percent exists for the three-year and five-year intervals, respectively. To model net salvage in the future, a 0 percent net salvage is recommended for this account.

FERC Account 396 Power Operated Equipment (15 percent)

The current net salvage estimate for this account is 20 percent. Proceeds for used power operated equipment have declined since 1998. In the most recent period, a moving average of 7 percent and 5 percent exists for the three-year and five-year intervals, respectively. Looking back to higher levels of net salvage, moving averages for transaction year 1998 are 15 percent for the three-year, four-year, and five-year intervals. To model net salvage in the future, a 15 percent net salvage is recommended for this account.

FERC Account 397 Communication Equipment (0 percent)

The current net salvage estimate for this account is 0 percent. Minimal if any positive salvage has been experienced for this account since the early 1990s. In the most recent period, a moving average of 0 percent exists for the three-year and five-year intervals, respectively. To model net salvage in the future, a 0 percent net salvage is recommended for this account.

FERC Account 398 Miscellaneous Equipment (0 percent)

The current net salvage estimate for this account is 0 percent. Minimal if any positive salvage has been experienced for this account since the mid 1990s. In the most recent period, a moving average of -10 percent and -6 percent exists for the three-year and five-year intervals, respectively. To model net salvage in the future, a 0 percent net salvage is recommended for this account.

APPENDIX A

Depreciation Rate Calculations

FOR CLIENT CONFIDENTIALITY, APPENDICES ARE NOT INCLUDED

APPENDIX B

Recommended Changes in Lives and Salvage

APPENDIX C

Recommended Change in Depreciation Accrual

APPENDIX D
Production Retirement Dates

APPENDIX E
Production Asset Dismantling Analysis

APPENDIX F
Net Salvage Analysis by Account

UNITED STATES DEPARTMENT OF AGRICULTURE

NOTICE TO APPLICANTS - CERTIFICATION/DISCLOSURE REQUIREMENTS RELATED TO LOBBYING

Section 319 of Public Law 101-121 (31 U.S.C.), signed into law on October 23, 1989, imposes new prohibitions and requirements for disclosure and certification related to lobbying on recipients of Federal contracts, grants, cooperative agreements, and loans. Certain provisions of the law also apply to Federal commitments for loan guarantees and insurance; however, it provides exemptions for Indian tribes and tribal organizations.

Effective December 23, 1989, current and prospective recipients (and their subtier contractors and/or subgrantees) will be prohibited from using Federal funds, other than profits from a Federal contract, for lobbying Congress or any Federal agency in connection with the award of a particular contract, grant, cooperative agreement or loan. In addition, for each award action in excess of \$100,000 (or \$150,000 for loans) on or after December 23, 1989, the law requires recipients and their subtier contractors and/or subgrantees to: (1) certify that they have neither used nor will use any appropriated funds for payment to lobbyists; (2) disclose the name, address, payment details, and purpose of any agreements with lobbyists whom recipients or their subtier contractors or subgrantees will pay with profits or **nonappropriated** funds on or after December 23, 1989; and (3) file quarterly updates about the use of lobbyists if materials changes occur in their use. The law establishes civil penalties for noncompliance.

If you are a current recipient of funding or have an application, proposal, or bid pending as of December 23, 1989, the law will have the following immediate consequences for you:

- You are prohibited from using appropriated funds (other than profits from Federal contracts) on or after December 23, 1989, for lobbying Congress or any Federal agency in connection with a particular contract, grant, cooperative agreement, or loan;
- you are required to execute the attached certification at the time of submission of an application or before any action in excess of \$100,000 is awarded; and
- you will be required to complete the lobbying disclosure form if the disclosure requirements apply to you.

Regulations implementing Section 319 of Public Law 101-121 have been published as an Interim Final Rule by the Office of Management and Budget as Part III of the February 26, 1990, **Federal Register** (pages 6736-6746).

UNITED STATES DEPARTMENT OF AGRICULTURE

CERTIFICATION REGARDING LOBBYING - CONTRACTS, GRANTS, LOANS AND COOPERATIVE AGREEMENTS

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement;

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this

Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions;

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Alliance Consulting Group
Organization Name Award Number or Project Name

Dane A. Watson - Partner/Principle
Name and Title of Authorized Representative

Dane A. Watson 6/4/10
Signature Date

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0059. The time required to complete this information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

EQUAL OPPORTUNITY ADDENDUM
To Be Inserted in Construction Contracts and
Subcontracts, and Materials Contracts and Purchase Orders

PART I

The Contractor represents that:

It has does not have 100 or more employees, and if it has, that

It has has no furnished the Equal Employment Opportunity -- Employers Information Report EEO-1, Standard Form 100, required of employers with 100 or more employees pursuant to Executive Order 11246 and Title VII of the Civil Rights Act of 1964.

The Contractor agrees that it will obtain, prior to the award of any subcontract for more than \$10,000 hereunder to a subcontractor with 100 or more employees, a statement, signed by the proposed subcontractor, that the proposed subcontractor has filed a current report on Standard Form 100.

The Contractor agrees that if -it has 100 or more employees and has not submitted a report on Standard Form 100 for the current reporting year and that if this contract will amount to more than \$10,000, the Contractor will file such report, as required by law, and notify the Owner in writing of such filing prior to the Owner's acceptance of this Proposal.

PART II

CERTIFICATION OF NONSEGREGATED FACILITIES

The Contractor certifies that it does not maintain or provide for its employees any segregated facilities at any of its -establishments, and that it does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest-rooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The Contractor agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that it will retain such certifications in its files.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

PART III

EQUAL OPPORTUNITY CLAUSE

During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race,

color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(3) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.

(5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965- and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

(6) In the event of the Contractor's noncompliance with- the nondiscrimination clauses of this contract or with any of the said rules regulations or orders, this contract may be canceled, terminated or suspended in whole- or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11,246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in the said Executive Order or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.

(7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The term "Contractor" shall also mean "Bidder" or " Seller" in case of materials and equipment contracts and purchase orders. and "Subcontractor" in the case of subcontracts.

The provisions of this addendum are not applicable to any. contract or subcontract not exceeding \$10,000.

This addendum supersedes the similar representations and provisions which may be contained in the contract form to which this addendum is attached. The Contractor may disregard the superseded representations and provisions.

Alliance Consulting Group
CONTRACTOR
By Dan A. Watson
Partner/Principle
TITLE
6/4/10
DATE

U.S. DEPARTMENT OF AGRICULTURE

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY
AND VOLUNTARY EXCLUSION - LOWER TIER COVERED TRANSACTIONS**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR Part 3017, Section 3017.510, Participants' responsibilities. The regulations were published as Part IV of the January 30, 1989, Federal Register (pages 4722-4733). Copies of the regulations may be obtained by contacting the Department of Agriculture agency with which this transaction originated.

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Alliance Consulting Group

Organization Name

PR/Award Number or Project Name

Dane A. Watson - Partner/Principle

Name(s) and Title(s) of Authorized Representative(s)

Dane A. Watson

Signature(s)

6/4/10

Date

Instructions for Certification

1. By signing and submitting this form, the prospective lower tier participant is providing the certification set out on the reverse side in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transactions," "debarred," "suspended," "ineligible," "lower tier covered transactions," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.



New Vendor/Vendor Information Change Form

All fields highlighted in GRAY indicate areas where information is REQUIRED.

1. Vendor Information

Vendor Name – Please enter company name. This field is limited to 35 characters.

Alliance Consulting Group

A) Corporate Headquarters:

Street: 1410 Ave K, Suite 1105B 35 Characters or less
 Town or City: Plano 35 Characters or less
 Zip/Postal Code: 75074
 State/Prov.: TX
 Country: USA
 Telephone: 214 473 6771
 Facsimile: 214 279 0535
 Email address: d.watson@alliancecg.net
 Website: www.alliancecg.net

B) Ordering Address (where to send purchase orders)

Street: Same 35 Characters or less
 Town or City: 35 Characters or less
 Zip/Postal Code:
 State/Prov.:
 Country:
 Telephone:
 Email address:
 Sales Contact:

C) Remit-To Address (where to send invoice payments)

Street: 1410 Ave K, Suite 1105B 35 Characters or less
 Town or City: Plano 35 Characters or less
 Zip/Postal Code: 75074
 State/Prov.: TX
 Country: USA
 Accounts Receivable Contact: Dane Watson
 Telephone: 214 473 6771 x10

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(Data Universal Numbering System)

Apply for a D-U-N-S Number, the industry standard for business listings

Do you accept Credit Cards? Yes ___ No X

Definitions:

Corporate Headquarters – Most active office for your company that does business with Big Rivers Electric Corporation (BREC).

Ordering Address – Location(s) to which you wish BREC to SEND purchase orders. Use attachments as necessary.

Remit-to Address – Location to which you wish BREC to SEND invoice payments. Please attach copy of invoice for reference.

D) Payment Terms (If different then Net 30)

E) Supplier Type (Select one of the following)

Attorney/Legal Services	<input type="checkbox"/>
Charity/Contribution	<input type="checkbox"/>
Coal/Natural Gas	<input type="checkbox"/>
Contractor (Services Only)	<input checked="" type="checkbox"/>
Professional Fees/Dues	<input type="checkbox"/>
Retailer (Materials only)	<input type="checkbox"/>
Other	<input type="checkbox"/>

Specify Products and Services

Is your business one of the following (If yes, please include copy of certification) Check all the applicable categories:

MBE Yes No
 WBE Yes No
 Small Disadvantaged Business (SDB)? Yes No
 Veteran Yes No
 Service Disabled Veteran Yes No
 Hub Zone Yes No

If you are a United States-based company, are you qualified as a Small Business concern? No Yes

Is your Company union affiliated? No Yes If Yes, which union affiliated organization _____

Under 15 U.S.C. 645(d), any person who misrepresents its size status shall (1) be punished by a fine, imprisonment, or both; (2) be subject to administrative remedies; and (3) be ineligible for participation in programs conducted under the authority of the Small Business Act.

Dane A. Watson
Signature of person providing information

Partner/Principle 6/4/10
Title Date

Indicate the following special classifications:

Standard Industry Code (SIC Code): _____
 North American Industry Code Standard (NAICS Code): _____
 European Classification Code (eClass Code): _____

F) Contact Information

Who can we contact if we have questions concerning your qualifications and/or this submission?

Name: Dane Watson
 Telephone: 214 473 6771 x10
 E-mail: d.watson@alliancecg.net

Who can we contact "AFTER HOURS" for EMERGENCY SERVICE requirements?

Name: Dane Watson
 Telephone: 214 316 1444
 E-mail: d.watson@alliancecg.net

The following section is to be completed by BREC personnel only.

Date of Input:	Input By:			
Date of Certification:	Type of Certification:	GSA	PSA	Qualified
Is this Vendor Request for One Time use only? * Yes _____ No _____ *If yes, this vendor will have a future inactive date inserted at time of creation based on the Payment Terms.				

G) If you are a Foreign-based company, indicate your TAX/VAT Registration: _____

H) If you are a United States-based company, complete Form W-9 as indicated. We are required by law to obtain a tax identification number when making a reportable payment to you. Failure to provide this information could result in a tax withholding of 31% and you may be subject to a \$50 penalty imposed by the I.R.S. In completing Form W-9, be sure that you CHECK APPROPRIATE BOX FOR CORPORATION/SOLE PROPRIETORSHIP / PARTNERSHIP OR OTHER. If individual or sole proprietorship, please list individual's name (please print) and Social Security Number. Make sure that YOUR TAX ID NUMBER IS 9 DIGITS.

The Business Name listed here will appear on purchase orders and checks.

**Request for Taxpayer
Identification Number and Certification**

Give form to the requester. Do not send to the IRS.

Print or type
see specific instructions on page 2

Name (as shown on your income tax return) MAC Consulting LP	
Business name, if different from above Alliance Consulting Group	
Check appropriate box: <input type="checkbox"/> Individual/sole proprietor <input type="checkbox"/> Corporation <input checked="" type="checkbox"/> Partnership <input type="checkbox"/> Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) >	
<input type="checkbox"/> Other (see instructions) >	
<input type="checkbox"/> Exempt payee	
Address (number, street, and apt. or suite no.) 1410 Avenue K, Suite 1105 B	Requester's name and address (optional)
City, state, and ZIP code Plano, TX 75074	
List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note: If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number : : :
OR
Employer identification number 2012001313

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here	Signature of U.S. person > Dane A. Watson	Date > 6/4/10
------------------	--	----------------------

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

Signature not necessary on electronic copy unless specifically outlined in the instructions on form W-9, Part II, note 4. In lieu of signature, provide vendor contact name in signature area.

Fax the completed form to 888-518-3410 or mail to Big Rivers Electric Corporation, Attn: Supply Chain, PO Box 24, 201 Third St. Henderson, KY 42420

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

CLM
P1DC 05-26-2010 DATE

PRODUCER
LEGACY TEXAS INS SERVICES, INC/PHS
504697 P: (866) 467-8730 F: (877) 905-0457
PO BOX 33015
SAN ANTONIO TX 78265

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE

INSURED
ALLIANCE CONSULTING GROUP MAC
CONSULTING LP DBA
1410 K AVE. STE 1105B
PLANO TX 75074

INSURER A: Hartford Lloyd's Ins Co
INSURER B:
INSURER C:
INSURER D:
INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> General Liab GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC	46 SBA RI7626	04/12/10	04/12/11	EACH OCCURRENCE \$2,000,000 FIRE DAMAGE (Any one firm) \$300,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$2,000,000 GENERAL AGGREGATE \$4,000,000 PRODUCTS - COMP/OP AGG \$4,000,000
A	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	46 SBA RI7626	04/12/10	04/12/11	COMBINED SINGLE LIMIT (Ea accident) \$2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ GARAGE LIABILITY <input type="checkbox"/> ANY AUTO AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC AGG \$ EXCESS LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WIC STATUTORY LIMITS <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
	OTHER				

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

Those usual to the Insured's Operations. Constellation Energy Group Inc is named as an additional insured per the Business Liability Coverage Form SS0008, attached to this policy.

CERTIFICATE HOLDER ADDITIONAL INSURED; INSURER LETTER: A

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE (10 DAYS FOR NON-PAYMENT) TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Joe Tailor

Certificate of Insurance

This certificate is issued as a matter of information only and confers no rights upon the Certificate Holder. This certificate does not amend, extend, or alter the coverage afforded by the policies described herein.

Named Insured(s):

TriNet HR Corporation
Labor Contractor For MAC Consulting LP dba Alliance Consulting Group
1100 San Leandro Blvd.
San Leandro, CA 94577

Insurer Affording Coverage

- Commerce & Industry Ins Company (A)
- Illinois National Insurance Company (B)
- Ins Co of the State of Pennsylvania (C)
- Nat Union Fire Ins Co of Pittsburgh PA (D)
- New Hampshire Insurance Company (E)

The policies of insurance listed below have been issued to the insured named above for the policy period indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which the Certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies. Aggregate limits shown may have been reduced by paid claims.

Type of Insurance	Policy Number	Effective Date	Expiration Date	Limits <small>WC Statutory Limits</small>
Workers' Compensation	(E) 014102992 (TX)	01/01/2010	07/01/2010	Employers Liability
				Bodily Injury By Accident \$ 2,000,000 Each Accident
				Bodily Injury By Disease \$ 2,000,000 Each Person
				Bodily Injury By Disease \$ 2,000,000 Policy Limit

Other: Client Number 7666

The above referenced workers' compensation policies provide statutory benefits only to the employees of the Named Insured(s) on such policies, not to the employees of any other employer.

Cancellation: Should any of the above described policies be cancelled before the expiration date thereof, the insurer affording coverage will endeavor to mail 30 days written notice to the certificate holder named herein, but failure to mail such notice shall impose no obligation or liability of any kind upon the insurer affording coverage, its agents or representatives.

Certificate Holder:



AON Risk Services Northeast, Inc.
AON Risk Services Northeast, Inc.

(866) 443-8489
Phone

05/27/2010
Date Issued



201 Third Street
P.O. Box 24
Henderson, KY 42419-0024
270-827-2561
www.bigrivers.com

October 20, 2010

Mr. Burns Mercer
Meade County RECC
P. O. Box 489
Brandenburg, KY 40108

Mr. Sandy Novick
Kenergy Corp.
P. O. Box 18
Henderson, KY 42419

Mr. Kelly Nuckols
Jackson Purchase Energy Corp.
P. O. Box 4030
Paducah, KY 42002

Gentlemen:

Re: Cost of Service and Rate Design Study

I want to let you know that Big Rivers' wholesale cost of service and rate design study ("Study") is getting underway. On September 24, 2010, Big Rivers issued a request for proposal ("RFP") to ten vendors, requesting they submit a bid to prepare the Study for Big Rivers. Seven proposals were received October 15, 2010, the RFP due date. The proposals were evaluated by Big Rivers' management from both quantitative and qualitative perspectives. The bid evaluation resulted in The Prime Group being engaged to perform the Study. The Prime Group has performed similar cost of service and rate design studies for over 100 utilities across the country, and their body of work before the Kentucky Public Service Commission ("KPSC") is considerable and impressive. The Prime Group is a recognized rate expert in the electric utility industry, including the cooperative generation and transmission ("G&T") and distribution sectors. The Study will promptly begin, and a completion date of February 18, 2011, is targeted. The intent is for this Study to be used in connection with a planned request to the KPSC for an adjustment in wholesale rates during 2011.

As the goal of this Study is the development of Big Rivers' wholesale rates, we want Big Rivers' members and key constituents to be represented during and participate in this Study. Accordingly, Mark Hite will be talking with you about how best to include you and/or your designee in the work on this Study.

Sincerely,

A handwritten signature in cursive script that reads "Mark".

Mark A. Bailey
President and CEO

c: ✓ Mark Hite
Bill Balckburn
Al Yockey

**Big Rivers Electric Corporation
Request for Proposal (RFP)
Cost of Service and Rate Design Study**

Date: September 24, 2010

Purpose

Big Rivers Electric Corporation (Big Rivers) is seeking proposals for performing a Wholesale Cost of Service and Rate Design Study (Study) for the Cooperative. Big Rivers is planning to use the results of this Study in an upcoming application for general adjustments in its existing wholesale rates to its three Member-Systems to the Kentucky Public Service Commission (PSC). Title 807 of the Kentucky Administrative Regulations (KAR) 5:001, Section 10 (u) states that such application for general adjustments in existing rates by a provider of electric service having annual gross revenues greater than \$5 million shall be supported by a cost of service study based on methodology generally accepted within the industry and based on current and reliable data.

The primary objectives of Big Rivers for the Study are to:

- Develop an unbundled (e.g. power supply and transmission) pro forma test year cost of service (COS); and
- Develop a proposed wholesale rate structure (e.g. demand and energy) for Big Rivers' Rural and Large Industrial rate classifications that reflects Big Rivers' cost of providing service and results in a fair and equitable distribution of Big Rivers' revenue requirement to its Member-Systems. Big Rivers' three Member-Systems are Jackson Purchase Energy Corporation, Kenergy Corp. and Meade County Rural Electric Cooperative.
- Develop a rate design (structure) that appropriately considers load factor, load size, energy efficiency and demand-side management programs (Big Rivers is currently conducting an integrated resource plan (IRP) study that should be complete early November 2010.)
- Provide a sufficient return to Big Rivers.

Big Rivers, as well as its Member-Systems, is regulated by the PSC and the Rural Utilities Service (RUS). The process and results of this Study are intended to be used by Big Rivers and its Member-Systems to assist in designing Big Rivers' wholesale rate to its Member Systems in its next wholesale rate application to the PSC, currently expected to occur in 2011.

About Big Rivers Electric Corporation

Big Rivers is a member-owned, not-for-profit, generation and transmission (G&T) cooperative headquartered in Henderson, Kentucky. We provide wholesale electric power and service to three distribution cooperative members across 22 counties in western Kentucky. Big Rivers' has all-requirements contracts with its Member-Systems that terminate December 31, 2043, other than the service contracts for the two large aluminum smelters served by Kenergy Corp., which terminate December 31, 2023.

Big Rivers owns and operates 1,444 megawatts (MW) of generating capacity at four stations: Robert A. Reid (130 MW), Kenneth C. Coleman (443 MW), Robert D. Green (454 MW), and

D.B. Wilson (417 MW). The generating fleet consists of ten generating units, predominately coal-fired. Additionally, Big Rivers owns, operates, and maintains a 1,259-mile transmission system that provides for transmission of power to the Member-Systems as well as third-party entities (off-system sales).

Big Rivers' total power capacity is 1,651 MW including current rights to 207 MW of Henderson Municipal Power and Light's ("HMP&L") 312 MW Station Two, which Big Rivers operates. Additionally, Big Rivers has 178 MW contracted capacity from Southeastern Power Administration (SEPA).

Big Rivers' annual MWh sales are approximately 12.0 million, comprised of 2.5 million Rural, 1.0 million Large Industrial, 7.3 million smelter, and 1.2 million off-system. The Member-Systems serve approximately 112,000 retail consumers. Big Rivers is currently approximately 150 MW long on capacity (capacity in excess of the needs of its Member-Systems, on peak). Consistent with the 12.0 million MWh sales, Big Rivers' current revenue requirement is estimated at approximately \$570.0 million. Big Rivers' Rural member sales billing is based on each members monthly coincident peak demand (the sum of its Rural delivery points). Based on such kW billing demand, Big Rivers' Rural kWh billing reflects an approximate 63% average monthly load factor. Big Rivers' Large Industrial sales billing to the Member-Owners for each such consumer is the greater of each such consumer's monthly kW peak demand or their contract demand. For all such Large Industrial consumers, Big Rivers' kWh billing reflects an approximate 77% load factor. Big Rivers is a member of Aces Power Marketing (APM), and utilizes their services to sell its excess capacity and energy on the wholesales market to various third-parties at market prices. Also, during occasions when Big Rivers needs to acquire market power to meet its power supply obligations, perhaps due to a generating unit outage, it also utilizes the services of APM.

As noted above, Big Rivers' also supplies wholesale electric energy to Kenergy Corp. for two large aluminum smelters, a total of 850 MW at a 98% load factor at full load, under contracts that terminate December 31, 2023. The smelter contracts are unique and somewhat complex. The smelters may terminate service upon one years notice.

Big Rivers has upgraded its transmission system to enable it to take its current excess power, plus the smelter load, to its border, in the event one or both smelters elected to terminate service. Big Rivers' plan would be to sell all such power and energy excess to the needs of its Member-Systems to non-members in the wholesale market.

Big Rivers has not had a base tariff rate increase since 1997, and its current wholesale Rural and Large Industrial rates to its Member-Systems are among the lowest in the country. Today, Big Rivers' average wholesale Rural rate paid by its Member-Owners is approximately \$38/MWh, and the average Large Industrial rate paid by the Member-Owners is approximately \$34/MWh. Big Rivers wholesale rate billed to Kenergy Corp. for the two aluminum smelters, at their full load, is approximately \$43/MWh.

Included for your review is a copy of Big Rivers' Annual Report for 2009. Please visit Big Rivers' website at www.bigrivers.com for historical financial statements, investment grade ratings, etc.

Bid Submittal and Contact Information

Please submit your proposal by U.S. Mail or courier to our purchasing department on or before 12:00 P.M., CDT, on October 15, 2010. Proposals received after the deadline will not be considered.

Big Rivers Electric Corporation
Attn: Purchasing Department, Rob Toerne, Director of Procurement
P.O. Box 24
Henderson, KY 42419-0024

Please direct inquiries regarding the structure and/or content of your proposal, or regarding Big Rivers in general, to:

Mark A. Hite
VP Accounting
Big Rivers Electric Corporation
270-827-2561

Scope of Services

1. **Data Gathering and Review.** The Consultant shall:
 - a. Provide Big Rivers with a list of data required to conduct the Study.
 - b. Review this data to become familiar with Big Rivers' operations in general and financial requirements and wholesale rate structure in particular.
 - c. It is anticipated that the Test Year utilized in this study will be a recent historical year, with pro forma adjustments.

2. **Cost of Service and Rate Design.** The Consultant shall:
 - a. Develop an average embedded, unbundled cost of service (COS) template that will allocate Big Rivers' costs into the following components:
 - Production (including purchased power):
 - Capacity
 - Energy
 - Transmission.
 - Other, as appropriate.

Note: As the definitive numbers for rate case purposes (the test year) will not be known until a date following the completion of this Study, it's understood that the methodology employed and template developed per this Study will be appropriately updated by the Consultant at that time, and this proposal shall include the cost of performing and providing such update.

- b. Identify the revenue requirement associated with each functional (unbundled) category. The revenue requirement will be expressed in terms of dollars and per unit cost (e.g. \$/kW/yr., \$/MWh).
- c. Allocate Big Rivers' functionalized revenue requirement to the Rural and Large Industrial rate classes as appropriate.
- d. Special considerations:
 - 1) Big Rivers and its Member-Systems serve several customers under special contract , most notably the two large aluminum smelters served by Kenergy Corp.
 - 2) The Consultant shall analyze and discuss the merits of reasonable alternative customer class cost allocation approaches (e.g. method of classifying and allocating production and transmission plant investment) and provide variations to the COS and rate design using such alternative approaches for consideration by Big Rivers and its Member-Systems. One such example is equitable cost allocation and appropriate pricing signals that incorporate the extent to which an end consumer efficiently utilizes each kW of demand.
 - 3) The Consultant shall develop the COS analysis with an understanding and appropriate consideration of Big Rivers wholesale tariff "riders" (i.e. automatic cost recovery mechanisms that currently include an environmental surcharge, a fuel adjustment clause, an Unwind Surcredit, a Member Rate Stability Mechanism, and a Rebate Adjustment) and the Non-FAC PPA. In addition, the Surcharge and TIER Adjustment Charge pursuant to the Smelter contracts will be appropriately considered. A copy of Big Rivers' existing member tariff, and the smelter wholesale contracts are attached hereto as Exhibits A, B and C, respectively.
 - 4) The Consultant's COS analysis will include development of an OATT rate in accordance with MISO's Attachment O, as well as the development of ancillary service rates, including allocation of MISO annual membership costs, MISO transmission expansion planning costs, Ancillary Service No. 2, Reactive Power and Voltage Support from Generation. (Big Rivers is currently pursuing MISO membership).

3. **Rate Design.**

- a. In consultation with Big Rivers and its Member-Systems, Consultant shall develop an appropriate set of rate design criteria and objectives. This should include, among other things:
 - 1) Developing the targeted revenue requirement;
 - 2) Reflecting the cost of providing service;
 - 3) Providing proper price signals to the Member-Systems; and
 - 4) Being generally acceptable to the Member-Systems.
- b. Evaluate the appropriate basis for setting each of the unbundled wholesale rate components.
- c. Develop a recommended bundled and unbundled wholesale rate structure applicable to the Member-Systems, considering, among other things;
 - 1) Coincidental versus non coincidental demand;
 - 2) Time-of-day and/or seasonal rates;

- 3) Critical peak and/or real time pricing;
 - 5) Other, as appropriate.
 - d. Compare the revenue Big Rivers realizes from each Member-System on the basis of:
 - 1) The present wholesale rates;
 - 2) The proposed wholesale rates; and
 - 3) Any reasonable alternative wholesale rates that are considered.
 - e. Recommend, if appropriate, a phase-in approach designed to mitigate potential “rate shock”.
4. **Process.**
- a. The Consultant shall solicit and carefully consider input from Big Rivers’ management, staff and the Member-Systems.
 - b. The Consultant should plan on a minimum of 3 face-to-face meetings with Big Rivers’ management/staff and/or the Member-Systems.
5. **Deliverables**
- a. The Consultant shall document the results of its Study, including analysis, in a written report that will include narrative, tables, exhibits and graphs, as appropriate.
 - b. The Consultant shall provide a fully functioning Excel spreadsheet model of the COS analysis.
 - c. The Consultant may be requested to have additional meetings with Big Rivers’ management/staff, the Member-Systems and Board of Directors, as directed by management.
 - d. While not to be included in the base fee proposal, the Consultant shall provide a separate hourly rate proposal to assist in representing its Study in connection with the associated rate case proceeding before the PSC, including responding to data requests, providing written testimony and being an expert witness, all as requested by management.
6. **Approximate Timeline**
- Big Rivers anticipates the following timeline for this project:
- 9/27/10 - Big Rivers distributes RFP to vendors.
 - 10/15/10 -Proposals due by U.S. Mail or courier to our purchasing department on or before 12:00 P.M., CDT.
 - 10/20/10 – Big Rivers awards engagement to Consultant.
 - 1/3/11 - Big Rivers commences compilation of rate case.
 - 2/18/11 - Vendor delivery of COS and rate design study report.
 - 3/1//11 - Rate case filed with KPSC.
 - 9/1/11 - Effective date of new rates.

Proposal Format

The Proposal shall consist of the following:

- 1. Proposed Work Plan in sufficient detail to demonstrate that the Consultant understands Big Rivers’ Study requirements.
- 2. Proposed Project Team, indicating the formal education and relevant work experience of

- each team member.
3. Proposed Project Schedule and Timeline, including key milestones, consistent with the above due date of the Study report...
 4. References.
 5. Proposed Compensation (fee and estimated out-of-pocket travel).

Consultant Evaluation Criteria

Key evaluation criteria for selecting the consulting firm to perform this Study are listed below:

- The firm's overall experience with projects similar in scope, size and complexity.
- The firm's experience with electric cooperatives -- both G&Ts and distribution cooperatives.
- The firm's experience in dealing with regulated utilities and regulators, including being an expert witness.
- The experience and expertise of the firm's consulting staff committed to this project.
- The ability to meet the schedule outlined in this RFP.
- The firm's demonstrated understanding of the rural electric program.
- Completeness and clarity of the work plan.
- The cost of the project, including travel expenses.

Responses to the Request for Proposals

The responses from the Consultant should address at a minimum the following items:

1. The firm's proposed approach, milestones, and time schedule, with the time schedule in a detail schematic form, for this project to ensure completion in the proper time frame.
2. The firm's experience with electric cooperatives including G&Ts and distribution cooperatives individually as well as collectively especially in a regulated environment.
3. The firm's experience with revenue requirement, cost-of-service studies, load research, and rate design in general, preferably with cooperatives both at the wholesale and retail levels.
4. A listing of the firm's employees that will be a part of this project including their educational background and relevant experience in cost of service and rate design projects.
5. The cost of the project.
6. The name of three to five clients for which the consulting firm has completed similar projects and the name of a contact at that client.
7. Disclosure of potential conflicts of interest.
8. A thorough description of the work plan, including an estimate of the number of hours devoted to each task.
9. A thorough description of the firm's experience of appearing as an expert witness before state regulatory commission in a base rate case proceeding. Include as a separate schedule an hourly quote and associated cost rates for witness services related to the COS and rate design propels.

The firm should provide 4 bound and 1 unbound hard copies of its proposal, along with an electronic copy in PDF format on CD.

COST OF SERVICE AND RATE DESIGN STUDY - RFP sent 9/24/10; Bids

Company	Rank	Pros	Cons
The Prime Group	1	<p>Have performed over 100 COS and rate design studies</p> <p>Have frequently presented expert testimony</p> <p>Principally these are former LG&E, PJM and NYMEX folks</p> <p>KFSC exposure and success is second to none</p> <p>Located in Crestwood Kentucky, about 150 miles from BRs</p> <p>Will provide BRs the fully functioning COS model in Excel format</p> <p>Is very familiar with Big Rivers, current and historic</p> <p>A recognized expert in the industry</p> <p>Has performed COS, rate design and MISO studies for numerous G&Ts</p>	<p>Notes the fairly aggressive timeline for the COS and rate design study</p> <p>Much of their experience is with Oglethorpe's 39 distribution cooperatives</p>
Enervision	4	<p>Principally these are former Oglethorpe and FP&L folks</p> <p>Will provide BRs the fully functioning COS model in Excel format</p> <p>Located in Atlanta GA</p>	<p>RW Beck will want to revise BRs GSA</p> <p>Expert witness rate is \$310/hour</p>
RW Beck	3	<p>A recognized industry leader, in business since 1943</p> <p>A multi-faceted organization, with breadth and depth (500 employees)</p> <p>Reputation and history of work with industry, state and federal entities</p> <p>Expert testimony in 47 of 50 states</p> <p>Emphasizes significant client participation throughout the project</p> <p>Mr. Berg, project manager, is a nationally recognized COS and rate expert</p> <p>From St. Paul, MN</p>	<p>Notes that the terms of BRs GSA aren't applicable to consulting services</p>
GDS	6	<p>Has a history of successful experience with BRs</p> <p>Notes that wholesale COS and rate design has been a core service since inception in 1986</p> <p>Notes significant such work with G&Ts</p> <p>Knowledge and experienced with MISO OATT matters</p> <p>Currently developing MISO Schedule 2 rates for Prairie Power</p> <p>Significant expertise in time-of-use, incremental use, demand response, critical peak, interruptible, stratified, real time, curtailable, etc., pricing structures</p> <p>Has conducted hundreds of distribution cooperative COS and rate design studies</p> <p>From Marietta GA</p> <p>Notes that active participation by BRs and its Members is essential</p> <p>Will provide BRs the fully functioning COS model in Excel format</p> <p>Is performing BRs IRP, which will prove beneficial</p>	<p>Resumes of project team, while "heavy lifters", don't appear as relevant to this project as others bidders</p> <p>The 3-principle team members have an hourly rate of either \$375 or \$400</p>
M/R Valuation Consulting	7	<p>From Cotts Neck NJ</p> <p>Senior firm members hail from Deloitte & Touche</p> <p>Mr. Makul, JD, is a specialist on utility pricing structures and tariffs</p> <p>Has provided significant expert testimony on a variety of matters... water, sewer, gas and electric</p>	<p>Is also performing the depreciation study, and any "fall out" could "spill over"</p> <p>Their proposal indicates that Big Rivers' staff will be performing much of the work</p> <p>Other than the project director, staff assigned to this project appear to lack depth and breadth of experience</p>
Burns & McDonnell	5	<p>From Kansas City, MO: a 3,000 employee-owner company</p> <p>Broad depth of electric utility expertise and experience, including decades of G&Ts experience</p> <p>Same project director as for current depreciation study, Ted Kelly</p> <p>Recently project director for a comprehensive COS and rate design project for Associated EC and its 51 members</p> <p>Will provide BRs their "Unbundle" COS model in Excel format (which is complex, they say)</p> <p>Has provided expert testimony on rate studies</p> <p>Have performed many COS and rate design studies, many for electric cooperatives (G&Ts and distribution)</p>	<p>Big Rivers doesn't have 30 years history of the current mode of operation</p> <p>Retained by the Smathers in connection with the Unwind to assess current condition and planned upkeep of the generating facilities</p> <p>A fee premium is added for expert testimony</p>
Shaw Consultants Intl	2	<p>From Cambridge, MA (formerly Stone & Webster Management Consultants)</p> <p>Extensive rate and regulatory experience and expertise</p> <p>Plans a preliminary by 11/23/10 and a final COS and rate design by 2/19/11</p> <p>Envisions an iterative process, with significant involvement from BRs and the Members</p> <p>Big Rivers must supply all requested information on a timely basis</p> <p>Proposal details a well thought, interactive, process from start to finish... dates, milestones, etc</p> <p>They utilize a combination of a proprietary SCOST model (which it will license to its clients) and other rate models</p> <p>Clearly, the most comprehensive proposal received (describes the entire sophisticated process)</p> <p>Two of the 5 project team members appear to have considerable relevant experience and expertise.</p>	<p>Notes that the terms of BRs GSA aren't applicable to consulting services</p>

Handwritten: mmt 10-10-10

BIG RIVERS ELECTRIC CORPORATION
Cost of Service and Rate Design Study - Bids Received 10/15/10

Firm Name	Study	OOP*	PSC Case	Total	Study Hours	Hourly Rate
1 The Prime Group	\$ 60,500	\$ 5,600	T&M + OOP	\$ 66,100	313	\$ 193
2 Enervision	\$ 69,500	\$ 6,400	T&M + OOP	\$ 75,900	348	\$ 200
3 Burns & McDonnell	\$ 67,144	\$ 10,456	T&M + OOP	\$ 77,600	468	\$ 143
4 Shaw Consultants	\$ 131,320	\$ 15,000	T&M + OOP	\$ 146,320	392	\$ 335
5 MR Valuation Consulting	\$ 130,000	\$ 16,900	Included	\$ 146,900	348	\$ 374
6 GDS Associates	\$ 151,530	\$ 8,551	T&M + OOP	\$ 160,081	916	\$ 165
7 RW Beck	\$ 160,000	\$ 8,500	T&M + OOP	\$ 168,500	700	\$ 229

* OOP = out-of-pocket

MANA
 10-18-10

Big Rivers Electric 2010 Depreciation Study Proposal Comparison

	MRValuation Consulting / Burns & Roe		Burns & McDonnell		Gannett Fleming		Alliance Consulting	
Fee Type	Fixed plus expense	Hourly plus expense	Hourly plus expense	Hourly plus expense	Hourly plus expense	Hourly plus expense	Hourly plus expense	Hourly plus expense
Professional Fee	\$140,000.00	\$84,500 est.	\$84,500 est.	\$35,000 est.	\$35,000 est.	\$43,125 est.**	\$43,125 est.**	\$43,125 est.**
Reimbursable Expenses	13% max (\$18,200)	estimate included	estimate included	estimate included	estimate included		\$4,313 est.	\$250/hr plus expenses
Testimony Fee	\$250/hour	*unspecified	*unspecified	\$195/hr plus expenses	\$195/hr plus expenses			
Depr. Testimony Experience	No	Yes	Yes	Yes	Yes		Yes	
Retainer/Billing	50%	Billed Monthly	Billed Monthly	Billed Monthly	Billed Monthly		Billed Monthly	
Level of Utility Expertise	Moderate	High	High	High	High		Moderate - High	
Depr. Study Experience	Low	High	High	Moderate - High	Moderate - High		Moderate	
Industry Position	Experienced	Leader	Leader	Leader	Leader		Experienced	
Scope of Work Outlined	Sufficient	Comprehensive Statistical Analysis Retirement Rate Method	Comprehensive Statistical Analysis Retirement Rate Method	Comprehensive Statistical Analysis Retirement Rate Method	Comprehensive Statistical Analysis Retirement Rate Method		Comprehensive Statistical Analysis Retirement Rate Method	
Method of Analysis	Unspecified							
Days on Site	10+	2+	2+	2	2		3	
Man Hours To Complete	898	536	536	227	227		229	
Recommendation Level	4	1	1	2	2		3	

* Burns & McDonnell note availability for conference calls to support study findings and a meeting with the RUS if necessary

** Alliance uses Power Plant Depreciation Module which will require a royalty fee of \$2000 in addition to other charges



201 Third Street
P.O. Box 24
Henderson, KY 42419-0024
270-827-2561
www.bigrivers.com

May 1, 2010

Invitation to Propose

Management of Big Rivers Electric Cooperative, Inc. ("Big Rivers") requests that your firm submit a proposal for a depreciation study on all of Big Rivers' assets.

General Background Information

Big Rivers is a member-owned, not-for-profit, generation and transmission cooperative (G&T) headquartered in Henderson, Kentucky. We provide wholesale electric power and services to three distribution cooperative members across 22 counties in western Kentucky.

Big Rivers owns and operates 1,444 megawatts (MW) of generating capacity in four stations: Robert A. Reid (130 MW), Kenneth C. Coleman (443 MW), Robert D. Green (454 MW), and D.B. Wilson (417 MW). Additionally, Big Rivers owns, operates, and maintains a 1,259-mile transmission system and provides for transmission of power to its members as well as third-party entities.

Big Rivers' total power capacity is 1,656 MW (**Exhibit 1**), including rights to 212 MW of Henderson Municipal Power and Light's ("HMP&L") 312 MW Station Two. Additionally, Big Rivers has approximately 178MW contracted capacity from Southeastern Power Administration ("SEPA").

Scope of Work

Big Rivers requires a comprehensive depreciation study be performed for all facilities accounted for in accordance with RUS Bulletin 1767B-1, Uniform System of Accounts (**Exhibit 2**). Bidders should submit proposals which include all tasks considered necessary to perform a thorough depreciation study, but the scope of the study should include, at minimum, the following items:

- ❖ Discussion of each facilities basic design and equipment supply
- ❖ Reviewing the adequacy of Big Rivers' depreciation rates and procedures

- ❖ Reviewing Big Rivers' retirement records and history
- ❖ Analyzing current operating and maintenance programs as well as each facilities current operating conditions
- ❖ Analyzing the external or environmental factors that may impact the depreciation rates
- ❖ An estimate of the remaining service life of each generation facility
- ❖ A final opinion on what changes, if any, should be made to Big Rivers' depreciation rates, methods and procedures

Any depreciation rate change as a result of the proposed study will require approval from both the Rural Utilities Service (RUS) and the Kentucky Public Service Commission (KPSC).

Exhibit 3 shows the KPSC's requirements regarding the timing of the proposed depreciation study. Additionally, Big Rivers must meet the requirements set forth in the agreements with Kenergy's aluminum smelting customers; Century Aluminum of Kentucky and Alcan Primary Products Corporation (**Exhibit 4**). Also attached are Big Rivers' current Capitalization of Expenditures Policy (**Exhibit 5**), current Depreciation Rate Schedule (**Exhibit 6**), and 12/31/09 Balance Sheet (**Exhibit 7**).

Contents of Proposal

As part of the preparation of your proposal, please provide as much detail as is reasonable and appropriate in the areas listed below. Also, please provide any other information that would assist us in our consideration of your firm.

- ❖ A brief description of the organization of your firm, giving particular emphasis to that portion of the firm that would serve Big Rivers
- ❖ Experience and qualifications of the personnel conducting this study, emphasizing experience with generation and transmission cooperatives and depreciation studies
- ❖ A representative listing of references in the areas of generation and transmission of electric utilities
- ❖ A thorough description of the work plan and methodology to be used in the study
- ❖ Availability to support study results with information requests and expert testimony in meetings with or formal hearings before the KPSC, or the RUS.
- ❖ A fee schedule including a detailed breakdown of personnel, rates, support services, expenses, and hours required for completing the project
- ❖ A timeline to meet Big Rivers' targeted completion date of October 15, 2010 including specific milestones leading up to that date
- ❖ Any potential conflicts of interest

Evaluation Process and Timing of Work

No public opening of proposals will be held by Big Rivers. Big Rivers reserves the right to accept or reject any or all proposals, to waive any formality, technicality, requirement, or irregularity in the proposals received, and to request further information about any proposal. A committee of Big Rivers' management will review and evaluate all accepted proposals based on the criteria outlined in the Scope of Work and Contents of Proposal sections of this RFP and any other relevant terms of the proposals received. A presentation to management and the Board of Directors may be required, and Big Rivers reserves the right to negotiate with bidders prior to any final evaluation of proposals. Big Rivers expects to select a proposal for the study on or before June 15, 2010. Bidders submitting proposals do so without recourse against Big Rivers for the rejection of any proposal or Big Rivers failure to enter an agreement for study for any reason. Bidders shall be solely responsible for their own costs of submitting a proposal and any participation in the evaluation process.

Please submit your proposal by U.S. Mail or courier to our purchasing department on or before 12:01 PM (CT) June 1, 2010. Proposals received after the deadline will not be considered. It is expected the project begin no later than June 30, 2010 and a report provided no later than October 15, 2010.

Big Rivers Electric Corporation
Attn: Purchasing Department
P.O. Box 24
Henderson, KY 42419-0024

**BIG RIVERS ELECTRIC CORPORATION
STEAM GENERATING UNIT DATA
September-09**

Big Rivers Electric Corporation - Generating Unit Data - Gross and Net Capacities

Unit	Date Of Commercial Operation	Boiler Data		Turbine-Generator Data			Step-Up Transformer (KVA)	Rated Gross Continuous		Station		Rated Net Continuous	
		Mfg.	MCR (lb/hr)	Mfg.	Turb. NP (KW)	Gen. NP/(KVA - Pf)		Max. Capacity (KW)	Service (%)	Max. Capacity (KW)	Service (%)		
R1	January-66	Riley	690,000	G.E.	66,000	96,000 - .85	76,000	72,000	9.7%	65,000			
C1	November-69	FW	1,160,000	W	160,000	205,000 - .85	192,000	160,000	6.3%	150,000			
C2	September-70	FW	1,160,000	W	160,000	205,000 - .85	192,000	160,000	13.8%	138,000			
C3	January-72	Riley	1,160,000	G.E.	160,000	192,000 - .90	192,000	165,000	6.1%	155,000			
H1	June-73	Riley	1,160,000	G.E.	175,984	200,000 - .90	190,000	165,000	7.3%	153,000			
H2	April-74	Riley	1,160,000	W	178,724	205,000 - .90	190,000	172,000	7.6%	159,000			
G1	December-79	BW	1,930,000	G.E.	242,105	293,000 - .90	291,000	250,000	7.6%	231,000			
G2	January-81	BW	1,930,000	W	242,133	293,000 - .90	291,000	242,000	7.9%	223,000			
W1	November-86	FW	3,484,000	W	440,031	566,100 - .90	482,000	440,000	5.2%	417,000			
CT	March-76			Oil	72,000	98,889 - .90	75,000	70,000	7.1%	65,000			
				NG	73,900	98,889 - .90	75,000	70,000	7.1%	65,000			
								1,895,000			1,756,000		

*Note: CT capacities are reflected only once in their respective totals

Date Received: 2/4/2010

Exhibit 1

(v) Depreciation Accounting.

- (1) Method. Utilities must use a method of depreciation that allocates in a systematic and rational manner the service value of depreciable property over the service life of the property.
- (2) Service lives. Estimated useful service lives of depreciable property must be supported by engineering, economic, and other depreciation studies.
- (3) Rate. Utilities must use percentage rates of depreciation that are based on a method of depreciation that allocates in a systematic and rational manner the service value of depreciable property to the service life of the property. Where composite depreciation rates are used, they should be based on the weighted average estimated useful service lives of the depreciable property comprising the composite group.

(w) Accounting for other comprehensive income.

- (1) Utilities shall record items of other comprehensive income in account 209, Accumulated other comprehensive income. Amounts included in this account shall be maintained by each category of other comprehensive income. Examples of categories of other comprehensive income include foreign currency items, minimum pension liability adjustments, unrealized gains and losses on available-for-sale type securities and cash flow hedge amounts. Supporting records shall be maintained for account 209 so that the cumulative amount of other comprehensive income for each item included in this account can be readily identified.
- (2) When an item of other comprehensive income enters into the determination of net income in the current or subsequent periods, a reclassification adjustment shall be recorded in account 209 to avoid double counting of that amount.
- (3) When it is probable that an item of other comprehensive income will be included in the development of cost-of-service rates in subsequent periods, that amount of unrealized losses or gains will be recorded in Accounts 182.3 or 254 as appropriate.

(x) Accounting for derivative instruments and hedging activities.

- (1) Utilities shall recognize derivative instruments as either assets or liabilities in the financial statements and measure those instruments at fair value, except those falling within recognized exceptions. Normal purchases or sales are contracts that provide for the purchase or sale of goods that will be delivered in quantities expected to be used or sold by the utility over a reasonable period in the normal course of business. A derivative instrument is a financial instrument or other contract with all of the following characteristics:
 - (i) It has one or more underlyings and a notional amount or payment provision. Those terms determine the amount of the settlement or settlements, and, in some cases, whether or not a settlement is required.
 - (ii) It requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors.

Note: For the purpose of reporting to RUS, the classification of electric plant in service by accounts is required, the utility shall also report the balance in this account tentatively classified as accurately as practicable according to prescribed account classifications. The purpose of this provision is to avoid any significant omissions in reported amounts of electric plant in service.

107 Construction Work in Progress - Electric.

A. This account shall include the total of the balances of work orders for electric plant in process of construction.

B. Work orders shall be cleared from this account as soon as practicable, after completion of the job. Further, if a project, such as a hydroelectric project, a steam station, or a transmission line, is designed to consist of two or more units or circuits which may be placed in service at different dates, any expenditures which are common to and which will be used in the operation of the project as a whole shall be included in electric plant in service upon the completion and the readiness for service of the first unit. Any expenditures which are identified exclusively with units of property not yet in service shall be included in this account.

C. Expenditures on research, development, and demonstration projects for construction of utility facilities are to be included in a separate subdivision in this account. Records must be maintained to show separately each project along with complete detail of the nature and purpose of the research, development, and demonstration project together with the related costs.

D. Account 107 shall be subaccounted as follows:

- 107.1 Construction Work in Progress - Contract
- 107.2 Construction Work in Progress - Force Account
- 107.3 Construction Work in Progress - Special Equipment

108 Accumulated Provision for Depreciation of Electric Utility Plant.

A. This account shall be credited with the following:

1. Amounts charged to Account 403, Depreciation Expense, or to clearing accounts for current depreciation expense for electric plant in service.
2. Amounts charged to Account 421, Miscellaneous Nonoperating Income, for depreciation expense on property included in Account 105, Electric Plant Held for Future Use. Include, also, the balance of accumulated provision for depreciation on property when transferred to Account 105, Electric Plant Held for Future Use, from other property accounts. Normally, Account 108 will not be used for current depreciation provision because, as provided herein, the service life during which depreciation is computed commences with the date property is includible in electric plant in service; however, if special circumstances indicate the propriety of current accruals for depreciation, such charges shall be made to Account 421, Miscellaneous Nonoperating Income.
3. Amounts charged to Account 413, Expenses of Electric Plant Leased to Others, for electric plant included in Account 104, Electric Plant Leased to Others.
4. Amounts charged to Account 416, Costs and Expenses of Merchandising, Jobbing, and Contract Work, or to clearing accounts for current depreciation expense.
5. Amounts of depreciation applicable to electric properties acquired as operating units or systems. (See § 1767.16 (e).)

6. Amounts charged to Account 182.1, Extraordinary Property Losses, when authorized by RUS.

7. Amounts of depreciation applicable to electric plant donated to the utility.

The utility shall maintain separate subaccounts for depreciation applicable to electric plant in service, electric plant leased to others, and electric plant held for future use.)

B. At the time of retirement of depreciable electric utility plant, this account shall be charged with the book cost of the property retired and the cost of removal and shall be credited with the salvage value and any other amounts recovered, such as insurance. When retirement, costs of removal and salvage are entered originally in retirement work orders, the net total of such work orders may be included in a separate subaccount hereunder. Upon completion of the work order, the proper distribution to subdivisions of this account shall be made as provided in the following paragraph.

C. Account 108 shall be subaccounted as follows:

108.1	Accumulated Provision for Depreciation of Steam Production Plant
108.2	Accumulated Provision for Depreciation of Nuclear Production Plant
108.3	Accumulated Provision for Depreciation of Hydraulic Production Plant
108.4	Accumulated Provision for Depreciation of Other Production Plant
108.5	Accumulated Provision for Depreciation of Transmission Plant
108.6	Accumulated Provision for Depreciation of Distribution Plant
108.7	Accumulated Provision for Depreciation of General Plant
108.8	Retirement Work in Progress
108.9	Accumulated Provision for Depreciation of Asset Retirement Costs

These subsidiary records shall reflect the current credits and debits to this account in sufficient detail to show separately for each such functional classification: (1) the amount of accrual for depreciation, (2) the book cost of property retired, (3) cost of removal, (4) salvage, and (5) other items, including recoveries from insurance.

D. When transfers of plant are made from one electric plant account to another, or from or to another utility department, of from or to nonutility property accounts, the accounting for depreciation shall be as provided in § 1767.16 (l).

E. The utility is restricted in its use of the accumulated provision for depreciation to the purposes set forth above. It shall not transfer any portion of this account to retained earnings or make any other use thereof without authorization by RUS.

109 [Reserved]

110 [Reserved]

111 Accumulated Provision for Amortization of Electric Utility Plant.

A. This account shall be credited with the following:

1. Amounts charged to Account 404, Amortization of Limited-Term Electric Plant, for the current amortization of limited-term electric plant investments.

2. Amounts charged to Account 421, Miscellaneous Nonoperating Income, for amortization expense on property included in Account 105, Electric Plant Held for Future Use. Include also the balance of accumulated provision for amortization on property when

401 Operation Expense.

There shall be shown under this caption the total amount included in the electric operation expense accounts provided herein. (See note to § 1767.17 (c).)

402 Maintenance Expense.

There shall be shown under this caption the total amount included in the electric maintenance expense accounts provided herein.

403 Depreciation Expense.

A. This account shall include the amount of depreciation expense for all classes of depreciable electric plant in service except such depreciation expense as is chargeable to clearing accounts or to Account 416, Costs and Expenses of Merchandising, Jobbing and Contract Work.

B. The utility shall keep such records of property and property retirements as will reflect the service life of property which has been retired and aid in estimating probable service life by mortality, turnover, or other appropriate methods; and also such records as will reflect the percentage of salvage and costs of removal for property retired from each account, or subdivision thereof, for depreciable electric plant.

Note A: Depreciation expense applicable to property included in Account 104, Electric Plant Leased to Others, shall be charged to Account 413, Expenses of Electric Plant Leased to Others.

Note B: Depreciation expenses applicable to transportation equipment, shop equipment, tools, work equipment, power operated equipment, and other general equipment may be charged to clearing accounts as necessary in order to obtain a proper distribution of expenses between construction and operation.

Note C: Depreciation expense applicable to transportation equipment used for transportation of fuel from the point of acquisition to the unloading point shall be charged to Account 151, Fuel Stock.

C. Account 403 shall be subaccounted as follows:

- 403.1 Depreciation Expense - Steam Production Plant
- 403.2 Depreciation Expense - Nuclear Production Plant
- 403.3 Depreciation Expense - Hydraulic Production Plant
- 403.4 Depreciation Expense - Other Production Plant
- 403.5 Depreciation Expense - Transmission Plant
- 403.6 Depreciation Expense - Distribution Plant
- 403.7 Depreciation Expense - General Plant
- 403.8 Depreciation Expense—Asset Retirement Costs
- 403.9 Depreciation Expense-Regional Transmission and Market Operation Plant

404 Amortization of Limited-Term Electric Plant.

This account shall include amortization charges applicable to amounts included in the electric plant accounts for limited-term franchises, licenses, patent rights, limited-term interests in land, and expenditures on leased property where the service life of the improvements is terminable by action of the lease. The charges to this account shall be such as to distribute the book cost of

In addition to the credit arrangement discussed above, Big Rivers identified a number of financing documents that it does not believe require Commission approval but asks the Commission to approve each document should the Commission disagree. Since these documents are integral parts of the Unwind Transaction, the Commission finds it appropriate to approve these documents, except those that are subject to the supervision and control of the RUS.⁵⁴

DEPRECIATION STUDY

Big Rivers' last depreciation study was performed over ten years ago. Big Rivers indicated that its preference was to resume operation of the generating assets prior to conducting a new depreciation study. The Commission finds this approach to be reasonable. However, Big Rivers' proposal to wait another seven years, until 2016, to file a new depreciation study is not reasonable. Depreciation is an important part of a utility's operation, particularly when the utility is not owned by private investors. Since Big Rivers has committed to filing within three years for a general review of its operations and tariffs, a new depreciation study should be submitted as part of the filing, along with an analysis of the impacts of implementing the results of the depreciation study on Big Rivers' financial operations and its rates.

GENERATING PLANT DUE DILIGENCE

One of the conditions precedent to closing the Unwind Transaction is a determination by Big Rivers that each generating plant is in good condition and state of repair. This determination by Big Rivers is of critical importance for a number of

⁵⁴ The financing documents to be modified between Big Rivers and RUS are an Amended Consolidated Loan Contract; an RUS 2008 Promissory Note, Series A; and an RUS 2008 Promissory Note, Series B.

6. Big Rivers commits to maintaining a sound and constructive relationship with those labor organizations that may represent certain employees of WKEC.

7. Big Rivers commits to bargain in good faith with IBEW during any collective bargaining sessions.

8. Big Rivers commits to continue to employ in the conduct of its business the level of workforce required to safely and professionally operate its facilities.

9. Big Rivers commits to finalize its due diligence on the generating facilities and sites using all resources available to it. Big Rivers also commits to not waive any of its rights under the Termination Agreement, Sections 10.3(dd) or 10.3(ee), to require that the generating facilities be in good condition and that there is a proper demonstration of their capability.

10. Big Rivers commits that, within 24 hours of closing the Unwind Transaction, a written notice will be filed with the Commission setting forth the date of closing.

11. Big Rivers commits to file a report with the Commission within 10 days after the closing of the Unwind Transaction stating that all of the conditions precedent to the closing of the Unwind Transaction have been satisfied or, if any of the conditions have been waived, the terms on which each waiver was granted.

12. Big Rivers commits that, within 3 years of closing the Unwind Transaction, Big Rivers will file with the Commission for a general review of its financial operations and its tariffs. Big Rivers also commits to include with that filing a new depreciation study and an analysis of Big Rivers' financial condition and rates assuming the study's results are implemented.

13. Big Rivers commits that it will file an IRP, in accordance with the Commission's regulations, for the Big Rivers system no later than November 15, 2010.

involving cost of service issues relating to the rates of the Non-Smelter Ratepayers shall not be considered a challenge to the rate formula.

(c) If *Commonwealth of Kentucky ex rel. Gregory D. Stumbo, Attorney General v. Public Service Comm'n and Union Light, Heat and Power Co.*, Franklin Circuit Court, C.A. No. 06-CI-269, or any Applicable Law relating thereto restricts the amounts recovered under the FAC, Appendix A, or the Environmental Surcharge Rider, then Kenergy, Century, Big Rivers and, if the Alcan Retail Agreement is then in effect, Alcan, shall negotiate in good faith to amend this Agreement (and other agreements entered into in connection herewith) to restore the relative rights and economic benefits thereunder. If such parties are unable to reach an agreement on such amendments, then this Section 3.8 shall not restrict Big Rivers from seeking KPSC approval for an increase to its base rates or an amendment to the FAC, Appendix A, or the Environmental Surcharge Rider.

(d) Nothing in this Agreement shall limit or expand the jurisdiction of the KPSC or the FERC over Big Rivers or the rates, terms and conditions of electric service to Century pursuant to the Century Retail Agreement or otherwise.

(e) Big Rivers will provide Century a copy of any filing with the KPSC or FERC that seeks a change in Big Rivers' tariff or relief authorized by KRS 278.020, KRS 278.030, KRS 278.212, KRS 278.218, KRS 278.300, KRS 278.183 or 807 KAR 5:056.

3.9 Communications; Request for Meetings. Big Rivers will establish with Century procedures for the regular dissemination of information relating to the operational and financial performance of Big Rivers. If Century believes Big Rivers has or may incur unreasonable costs or expenses, Century may request in writing a meeting with Big Rivers' management to discuss such costs or expenses. Such meeting will take place within ten Business Days of the request but shall not be held more frequently than once per fiscal quarter. Nothing in this Section shall obligate Big Rivers to take any action as a result of such meeting.

3.10 Depreciation Rates.

(a) Big Rivers shall not modify its depreciation rates without the approval of or consent or acceptance by the KPSC or, if the KPSC no longer has jurisdiction over Big Rivers, by any other Governmental Authority having jurisdiction over such modification. Big Rivers will provide Century reasonable notice of the implementation of such modification together with reasonably detailed documentation describing such modification and an opportunity to discuss such modification with Big Rivers' management prior to the filing of an application for approval of the modification of such depreciation rates with the KPSC or other Governmental Authority having jurisdiction.

(b) Big Rivers shall not initiate a request to a Governmental Authority or RUS for changes to its depreciation rates that would be projected to cause the weighted average depreciation rates for the period from the Effective Date through December 31, 2016, to exceed the weighted average depreciation rates for the same period set forth in the Model; *unless* (1) Big Rivers determines in good faith, based on discussions with a nationally recognized statistical rating organization and after consultation with Century, that it is necessary to make

3.14 Property Rights.

(a) Big Rivers' nonpatronage net earnings, after offset (if applicable) by any available tax loss carryforward amounts attributable to a deficit in nonpatronage net earnings from prior taxable years, shall, if positive, be retained by Big Rivers as a permanent source of equity and, if negative, shall be carried forward to be applied as an offset against future positive nonpatronage net earnings.

(b) Upon liquidation, the assets of Big Rivers shall be distributed in the following order: (i) all debts and obligations of Big Rivers shall be paid in accordance with lawful priorities, (ii) each Member's or other patron's capital account balance shall be paid without priority on a *pro rata* basis until all such capital accounts (as determined subsequent to adjusting such accounts by allocations of patronage net earnings for the year of liquidation exclusive of any gain arising from the liquidation) have been reduced to zero, and (iii) any remaining assets of Big Rivers shall be paid to the current and former Members or other patrons of Big Rivers based upon the amount of their historic patronage with Big Rivers measured by kilowatt-hours purchased from Big Rivers over the life of Big Rivers. The life of Big Rivers is defined to begin at the date Big Rivers was formed in 1961 and to continue uninterrupted through Big Rivers' bankruptcy reorganization to the date of liquidation.

(c) The provisions of this Section 3.14 shall survive the expiration or earlier termination of this Agreement.

3.15 Big Rivers Capitalization Policy. To the extent consistent with Accounting Principles, Applicable Law and guidance of applicable Governmental Authorities or RUS, Big Rivers shall capitalize expenditures for the replacement of the items related to Big Rivers' generation facilities identified in the list of the retirement units set forth in the Schedule 3.15.

3.16 Purchased Power Regulatory Account. Big Rivers will request KPSC to and, if the KPSC approves, shall (a) establish a regulatory account containing purchased power costs to be recovered by Big Rivers from the Members with respect to sales to their Non-Smelter Ratepayers in an amount equal to the sum of the Non-FAC Purchased Power Adjustment Factor in each month multiplied by the amount of Energy delivered in each month to the Members for such sales; and (b) establish the method of recovery of such amounts from Non-Smelter Ratepayers at each general rate adjustment case.

3.17 Model. It is understood and agreed that (i) all financial and production cost models ("Model") including the Model filed with the KPSC in connection with the application for approval of the Unwind Transaction and the New Transaction have been developed solely by Big Rivers to provide its best estimate of the future operations of Big Rivers after the Unwind Transaction is consummated, and (ii) Century by executing this Agreement and consummating the Unwind Transaction is not indicating its agreement or disagreement with the forecasted work plans, assumptions or specific expenditures embedded in the Model.

4. Coordinating Committee.

Schedule 3.15

(See following pages.)

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

310: Land and Land Rights

310-001

- 001 LAND AND LAND RIGHTS
- 001 LAND FOR ASH POND
- 001 LAND R-O-W FOR POTABLE WATER LINE
- 001 LAND R-O-W COAL HAUL ROAD
- 001 LAND R-O-W, COAL SCALES & GUARDHOUSE

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

311: Structures and Improvements (Steam Production)

311-001

FOUNDATION

001 CELL, BARGE UNLOADER, FOUNDATION
001 CELL, UNLOADING FACILITY, FDN., BRIDGE
001 EXCAVATION BUILDING, FORMWORK, REBAR, FOUNDATION
001 FIRE PROTECTION, PUMP HOUSE FDNS
001 FOUNDATION, CONCRETE SERVICE BUILDING
001 FOUNDATION, FGD CONTROL BUILDING
001 FOUNDATION, MAINTENANCE SHOP
001 FOUNDATION, PERMANENT WAREHOUSE
001 FOUNDATION, POTABLE WATER BUILDING
001 FOUNDATION, POWER PLANT
001 FOUNDATION, REID WAREHOUSE
001 FOUNDATION, SERVICE BUILDING, SUPERSTRUCTURE
001 FOUNDATION, SHELTER ON COAL HANDLING EQUIPMENT
001 FOUNDATION, SOLID WASTE HANDLING BUILDING
001 FOUNDATION, TOOL ROOM
001 FOUNDATION, TURBINE BUILDING
001 FOUNDATION, TURBINE BUILDING, SUPERSTRUCTURE
001 FOUNDATION, WATER TREATMENT BUILDING
001 FOUNDATIONS
001 FOUNDATIONS, EARTHWORK, GENERAL PLANT SITE
001 FOUNDATIONS, FLOOR DRAINS, TURBINE BUILDING
001 FOUNDATIONS, FOR WATER PLANT BLDG, CONCRETE
001 FOUNDATIONS, PROPANE TANKS
001 RECORDS STORAGE WAREHOUSE, CONCRETE PLACEMENT
001 RIP RAP, FILL, DEWATER
001 SERVICE BUILDING-FOUNDATIONS
001 TURBINE BUILDING FOUNDATIONS, CONCRETE, CAISSONS

311-002

STRUCTURE

002 BUILDING, CLARIFIER EQUIPMENT, GREEN 2
002 BUILDING, COAL HANDLING EQUIP.
002 BUILDING, COAL HANDLING, OFFICE,
002 BUILDING, MAINTENANCE
002 BUILDING, OIL STORAGE FLOOR
002 BUILDING, SERVICE, THIRD FLOOR, MODIFICATION
002 BUILDING, STEEL
002 BUILDING, STORAGE/BOILER TUBE
002 BUILDING, ELECTRICAL STORAGE
002 BUILDING, WATER PLANT, W/ ELECTRICAL WIRING
002 BUILDING, HEAVY EQUIPMENT, MAINT, COAL HANDLING
002 BUILDING, TOOL ROOM WAREHOUSE
002 CABLE, TELEPHONE
002 CATWALK, STRUCTURE
002 CIRCULATING WATER OUTFALL, CANAL, & ETC
002 CLOSET, LIBRARY/STATIONERY
002 COAL HANDLING SERVICE BUILDING-STRUCTURE
002 CONTROL HOUSE, ELECTRICAL
002 CONTROL HOUSE, UNLOADING
002 CONTROL ROOM
002 DOOR, ELECTRIC STEEL
002 DOOR, OVERHEAD
002 DOOR, STEEL SERVICE EQUIP, MACHINE SHOP
002 DRAPERIES, FIRST FLOOR, WILSON STATION
002 FLOOR, CONCRETE, WELDED WIRE
002 FLOOR, MEZZANINE, W/ ACCESS STAIRWAY, TOOL ROOM
002 GRATING, GALVANIZED, CENTRAL STEEL & WIRE
002 GUARDHOUSE
002 INSULATION
002 LUNCH & LOCKER ROOM
002 MAINT. SUPV. OFFICE

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

311: Structures and Improvements (Steam Production)

002 OFFICE
002 PANAMA HOIST HOUSE BUILDING
002 PANAMA SERVICE BUILDING
002 PERMANENT WAREHOUSE
002 RAILROAD, SERVICE
002 RECORDS STORAGE WAREHOUSE, PREFAB BUILDING
002 SERVICE BUILDING
002 STORAGE ROOMS
002 STRUCTURES & PLATFORMS, STEEL ACCESS
002 TOOL ROOM ANNEX
002 TURBINE BUILDING
002 WALL, COAL HANDLING RETAINER
002 WALL, CONCRETE, RETAIN COAL PILE
002 WALL, FIRE
002 WALL, RETAINING @ RECLAIM TUNNEL
002 WAREHOUSE STRUCTURE
002 WAREHOUSE UNLOADING RAMP & STORAGE PADS
002 WATER TREATMENT BUILDING

311-003

ROOF

311-004

HVAC-AIR CONDITIONING SYSTEM (CENTRAL UNITS ONLY)

004 AIR CONDITIONER
004 AIR HANDLER
004 CONDENSER
004 CONTROL SYSTEM
004 DUCT WORK
004 FAN
004 FAN, MOTOR
004 FILTER
004 LOUVERS
004 VENTS

311-006

ELEVATOR, CRANE, HOIST, ETC.

006 ELEVATOR, BOILER BUILDING
006 ELEVATOR, PASSENGER
006 ELEVATOR, TRAC, SERVICE BUILDING
006 LIFT, VERTICAL MATERIAL

311-007

HVAC-FAN, VENTILATING

007 AIR HANDLER
007 CONTROL SYSTEM
007 DUCT WORK
007 FAN
007 FAN, MOTOR
007 FILTER
007 LOUVERS

311-009

FIRE PROTECTION SYSTEM

009 CABINET, FIRE HOSE
009 CONTROL CABINET, FIRE PROTECTION
009 CONVEYOR FLOOR FOAM EQUIPMENT
009 FIRE DETECTION SPRINKLER SYSTEM
009 FIRE DETECTOR
009 FIRE HYDRANT
009 FIRE HYDRANT ENCLOSER
009 FIRE PROTECTION
009 FIRE PUMP
009 FIRE PUMP CONTROLLER
009 FIRE PUMP, DIESEL ENGINE

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

311: Structures and Improvements (Steam Production)

009 LIGHTNING PROTECTION SYSTEM
009 MOTOR, FIRE PUMP
009 PIPE SYSTEM, DRY, FOR CRUSHER HOUSE
009 PIPING SYSTEM, UNDERGROUND YARD FIRE PROTECTION
009 REEL, SWINGING HOSE WITH CLAMP
009 TANK, FIRE WATER STORAGE

311-010

FIXTURES, LIGHTING

010 LAMP, MERCURY
010 LIGHTING
010 LIGHTING, POWER DISTRIBUTION LINE
010 SODIUM LIGHTING, HIGH PRESSURE

311-011

HVAC-FURNACE OR BOILER

011 AIR HANDLER
011 CONTROL SYSTEM
011 HEATING SYSTEM

311-013

HVAC-HEAT PUMP OR HEATER

013 AIR HANDLER
013 CONDENSER
013 CONTROL SYSTEM
013 EVAPORATOR
013 FILTER
013 HEATING SYSTEM

311-014

HOUSE LIGHTING OR POWER BOARD

014 LIGHTING
014 PANEL, UTILITY

311-017

REFRIGERATION SYSTEM

017 REFRIGERANT, TOOL

311-018

HVAC-SPACE HEATER

018 HEATER
018 HEATER, SPACE

311-023

WATER HEATER, DOMESTIC

023 WATER HEATER

311-024

MISCELLANEOUS MINOR STRUCTURE

024 AIR LINE PIPING EXTENSION TO SANDBLASTING UNIT
024 CAGE, STORAGE, 3 SIDED, W/SLIDING GATE
024 CURTAINS, CLEAR, CONTROL ROOM WINDOW
024 DITCH, CONCRETE
024 ELECTRIC SERVICE SYSTEM ADDITION W/TRANSFORMER
024 FLOOR, CONCRETE
024 GAS LINE
024 GUARD HOUSE
024 GUARD RAIL
024 LOCKER, WALL
024 OUTFALL FLUME & DITCH
024 OUTFALL STRUCTURE
024 PIPE RACK & FITTING BINS
024 SERVICE WINDOW, VERTICAL SLIDING
024 SHOWER, FACILITIES
024 SIGN, ALUMINUM
024 SINK
024 SINK, CABINET

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

311: Structures and Improvements (Steam Production)

024 STAIRWAY, INTAKE
024 TANK, WATER STORAGE
024 TOOL CRIB
024 WELL, SEAL

311-025

ANY PRINCIPAL ITEM OF EQUIPMENT

025 BATHHOUSE EQUIPMENT
025 DEHUMIDIFIER
025 STORAGE RACKS

311-026

BRIDGE OR TRESTLE

026 BRIDGE (ACCESS) TO UNLOADER CELLS
026 BRIDGE OVER PIPE SHELF
026 RIP RAP

311-028

CULVERT

028 CULVERT

311-029

DOCK

029 UNLOADING DOCK
029 WAREHOUSE, RAMP

311-030

FENCE

030 FENCE
030 GATE, BARRIER, MAIN ENTRANCE & RADIO CONTROL

311-031

FLAG POLE

031 POLE, FLAG

311-033

PARKING LOT

033 PARKING LOT
033 PAVING
033 STEPS, GALVANIZED METAL

311-034

RETAINING WALL OR DIKE

034 DIKES, GENERAL PLANT SITE
034 RETAINER WALL

311-035

ROAD

035 APRON, CONCRETE
035 BLACKTOP
035 BLACKTOP, SEALER
035 ROAD

311-036

SEWER

036 FLOWMETER
036 PIPING, SANITARY SEWER, PIPE & GRINDER PUMP
036 SANITARY SEWERS
036 SEWAGE LIFT STATION
036 SEWER SYSTEM

311-038

TREATING PLANT

038 BUILDING, SEWAGE TREATMENT PLANT
038 SEWAGE TREATMENT PLANT

311-040

WELL

040 WELL, INSTALLATION & DRILLING SERV, OIL CLEANUP

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

311: Structures and Improvements (Steam Production)

311-041

YARD DRAINAGE SYSTEM

041 DISCHARGE BASIN
041 DRAINAGE, COAL HDLG SERVICE BLDG
041 DRAINAGE, DITCH
041 DRAINAGE, LINE
041 DRAINAGE, SYSTEM
041 OIL TRENCHES W/GRAVEL BED & DRAINAGE LATERALS
041 PANEL, SITE DRAINAGE CONTROL
041 PUMP, VERTICAL, SITE DRAINAGE

311-042

YARD LIGHTING SYSTEM

042 LIGHTING, YARD
042 LIGHTING, PARKING LOT AND SIDEWALK

311-043

FUEL OIL DIKE

043 OIL SPILL RECOVERY UNIT
043 UNLOADING PAD, FUEL TRUCK

311-045

ROCK SURFACE AND RIP RAP

045 RIP RAP, RIVER BANK

311-047

HOLDING PONDS

047 PIPE, DRAINAGE CULVERT DREDGE POND
047 PONDS

311-048

PAVEMENT

048 PAVING, SIDEWALK

311-051

AMBIENT AIR MONITORING SYSTEM

051 AMBIENT AIR MONITORING BUILDING
051 FENCE, AMBIENT AIR MONITORING SYSTEM
051 GRAVEL & CULVERTS, AMBIENT AIR MONITORING SYSTEM
051 TRAILER, STRUCTURE, AMBIENT AIR MONITORING SYSTEM

311-052

POTABLE WATER SYSTEM

052 FLOWMETER
052 FOUNTAIN, DRINKING
052 FOUNTAIN, WASH
052 LINE, WATER, SAFETY SHOWER, WATER PLANT
052 POTABLE WATER BOOSTER SYSTEM
052 POTABLE WATER LINE
052 POTABLE WATER PLANT FILTER UNIT BYPASS LOOPS
052 POTABLE WATER SYSTEM
052 TANK, HYDROPNEUMATIC WATER STORAGE
052 TANK, POTABLE STORAGE

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

312-A01

STEAM BOILER

A01 BOILER DRUM, W/ACCESSORIES
A01 BOILER, AUX EQUIPMENT
A01 BOILER, TUBE CASTINGS, CASING RINGS
A01 CHILLER SYSTEM, BOILER
A01 COMBUSTION CONTROLS
A01 FAN, PENTHOUSE VENT
A01 FIRE DETECTION, AIR PREHEATER
A01 HOIST, BOILER BLDG
A01 MONITOR, DRUM
A01 PUMP, BOILER
A01 TANK, BLOWDOWN
A01 VALVE, TANK SAFETY

312-A02

STEAM BOILER FOUNDATION & SUPPORTING STRUCTURES

A02 BOILER ENCLOSURE
A02 BOILER, FOUNDATION
A02 BOILER, SUPPORTING STEEL, W/PLATFORMS & WALKWAYS
A02 BUILDING, BOILER, STEEL
A02 FOUNDATION, BOILER AND FURNACE
A02 FOUNDATION, BOILER FEED PUMP
A02 FOUNDATION, CONCRETE, DRAFT BREECHING SYS
A02 FOUNDATION, CONCRETE, DRAFT CHIMNEY STACK
A02 FOUNDATION, CONCRETE, LIME SILO EQUIPMENT
A02 FOUNDATION, CONCRETE, PRECIPITATOR
A02 FOUNDATION, CONCRETE, PRIMARY AIR SYSTEM
A02 FOUNDATION, CONCRETE, SOLID WASTE HANDLING
A02 FOUNDATION, ID FANS
A02 ROOF, BOILER, STEEL BLDG, DECKING

312-A03

FUEL BURNING EQUIPMENT FOR ONE BOILER

A03 BURNER FLAME SCANNER SYSTEM
A03 BURNER MANAGEMENT SAFETY SYSTEM
A03 BURNERS, BOILER
A03 BURNERS, LOW NOX
A03 CABINET, BURNER CONTROL
A03 CERAMIC LINER, BURNERS
A03 CYCLONE SAMPLER & PROBE
A03 FAN, BOILER
A03 FUEL DELIVERY CONTROL
A03 MONITOR, COAL FLOW
A03 PUMP, FUEL OIL SUPPLY, W/METER & FDN

312-A04

FURNACE

A04 FURNACE

312-A05

FURNACE WALLS FOR ONE BOILER

A05 FURNACE WATER WALLS

312-A06

REHEATER

A06 REHEAT DAMPER
A06 REHEATER TUBES
A06 VALVE, REHEAT SYSTEM

312-A07

SETTING, BOILER

A07 BOILER, CASING
A07 BOILER, SETTING
A07 MEMBRANE, HIGH TEMP
A07 THERMOWELLS

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

A07 THERMOWELLS

312-A08

SOOT BLOWER SYSTEM FOR ONE BOILER

A08 PANEL, WIRING, POWER & CONTROL, SOOT BLOWER
A08 SOOT BLOWER
A08 SOOT BLOWER ELECTRIC EQUIPMENT CONTROLS
A08 SOOT BLOWER PRESSURE INDICATORS
A08 SOOT RETRACT TOOL
A08 WATER BLOWER/DESLAGGER

312-A09

SUPERHEATER

A09 DESUPERHEATER
A09 SUPERHEATER, PRIMARY
A09 SUPERHEATER, SECONDARY
A09 VALVE, SUPERHEAT SPRAY CHECK
A09 VALVE, SUPERHEAT SPRAY ISOLATION

312-B01

AIR DUCT SYSTEM

B01 ADAPTER, SPINDLE, W/AIR MOTOR ASSEMBLY
B01 AIR PRESSURE MANIFOLD ASSEMBLY W/BOX & SADDLE
B01 BOX, WIND
B01 DUCT, FLUE GAS BYPASS
B01 ELECTRICAL DEVICES FOR PRIMARY AIR SYSTEM
B01 FLUES, DUCTS, DAMPERS
B01 RESTRICTING ORIFICES

312-B02

AIR HEATER

B02 AIR HEATER
B02 AIR HEATER LINE, ISOLATION VALVE
B02 AIR HEATER, STEAM COIL
B02 CONTROLLER, AIR HEATER W/DRIVES
B02 HEATER, AIR PREHEATER, FIRE DETECTION SYSTEM
B02 VALVE, AUX STEAM REGULATOR ISOLATION

312-B03

BREECHING SYSTEM

B03 BREECHING SYSTEM

312-B04

CINDER CATCHER

B04 CINDER CATCHERS
B04 CLINKER GRINDER
B04 TANK, STORAGE TANK

312-B05

FAN, DRAFT

B05 BOOSTER FAN, BOILER SEAL AIR
B05 FAN, BOILER DRAFT, AIR MONITOR
B05 FAN, DIRECT DRIVE
B05 FAN, EXHAUST, FGD BLDG
B05 FAN, FLUID DRIVE
B05 FAN, FORCED DRAFT
B05 FAN, INDUCED DRAFT
B05 FAN, PRIMARY AIR
B05 FAN, SEAL AIR
B05 FOUNDATION, BOOSTER FAN
B05 FOUNDATION, CONCRETE, DIRECT DRIVE FANS
B05 HEATER, ID FAN
B05 HOIST, FORCED DRAFT FAN
B05 HOIST, INDUCED DRAFT FAN ROTOR
B05 HVAC, UNITS FOR DIRECT DRIVE FANS
B05 IGNITOR, AIR FAN SYSTEM
B05 MOTOR, FD FAN

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

B05 SEAL AIR SYSTEM - BOILER
B05 TOTALIZER SYSTEM, STATIC BOILER DRAFT, AIR MONITOR

312-B06

STACK, WITH OR WITHOUT FOUNDATION

B06 CABLE/CONDUIT, OPACITY MONITOR
B06 CHIMNEY STACK
B06 ELEVATOR, CHIMNEY
B06 FILTER DRUM, SW
B06 HOIST, JIB, CHIMNEY
B06 LADDER, CHIMNEY & PLATFORMS
B06 LADDER, SAFETY CAGE
B06 LINE, UMBILICAL, MULTITUBE BUNDLE
B06 PLATFORM, STACK CEMENT
B06 SHUTTER, W/TIME DELAY FOR OPACITY MONITOR
B06 VENT, STACK EXT, COMBUST. AIR, STEAM COIL, DRAIN TANK
B06 WINCH, STACK TEST PROBE HOIST

312-B07

PRECIPITATOR, ELECTROSTATIC

B07 AC UNIT FOR PRECIPITATOR CONTROL ROOM
B07 BOILER, PRECIPITATOR AREA, FINAL SITE WORK
B07 CABINET, PRECIPITATOR CONTROL
B07 CONTROL, FLYASH
B07 DAMPER, LOUVER
B07 FAN, AIR PURGE
B07 FAN, SEAL AIR
B07 GRATING, GALVANIZED
B07 HOIST
B07 HOPPER VIBRATORS
B07 LINEAR REACTOR, PRECIPITATOR
B07 LINING, BRICK
B07 MOTOR, GUILLOTINE DAMPER, ACTUATORS
B07 OUTLET NOZZLE, EXTERIOR LAG/INSULATION
B07 OUTLET NOZZLE, INTERNAL BRICK LINING
B07 PANEL, FLY ASH CONTROL
B07 PANEL, PRECIPITATOR CONTROL
B07 PLATFORM, PRECIPITATOR ACCESS
B07 PRECIPITATOR
B07 PRECIPITATOR CONTROL
B07 PRECIPITATOR FIELD
B07 PRECIPITATOR, ASH SILO PLATFORMS
B07 PRECIPITATOR, CONTROL HOUSE
B07 PRECIPITATOR, ENCLOSURE FOUNDATIONS
B07 PRECIPITATOR, ROOF AND ACCESSORIES
B07 PRECIPITATOR, STONE FILL
B07 PRECIPITATOR, TRANSFORMER/RECTIFIER SET
B07 PROTECTIVE COVERS ON PRECIPITATOR CONTROL PANELS
B07 SUPPORTS, PRECIPITATOR
B07 TRANSFORMER, PRECIPITATOR
B07 TRANSFORMER, RECTIFIER
B07 VACUUM PIPING, PRECIPITATOR HOPPERS

312-B08

SOLID WASTE EQUIPMENT, FGD & SCRUBBER

B08 ACID STORAGE, FGD, DIBASIC, DBA, FEED FACILITY
B08 ACTIVATOR, SW LIME SILO BIN
B08 ADDITIVE FEED SYSTEM
B08 AGITATOR & CONTROLS
B08 AGITATOR, W/PLATFORMS LIME SYSTEM
B08 AIR DRYER, DESSICANT & BYPASS SYSTEM @ IUS BLDG
B08 AMMETER, DIGITAL
B08 BATTERY, BACKUP, UPS
B08 BELT CLEANER
B08 BLOWER, CAKE DISCHARGE

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

B08 BREAKER, MAIN & TIE
B08 BUILDING, FGD & SOLID WASTE
B08 BUILDING, REAGENT LIME PREP
B08 BUILDING, SWITCHGEAR, AUXILIARY
B08 BUS WORK
B08 BUS WORK FOUNDATION
B08 CABLE, POWER AND CONTROL
B08 CAKE BLOWER, W/CLOTH ROPE, SOLID WASTE
B08 CEM/DA, A/C UNIT
B08 CIRCUIT BREAKER, SLURRY CIRC PUMP
B08 CLEANER, STEAM, HOT WATER, SOLID WASTE FILTER
B08 COLLECTOR, LIME SILO DUST
B08 COMPACTOR, VIBRATORY, SOLID WASTE
B08 CONTROL SYSTEM, PH, LANDFILL RUNOFF POND
B08 CONTROLS SYSTEM, SOLID WASTE PROCESSING
B08 CONTROLLER, FGD
B08 CONTROLLER, PROGRAMMABLE LOGIC
B08 CONTROLS, FILTER DRUM VAT LEVEL MONITORING
B08 CONVEYOR
B08 CYCLONES
B08 DAMPER, OUTLET
B08 DAMPER, SCRUBBER MOD INLET LOUVER
B08 DISTRIBUTION CONTROL SYSTEM
B08 DUCT BANK
B08 DUST COLLECTORS
B08 ELECTRICAL POWER SUPPLY
B08 ELEMENT, SW FLY ASH WEIGHT
B08 ELEMENT, SW LIME WEIGH
B08 FAN, VENTILATION, THICKENER TUNNEL
B08 FEEDER, SW FLY ASH
B08 FEEDER, SW LIME, VIBRA SCREW
B08 FGD & FLY ASH CONTROL SYSTEM
B08 FGD & SOLID WASTE PLATFORMS
B08 FGD OUTLET GUILLOTINE ISOLATION DAMPER
B08 FGD, CONTROL / POWER CABLE
B08 FGD, CONTROL PANELS & TRAY SUPPORTS
B08 FGD, HEAT TRACING
B08 FGD, HEATERS
B08 FGD, HVAC FOR CONTROL ROOM
B08 FGD, INLET DUCT
B08 FGD, INSTRUMENTS
B08 FGD, LIGHTING FIXTURES
B08 FGD, LIME HANDLING SYSTEM
B08 FGD, LIME SILO EQUIPMENT
B08 FGD, MOTOR CONTROL CENTER
B08 FGD, PH ANALYZERS, SENSORS, PROTECTORS
B08 FGD, PIPING
B08 FGD, PUMP BUILDING, ENCLOSURE
B08 FGD, REACTION TANK EQUIPMENT
B08 FGD, SPRAY TOWER EQUIPMENT
B08 FGD, THICKENER EQUIPMENT
B08 FGD, THICKENER TRANSFORMERS, FGD & SOLID WASTE
B08 FILTER, DRUM
B08 FILTER, SEAL WATER
B08 FILTERS, VACUUM PUMPS, RECEIVER, SW
B08 FILTRATE SYSTEM POWER DISTRIBUTION
B08 FIRE PROTECTION SYSTEM
B08 FLOW METER, MAGNETIC, SLURRY SYSTEM
B08 FLOWMETER, SCRUBBER
B08 FLY ASH, FEEDER CONTROL
B08 FLYASH, IUCS, SILO VACUUM LINES
B08 FOUNDATION, FGD, SW, MISC.
B08 FOUNDATION, FLOOR CRANE, SOLID WASTE HANDLING

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

B08 GATE, FLY ASH SILO SLIDE
B08 GATE, SLIDE, SOLID WASTE FLYASH
B08 GATE, SW LIME SILO SLIDE
B08 GRAVEL, YARD SURFACING
B08 HEADERS, RECIRC
B08 HEATER, CSI
B08 HEATER, FGD ENVIR
B08 HOIST, LIME SILO TOWER
B08 LIME SILO EQUIPMENT - DESULFURIZATION
B08 LIME, DRY, HANDLING SYSTEM
B08 LIME, DRY, TANK W/JIB CRANE & ACTIVATOR
B08 LIMESTONE HOPPER
B08 LIMESTONE PARTICLE SIZE ANALYZER
B08 LINING, BRICK
B08 LINING, SCRUBBER MODULE
B08 LINING, SCRUBBER OUTLET DUCT
B08 METER, ELECTRICAL & INSTRUMENTATION
B08 METER, SOLID WASTE
B08 METER, WATTHOUR, SCRUBBER ALTERNATE POWER FEED
B08 MIST ELIMINATOR, HOIST CRANE
B08 MIXER, SOLID WASTE
B08 MODEM, BOILER & FGD
B08 MONORAIL, LIME SILO
B08 MOTOR
B08 MOTOR CONTROL CENTER
B08 MOTOR, FGD & SOLID WASTE AGITATORS
B08 MOTOR, FGD & SOLID WASTE PUMPS
B08 OUTLET DUCT
B08 OUTLET DUCT, PREKRETE LINER
B08 PANEL, RELAY
B08 PAYLOADER, SW DISPOSAL
B08 PIPE, DRAINAGE, LANDFILL
B08 PIPE SUPPORT, THICKENER OVERFLOW
B08 PIPE, THICKENER OVERFLOW
B08 PIPING FROM POND TO FILTRATE
B08 PIPING SYSTEM, SOLID WASTE
B08 PIPING, ADDITIVE SLURRY
B08 PIPING, ASH POND MAKEUP WATER
B08 PIPING, BLOWDOWN BLEED SLURRY
B08 PIPING, FILTRATE WATER
B08 PIPING, FLUIDIZER ASH SILOS
B08 PIPING, INSTRUMENT AIR
B08 PIPING, LIME SLURRY CROSSTIE
B08 PIPING, RECYCLE SLURRY
B08 PIPING, THICKENER RETURN WATER
B08 PIPING, THICKENER UNDERFLOW
B08 POND DIKE, SOLID WASTE
B08 POND, COAL PILE RUN-OFF, SPILLWAY, OVERFLOW
B08 POND, LANDFILL RUNOFF, WITH DIKE
B08 POWER / CONTROL CABLE, SOLID WASTE
B08 PROGRAMMABLE LOGIC CONTROLLER, THICKENER
B08 PUMP, ME WASH
B08 PUMP, RECYCLE
B08 PUMP, SCRUBBER BLEED
B08 RAKE DRIVE, THICKENER
B08 REACTION TANK EQUIPMENT - DESULFURIZATION
B08 RETAINING WALL, CONCRETE
B08 RETURN LINE, THICKENER
B08 RIP RAP, SCRUBBER DRAINAGE DITCH
B08 ROAD, SOLID WASTE HAUL
B08 SCRUBBER CONTROLS
B08 SILOS, FGD & SOLID WASTE
B08 SO2 ANALYZER

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

B08 SOFTWARE, FGD
B08 SOLID WASTE FILTRATE & SEAL WATER DRAINS
B08 SOLID WASTE INSTRUMENT AIR
B08 SOLID WASTE LIGHTING
B08 SOLID WASTE PLATFORMS
B08 SOLID WASTE POWER & CONTROL CABLES
B08 SPRAY TOWER EQUIPMENT, DESULFURIZATION
B08 STORAGE & FEED SYSTEM, BULK SULFUR
B08 SUMP PUMP
B08 SUPPORT STEEL, EQUIPMENT, SOLID WASTE TREATMENT & FGD
B08 TANK, DEMISTER WASH
B08 TANK, FGD & SW
B08 TANK, SO₂, DESULFURIZATION
B08 THICKENER EQUIPMENT, DESULFURIZATION
B08 TROLLEY, MANUAL
B08 VALVE, FGD & SOLID WASTE
B08 VALVE, FILTER DRUM
B08 VALVE, MIST ELIMINATOR
B08 VALVE, MODULE SLURRY FEED
B08 VALVE, SCRUBBER
B08 VALVE, THICKENER
B08 VENTILATION SYSTEM, SLAKER TANK
B08 VIDEO PROGRAMMING UNIT
B08 WASH, HIGH PRESSURE, SCRUBBER
B08 WEIGHT SCALES, FGD & SOLID WASTE
B08 WELL, GROUNDWATER MONITORING

312-C01

DEAERATOR ON FEED WATER SYSTEM

C01 CAGE, DEAERATOR REGULATOR
C01 DEAERATOR & TANK
C01 VALVE, DEAERATOR RELIEF

312-C02

ECONOMIZER ON FEED WATER SYSTEM

C02 CHILLER SYSTEM, SAMPLE, WARTICILL SYSTEM
C02 DAMPER, ECONOMIZER PASS
C02 DAMPER, GAS INLET
C02 ECONOMIZER
C02 ECONOMIZER, VALVES
C02 FEEDWATER, WATER AND STEAM SAMPLING SYSTEM
C02 VIBRATOR, HOPPERS, ECONOMIZER
C02 WATER SAMPLE, ANALYSIS PANEL

312-C03

HEAT EXCHANGER ON FEED WATER SYSTEM

C03 HEAT EXCHANGER, PLATE

312-C04

HEATER ON FEED WATER SYSTEM

C04 FEEDWATER HEATER
C04 FEEDWATER, EXT DRAINS COOLER
C04 HEATER, FEEDWATER BUNDLE ASSBLY
C04 HEATER, LEVEL CONTROLS
C04 VALVE, CHECK
C04 VALVE, SHELL, SIDE RELIEF

312-C05

MEASURING AND RECORDING DEVICE

C05 ANALYZER
C05 ILLUMINATOR, DRUM LEVEL GAUGE GLASS
C05 INTEGRATOR
C05 METER, OXYGEN
C05 MONITOR, FEEDWATER FLOW/DRUM LEVEL
C05 PROBE, CONDUCTIVITY & METER
C05 SOFTWARE, EDR AUDIT

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

C05 TESTER
C05 THERMOMETER, DIAL

312-C06

PUMP, MAIN OR STAGE

C06 ACCUMULATOR, BFP TURBINE
C06 BOILER FEED PUMP SYSTEM
C06 BOILER FEED PUMP, SUCTION CONDENSATE INJECTION SYS
C06 BOILER FEED, DISCHARGE SYSTEM, W/PIPING
C06 FAN, BFP MOTOR COOLING
C06 FEEDWATER, CHEMICAL SYSTEM
C06 HOIST, BOILER FEED PUMP
C06 HYDRAZINE FEED SYSTEM ON CONDENSATE/FEEDWATER SYST
C06 MOTOR, PUMP
C06 PUMP, BOILER FEED, BASE PLATES
C06 PUMP, FEEDWATER SYSTEM
C06 PUMP, SUBMERSBLE
C06 TRANSMITTER, LEVEL (OIL CONSOLE)
C06 VALVE, FEEDWATER SYSTEM
C06 VAPOR EXTRACTOR, W/MOTOR OIL CONSOLE

312-C07

REGULATOR, FEED WATER

C07 FEEDWATER REGULATOR SYSTEM
C07 NOZZLE, FEED FLOW

312-C08

TANK

C08 TANK

312-D01

COAL FUEL BIN OR BUNKER NOT IN STRUCTURES

D01 BUNKER, COAL, LINING
D01 BUNKER, ISOLATION GATE
D01 BUNKER, SLIDE GATE
D01 COAL SILO, FOUNDATION
D01 COAL SILO, STRUCTURE
D01 DUST COLLECTION, SILO, COAL HANDLING
D01 SURGE BINS-COAL HANDLING
D01 SWITCH, BUNKER LEVEL

312-D04

CAR DUMPER

D04 CAR POSITIONER, COAL UNLOADING SYSTEM
D04 HOIST, CAR DUMPER
D04 HOIST, CAR POSITIONER
D04 MOTOR, CAR DUMPER
D04 PUMP, SUMP, DUMPER PIT
D04 REDUCER, CAR DUMPER
D04 ROTARY CAR DUMPER FOR COAL UNLOADING SYSTEM

312-D05

CHUTES OR SPOUTS, SYSTEM OF

D05 CHUTE, COAL
D05 CHUTE, TELESCOPIC- COAL UNLOADING SYSTEM
D05 HOIST, ELECTRIC, TELESCOPING CHUTE
D05 MOTORIZED SPLITTER GATE-COAL HANDLING
D05 REDUCER, VALVE, COAL
D05 TRANSFER CHUTE
D05 VIBRATOR

312-D06

CONVEYOR, BELT, CABLEWAY - COAL EQUIPMENT

D06 AIR/VACUUM/WATER PIPING FOR CONVEYOR
D06 BACKSTOP, CONVEYOR
D06 BELT CLEANER
D06 BELT FEEDER DRIVE REDUCER

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312: Boiler Plant Equipment (Steam Production)

D06 BELT FEEDER MOTOR BLOWER
D06 BOILER, HORIZONTAL LINER
D06 BUNKER GATE, CONVEYOR SYSTEM
D06 CAMERA, CONVEYOR VIEWING
D06 CATCH DRIP PAN, CONVEYOR
D06 COAL HANDLING STACKER-RECLAIMER RUNWAY
D06 COAL UNLOADING SYSTEM, COAL TRUCK
D06 CONVEYOR DRIVE REDUCER
D06 CONVEYOR, DUST COLLECTOR
D06 COUPLING, BELT CONVEYOR
D06 ENCLOSURE, WEATHER, D TO E TRANSFER TOWER
D06 FLOP GATE, TRANSFER TOWER
D06 FREEZE PROTECTION SYSTEM
D06 FIRE SUPPRESSION SYSTEM, FUEL CONVEYOR
D06 FUEL HANDLING CONTROL SYSTEM
D06 HOPPER, FEEDER
D06 HOPPER, GATE
D06 HOPPER, RECLAIM
D06 HOPPER, RECLAIM, SUMP
D06 HOPPER, TRUCK
D06 HOPPER, TUNNEL
D06 LIGHTING, COAL CONVEYOR, FIXTURES
D06 LOAD ZONE, CONVEYOR
D06 MOTOR, BELT CONVEYOR
D06 FLOW, BELT
D06 PUMP, CONVEYOR ELECTRIC / HYDRAULIC
D06 PUMP, SUMP, RECLAIM PIT
D06 REDUCER, TRIPPER FLOOR
D06 REDUCER, TRIPPER FLOOR, CONE DRIVE
D06 ROOF, TRIPPER ROOM
D06 SPEED DRIVE, VARIABLE
D06 STACK OUT, UNLOADING SYSTEM
D06 STACKER, RECLAIMER, CONVEYOR
D06 TRIPPER BUILDING
D06 TRIPPER, COAL
D06 TUNNEL, RECLAIM

312-D07

CRANE - COAL EQUIPMENT

D07 BARGE UNLOADER WASHDOWN SYSTEM PIPING
D07 BARGE UNLOADING TROLLEY
D07 CRANE, BARGE UNLOADING SYSTEM
D07 DEFLECTOR FOR COAL, BARGE
D07 FLOW GATE, BARGE UNLOADER
D07 HOIST, BARGE UNLOADING SYSTEM
D07 HOPPER, BARGE UNLOADING
D07 RADIO
D07 REMOTE CONTROLLER, BARGE HAUL SYSTEM
D07 TROLLEY DRIVE BRAKE
D07 TROLLEY DRIVE REDUCER
D07 VIBRATOR, BIN, BARGE UNLOADING SYSTEM
D07 WALKWAY, COAL BARGE UNLOADER

312-D08

CRUSHER - COAL EQUIPMENT

D08 AIR LINE
D08 BIN, SURGE, SUPPORT STEEL, COAL CRUSHER
D08 CHUTES AND FLOP GATES FOR COAL CRUSHER
D08 COAL CRUSHER TOWER, COAL HANDLING
D08 CONVEYOR, WALL & DRAINAGE
D08 CRUSHER HOUSE
D08 CRUSHER HOUSE ROOF
D08 CRUSHER, COAL
D08 CRUSHER, COAL BYPASS GRID

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312: Boiler Plant Equipment (Steam Production)

D08 DUST COLLECTION SYSTEM AT CRUSHER BUILDING
D08 FEEDER, VIBRATING, COAL CRUSHER EQUIPMENT
D08 FLOP GATE, CRUSHER HOUSE
D08 GATE, SLIDE, CRUSHER HOUSE
D08 HOIST, CRUSHER TOWER
D08 WASHDOWN SYSTEM /COAL CRUSHER EQUIP
D08 WETTING SYSTEM, BARGE UNLOADER/CRUSHER TOWER

312-D09

DUST COLLECTING UNIT - COAL EQUIPMENT

D09 AIR CURTAIN
D09 BRUSH CLEANER W/MOTOR, CONVEYOR COMPONENTS
D09 COAL DUST SUPPRESSION SYSTEM
D09 DRIVE MOTOR REDUCER
D09 DUST COLLECTION, COAL HANDLING
D09 DUST COLLECTOR, SILO, TRIPPER SYSTEM
D09 FEEDER DRIVE
D09 FREQUENCY DRIVE CONTROL
D09 MOTOR, AIR CURTAIN FAN
D09 TRUCK HOPPER, VENT FAN
D09 VACUUM TUBING SYSTEM

312-D10

ELECTRIC TROLLEY OR THIRD RAIL SYSTEM

D10 BARGE SHIFTING CABLE HOIST
D10 BRAKE, CLOSE DRIVE
D10 HOIST, BARGE UNLOADING SYSTEM, CABLE SHIFTING
D10 HOLD DRIVE BRAKE
D10 HOLD DRIVE MOTOR
D10 HOLD GEAR BOX, BARGE UNLOADER
D10 MOTOR BRAKE, BARGE HAUL
D10 REDUCER, BARGE HAUL
D10 WINCH, BARGE HAUL SYSTEM

312-D11

ELEVATOR - COAL EQUIPMENT

312-D12

GATES, CHUTES, HOPPERS, FOR ONE BOILER

D12 BARGE UNLOADER, HOPPER HEATER
D12 BARGE HAUL SYSTEM
D12 GATE ACTUATOR, TRIPPER TOWER
D12 GATES, HYDRAULIC SLIDE
D12 HOPPER & CHUTE, COLLECTING
D12 HOPPERS, FEED CONE

312-D13

HOIST - COAL EQUIPMENT

D13 CRANE, COAL HANDLING SERVICE
D13 CRANE, JIB, SWING BRAKE
D13 CRANE, JIB, SWING REDUCER
D13 CRANE, JIB, TROLLEY MOTOR
D13 HOIST, HOPPER
D13 HOIST, JIB CRANE
D13 HOIST, TOWER
D13 REEVING WINCH BRAKE

312-D18

SCREENING OR SIZING INSTALLATION

312-D19

SEPARATOR, MAGNETIC

D19 MAGNET SHED
D19 SEPARATOR, MAGNETIC

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

312-D20

STRUCTURE, FUEL HANDLING

D20 BARGE UNLOADER CONVEYOR & TRANSFER TOWER FOUNDATIONS
D20 BARGE UNLOADER SYSTEM-STRUCTURE, ROOF, DOORS
D20 CELL, DOCK, BARGE UNLOADER PILINGS, FILL, CABLE
D20 CIRCUIT BREAKER, AIR, COAL PILE DRAINAGE
D20 COAL PILE BASE, COAL STORAGE AREA
D20 COAL PILE DRAINAGE
D20 COAL PILE EXTENSION & DRAINAGE
D20 COAL PILE RUN-OFF SUMP PUMP
D20 COAL SILO BAY BUILDING (PAINTING)
D20 COAL SILOS
D20 COAL YARD DRAINAGE BASIN
D20 CONVEYOR BELT FOUNDATION & LADDER PADS
D20 CULVERT, COAL STORAGE AREA
D20 DIKE, SETTLING BASIN
D20 DISCHARGE PIPELINE, COAL PILE DRAINAGE
D20 DUST SUPPRESSION SYSTEM, WASTE HAUL ROAD
D20 FENCE AT COAL HANDLING
D20 FLOATING PUMP STRUCTURE W/PIPING
D20 FOUNDATIONS, CAISSONS, STACKER-RECLAIMER
D20 FOUNDATIONS, COAL ELECTRICAL EQUIPMENT HOUSE
D20 FOUNDATIONS, COAL RECLAIM CONCRETE EQUIPMENT
D20 FOUNDATIONS, COAL TRANSFER TOWER
D20 FOUNDATIONS, COAL UNLOADING STACK-OUT CONVEYOR
D20 FOUNDATIONS, CONTROL HOUSE BUILDING STEEL
D20 FOUNDATIONS, FUEL OIL TANKS
D20 FOUNDATIONS, TRANSFER TOWER CHUTES & FLOP GATES
D20 GRAVEL & SAND, COAL DUST SUPPRESSION SYSTEM
D20 LIGHTING, FGD
D20 PARTITION WALL & FAN/DUST CONTROL IN DUMPER ROOM
D20 POND, DEWATER
D20 POND, EMERGENCY SLURRY
D20 POND, SETTLING, PUMP STRUCTURE, COAL HDLG
D20 SPILL CONTAINMENT
D20 SPILLWAY, CONCRETE, COAL PILE RUN-OFF DITCH
D20 STRUCTURE, TRANSFER
D20 SUPPORT STRUCTURE FOR CONVEYOR
D20 SUPPORT, CRUSHER TOWER
D20 SUPPORTING FOUNDATIONS FOR COAL PILE DRAINAGE
D20 TOWER, COAL TRANSFER, AREA-EXCAVATION, DITCHES, DIKES
D20 TOWER, COAL TRANSFER, AREA-SITE PREP, EXCAVATE SPUR
D20 TRAILER, W/TOWER
D20 VALVE, CHECK, COAL PILE DRAINAGE

312-D21

COAL HANDLING SCALES

D21 ADAPTER/A
D21 BELT SCALE, CONVEYOR
D21 BUFFER, BLACK BOX, FOR COAL SCALES
D21 COMPUTER COAL SCALES
D21 INDICATOR, SCALE
D21 OPERATING SYSTEM
D21 SCALE PIT
D21 TRUCK SCALE

312-D22

TRACK SYSTEM

D22 CAMERA, MONITORING CAR DUMPER
D22 CONTROL SYSTEM, REMOTE SIDE RAIL CAR DUMPING
D22 LOCOMOTIVE REMOTE CONTROL
D22 LOCOMOTIVE, SWITCHER
D22 MOTOR, TRAIN POSITIONER
D22 RAILCAR, FLATBED

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312: Boiler Plant Equipment (Steam Production)

D22 RAILCAR, GONDOLA
D22 RAILCAR, ROTARY DUMP
D22 RAILROAD TRACK-TIES, ROAD CROSSING, TRACKS, BALLASTS

312-D23

TRACTOR (BULLDOZER)

D23 DOZER
D23 DOZER BLADE
D23 EXCAVATOR
D23 HVAC, A/C, DOZER
D23 LOADER, CASE
D23 LOGFORK W/COUNTERWEIGHTS
D23 MOLD BOARD FOR TRACTOR
D23 PAYLOADER
D23 TANK, COAL HANDLING, SKID MOUNTED TANK
D23 TRACTOR

312-D24

TRÉSTLE

D24 COAL HANDLING BRIDGE AND ABUTMENTS
D24 HIGHWAY SPUR

312-D25

COAL HANDLING MARINE EQUIPMENT

D25 BOAT, JON
D25 MOTOR
D25 TRAILER

312-D26

COAL HANDLING ELECTRICAL EQUIPMENT

D26 BARGE HAULAGE SYSTEM ELECTRICAL EQUIPMENT
D26 BARGE UNLOADER AC STATIC CONTROL
D26 BARGE UNLOADER ELECTRICAL EQUIPMENT
D26 BYTE BUCKET CASSETTE
D26 CABLE, POWER/COAL HANDLING SYSTEM
D26 CABLE, WIRE, CONDUIT, COAL HANDLING
D26 CABLES, CONTROL, COAL HANDLING SYSTEM
D26 CAR PULLER, ELECTRICAL
D26 COAL ELECTRICAL EQUIPMENT HOUSE
D26 COAL ELECTRICAL EQUIPMENT TRANSFORMER, FOUNDATION
D26 COAL HANDLING CONTROL PANEL
D26 COAL HANDLING ELECTRICAL EQUIPMENT
D26 COAL HANDLING LIGHTING
D26 COAL RECLAIM ELECTRICAL EQUIPMENT BUILDING
D26 COMPUTER, COAL HANDLING
D26 CONTROL, COAL UNLOADING SYSTEM
D26 HVAC, UNIT
D26 HYD POWER UNIT, COAL TRIPPER
D26 MOTOR CONTROL CENTER, W/ LOCAL CONTROLS
D26 MOTOR, BARGE UNLOADER FLOW GATE
D26 MOTOR, BOOM CONVEYOR DRIVE, COAL
D26 MOTOR, BOOM HOIST DRIVE
D26 MOTOR, BUCKET WHEEL DRIVE, COAL
D26 MOTOR, CAR DUMPER, COAL
D26 MOTOR, CAR DUMPER, HYD UNIT, COAL
D26 MOTOR, GANTRY DRIVE, COAL
D26 MOTOR, SLEWING DRIVE, COAL
D26 MOTOR, TRIPPER FLOOR, COAL
D26 MULTIPLEXER PANEL @ CRUSHER HOUSE
D26 PANEL, POWER AND CONTROL, COAL ELECTRICAL HOUSE
D26 RECLAIM MOTOR CENTER
D26 REMOTE DEVICES-COAL HANDLING
D26 SERVICE INSTRUMENT
D26 SWITCHGEAR HOUSE-COAL HANDLING
D26 TRANSFORMER, STEP-DOWN, BARGE UNLOADER

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312: Boiler Plant Equipment (Steam Production)

D26 UNLOADER DC COMPRESSOR
D26 VENTILATING UNIT, MACHINERY ROOM

312-D27

COAL SAMPLING SYSTEM

D27 CHAIN GUARD, ENCLOSED, W/TIGHTENER
D27 CHUTE, STAINLESS STEEL TRANSITION
D27 COAL SAMPLE RIFFLER
D27 FOUNDATIONS, COAL SAMPLE SYSTEM EQUIPMENT
D27 HOIST, SAMPLE TOWER
D27 MOISTURE DETECTING UNIT
D27 MOTOR, FIRED SAMPLING
D27 PROBE, TEMPERATURE, CK TEMP COAL ON CARS/PILES
D27 REDUCER, AS RECEIVED SAMPLING
D27 SAMPLER, COAL FINENESS, CYCLONE & PROBE @ LAB
D27 SAMPLER, COAL HANDLING, AS FIRED
D27 SAMPLER, FUEL TRUCK
D27 SAMPLER, SWING ARM BELT
D27 SAMPLING, COAL HANDLING, AS RECEIVED
D27 SPLITTER, COAL SAMPLER
D27 TOWER, SAMPLE, COAL UNLOADING SYSTEM

312-D29

COAL BARGE

D29 WINCH, BARGE COVER

312-D30

WORK BOAT

D30 BOAT, TUG
D30 RADIO, MARINE, W/ANTENNA
D30 WINCH, TUGBOAT

312-E01

AIR COMPRESSOR

312-E02

AIR FILTER OR WASHER

312-E03

PRIMARY AIR HEATER

E03 AIR HEATER
E03 AIR MOTOR ASSEMBLY
E03 VALVE, PLUG ASSEM, AIR PREHEATER

312-E04

CHUTES, DUCTS, OR PIPES SYSTEM

E04 BLASTER, AIR

312-E05

COAL FEEDER, RAW OR POWDERED

E05 COAL FEEDER
E05 COAL FEEDER, ELECTRONIC LOAD CELL WEIGHING
E05 COAL FEEDER, MOTOR
E05 CONTROLS, COAL FEEDER
E05 GATE, STOCK FEEDER
E05 VALVE, FEEDER INLET ISOLATION

312-E06

FEEDER BELT

E06 CLEANER, BRUSH
E06 COAL FEEDER BELT
E06 COUPLING, FEEDER BELT, COAL
E06 MOTOR, FEEDER BELT
E06 MOTOR, TRAILER DRIVE
E06 REDUCER, FEEDER BELT
E06 REDUCER, BOOM FEEDER BELT DRIVE, COAL

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312: Boiler Plant Equipment (Steam Production)

E06 REDUCER, BOOM HOIST DRIVE, COAL
E06 REDUCER, BUCKET WHEEL DRIVE, COAL
E06 REDUCER, GANTRY DRIVE, COAL
E06 REDUCER, SLEWING DRIVE, COAL
E06 REDUCER, TRAILER DRIVE, COAL

312-E07

CRUSHER

E07 COAL CRUSHER ENCLOSURE
E07 CRUSHER TOWER
E07 CRUSHER, AS FIRED SAMPLING
E07 CRUSHER, AS RECEIVED SAMPLING
E07 FLOP GATE, COAL
E07 MOTOR, CRUSHER
E07 MOTOR, CRUSHER, AS FIRED
E07 MOTOR, CRUSHER, AS RECEIVED

312-E08

DRYER

E08 DRYER

312-E09

FAN

E09 FAN
E09 PRIMARY AIR FLOW, MEASURING ELEMENT
E09 PRIMARY AIR FLOW, MONITOR

312-E10

HOPPER OR BIN

E10 PYRITE, TANK
E10 VALVE, TANK

312-E11

PULVERIZER

E11 BALL MILL REMOTE CONTROL SYSTEM
E11 CRANE, MILL MAINTENANCE
E11 DAMPER, RATING
E11 FAN, MILL SEAL AIR
E11 MILL, GEARBOX
E11 MOTOR, MILL
E11 PIPING SYSTEM, COAL
E11 PULVERIZER, MILL
E11 PULVERIZER, RATING DAMPER
E11 SADDLE
E11 TABLE, GRINDING
E11 UPPER SPRING RING

312-E12

PUMP

E12 MOTOR, PUMP
E12 PUMP, SUMP, PYRITES HOLDING TANK

312-E16

WEIGHING MACHINE, AUTOMATIC

E16 BELT SCALE

312-F01

HEATER

F01 HEATER, FUEL OIL

312-F02

METER

F02 METER

312-F03

PUMP

F03 MOTOR, PUMP
F03 PUMP

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

312-F04

TANK

F04 GAUGE SYSTEM
F04 PROBE, FUEL OIL TANK
F04 TANK, FUEL OIL

312-G01

HOLDER OR TANK

G01 TANK
G01 TANK, DIKING

312-G02

METER

G02 COMPUTER, ANALOG, PROPANE METER

312-G03

PRESSURE REGULATOR OR CONTROL DEVICE

G03 FUEL SAFETY SYSTEM W/PURGE PRELIGHT

312-G04

GAS LINES

G04 GAS LINE

312-G05

GAS PLANT

G05 PROPANE VAPORIZER

312-H02

CONVEYOR - ASH HANDLING EQUIPMENT

H02 CONVEYOR SYSTEM, BOTTOM ASH
H02 CONVEYOR, ASH, SUBMERGED, DRAG CHAIN
H02 TANK, BOTTOM ASH, SULPHURIC ACID

312-H03

CRANE OR HOIST - ASH HANDLING EQUIPMENT

H03 HOIST, FLY ASH SILO JIB CRANE

312-H04

ELECTRIC TROLLEY

312-H05

FAN - ASH HANDLING EQUIPMENT

H05 BLOWER, FLY ASH AERATION
H05 BLOWER, FLY ASH PRESSURE
H05 FAN, FLY ASH EXHAUST
H05 FAN, VENT, FLY ASH
H05 MOTOR, FLY ASH AERATION BLOWER

312-H07

PUMP - ASH HANDLING EQUIPMENT

H07 ASH HOPPER OVERFLOW SUMP PUMP
H07 CLARIFIER, ASH HANDLING WATER SUPPLY
H07 FLOATING PUMP STRUCTURE, ASH POND
H07 MOTOR, PUMP
H07 PUMP, ASH SLUICE
H07 PUMP, GENERAL
H07 PUMP, FOUNDATION
H07 PUMP, WASTE WATER
H07 THERMAL SUPPLY UNIT, BOTTOM ASH COOLER

312-H08

REMOVAL SYSTEM, VACUUM

H08 AIR DRYER, FLY ASH SYSTEM
H08 ASH HANDLING SYSTEM CONTROLS
H08 BREAKER, VACUUM, UNIT, FLY ASH
H08 HYDRAULIC EDUCTOR
H08 HYDRO VACTOR
H08 PIPING SYSTEM, VACUUM TRUCK
H08 TRUCK, VACUUM

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312: Boiler Plant Equipment (Steam Production)

H08 VACUUM, CENTRAL, PIPING SYSTEM

312-H09

SLUICEWAY OR PIPING SYSTEM

H09 ASH CONTROL SYSTEM
H09 ASH HOPPER, WET SEAL SKIRT
H09 ASH SCREEN
H09 ASH, BOTTOM, HANDLING SYSTEM
H09 DISCHARGE PIPELINE OVERFLOW SUMP PUMP TO ASH POND
H09 FLY ASH HANDLING SYSTEM
H09 FLYASH DISCHARGE LINE
H09 FREEZE PROTECTION, WETBOTTOM
H09 HEAT TRACE, CONDUIT, CABLES, & PANELS
H09 HEATER, WETBOTTOM RADIANT
H09 PIPING SYSTEM, ASH SLUICE
H09 PIPING SYSTEM, BOTTOM ASH
H09 PYRITE DISCHARGE LINE
H09 SCREEN, STAINLESS STEEL DRIP
H09 SLAG SCREEN
H09 TRENCH, ASH LINE, CONCRETE
H09 VALVE, ASH SLUICE
H09 VALVE, ISOLATION, ASH RECYCLING
H09 VALVE, WET BOTTOM

312-H10

STORAGE BIN OR PIT

H10 ASH STORAGE STRUCTURE W/FOOTBRIDGE
H10 FOUNDATIONS, BOTTOM ASH HOPPER AND PIT
H10 GATE, ASH & HOUSING
H10 HOPPER, FLY ASH
H10 HOPPER, BOTTOM ASH
H10 HOPPER, INTERNAL WATER JET
H10 HOPPER, PYRITE
H10 SILO, FLY ASH
H10 TANK, FLY ASH SEPARATOR
H10 TANK, ISOLATING VALVE HOLDING
H10 TANK, PYRITE HOLDING
H10 TROUGH, BOILER SEAL
H10 VALVE, ISOLATING, PYRITE HOLDING TANK

312-H11

SUMP DREDGE

H11 STRAINER

312-H13

CLINKER GRINDER OR SLAG GRINDER

H13 ASH HOPPER GRINDER MOTOR REDUCER
H13 FLUID POWER DRIVES
H13 GRINDER, SLAG

312-H14

ASH POND EQUIPMENT

H14 ASH POND OVERFLOW PIPING
H14 ASH POND, DISCHARGE FACILITY
H14 CABLE, CONTROL & INSTRUMENT
H14 CABLE, POWER
H14 CONDUIT, POWER
H14 CONTROL FEED SYSTEM, PH, ASH POND W/ ENCLOSURE
H14 CONTROL SYSTEM, SUPERVISORY
H14 CURTAIN, TURBIDITY, FLOATING, ASH POND
H14 FLOW MEASUREMENT SYSTEM
H14 POND, ASH
H14 POND, ASH, CONCRETE SUPPORTS, ASH LINES
H14 POND, ASH, CULVERT
H14 POND, ASH, DIKE
H14 POND, ASH, DRAWDOWN STRUCTURE

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

H14 POND, ASH, EMERGENCY OVERFLOW
H14 POND, ASH, EXPANSION
H14 POND, ASH, MANHOLES
H14 POND, ASH, PUMP
H14 POND, ASH, RIP RAP
H14 POND, ASH, ROAD, GRAVEL
H14 STRAINER, W/AUTOMATIC BACKWASH CONTROL
H14 SUBSTATION, EQUIPMENT FOR ASH POND

312-I01

METER - PURIFICATION SYSTEM

I01 ADAPTER, MOD BUS W/CABLE & PROGRAMMER/TAPE LOADER
I01 ANALYZER
I01 COMPENSATOR, AUTOMATIC TEMPERATURE
I01 CONDUCTIVITY CELL, SCREW
I01 FLOW SWITCH CALIBRATOR, FLUID COMPONENTS
I01 METER, FLOW
I01 INDICATOR, TEMPERATURE
I01 METER, DENSITY
I01 METER, PH
I01 PROBE, MAGNETIC, FLOW METER
I01 RECORDER, CLARIFIER
I01 RECORDER, SEQUENCE OF EVENTS

312-I02

PUMP - PURIFICATION SYSTEM

I02 CRANE, CLARIFIER BLDG GANTRY
I02 PUMP, ACID FEED
I02 PUMP, AMINE
I02 PUMP, CAUSTIC
I02 PUMP, CLARIFIER SLUDGE
I02 PUMP, COAGULANT
I02 PUMP, CONDENSATE
I02 PUMP, DEMINERALIZER
I02 PUMP, EVAPORATOR
I02 PUMP, HYDRAZINE
I02 PUMP, PH CORRECTION
I02 PUMP, PHOSPHATE
I02 PUMP, RECIRCULATION
I02 PUMP, SAMPLE
I02 PUMP, SERVICE WATER
I02 PUMP, SODIUM HYDROXIDE
I02 PUMP, SUMP
I02 PUMP, TRANSFER
I02 PUMP, TRASH
I02 PUMP, VACUUM
I02 PUMP, VACUUM, SEAL OIL
I02 PUMP, WATER CENTRIFUGAL
I02 PUMP, WATER, POTABLE
I02 PUMP, WELL WATER BOOSTER

312-I03

TANK - PURIFICATION SYSTEM

I03 CLARIFIER, WASTE WATER SUPPLY
I03 HEATER, CAUSTIC TANK
I03 LIQUID ALUM SYSTEM, PIPING SYSTEM
I03 MIXER, TANK
I03 PUMP, ACID REGENERATION
I03 RESERVOIR, WATER
I03 TANK, ACID
I03 TANK, ANION EXCHANGE
I03 TANK, CATION EXCHANGE
I03 TANK, CAUSTIC
I03 TANK, COAGULANT
I03 TANK, COAGULANT STORAGE

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

- I03 TANK, CONDENSATE
- I03 TANK, CONDENSATE DRAIN
- I03 TANK, CONDENSATE STORAGE
- I03 TANK, DEGASIFIER & CLEARWELL
- I03 TANK, HYDRAZINE
- I03 TANK, MIXED BED
- I03 TANK, PHOSPHATE
- I03 TANK, POTABLE WATER
- I03 TANK, RO PLANT
- I03 TANK, SULFURIC ACID
- I03 TANK, WATER
- I03 UNIVERSALEVEL, DREXELBROOK, ACID/CAUSTIC
- I03 WASTE WATER CLARIFIER & FILTER WATER TANK

312-I04

WATER SOFTENER OR PURIFICATION SYSTEM

- I04 AERATOR, ACID RETENTION
- I04 AGITATOR, NEUTRALIZATION PIT, W/MOTOR
- I04 ANALYZER, SODIUM, CONDENSATE SYSTEM
- I04 BLOWER, AIR, MIXED BED, W/MOTOR
- I04 CLARIFIER BUILDING
- I04 CLARIFIER, DEMINERALIZED WATER PIPING SYSTEM
- I04 CLARIFIERS, PRETREATMENT, FLASH MIX TANKS
- I04 CLEANING STATION, WATER PLANT
- I04 CONDUIT & CABLE TRAYS @ WATER PLANT
- I04 CONTROL, EVAPORATING
- I04 CROSSTIE LINE, DEIONIZED WATER
- I04 DCS CONTROL SYSTEM, WATER CONTROL DEMINERALIZER
- I04 DEMINERALIZER SYSTEM, MAKE UP
- I04 EVAPORATOR, FEEDWATER
- I04 FEED SYSTEM, POLYMER
- I04 FILTER SYSTEM, ACTIVATED CARBON
- I04 HEATER, CAUSTIC
- I04 HOIST, WATER TREATMENT BLDG CHLORINE
- I04 HYPOCHLORINATOR (WATER TREATMENT BLDG.)
- I04 LIQUID ALUM FEED SYSTEM FOR ALUM INJECT PUMP SYST
- I04 MAIN CONTROL PANEL @ WATER PLANT
- I04 METER, CONDUCTIVITY, RO WATER TREATMENT
- I04 MONITOR, PH, CONDENSATE
- I04 PIPE TRENCH @ WATER PLANT
- I04 PIPING SYSTEM, CHEMICAL FEED
- I04 PIPING SYSTEM, WASTEWATER POND
- I04 PLC SYSTEM
- I04 POND, WASTE WATER
- I04 POND, WASTE, LINER
- I04 PREVENTOR, PLANT BACKFLOW
- I04 PUMP, CHEMICAL FEED
- I04 REDUCER, CLARIFIER RAKE SPEED
- I04 REDUCER, CLARIFIER TURBINE SPEED
- I04 REVERSE OSMOSIS SYSTEM
- I04 RIVER WATER INTAKE BUILDING
- I04 REVERSE OSMOSIS PLANT CONTROLS
- I04 SOFTENER, DUAL, W/BRINE STATION
- I04 TURBIDIMETER, CLARIFIER
- I04 WALKWAY, CONCRETE, ACID RETENTION
- I04 WATER HEATER, ANION UNIT, CAUSTIC
- I04 WATER TREATMENT BUILDING
- I04 WATER TREATMENT CLARIFIER BUILDING

312-I05

WELL

- I05 WELL, TEST, POTABLE WATER

312-J01

AIR DUCT SYSTEM

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

J01 BOILER, ROOF VENTILATOR, DRAFT
J01 CONTROLLER, AIR FLOW
J01 CONTROLLERS, SEAL AIR W/DRIVES
J01 FAN DAMPER, SEAL AIR FAN
J01 FAN, EXHAUST
J01 TUNNEL VENT SYSTEM

312-J02

BLOWER - VENTILATING EQUIPMENT

J02 CLEANER, ELECTRONIC AIR
J02 FAN, PRESSURIZATION
J02 TRANSMITTER, AIR FLOW, W/DRIVES

312-J03

COOLER - VENTILATING EQUIPMENT

J03 COOLER @ STEAM COIL RACK
J03 COOLER, EXTERNAL DRAIN
J03 PUMP, CIRCULATION, CHILLED WATER
J03 PUMP, COOLING WATER, CLOSED
J03 PUMP, COOLING WATER, DIRECT

312-K01

AUTOMATIC CONTROL INSTALLATION

K01 ANALYZER, OXYGEN
K01 BOILER, PRESSURE READOUT
K01 CIRCUIT BREAKER, AC HIGH VOLTAGE
K01 CONTROLLER, COAL AIR TEMP W/DRIVES
K01 CONTROLLER, MILL W/DRIVES
K01 CONTROLS, TRACK HOPPER FEED
K01 FIRE PROTECTION
K01 MOTOR CONTROL CENTER
K01 PYRITE, SYSTEM CONTROLS
K01 STEAM PRESS CONTROL SYSTEM, AUTOMATIC
K01 SWITCHES
K01 THERMAPROBE
K01 TOTALIZER SYSTEM, GAS FLOW
K01 TRANSFORMER

312-K02

MASTER CONTROL INSTALLATION

K02 ANALYZER, OXYGEN, PROBE
K02 CABINET
K02 COMPUTER
K02 CONDUCTIVITY CELL
K02 CONDUCTIVITY MONITOR
K02 CONDUCTOR NT SOFTWARE KITS
K02 CONTROL STATIONS
K02 CONTROLLER, PRESSURE
K02 DAS, EMISSIONS MONITOR
K02 ELECTRIC SERVICE, UNDERGROUND, PH TRIM STATION
K02 GENERATOR, DIESEL, CONTROL SYSTEM, CONTROLS
K02 MODULATING DRIVE (BTG)
K02 MODULATING OPERATOR (BTG)
K02 PANEL, I/O CONNECTOR CONTROL
K02 POSITION CONTROL
K02 SWAMPING BOX (BTG)
K02 TAPE DRIVE, MAGNETIC FOR EPA REPORT EMISSIONS MONI
K02 TEMPERATURE PROCESSOR
K02 TEMPERATURE SIGNAL GENERATOR
K02 TRANSDUCERS & CONTROL VALVES
K02 TRANSMITTER, PRESSURE
K02 UNINTERRUPTIBLE POWER SUPPLY
K02 WORKSTATION CONSOLE, CONTROL ROOM

312-K03

PANEL SECTION OF SWITCH OR BOARD

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

K03 BOARD, INSTRUMENT GAUGE
K03 BREAKER BOARD, LEAR SIEGLER, INSTACK MONITOR
K03 CABINET
K03 CONTROL BOARD, BTG
K03 PANEL
K03 SWITCHBOARD

312-K04

RECORDING OR INDICATING DEVICE

K04 ALARM ANNUNCIATOR, BTG BOARD
K04 ALARM ANNUNCIATOR, PANALARM
K04 ALARM, PANEL
K04 AMPLIFIER
K04 ANALYZER, PROBE
K04 ANALYZERS
K04 ANALYZER, SO2
K04 ANNUNCIATOR, TERMINATION BAYS, CONTROL PANEL
K04 BALCONIES & TEST PORTS
K04 COMPUTER
K04 CONTROL, DIGITAL, STACK EMISSIONS
K04 CONTROLLER
K04 DAC W/SPECTRAPAK DAHS, STACK EMISSIONS
K04 DATA ACQUISITION SYSTEM
K04 EMISSION MONITORING SYSTEM
K04 INDICATOR, DRUM LEVEL
K04 INFRARED THERMO TEMPERATURE PROBE
K04 INVERTER
K04 METER
K04 MONITOR, CO2
K04 MONITOR, EMISSION
K04 MONITOR PROBE, STACK GAS
K04 MONITOR, OPACITY
K04 MONITOR, SO2
K04 MONITOR, ULTRAFLOW
K04 OPERATORS STATION, NT DISPLAY, WDPF
K04 PRESSURE INDICATOR
K04 PROGRAMMABLE LOGIC CONTROLLER
K04 RACK, INSTRUMENT & CONTROL EQUIPMENT
K04 RECORDER
K04 SEQUENCE OF EVENTS SYSTEM
K04 SOFTWARE, DB DOCUMENT
K04 SOFTWARE, FOR BAILEY CONTROL
K04 SPECTROPHOTOMETER
K04 STACK EMISSIONS, DIGITAL CONTROLS
K04 TESTING METER
K04 THERMOCOUPLE
K04 THERMOMETER
K04 TRANSMISSION
K04 TRANSMISSION METER
K04 TRANSMITTER

312-K05

AIR DRYER

K05 AIR COMPRESSOR
K05 AIR DRYER

312-L02

HEADER OF ANY CLASS OF PIPING

L02 COMPRESSED AIR PIPING
L02 CONDENSATE PIPING
L02 COOLING WATER PIPING
L02 DEMINERALIZED WATER PIPING
L02 STEAM DRAIN PIPING
L02 EXHAUST PIPING
L02 INSTRUMENT AIR PIPING

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

L02 PIPING SYSTEM, BOILER FEED
L02 PIPING SYSTEM, BOILER, DRAFT
L02 PIPING SYSTEM, CHEMICAL FEED
L02 PIPING SYSTEM, COLD REHEAT
L02 PIPING SYSTEM, HOT REHEAT
L02 PIPING SYSTEM, MAIN STEAM
L02 PIPING SYSTEM, RELIEF VALVE VENTS
L02 PIPING SYSTEM, SERVICE WATER
L02 PIPING SYSTEM, WASTE WATER
L02 PIPING SYSTEM, WET BOTTOM
L02 PIPING SYSTEM, OIL SUPPLY TO BURNERS
L02 POTABLE WATER PIPING
L02 LUBE OIL, PIPING
L02 ROOF, DRAIN PIPING SYSTEM
L02 SERVICE AIR PIPING SYSTEM
L02 STEAM BLOWDOWN, SILENCER
L02 VENT PIPING SYSTEM

312-L03

PIPING, 2" OR OVER, 2 OR MORE UNITS

L03 AIR EXTRACTION PIPING SYSTEM
L03 ASH SEAL PIPING SYSTEM
L03 BOILER, VALVE, RELIEF, VENT PIPING, INSULATION
L03 CENTRAL, VACUUM SUCTION HOSES
L03 CONDENSATE PIPING SYSTEM
L03 DEMINERALIZED PIPING SYSTEM
L03 DRAIN PIPING SYSTEM
L03 FIRE PROTECTION PIPING SYSTEM
L03 HOOD, STEAM LINE
L03 HOT REHEAT PIPING SYSTEM
L03 IGNITION OIL PIPING SYSTEM
L03 INSTRUMENT AIR PIPING SYSTEM
L03 INSULATE PIPING BOILER PLANT PIPING
L03 MAIN STEAM PIPING SYSTEM
L03 PIPING SYSTEM, BLEED STEAM
L03 PIPING SYSTEM, BOILER FEED
L03 PIPING SYSTEM, CENTRAL VACUUM
L03 PIPING SYSTEM, CERAMIC COAL
L03 PIPING SYSTEM, CHEMICAL CLEANING
L03 PIPING SYSTEM, CHEMICAL FEED SYSTEM
L03 PIPING SYSTEM, COAL REHEAT
L03 PIPING SYSTEM, HYDROGEN
L03 PIPING SYSTEM, LUBE OIL
L03 PIPING SYSTEM, OBSERVATION PORT
L03 PIPING SYSTEM, SERVICE AIR
L03 PIPING SYSTEM, STEAM, BOILER, AUX
L03 PIPING SYSTEM, SULPHURIC ACID
L03 POLISHER, CONDENSATE, WATER TREATMENT
L03 POTABLE WATER, PIPING SYSTEM
L03 SERVICE WATER, PIPING SYSTEM
L03 WASTE WATER PIPING
L03 WATER LINE, BOILER SLAG CONTROL

312-L04

PIPING, 2" OR OVER, 1 OR MORE UNITS & HEADER

L04 PIPING SYSTEM, CERAMIC COAL, CLASSIFIERS/BURNERS
L04 PIPING SYSTEM, WET BOTTOM, ASH POND
L04 VACUUM TRUCK, PORTABLE PIPING

312-L05

TRAP, HIGH PRESSURE

L05 TRAPS

312-L06

SEPARATOR OR PURIFIER, STEAM

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

L06 SEPARATOR, VAPOR

312-L07

RELATIVELY COSTLY VALVES

L07 VALVE
L07 VALVE, AIR COMPRESSOR
L07 VALVE, AIR HEATER CROSS TIE
L07 VALVE, AIR HEATER DRAIN LINE
L07 VALVE, ASH HANDLING, ASSEMBLY
L07 VALVE, ASH LINE, ASSY
L07 VALVE, ASH OVERFLOW
L07 VALVE, ASH REMOVAL, MATERIAL HANDLING
L07 VALVE, ASH SEAL PIPING SYSTEM
L07 VALVE, ASH SLUICE
L07 VALVE, ASH SLUICE PUMP, OUTBOARD
L07 VALVE, ASH SYSTEM
L07 VALVE, AUX STEAM
L07 VALVE, AUX WATER
L07 VALVE, BLEED PUMP
L07 VALVE, BLOWDOWN
L07 VALVE, BOILER
L07 VALVE, BOTTOM ASH
L07 VALVE, CIRCULATING, WATER
L07 VALVE, CLARIFIER
L07 VALVE, CLARIFIER INLET CONTROL
L07 VALVE, COAL
L07 VALVE, COLD REHEAT
L07 VALVE, CONDENSOR
L07 VALVE, COOLING WATER SYSTEM
L07 VALVE, CSI
L07 VALVE, DEMINERALIZED
L07 VALVE, DRAIN
L07 VALVE, DRIP
L07 VALVE, DRUM BLOCK
L07 VALVE, DRUM, SAFETY
L07 VALVE, DUST COLLECTOR
L07 VALVE, ECONOMIZER
L07 VALVE, EVAPORATING STEAM
L07 VALVE, FEEDWATER
L07 VALVE, FEEDWATER SUPERHEAT SPRAY
L07 VALVE, FEEDWATER, REGULATING
L07 VALVE, FIRE WATER DELUGE
L07 VALVE, FLYASH
L07 VALVE, HYDROVACTOR INLET
L07 VALVE, IK BLOCK
L07 VALVE, IR BLOCK
L07 VALVE, KNIFEGATE
L07 VALVE, LOW PRESSURE, STEAM HEADER, CROSS-TIE
L07 VALVE, LUBE OIL COOLER
L07 VALVE, MANUAL ISOLATION
L07 VALVE, MILL
L07 VALVE, PLANT DISCHARGE PUMP
L07 VALVE, PRECIPITATOR
L07 VALVE, PULVERIZER
L07 VALVE, PYRITE
L07 VALVE, PYRITE HOPPER
L07 VALVE, PYRITE JET PUMP, WATER SUPPLY
L07 VALVE, NON-RETURN/REVERSE CURRENT
L07 VALVE, REACTION TANK
L07 VALVE, RECLAIM, WATER SYSTEM
L07 VALVE, RELIEF
L07 VALVE, RELIEF, VENTS
L07 VALVE, RIVER WATER
L07 VALVE, ROOF DRAIN

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

L07 VALVE, SAFETY, MAIN STEAM
L07 VALVE, SAFETY, PRESSURE
L07 VALVE, SAFETY, REHEATER
L07 VALVE, SAFETY, STEAM COIL
L07 VALVE, SAFETY, SUPERHEATER
L07 VALVE, SEAL AIR FAN, FLANGE
L07 VALVE, SILO SUMP PUMP
L07 VALVE, SOOTBLOWER
L07 VALVE, STEAM SEAL DRUM
L07 VALVE, STEAM SPRAY
L07 VALVE, SUMP PUMP
L07 VALVE, SUPERHEAT
L07 VALVE, SUPERHEAT SPRAY
L07 VALVE, WASTE WATER
L07 VALVE, WATER TREATMENT
L07 VALVE, WETBOTTOM

312-L08

FREEZE PROTECTION FOR PIPING

L08 FREEZE PROTECTION

312-M02

PONDS, LANDFILL RUN-OFF

M02 POND, ASH HANDLING SYSTEM, WASTE WATER, LANDFILL
M02 TRIM SYSTEM, PH, @LAB, LANDFILL

312-Q01

NEURAL NETWORK SYSTEM

Q01 AIR REGISTER DRIVE, BURNER
Q01 ALARM SYSTEM ANNUNCIATOR
Q01 BURNER MANAGEMENT SYSTEM
Q01 BURNER AIR MANAGEMENT, INDIVIDUAL
Q01 COAL PIPE ORIFICE, FUEL FLOW MONITORING / BALANCING
Q01 COMBUSTION CONTROL SYSTEM WITH LOAD DISPATCH
Q01 COMPUTER CONTROL SYSTEM
Q01 DATA ACQUISITION SYSTEM
Q01 ECT SYSTEM, FUEL FLOW MONITORING AND BALANCING
Q01 NEURAL NETWORK SYSTEM
Q01 PI-ARCHIVING SYSTEM
Q01 SAFEFLAME DFS SCANNER/ARCH
Q01 SPARE PARTS

312-R01

COAL REBURN NETWORK SYSTEM

R01 ALARM SYSTEM ANNUNCIATOR
R01 BASKETS, AIRHEATER COLDEND
R01 BOOST AIR HOSE
R01 BOOST AIR PIPING
R01 BOOST AIR PIPING, DAMPER
R01 BOOST AIR PIPING, DAMPER DRIVE
R01 BRICK LINING, INTERNAL
R01 CLEANING DEVICE, AIRHEATER HOTEND
R01 COAL PIPING
R01 COAL PIPING, ISOLATION VALVE
R01 COMPUTER & SOFTWARE
R01 DUCT MONITOR
R01 FLOW TRANSMITTER
R01 HARDWARE
R01 HOTEND LAYER, AIRHEATER
R01 INJECTOR
R01 INJECTOR, COAL REBURN
R01 INJECTOR, COAL REBURN, TUBE PANEL
R01 INJECTOR, COAL REBURN, BOOST AIR HOSE
R01 INJECTOR, EXPANSION JOINT
R01 INJECTOR, INNER DRIVE

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

R01 INJECTOR, OUTER DRIVE
R01 INJECTOR, TUBE PANEL
R01 LAGGING & INSULATION
R01 OFA DUCT
R01 OFA DUCT DAMPER
R01 OFA DUCT DAMPER DRIVE
R01 OFA DUCT EXPANSION JOINT
R01 OFA DUCT INSULATION
R01 PROBE
R01 SCANNER SYSTEM/ARCHITECTURE
R01 STABILIZER RING
R01 TRANSMITTER, TEMPERATURE
R01 TRIMMING DAMPER

312-S01

SCR

S01 AC INPUTS / RELAY OUTPUTS, BASE UNIT, MICRO LOGIX, PLC CONTROL
S01 AC POWER SUPPLY, LOGIX, PLC CONTROL
S01 ANALYZER, NOX
S01 ASSEMBLY, CATALYST, CART
S01 ASSEMBLY, CATALYST, CART TRACK
S01 ASSEMBLY, CATALYST, SEAL PLATE
S01 ASSEMBLY, CROSS ARM, RAKE SOOTBLOWER
S01 ASSEMBLY, FEED TUBE, RAKE SOOTBLOWER
S01 ASSEMBLY, HOPPER MODULE
S01 ASSEMBLY, REACTOR
S01 ASSEMBLY, REACTOR, TUBE BUNDLE
S01 ASSEMBLY, RECTIFIER MODULE
S01 BOILER BYPASS, ECONOMIZER SECTION TUBE SURFACE
S01 BOILER BYPASS, REHEATER SECTION TUBE SURFACE
S01 CATALYST, REACTOR
S01 COMPUTER, CEMS
S01 CONTROL PANEL, E-STOP, PLC
S01 CONTROL PANEL, E-STOP, REMOTE CONTROL, PLC
S01 CONTROL PANEL, MAIN, PLC
S01 CPU, LOGIX, PLC CONTROL
S01 DAMPER, DOUBLE LOUVER, BYPASS
S01 DAMPER, FAN INLET, ID FAN
S01 DAMPER, FAN OUTLET, ID FAN
S01 DAMPER, GUILLOTINE INLET
S01 DAMPER, GUILLOTINE OUTLET
S01 DESUPERHEATER, STEAM CONDITIONING
S01 DRIVEN COUPLING REXNORD, ID FAN AND MOTOR
S01 DUCT, BREECHING BYPASS
S01 DUCT, BREECHING INLET
S01 DUCT, BREECHING OUTLET
S01 DUCT, ECONOMIZER OUTLET
S01 DUCT, INLET INTERIOR, ELBOW CAP
S01 DUCT, REACTOR, PRIMARY AIR
S01 ELEMENT, COLD END, AIRHEATER, PRIMARY
S01 ELEMENT, COLD END, AIRHEATER, SECONDARY
S01 ELEMENT, HOT END, AIRHEATER, PRIMARY
S01 ELEMENT, HOT END, AIRHEATER, SECONDARY
S01 ETHERNET ADAPTER, PLC CONTROL
S01 ETHERNET BRIDGE, SINGLE PORT, PLC CONTROL
S01 ETHERNET HUB, DIN-RAIL MOUNTING, PLC CONTROL
S01 ETHERNET INTERFACE, MICRO LOGIX, PLC CONTROL
S01 EXPANSION JOINT, AIR HEATER INLET
S01 EXPANSION JOINT, BYPASS
S01 EXPANSION JOINT, ECONOMIZER INLET
S01 EXPANSION JOINT, ECONOMIZER OUTLET
S01 EXPANSION JOINT, METALLIC, DILUTION / SEAL AIR
S01 EXPANSION JOINT, NON-METALLIC, DILUTION / SEAL AIR

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

S01 EXPANSION JOINT, OUTLET
S01 EXPANSION JOINT, P.A. DUCT
S01 FAN ASSEMBLY, DILUTION / SEAL AIR
S01 FLOW ELEMENT, HEADER, STEAM CONDITIONING
S01 FLUE GAS DUCT, BREECHING, AIR HEATER
S01 FOUNDATIONS, AMMONIA AREA
S01 FOUNDATIONS, ID FAN
S01 FOUNDATIONS, SCR / DUCT
S01 HMI - CLIENT / SERVER SOFTWARE
S01 HMI - MONITORS
S01 HMI - OPERATE IT SERVERS
S01 HMI - OPERATOR MONITORS
S01 HMI - PERSONAL COMPUTERS
S01 HMI - PROJECTION MONITORS
S01 HOIST / TROLLEY, CATALYST
S01 I/O PANEL, REMOTE CONTROL, PLC
S01 IMPELLER, ID FAN AND MOTOR
S01 INJECTION FLOW, CONTROL SKID
S01 INJECTION FLOW, TRANSMITTER
S01 INJECTION HEADER, PRESSURE TRANSMITTER
S01 INPUT MODULE, 4 CHANNEL ANALOG, MICRO LOGIX, PLC CONTROL
S01 INPUT MODULE, AC ISOLATION, LOGIX, PLC CONTROL
S01 INPUT MODULE, ISOLATION, LOGIX, PLC CONTROL
S01 INPUT MODULE, LOGIX, PLC CONTROL
S01 INPUT MODULE, VAC, MICRO LOGIX, PLC CONTROL
S01 INSTRUMENT AIR SYSTEM
S01 LEAK DETECTOR, NH3
S01 LEAK DETECTOR, TRUCK UNLOADING, NH3
S01 LEVEL INDICATOR, NH3 STORAGE
S01 MANIFOLD, TANK PRESSURE RELIEF, NH3 STORAGE
S01 MONITOR, PLC CONTROL
S01 MOTOR, ID FAN AND MOTOR
S01 NET BRIDGE, SINGLE PORT, PLC CONTROL
S01 NOX ANALYZER, TLI METAL BLDG.
S01 OUTPUT MODULE, AC/DC RELAY, MICRO LOGIX, PLC CONTROL
S01 OUTPUT MODULE, RELAY, LOGIX, PLC CONTROL
S01 PANEL, TRUCK UNLOADING STATION, PLC CONTROL
S01 PC, DESKTOP, PLC CONTROL
S01 PC, DIN RAIL MOUNT INDUSTRIAL, PLC CONTROL
S01 PIPE, LIQUID, RAILCAR UNLOADING, NH3 STORAGE
S01 PIPE, VAPOR, RAILCAR UNLOADING, NH3 STORAGE
S01 PIPING, DILUTION / SEAL AIR
S01 POTABLE WATER SYSTEM
S01 POWER SUPPLY, MICRO LOGIX, PLC CONTROL
S01 PROBE, GAS ANALYZER, INLET, NOX
S01 PROBE, GAS ANALYZER, OUTLET, NOX
S01 PROCESSOR UNIT, MICRO LOGIX, PLC CONTROL
S01 PUMP, MAGNETIC DRIVE, TEMPERATURE
S01 PUMP, NH3
S01 PUMP, SKID, NH3
S01 PUMP, UPSTREAM, FILTER, NH3
S01 REXA ACTUATOR, FAN INLET DAMPER, ID FAN
S01 REXA ACTUATOR, FAN OUTLET DAMPER, ID FAN
S01 ROTOR, ID FAN AND MOTOR
S01 SCANNER, DEVICE NET, MICRO LOGIX, PLC CONTROL
S01 SHAFT, ID FAN AND MOTOR
S01 SKID, TRUCK UNLOADING, NH3
S01 SLOT CHASSIS, LOGIX 13, PLC CONTROL
S01 SLOT FILLER MODULE, PLC CONTROL
S01 SOOTBLOWER PANEL, PLC CONTROL
S01 SOOTBLOWER, RAKE
S01 STEAM COIL, PREHEATER, DILUTION / SEAL AIR
S01 STORAGE TANK, NH3 AMMONIA

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

- S01 STRUCTURAL STEEL, AMMONIA AREA
- S01 STRUCTURAL STEEL, SCR / DUCT
- S01 TERMINAL BLOCK, REMOVABLE, LOGIX, PLC CONTROL
- S01 TERMINATOR, LEFT END CAP, MICRO LOGIX, PLC CONTROL
- S01 TERMINATOR, RIGHT END CAP, MICRO LOGIX, PLC CONTROL
- S01 TOUCH SCREEN, FLAT PANEL, PLC CONTROL
- S01 TRANSMITTER, AIR HEADER, FLOW
- S01 TRANSMITTER, LEVEL, NH3 STORAGE
- S01 TRANSMITTER, PRESSURE, NH3 STORAGE
- S01 TRANSMITTER, PRESSURE, NH3 STORAGE TANK
- S01 TRANSMITTER, TEMPERATURE, NH3 STORAGE
- S01 VALVE, BALANCING
- S01 VALVE, CHECK, CONDENSATE OUTLET
- S01 VALVE, CHECK, LIQUID FILL, NH3 STORAGE
- S01 VALVE, DRAIN, PUMP SUPPLY, NH3 STORAGE
- S01 VALVE, EXCESS FLOW, AMMONIA TANK, NH3 STORAGE
- S01 VALVE, EXCESS FLOW, PUMP RETURN, NH3 STORAGE
- S01 VALVE, EXCESS FLOW, PUMP SUPPLY, NH3 STORAGE
- S01 VALVE, EXCESS FLOW, VAPOR BALANCE, NH3 STORAGE
- S01 VALVE, FAN OUTLET, DILUTION / SEAL AIR
- S01 VALVE, FILTER UPSTREAM CONTROL
- S01 VALVE, INJECTION CONTROL
- S01 VALVE, INJECTION LIQUID LINE, HYDRO.
- S01 VALVE, INLET ISOLATION, DILUTION / SEAL AIR
- S01 VALVE, INLET ISOLATION, STEAM CONDITIONING
- S01 VALVE, ISOLATION
- S01 VALVE, ISOLATION, CONDENSATE OUTLET
- S01 VALVE, ISOLATION, LIQUID FILL, NH3 STORAGE
- S01 VALVE, ISOLATION, LIQUID FILL, NH3 STORAGE TANK
- S01 VALVE, ISOLATION, NH3 STORAGE TANK
- S01 VALVE, ISOLATION, PUMP RETURN, NH3 STORAGE
- S01 VALVE, ISOLATION, PUMP RETURN, NH3 STORAGE TANK
- S01 VALVE, ISOLATION, PUMP SUPPLY, NH3 STORAGE
- S01 VALVE, ISOLATION, PUMP SUPPLY, NH3 STORAGE TANK
- S01 VALVE, ISOLATION, STEAM CONDITIONING
- S01 VALVE, ISOLATION, VAPOR BALANCE, NH3 STORAGE
- S01 VALVE, ISOLATION, VAPOR BALANCE, NH3 STORAGE TANK
- S01 VALVE, LIQUID LINE HYDRO. RELIEF, TRUCK UNLOADING, NH3
- S01 VALVE, LIQUID LINE ISOLATION, TRUCK UNLOADING, NH3
- S01 VALVE, LIQUID PIPE, HYDRO. RELIEF, NH3 STORAGE
- S01 VALVE, OUTLET ISOLATION, DILUTION / SEAL AIR
- S01 VALVE, POPPET, RAKE SOOTBLOWER
- S01 VALVE, PRESSURE RELIEF, NH3 STORAGE TANK
- S01 VALVE, PRESSURE RELIEF, STEAM CONDITIONING
- S01 VALVE, PUMP SUPPLY, DRAIN, NH3 STORAGE
- S01 VALVE, PUMP, DISCHARGE HYDRO.
- S01 VALVE, PUMP, NH3 SUCTION INTERCONNECTING
- S01 VALVE, PUMP, RETURN HYDRO.
- S01 VALVE, PUMP, SUCTION HYDRO.
- S01 VALVE, PUMP, SUCTION ISOLATION
- S01 VALVE, RELIEF, LIQUID FILL HYDRO., NH3 STORAGE
- S01 VALVE, RELIEF, LIQUID FILL, TANK, NH3 STORAGE
- S01 VALVE, RELIEF, PUMP RETURN HYDRO., NH3 STORAGE
- S01 VALVE, RELIEF, PUMP SUPPLY HYDRO., NH3 STORAGE
- S01 VALVE, RELIEF, TANK PRESSURE, NH3 STORAGE
- S01 VALVE, RETURN HYDRO., NH3 STORAGE
- S01 VALVE, STEAM INLET, ISOLATION
- S01 VALVE, TEMPERATURE CONTROL
- S01 VALVE, TEMPERATURE CONTROL, STEAM CONDITIONING
- S01 VALVE, VAPOR BALANCE, NH3 STORAGE TANK

312-T01

ADVANCED OVER-FIRED AIR

- T01 AIR REGISTER DRIVE, BURNER

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

T01 BOX, DAMPER
T01 BOX, DAMPER DRIVE
T01 BOX, EXPANSION JOINT
T01 CAMS SYSTEM AUTO / ACKNOWLEDGMENT PURGE & TRANSMITTER, OFA
T01 COAL PIPE ORIFICE
T01 CONTROL SYSTEM, MOD BUD INTERFACE
T01 CONTROL SYSTEM, PCS
T01 CONTROL SYSTEM, SOFTWARE
T01 DAMPER DRIVE, POSITION TRANSMITTER, OFA
T01 DATA ACQUISITION SYSTEM
T01 DUCTWORK
T01 ECT SYSTEM
T01 EXPANSION JOINT, SIDEWALL INJECTOR
T01 FAN
T01 FAN, DRIVE MOTOR
T01 FAN, DAMPER
T01 FAN, DAMPER DRIVE
T01 FAN, EXPANSION JOINT
T01 FAN, ELECTRICAL FEED BREAKER
T01 FLOW ELEMENT, OFA
T01 FLOW MEASUREMENT SYSTEM
T01 FOUNDATION
T01 HMI - OPERATOR CONSOLE
T01 HMI - OPERATOR MONITORS
T01 HMI - PERSONAL COMPUTERS
T01 HMI - SOFTWARE
T01 IGNITION GAS BLEED
T01 IGNITION GAS BLOCK
T01 INJECTOR, TUBEWALL PENETRATIONS, FRONTWALL
T01 INJECTOR, TUBEWALL PENETRATIONS, SIDEWALL
T01 OVERFIRE AIR INJECTOR, FRONTWALL INJECTOR
T01 OVERFIRE AIR INJECTOR, SIDEWALL INJECTOR
T01 PROBE SIGNAL PROCESSOR, C.O. MONITORING GRID
T01 PROBE, C.O. MONITORING GRID
T01 PROBE, O2
T01 SPRING SUPPORT, SIDEWALL INJECTOR
T01 STRUCTURAL STEEL

312-U01

RÉID NATURAL GAS CONVERSION

U01 ELECTRICAL WIRING
U01 FLOW REGULATOR
U01 FLUE GAS RECIRCULATION DUCT
U01 GAS BURNERS, DBR
U01 GAS FLOW CONTROL VALVE, MAIN
U01 GAS FLOW ELEMENT
U01 GAS HOSE, FLEXIBLE
U01 GAS PIPE
U01 GAS PRESSURE REGULATOR VALVE, MAIN
U01 GAS STOP VALVE, MAIN
U01 GAS TRIFECTA VALVE ASSEMBLY
U01 JORDAN LINEAR DRIVES
U01 LOCAL INSTRUMENTATION
U01 NITROGEN BLANKET, GAS PIPE
U01 PIPE, STEEL, UNDERGROUND
U01 PLC MODS AND PROGRAMMING
U01 PRESSURE TRANSMITTER
U01 SPARK RODS
U01 TRANSMITTERS
U01 TUBING, STAINLESS
U01 VALVE, MANUAL STOP
U01 VALVE, PNEUMATIC GAS CHARGING
U01 VALVE, PNEUMATIC GAS VENT
U01 VALVE, PRESSURE REGULATOR, MAIN

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

UO1 VALVE, PRESSURE RELIEF
UO1 VENT PIPE

312-V01 SCR - HMP&L

V01 AC INPUTS / RELAY OUTPUTS, BASE UNIT, MICRO LOGIX, PLC CONTROL
V01 AC POWER SUPPLY, LOGIX, PLC CONTROL
V01 AIR PREHEATER
V01 ANALYZER, NOX
V01 ASSEMBLY, CATALYST, CART
V01 ASSEMBLY, CATALYST, CART TRACK
V01 ASSEMBLY, CATALYST, SEAL PLATE
V01 ASSEMBLY, CROSS ARM, RAKE SOOTBLOWER
V01 ASSEMBLY, FEED TUBE, RAKE SOOTBLOWER
V01 ASSEMBLY, HOPPER MODULE
V01 ASSEMBLY, REACTOR
V01 ASSEMBLY, REACTOR, TUBE BUNDLE
V01 ASSEMBLY, RECTIFIER MODULE
V01 BOILER BYPASS, ECONOMIZER SECTION TUBE SURFACE
V01 BOILER BYPASS, REHEATER SECTION TUBE SURFACE
V01 CATALYST, REACTOR
V01 COMPUTER, CEMS
V01 CONTROL PANEL, E-STOP, PLC
V01 CONTROL PANEL, E-STOP, REMOTE CONTROL, PLC
V01 CONTROL PANEL, MAIN, PLC
V01 CPU, LOGIX, PLC CONTROL
V01 DAMPER, DOUBLE LOUVER, BYPASS
V01 DAMPER, FAN INLET, ID FAN
V01 DAMPER, FAN OUTLET, ID FAN
V01 DAMPER, GUILLOTINE INLET
V01 DAMPER, GUILLOTINE OUTLET
V01 DESUPERHEATER, STEAM CONDITIONING
V01 DRIVEN COUPLING REXNORD, ID FAN AND MOTOR
V01 DUCT, BREECHING BYPASS
V01 DUCT, BREECHING INLET
V01 DUCT, BREECHING OUTLET
V01 DUCT, ECONOMIZER OUTLET
V01 DUCT, INLET INTERIOR, ELBOW CAP
V01 DUCT, REACTOR, PRIMARY AIR
V01 ELEMENT, COLD END, AIRHEATER, PRIMARY
V01 ELEMENT, COLD END, AIRHEATER, SECONDARY
V01 ELEMENT, HOT END, AIRHEATER, PRIMARY
V01 ELEMENT, HOT END, AIRHEATER, SECONDARY
V01 ETHERNET ADAPTER, PLC CONTROL
V01 ETHERNET BRIDGE, SINGLE PORT, PLC CONTROL
V01 ETHERNET HUB, DIN-RAIL MOUNTING, PLC CONTROL
V01 ETHERNET INTERFACE, MICRO LOGIX, PLC CONTROL
V01 EXPANSION JOINT, AIR HEATER INLET
V01 EXPANSION JOINT, BYPASS
V01 EXPANSION JOINT, ECONOMIZER INLET
V01 EXPANSION JOINT, ECONOMIZER OUTLET
V01 EXPANSION JOINT, METALLIC, DILUTION / SEAL AIR
V01 EXPANSION JOINT, NON-METALLIC, DILUTION / SEAL AIR
V01 EXPANSION JOINT, OUTLET
V01 EXPANSION JOINT, P.A. DUCT
V01 FAN ASSEMBLY, DILUTION / SEAL AIR
V01 FLOW ELEMENT, HEADER, STEAM CONDITIONING
V01 FLUE GAS DUCT, BREECHING, AIR HEATER
V01 FOUNDATIONS, AMMONIA AREA
V01 FOUNDATIONS, ID FAN
V01 FOUNDATIONS, SCR / DUCT
V01 HMI - CLIENT / SERVER SOFTWARE
V01 HMI - MONITORS

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

V01 HMI - OPERATE IT SERVERS
V01 HMI - OPERATOR MONITORS
V01 HMI - PERSONAL COMPUTERS
V01 HMI - PROJECTION MONITORS
V01 HOIST / TROLLEY, CATALYST
V01 I/O PANEL, REMOTE CONTROL, PLC
V01 IMPELLER, ID FAN AND MOTOR
V01 INJECTION FLOW, CONTROL SKID
V01 INJECTION FLOW, TRANSMITTER
V01 INJECTION HEADER, PRESSURE TRANSMITTER
V01 INPUT MODULE, 4 CHANNEL ANALOG, MICRO LOGIX, PLC CONTROL
V01 INPUT MODULE, AC ISOLATION, LOGIX, PLC CONTROL
V01 INPUT MODULE, ISOLATION, LOGIX, PLC CONTROL
V01 INPUT MODULE, LOGIX, PLC CONTROL
V01 INPUT MODULE, VAC, MICRO LOGIX, PLC CONTROL
V01 INSTRUMENT AIR SYSTEM
V01 LEAK DETECTOR, NH3
V01 LEAK DETECTOR, TRUCK UNLOADING, NH3
V01 LEVEL INDICATOR, NH3 STORAGE
V01 MANIFOLD, TANK PRESSURE RELIEF, NH3 STORAGE
V01 MONITOR, PLC CONTROL
V01 MOTOR, ID FAN AND MOTOR
V01 NET BRIDGE, SINGLE PORT, PLC CONTROL
V01 NOX ANALYZER, TLI METAL BLDG.
V01 OUTPUT MODULE, AC/DC RELAY, MICRO LOGIX, PLC CONTROL
V01 OUTPUT MODULE, RELAY, LOGIX, PLC CONTROL
V01 PANEL, TRUCK UNLOADING STATION, PLC CONTROL
V01 PC, DESKTOP, PLC CONTROL
V01 PC, DIN RAIL MOUNT INDUSTRIAL, PLC CONTROL
V01 PIPE, LIQUID, RAILCAR UNLOADING, NH3 STORAGE
V01 PIPE, VAPOR, RAILCAR UNLOADING, NH3 STORAGE
V01 PIPING, DILUTION / SEAL AIR
V01 POTABLE WATER SYSTEM
V01 POWER SUPPLY, MICRO LOGIX, PLC CONTROL
V01 PROBE, GAS ANALYZER, INLET, NOX
V01 PROBE, GAS ANALYZER, OUTLET, NOX
V01 PROCESSOR UNIT, MICRO LOGIX, PLC CONTROL
V01 PUMP, MAGNETIC DRIVE, TEMPERATURE
V01 PUMP, NH3
V01 PUMP, SKID, NH3
V01 PUMP, UPSTREAM, FILTER, NH3
V01 REXA ACTUATOR, FAN INLET DAMPER, ID FAN
V01 REXA ACTUATOR, FAN OUTLET DAMPER, ID FAN
V01 ROTOR, ID FAN AND MOTOR
V01 SCANNER, DEVICE NET, MICRO LOGIX, PLC CONTROL
V01 SHAFT, ID FAN AND MOTOR
V01 SKID, TRUCK UNLOADING, NH3
V01 SLOT CHASSIS, LOGIX 13, PLC CONTROL
V01 SLOT FILLER MODULE, PLC CONTROL
V01 SOOTBLOWER PANEL, PLC CONTROL
V01 SOOTBLOWER, RAKE
V01 STEAM COIL, PREHEATER, DILUTION / SEAL AIR
V01 STORAGE TANK, NH3 AMMONIA
V01 STRUCTURAL STEEL, AMMONIA AREA
V01 STRUCTURAL STEEL, SCR / DUCT
V01 TERMINAL BLOCK, REMOVABLE, LOGIX, PLC CONTROL
V01 TERMINATOR, LEFT END CAP, MICRO LOGIX, PLC CONTROL
V01 TERMINATOR, RIGHT END CAP, MICRO LOGIX, PLC CONTROL
V01 TOUCH SCREEN, FLAT PANEL, PLC CONTROL
V01 TRANSMITTER, AIR HEADER, FLOW
V01 TRANSMITTER, LEVEL, NH3 STORAGE
V01 TRANSMITTER, PRESSURE, NH3 STORAGE
V01 TRANSMITTER, PRESSURE, NH3 STORAGE TANK

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

312: Boiler Plant Equipment (Steam Production)

V01 TRANSMITTER, TEMPERATURE, NH3 STORAGE
V01 VALVE, BALANCING
V01 VALVE, CHECK, CONDENSATE OUTLET
V01 VALVE, CHECK, LIQUID FILL, NH3 STORAGE
V01 VALVE, DRAIN, PUMP SUPPLY, NH3 STORAGE
V01 VALVE, EXCESS FLOW, AMMONIA TANK, NH3 STORAGE
V01 VALVE, EXCESS FLOW, PUMP RETURN, NH3 STORAGE
V01 VALVE, EXCESS FLOW, PUMP SUPPLY, NH3 STORAGE
V01 VALVE, EXCESS FLOW, VAPOR BALANCE, NH3 STORAGE
V01 VALVE, FAN OUTLET, DILUTION / SEAL AIR
V01 VALVE, FILTER UPSTREAM CONTROL
V01 VALVE, INJECTION CONTROL
V01 VALVE, INJECTION LIQUID LINE, HYDRO.
V01 VALVE, INLET ISOLATION, DILUTION / SEAL AIR
V01 VALVE, INLET ISOLATION, STEAM CONDITIONING
V01 VALVE, ISOLATION
V01 VALVE, ISOLATION, CONDENSATE OUTLET
V01 VALVE, ISOLATION, LIQUID FILL, NH3 STORAGE
V01 VALVE, ISOLATION, LIQUID FILL, NH3 STORAGE TANK
V01 VALVE, ISOLATION, NH3 STORAGE TANK
V01 VALVE, ISOLATION, PUMP RETURN, NH3 STORAGE
V01 VALVE, ISOLATION, PUMP RETURN, NH3 STORAGE TANK
V01 VALVE, ISOLATION, PUMP SUPPLY, NH3 STORAGE
V01 VALVE, ISOLATION, PUMP SUPPLY, NH3 STORAGE TANK
V01 VALVE, ISOLATION, STEAM CONDITIONING
V01 VALVE, ISOLATION, VAPOR BALANCE, NH3 STORAGE
V01 VALVE, ISOLATION, VAPOR BALANCE, NH3 STORAGE TANK
V01 VALVE, LIQUID LINE HYDRO. RELIEF, TRUCK UNLOADING, NH3
V01 VALVE, LIQUID LINE ISOLATION, TRUCK UNLOADING, NH3
V01 VALVE, LIQUID PIPE, HYDRO. RELIEF, NH3 STORAGE
V01 VALVE, OUTLET ISOLATION, DILUTION / SEAL AIR
V01 VALVE, POPPET, RAKE SOOTBLOWER
V01 VALVE, PRESSURE RELIEF, NH3 STORAGE TANK
V01 VALVE, PRESSURE RELIEF, STEAM CONDITIONING
V01 VALVE, PUMP SUPPLY, DRAIN, NH3 STORAGE
V01 VALVE, PUMP, DISCHARGE HYDRO.
V01 VALVE, PUMP, NH3 SUCTION INTERCONNECTING
V01 VALVE, PUMP, RETURN HYDRO.
V01 VALVE, PUMP, SUCTION HYDRO.
V01 VALVE, PUMP, SUCTION ISOLATION
V01 VALVE, RELIEF, LIQUID FILL HYDRO., NH3 STORAGE
V01 VALVE, RELIEF, LIQUID FILL, TANK, NH3 STORAGE
V01 VALVE, RELIEF, PUMP RETURN HYDRO., NH3 STORAGE
V01 VALVE, RELIEF, PUMP SUPPLY HYDRO., NH3 STORAGE
V01 VALVE, RELIEF, TANK PRESSURE, NH3 STORAGE
V01 VALVE, RETURN HYDRO., NH3 STORAGE
V01 VALVE, STEAM INLET, ISOLATION
V01 VALVE, TEMPERATURE CONTROL
V01 VALVE, TEMPERATURE CONTROL, STEAM CONDITIONING
V01 VALVE, VAPOR BALANCE, NH3 STORAGE TANK

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

314: Turbogenerator Units (Steam Production)

314-A01

EQUIPMENT, STARTING AND TURNING

A01 PANEL, TURBINE START UP
A01 TURNING GEAR, TURBINE

314-A02

EXCITATION SYSTEM

A02 EXCITER
A02 GENERATOR EXCITATION SYSTEM
A02 GENERATOR, VOLTAGE REGULATOR, CONTROL SYSTEM
A02 MOTOR, TURNING GEAR TURBINE EXCHANGER END
A02 VOLTAGE REGULATOR

314-A03

FOUNDATION - TURBOGENERATOR INSTAL

A03 FOUNDATION, CONCRETE, TURBINE MAT & PEDESTAL
A03 FOUNDATION, EXCITER
A03 FOUNDATION, GENERATOR
A03 FOUNDATION, TURBINE

314-A04

GENERATOR - TURBOGENERATOR INSTAL

A04 CONDENSER, VACUUM PUMP
A04 DRYER, HYDROGEN
A04 GENERATOR, HYDROGEN COOLERS
A04 GENERATOR, ROTOR
A04 GENERATOR, ROTOR, WEDGING
A04 GENERATOR, STATOR
A04 GENERATOR, STATOR, WEDGING
A04 RELAY, SYNCHRONIZED, CHECK, GENERATOR
A04 TURBINE SEAL OIL UNIT

314-A05

GOVERNOR CONTROL SYSTEM

A05 CONTROL SYS, AUTOMATIC GENERATION
A05 DCS TURBINE CONTROLS
A05 ELECTRO HYDRAULIC CONTROL, PIPING SYSTEM
A05 PRESSURE PUMP, ELECTRO-HYDRAULIC TURBINE

314-A06

REMOTE CONTROL RHEOSTAT & FIELD SWITCH

A06 COMPUTER
A06 COMPUTER, DATA LOGGER
A06 GENERATOR LOAD FREQUENCY CONTROL UNIT
A06 GENERATOR, CURRENT TRANSFORMERS
A06 SOFTWARE

314-A08

TURBINE - TURBOGENERATOR INSTAL

A08 COMPUTER, TURBINE MONITOR
A08 ENCLOSURE, TURBINE
A08 ENCLOSURE, TURBINE, HP
A08 ENCLOSURE, TURBINE, LP
A08 POWER SUPPLY, TURBINE SYSTEM
A08 SOFTWARE
A08 TURBINE
A08 TURBINE, BEARINGS
A08 TURBINE, BLADE RING
A08 TURBINE, BLADE ROW
A08 TURBINE, BUCKET
A08 TURBINE, CONTROL STAGE BLADES
A08 TURBINE, DIAPHRAGM
A08 TURBINE, ROTOR
A08 TURBINE, SEAL SET
A08 TURBINE, SHELL
A08 TURBINE, TRIP SYSTEM

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

314: Turbogenerator Units (Steam Production)

314-A09

TURBINE STANDS AND TOOLS

A09 CYLINDERS, WALKING BEAMS
A09 RACKS, REHEAT DIAPHRAGM
A09 SLINGS, TURBINE OUTAGES
A09 STAND, TURBINE

314-B01

AIR EJECTOR APPARATUS FOR ONE CONDENSER

B01 CIRCULATING WATER ELECTRICAL SYSTEM, MAIN CONDENSER
B01 EJECTOR, STARTING
B01 EXHAUSTER, AIR

314-B02

CONDENSER SHELL

B02 CONDENSER
B02 CONDENSER SHELL

314-B03

CONDENSER TUBES AND SHEETS

B03 GLAND AIR EXHAUSTER BLOWER
B03 CONDENSER TUBE SHEETS
B03 CONDENSER TUBES
B03 CONDENSER, TURBINE
B03 CONDENSER, TURBINE GLAND AIR EXHAUSTER
B03 CONDENSER, TURBINE GLAND STEAM
B03 CONDENSER, TURBINE, HOT WELL
B03 SOFTWARE, PROGRAM CONTROL

314-B04

CONDENSER TUBE PROTECTIVE SYSTEM

B04 ANALYZER, SILICA
B04 CATHODIC PROTECTION SYSTEM
B04 CHLORINATOR
B04 CHLORINE PIPING
B04 CONTROL, PH, ACID INJECTION SYSTEM, COOLING TOWER
B04 HOIST, ELECTRIC CHLORINE
B04 PIPING SYSTEM, CHLORINE
B04 FLOWMETER
B04 VACUUM, REGULATOR, CHLORINE

314-B05

CONDENSER TUBE CLEANING SYSTEM

B05 TUBE CLEANING MACHINE, AIR POWERED
B05 TUBE CLEANING MACHINE, GRIPPING TOOL

314-B06

COOLING TOWER

B06 CIRCULATING WATER ELECTRICAL SYSTEM
B06 CIRCULATING WATER, PIPING SYSTEM
B06 CONTROL SYSTEM, BLOWDOWN, COOLING TOWER
B06 COOLING TOWER
B06 COOLING TOWER STRUCTURAL STEEL FOUNDATIONS
B06 COOLING TOWER, CONCRETE PLACEMENT, FOUNDATION
B06 COOLING TOWER, CONTROLS
B06 COOLING TOWER, DECK
B06 COOLING TOWER, DELUGE SYSTEM PIPING
B06 COOLING TOWER, ELECTRICAL BUILDING
B06 COOLING WATER, PIPING SYSTEM
B06 FAN, COOLING TOWER
B06 FIRE PROTECTION, COOLING TOWER
B06 FLOWMETER, COOLING TOWER MAKEUP
B06 FLOWMETER, COOLING TOWER BLOWDOWN
B06 FLOWMETER, RIVER WATER CIRCULATION
B06 GAUGE ASSEMBLY FOR COOLING TOWER CHEM TRTMT
B06 GEAR REDUCER, COOLING TOWER FAN

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

314: Turbogenerator Units (Steam Production)

B06 HEAT EXCHANGER, CLOSED COOLING WATER
B06 REGULATOR, CHLORINATION
B06 VALVE, MAKE-UP CROSSTIE, COOLING WATER TOWER
B06 VALVE, MAKE-UP PUMP SUCTION

314-B07

FAN - COOLING WATER SYSTEM

314-B08

INTAKE SCREEN AND MECHANISM

B08 ALARM, SCREEN WASH DIFFERENTIAL W/INDICATORS
B08 BAR SCREEN, INTAKE
B08 COMPRESSOR, INTAKE STRUCTURE AIR
B08 CONTROL SYSTEM
B08 CONTROLLER, ADJUST FREQUENCYA/C
B08 GATES, SLUICE, INTAKE STRUCTURE
B08 HYDRAULIC UNIT FOR TRAVERSING TRASH RAKE
B08 INTAKE TRASH BOOM
B08 LUBRICATOR, MOBILE HIGH PRESSURE
B08 MOTOR, TRAVELING WATER SCREENS
B08 PIPING, INTAKE, WATER
B08 REDUCER, TRAVELING WATER SCREENS
B08 RIVER INTAKE STRUCTURE-FIXTURES,CONDUIT,WIRING
B08 RIVER WATER INTAKE BUILDING ENCLOSURE,WALLS,DOORS
B08 RIVER WATER INTAKE STRUCTURE-CONCRETE
B08 RIVER WATER INTAKE STRUCTURE-EXCAVATION
B08 RIVER WATER INTAKE STRUCTURE-PILINGS
B08 RIVER WATER INTAKE STRUCTURE-RIP RAP
B08 RIVER WATER INTAKE STRUCTURE-STEEL
B08 SODIUM BROMIDE INJECTION SYS, RIVER CLARIFIER
B08 SUPERVISORY CONTROL,REMOTE,INTAKE
B08 TRAVELING WATER SCREENS
B08 WASH SCREEN CHAIN BELT

314-B09

PUMPS - COOLING WATER SYSTEM

B09 CIRCULATING WATER PUMP
B09 CIRCULATING WATER PUMP, MOTOR
B09 CONDENSATE PUMP PIT
B09 ELECTRIC WATER TREATMENT, MAGNET
B09 FOUNDATION, CONCRETE, CIRCULATING WATER SYS
B09 MOTOR, PUMP
B09 PUMP, GENERAL

314-B10

SPRAYING SYSTEM

B10 FIRE PROTECTION

314-B11

TANKS - COOLING WATER SYSTEM

B11 COOLING TOWER TANK
B11 HOPPER
B11 TANK
B11 TANK, CLOSED COOLING WATER CHEMICAL
B11 TANK, CONDENSATE RETURN
B11 TANK, COOLING WATER SURGE
B11 TANK, ELECTRIC HOT WATER
B11 TANK, MIX & STORAGE
B11 TANK, RIVER WATER SERVICE BLDG DRAIN

314-B12

VALVE, ATMOSPHERIC RELIEF

B12 VALVE, COIL, AUTO TEMP CONTROL, WATER SAMPLER
B12 VALVE, DECK, W/OPERATORS, CONDENSERS
B12 VALVE, SEAL OIL REGULATING

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314: Turbogenerator Units (Steam Production)

314-D01

ACCUMULATOR - CENTRAL LUBRICATING SYSTEM

D01 ACCUMULATOR
D01 FLUID SUPPLY SYSTEM, TURBINE
D01 PIPING SYSTEM, TURBINE
D01 TURBINE, HP & LP FEEDWATER GENERATOR COUPLINGS

314-D02

COOLER - CENTRAL LUBRICATING SYSTEM

D02 COMPRESSOR, AIR AC
D02 COOLERS, OIL
D02 HEATER, LUBE OIL
D02 LUBE OIL COOLER TUBESET
D02 OIL COOLER ASSEMBLY, TURBINE
D02 OIL VAPOR EXTRACTOR, TURBINE

314-D03

PUMPS - CENTRAL LUBRICATING SYSTEM

D03 PUMP, BEARING LIFT, TURBINE
D03 PUMP, BEARING OIL, TURBINE
D03 PUMP, GEAR LUBE TRANSFER
D03 PUMP, LUBE OIL FILTER
D03 PUMP, LUBE OIL TRANSFER
D03 PUMP, TURBINE, SEAL OIL BACKUP

314-D04

PURIFIER OR FILTER - CENTRAL LUBRICATING SYSTEM

D04 CONDITIONER, LUBE OIL
D04 FILTRATION SYSTEM, LUBE OIL, TURBINE
D04 INDICATOR, LUBE OIL SIGHT FLOW
D04 LUBE OIL & PURIFICATION, PIPING SYSTEM
D04 TURBINE LUBE OIL PURIFICATION-CONTROLS

314-D05

TANKS - CENTRAL LUBRICATING SYSTEM

D05 DEMISTER, OIL VAPOR
D05 RESERVOIR, TURBINE OIL
D05 TANK, AUX LUBE OIL TRANSFER SYSTEM
D05 TANK, CLEAN LUBE OIL
D05 TANK, DIRTY LUBE OIL
D05 WELL, THERMAL, W/HEATING ELEMENTS

314-E01

PANELS - INSTRUMENTS AND METERS

E01 BOARD, TURBINE INSTRUMENT
E01 CONSOLE, ELECTRO HYDRAULIC CONTROL
E01 CONTROL BOARDS, CABINETS, RACKS
E01 PANEL, TURBINE SUPERVISORY INSTRUMENT
E01 PANEL, TURBINE CONTROL POWER DISTRIBUTION

314-E02

RECORDING AND INDICATING DEVICES

E02 ALARM SYSTEM, CHLORINE
E02 ANALYZER, GAS, THERMAL CONDUCTIVITY
E02 ANALYZER, HYDROGEN
E02 ANALYZER, MOISTURE, HYDROGEN GAS GENERATOR
E02 ANALYZER, TURBINE VIBRATION
E02 ANNUNCIATOR
E02 CONTROL BOARD, W/ANNUNCIATOR
E02 CONTROL SYSTEM
E02 DETECTOR, CURRENT / CONTROLLER
E02 DETECTOR, LEAK
E02 FREQUENCY DIGITAL DISPLAY & INTERFACE
E02 INDICATOR, HYDROGEN PURITY
E02 FLOW METER
E02 MONITOR, DISPLAY

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

314: Turbogenerator Units (Steam Production)

E02 MONITOR, GENERATOR CONDITION
E02 MONITOR, TURBINE HYDRO DEW PT
E02 MONITORING SYSTEM, VIBRATION
E02 PROBE, TEMP, BEARING
E02 RECORDER, CHART
E02 RECORDER, MICRO W/ALARM, CONDENSATE FLOW
E02 RECORDER, TEMPERATURE, GENERATOR
E02 RECORDER, VIDEO GRAPHIC
E02 SAMPLE CELL
E02 SCALE, ELECTRIC
E02 SIMULATOR, TURBINE CONTROLS
E02 SUPERVISORY, TURBINE
E02 TACHOMETER, (OVERSPEED TURBINE CHECKS)
E02 TERMINAL, TURBINE CONTROL
E02 TRANSDUCER, FREQ DEVIATION
E02 TRANSMITTER, CONDUCTIVITY & SENSOR
E02 TRANSMITTER, PRESSURE
E02 TYPEWRITER, TURBINE CONTROLS

314-F02

PIPING BETWEEN ONE OR MORE UNITS & A HEADER

F02 AIR VACUUM PIPE LINE SYSTEM
F02 BLEED STEAM PIPING SYSTEM
F02 CHLORINE PIPING SYSTEM
F02 CIRCULATING WATER EFFLUENT LINE
F02 CIRCULATING WATER INFLUENT LINE
F02 CIRCULATING WATER PIPING SYS.-INSTRUMENT CONTROLS
F02 CIRCULATING WATER PIPING SYSTEM
F02 CONDENSATE, AUXILIARY, PIPING SYSTEM
F02 CONDENSATE, PIPING SYSTEM
F02 COOLING WATER PIPING SYS.-INSTRUMENT CONTROLS
F02 COOLING WATER PIPING, CLOSED AND DIRECT
F02 DRAIN LINE, BEARING
F02 HYDROGEN PIPING SYSTEM
F02 HYDROGEN SEAL OIL/FIRE PROTECTION, PIPING SYSTEM
F02 LUBE OIL PIPING SYSTEM
F02 PIPING SYSTEM, TURBINE PLANT
F02 POTABLE WATER PIPING SYSTEM
F02 RIVER WATER PIPING SYS.-INSTRUMENT CONTROLS
F02 RIVER WATER PIPING SYSTEM
F02 RIVER WATER, TURBINE, PIPING SYSTEM
F02 SEAL OIL PIPING SYSTEM
F02 STEAM, GLAND, PIPING SYSTEM
F02 TURBINE MAIN STEAM PIPING LEADS-STEAM TEMP CONTROL
F02 VENT AND DRAIN PIPING SYSTEM, TURBINE

314-F03

PIPING BETWEEN TWO OR MORE UNITS

F03 AIR EXTRACTION PIPING SYSTEM
F03 BLEED SYSTEM PIPING SYSTEM
F03 CARBON DIOXIDE PIPING SYSTEM
F03 CHLORINE PIPING SYSTEM
F03 CIRCULATING WATER PIPING SYSTEM
F03 CONDENSATE SYSTEM W/VALVES, PIPING SYSTEM
F03 CONDENSATE, AUXILIARY, PIPING SYSTEM
F03 HYDROGEN SEAL OIL PIPING, PIPING SYSTEM
F03 HYDROGEN SYSTEM PIPING SYSTEM
F03 PIPING SYSTEM, CONDENSER SUMP PUMPS

314-F04

STEAM SEPARATOR OR PURIFIER

F04 TANK, VACUUM SYSTEM SEPARATOR

314-F07

VALVES - OVER 2" AND COSTING \$1000 EACH

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

314: Turbogenerator Units (Steam Production)

F07 CONDENSOR, VALVE, ACCUATOR
F07 VALVE
F07 VALVE, AIR EXTRACTION PIPING SYSTEM
F07 VALVE, AUXILIARY CIRCULATING WATER
F07 VALVE, BY-PASS
F07 VALVE, CHECK
F07 VALVE, CHEST, STEAM TURBINE
F07 VALVE, CIRCULATING WATER
F07 VALVE, CLARIFIER INLET
F07 VALVE, COMBINED REHEAT
F07 VALVE, CONTROL
F07 VALVE, CONTROL, HYDROGEN SEAL OIL COOLER
F07 VALVE, COOLING TOWER MAKEUP, BUTTERFLY VALVE
F07 VALVE, DISC, STEAM
F07 VALVE, DUPLEX
F07 VALVE, GLAND SYSTEM BYPASS
F07 VALVE, GLAND SYSTEM SHUTOFF
F07 VALVE, ISOLATION, RECIRCULATING LINE INTAKE
F07 VALVE, MAKE-UP CLARIFIER
F07 VALVE, PARTITION, W/OPERATOR
F07 VALVE, PILOT
F07 VALVE, REHEAT STOP
F07 VALVE, SEQ, TURBINE
F07 VALVE, SHUTOFF, GLAND SYS
F07 VALVE, STEAM
F07 VALVE, THROTTLE
F07 VALVE, TURBOGENERATOR
F07 VALVE, UNLOADER, TURBINE
F07 VALVE, VACUUM BREAKER
F07 VALVE, WATER REGULATOR

314-G01

CRANE FOR TURBOGENERATOR UNIT

G01 CRANE, CIRCULATING WATER PUMP
G01 CRANE, INTAKE, GANTRY
G01 CRANE, TURBINE

314-G02

HOIST

G02 BRAKE, AUXILIARY HOIST
G02 BRAKE, BRIDGE DRIVE
G02 BRAKE, MAIN HOIST
G02 BRAKE, TROLLEY DRIVE
G02 BRIDGE DRIVE, REDUCER/MOTOR
G02 GEAR BOX, AUXILIARY HOIST
G02 GEAR BOX, MAIN HOIST W/REULAND MOTOR
G02 HOIST, CHLORINE DRUM
G02 HOIST, RIVER WATER CHLORIN INTAKE
G02 MOTOR, AUXILIARY HOIST
G02 MOTOR, AUXILIARY HOIST INCHING
G02 MOTOR, BRIDGE DRIVE
G02 MOTOR, HOIST
G02 MOTOR, HOIST INCHING
G02 MOTOR, TROLLEY DRIVE
G02 REDUCER, AUXILIARY
G02 TROLLEY DRIVE REDUCER, WMTR

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

315: Accessory Electric Equipment (Steam Production)

315-001

AIR DUCT SYSTEM

001 ISOLATED PHASE BUS DUCT
001 POWER DUCT BANK WIRING

315-002

AUXILIARY GENERATOR SET

002 FEED SYSTEM, POWER, AUXILIARY
002 GENERATOR SET, DIESEL
002 GENERATOR SWITCHGEAR, DIESEL
002 GENERATOR, CONNECTOR
002 PANEL, POWER
002 PIPE HEATING EQUIPMENT
002 RELAY, PROTECTIVE, AUX TRANSFORMER
002 RELAY, PROTECTIVE, DIGITAL
002 SUBSTATION
002 UNINTERRUPTIBLE POWER SUPPLY, SOLID STATE CONTROL

315-003

BATTERY CHARGING SET

003 BATTERY CHARGER

315-005

CONDENSER, SYNCHRONOUS

005 COMPRESSOR, START-UP AIR

315-006

CONTROL INSTALLATION, SYSTEM OPERATORS

006 CONTROLLER, PROGRAMMABLE LOGIC (PLC)
006 LOAD CENTER
006 MOTOR CONTROL CENTER
006 REMOTE CONTROLS FOR SWITCHGEAR & AUXILIARY EQUIP.

315-007

CONVERTER, SYNCHRONOUS OR ROTARY

007 INVERTER

315-009

FAN OR BLOWER

009 FAN

315-010

FOUNDATION EQUIPMENT

010 CONDUIT
010 FOUNDATION, START UP TRANSFORMER
010 FOUNDATION, STATION SERVICE TRANSFORMER

315-014

GENERATOR VOLTAGE REGULATOR SYSTEM

014 ENCLOSURE, REGULATOR, VOLTAGE
014 MOTOR CONTROL CENTER
014 POWER SUPPLY, VOLTAGE REGULATOR
014 PROTECTIVE RELAYING SYSTEM ON GENERATOR
014 REGULATOR, ELECTRIC, VOLTAGE
014 RELAYING SYSTEM, PROTECTIVE, GENERATOR

315-017

OIL CIRCUIT BREAKER

017 CIRCUIT BREAKER, LINE POWER
017 CIRCUIT BREAKER, TRIP

315-018

PANELS DEVOTED TO A SINGLE PURPOSE

018 BENCHBOARD, DUPLEX
018 CABINET, FIRE PROTECTION CONTROL
018 CABINET, POWER DISTRIBUTION
018 CABINET, TEST
018 MOTOR CONTROL CENTER

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

315: Accessory Electric Equipment (Steam Production)

018 PANEL
018 PANEL, CONTROL
018 PANEL, TRANSDUCER
018 SWITCHBOARD, CONTROL

315-019

REACTOR OR RESISTOR

019 RESISTOR

315-022

STORAGE BATTERY, STATION CONTROL

022 BATTERIES, STATION SERVICE
022 BATTERY, CONTROL
022 CABINET, BATTERY CONTROL
022 INVERTER
022 PANEL, POWER
022 POWER CENTER
022 RACK, BATTERY

315-023

DISCONNECTING SWITCHES

023 BREAKER, MAIN AUX TRANSFER
023 CIRCUIT BREAKER
023 CIRCUIT BREAKER, AIR
023 CIRCUIT BREAKER, POWER
023 STARTER, MOTOR
023 STARTER, SWITCH
023 STATION BUS, ISOLATED PHASE BUS DUCT
023 SWITCH, DISCONNECT
023 SWITCH, HIGH SPEED TRANSFER
023 SWITCH, INDOOR
023 SWITCH, OUTDOOR
023 SWITCHES, FIRE ALARM TEMPERATURE
023 SWITCHGEAR

315-024

TESTING EQUIPMENT

024 GAUGE, DEAD WEIGHT
024 MEGGER, BIDDLE
024 METER, KWH
024 MOTOR & PHASE ROTATION TESTER
024 OHMMETER
024 OSCILLOSCOPE
024 SEMICONDUCTOR CURVE TRACER
024 TESTER, HYPOTS, PORTABLE
024 TESTING EQUIPMENT

315-025

TRANSFORMER, NOT ACCESSORY TO A PANEL

025 CCVT
025 METER
025 METER, START-UP WATTHOUR
025 PANEL, RELAY, AUX TRANSFORMER
025 RELAY
025 RELAY, PROTECTIVE
025 SPRINKLER SYSTEM, FIRE WALLS, TRANSFORMERS
025 SUBSTATION, UNIT
025 TRANSFORMER
025 TRANSFORMER, DRY OUTDOOR
025 TRANSFORMER, ELECTRIC MOTORS
025 TRANSFORMER, OIL
025 TRANSFORMER, PAD MOUNTED
025 TRANSFORMER, SPARE POWER
025 TRANSFORMER, START-UP
025 TRANSFORMER, STATION AUXILIARY

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

315: Accessory Electric Equipment (Steam Production)

315-026

TRUCK SWITCH, WITH WIRING

026 SWITCH, AUTO TRANSFER

315-027

WIRING POWER, BUS, WIRES, CABLES

027 6.9 KV FEED
027 BREAKER, SWITCHGEAR
027 BUS DUCT
027 BUS WIRING POWER SYSTEM
027 BUS, UNIT SUBSTATION
027 CABLE
027 CABLE TRAYS
027 CABLE, CONTROL
027 CABLE, INSTRUMENT
027 CABLE, POWER
027 CABLE, UNDERGROUND,W/TRENCH
027 CONDUIT
027 CONDUIT, CONTROL AND FITTINGS
027 CONDUIT, POWER AND FITTINGS
027 COMPUTER, NETWORK POWER SYSTEM
027 DUCT BANKS
027 DUCT, ISOLATED PHASE BUS
027 DUCT, PHASE BUS, NON SEGREGATED
027 EMERGENCY, AC POWER SYSTEM MODIFICATION
027 GENERATOR, ISOLATED BUS
027 GROUNDING SYSTEM
027 JM RELAY
027 MANHOLES
027 PANEL, DISTRIBUTION
027 SWITCH, GEAR
027 SWITCH, GEAR-BUS

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

341: Structures and Improvements (Combustion Turbine)

- 341-002**
- STRUCTURE**
- 002 OIL RETENTION & WATER DRAINAGE SYSTEM
- 341-004**
- HVAC-AIR CONDITIONING SYSTEM**
- 004 HVAC, BATTERY ROOM
- 341-030**
- FENCE**
- 030 FENCE
- 030 FENCE, GROUNDING
- 341-035**
- ROAD**
- 035 ROAD PAVING
- 341-039**
- WALKS**
- 039 SIDE WALK
- 341-041**
- YARD DRAINAGE SYSTEM**
- 041 YARD DRAINAGE SYSTEM
- 341-042**
- YARD LIGHTING SYSTEM**
- 042 LIGHT, SECURITY
- 341-043**
- FUEL OIL DIKE**
- 043 DIKE, FUEL OIL
- 341-044**
- STAIRS & WALKWAYS**
- 044 STAIRS, FUEL OIL DIKE
- 044 WALKWAYS
- 341-045**
- ROCK SURFACE**
- 045 DIKE, FUEL OIL CRUSHED ROCK
- 045 FUEL OIL UNLOADING PUMP CRUSHED ROCK
- 045 HOLDING POND CRUSHED ROCK
- 045 RAILROAD CAR AREA, CRUSHED ROCK
- 045 ROCK, CRUSHED, GAS TURBINE AREA
- 045 TRUCK UNLOADING AREA CRUSHED ROCK
- 341-046**
- GUARD POSTS**
- 046 GUARD POSTS
- 341-047**
- HOLDING PONDS**
- 047 HOLDING POND
- 341-048**
- PAVEMENT**
- 048 PAVEMENT AROUND TURBINE
- 341-049**
- SIDING**
- 049 EXTERIOR SIDING
- 341-050**
- GRADING, LANDSCAPE, SEEDING, ETC.**
- 050 SEEDING & STERILENT
- 050 SITE GRADING

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

342: Fuel holders, producers, and accessories (Combustion Turbine)

342-A02

FOUNDATIONS, MAIN STORAGE TANK, SUPPORTS

A02 FOUNDATION, FUEL OIL TANK

342-A03

HVAC-HEATER, NOT A PART OF TANK

A03 HEATER, FUEL FORWARDING UNIT

342-A04

METER, FUEL OIL

A04 METER, FUEL FORWARDING UNIT

A04 METER, FUEL OIL FLOW

342-A05

PIPING SYSTEM, FUEL OIL, INCLUDING STRAINERS

A05 FLOW DIVIDER, FUEL FORWARDING UNIT

A05 FUEL OIL PIPING SYSTEM

342-A06

PUMP

A06 PUMP, FUEL FORWARDING UNIT

A06 PUMP, FUEL OIL TANK

A06 PUMP, FUEL OIL, UNLOADING

A06 TANK, CONTAINMENT BASIN

A06 TANK, FUEL OIL

342-A07

PURIFIER (FILTERS, CENTRIFUGES, ETC.)

A07 FILTER, FUEL

A07 FILTER, FUEL, LOW PRESSURE

342-A08

TANK, MAIN STORAGE, INCLUDING FIRE PROTECTION

A08 LUBE OIL STORAGE SYSTEM

A08 TANK, FUEL OIL

342-A09

FUEL OIL UNLOADING SYSTEM

A09 FUEL OIL UNLOADING STATION

342-F01

REID CT NATURAL GAS CONVERSION

F01 CABLE

F01 CABLE, FIBER OPTIC

F01 FILTER, COALESCING

F01 FLOW REGULATOR

F01 HEAT TRACE

F01 LOCAL INSTRUMENTATION

F01 ODORIZER WITH CONTROLS

F01 PIPE, STEEL, UNDERGROUND

F01 PRESSURE TRANSMITTER

F01 PVC CONDUIT

F01 REMOTE COMMUNICATIONS

F01 STEAM GAS HEATER

F01 TRANSFORMER

F01 TUBING, STAINLESS

F01 VALVE, MANUAL STOP

F01 VALVE, PRESSURE RELIEF

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

343: Prime Movers (Combustion Turbine)

343-A02

ENGINE

A02 COMBUSTION CHAMBER
A02 ENGINE

343-A03

FOUNDATIONS

A03 ENCLOSURE, ACCESSORY COMPARTMENT AND BASE
A03 ENGINE COMPARTMENT FIRE PROTECTION
A03 ENGINE FOUNDATION
A03 ENGINE SKID AND ENCLOSURE
A03 FAN, ACCESSORY COMPARTMENT VENT
A03 FIRE PROTECTION, ACCESSORY-COMPARTMENT
A03 SPACE HEATER,ACCESSORY COMPARTMENT
A03 SPACE HEATER,ENGINE COMPARTMENT

343-A05

GOVERNOR & CONTROL SYSTEM

A05 ENCLOSURE, CONTROL CAB
A05 GOVERNOR/CONTROL SYSTEM
A05 HVAC, A/C, CONTROL CAB
A05 SPACE HEATER,CONTROL CAB

343-A07

SIGNAL & ALARM SYSTEM

A07 SIGNAL AND ALARM SYSTEM

343-B01

COOLER

B01 COOLER, LUBRICANT

343-B02

PIPING SYSTEM, OIL

B02 LUBRICANT PIPING SYSTEM

343-B03

PUMP

B03 PUMP, AUXILIARY
B03 PUMP, EMERGENCY
B03 PUMP, MAIN SHAFT DRIVEN

343-B04

PURIFIER OR FILTER

B04 ELIMINATOR, MIST
B04 FILTER, LUBE OIL PURIFIER

343-B05

TANK

B05 TANK, LUBE OIL

343-C01

COOLING TOWER

C01 COOLING TOWER FOUNDATION
C01 COOLING TOWER FREEZE PROTECTION AND SILENCING
C01 FAN, COOLING TOWER, WATER COOLING
C01 TANK, COOLING TOWER SURGE

343-C04

HEAT EXCHANGER

C04 HEAT EXCHANGER,COOLING TOWER

343-C07

PUMP

C07 PUMP, COOLING WATER

343-D01

COMPRESSOR

D01 COMPRESSOR, STARTING SYSTEM

343-D04

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

343: Prime Movers (Combustion Turbine)

MOTOR TURNING GEAR & MECHANICS

D04 CLUTCH
D04 CONVERTER, TORQUE
D04 GEAR, MOTOR STARTING TURNING
D04 INPUT GEAR
D04 MOTOR, CRANKING
D04 OUTPUT GEAR
D04 TURNING GEAR AND COUPLING

343-E01

AIR DUCT SYSTEM

E01 DUCT, EXHAUST
E01 DUCTING, AIR INLET

343-E02

AIR FILTER OR SCREEN

E02 AIR COMPRESSOR, ATOMIZING
E02 AIR INLET SILENCING
E02 AIR SEPARATOR, ATOMIZING
E02 SCREEN, AIR INLET, FILTER

343-E03

PIPING SYSTEM, EXHAUST

E03 DUCTING, EXHAUST
E03 EXHAUST DUCT SILENCING

343-E04

STACK

E04 STACK, EXHAUST
E04 STACK, INTAKE AIR SUPPLY

343-F01

REID CT NATURAL GAS CONVERSION

F01 DUAL FIRE BURNERS
F01 ELECTRICAL WIRING
F01 GAS FLOW ELEMENT
F01 GAS HOSES, FLEXIBLE
F01 GAS RING HEADER
F01 HEATER, EXPLOSION PROOF
F01 PIPE, STAINLESS STEEL
F01 PLC MODS AND PROGRAMING
F01 PURGE RING HEADER
F01 TRANSMITTERS
F01 TUBING, STAINLESS
F01 VALVE, GAS REGULATOR, MAIN
F01 VALVE, GAS STOP, MAIN
F01 VALVE, PURGE AIR

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

344: Generators (Combustion Turbine)

344-001

EXCITER, DIRECT-CONNECTED OR BELT-DRIVEN

- 001 EXCITER ENCLOSURE
- 001 HEATER, SPACE, EXCITER

344-002

GENERATOR

- 002 GENERATOR
- 002 GENERATOR COOLING MEDIUM EQUIPMENT
- 002 GENERATOR SKID ENCLOSURE
- 002 SPACE HEATER

344-005

RHEOSTAT, GENERATOR FIELD

- 005 EXCITER RHEOSTAT

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

345: Accessory Electric Equipment (Combustion Turbine)

345-003

BATTERY CHARGING SET

003 BATTERY CHARGING SET

345-006

CONTROL INSTALLATION, SYSTEM OPERATORS

006 PANEL, REMOTE MASTER CONTROL

345-011

FREQUENCY CHANGER

011 FREQUENCY CHANGER

345-012

FREQUENCY CONTROL SYSTEM

012 FREQUENCY CONTROL SYSTEM

345-013

FUSE EQUIPMENT, SET OF HIGH TENSION

013 TOOL, TERMI-POINT REEL

345-014

GENERATOR VOLTAGE REGULATOR SYSTEM

014 CAPACITORS, SURGE

014 GENERATOR LEADS, CIRCUIT

014 REGULATOR, VOLTAGE

345-015

INDUCTION REGULATOR

015 REGULATOR, INDUCTION

345-016

LIGHTNING ARRESTOR

016 ARRESTOR, LIGHTNING

345-018

PANELS DEVOTED TO A SINGLE PURPOSE

018 MOTOR CONTROL COMPARTMENT

018 MOTOR CONTROL COMPARTMENT AIR CONDITIONING

018 MOTOR CONTROL COMPARTMENT FIRE PROTECTION

018 MOTOR CONTROL COMPARTMENT SPACE HEATER

345-019

REACTOR OR RESISTOR

019 REACTOR RESISTER

019 REACTOR, LINEAR

345-020

RECTIFIER

020 RECTIFIER ASSEMBLY

020 RECTIFIER

345-022

STORAGE BATTERY, STATION CONTROL

022 BATTERY ENCLOSURE

022 BATTERY, STORAGE

022 HEATER, BATTERY COMPARTMENT

345-023

DISCONNECTING SWITCHES

023 SWITCHES, SET

345-025

TRANSFORMER, NOT ACCESSORY TO A PANEL

025 TRANSFORMER, AUXILLIARY

025 TRANSFORMER, CRANKING MOTOR

025 TRANSFORMER, CURRENT, BANK

025 TRANSFORMER, GROUND

025 TRANSFORMER, POTENTIAL

025 TRANSFORMER, POWER, POTENTIAL

025 TRANSFORMER, SATURABLE, CURRENT

**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

345: Accessory Electric Equipment (Combustion Turbine)

345-027

WIRING POWER, BUS, WIRES, CABLES

027	BUS COMPARTMENT
027	BUS SYSTEM
027	CABLE
027	POWER WIRING
027	SWITCHGEAR COMPARTMENT SPACE HEATER
027	SWITCHGEAR ENCLOSURE

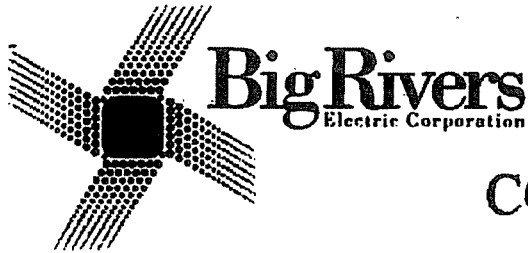
**** This Retirement Unit Listing is subject to change from time to time consistent with the Coordination Agreement. ****

353: Station Equipment (Transmission Station)

353-035

035	TRANSFORMER, STEP-UP
035	DELUGE SPRINKLER SYSTEM, TRANSFORMER

COMPANY POLICY
CAPITALIZATION OF EXPENDITURES
11/30/1993



COMPANY POLICY

DRAFT 6-18-02 BY PLM

Policy Number	
Page	1 of 3
Subject	Capitalization of Expenditures
Issue Date	11/30/93
Approved by	
Date last amended	
Date last reviewed	

SCOPE

Determining when to capitalize an expenditure to "Electric Plant in Service" account 101.000 as opposed to expense in accordance with REA Bulletin 181-1.

POLICY

To be capitalized, an item of property must be covered by one of the following classifications:

- a. New retirement unit
- b. Retirement unit replacement
- c. Retirement system addition
- d. Retirement system replacement
- e. New minor property item
- f. Minor property item replacement with betterment
- g. Computer software and software upgrades

RULES

See the corresponding lettered paragraph below for rules governing each case. Stated dollar values are after consideration of freight, sales tax, discount, etc.

- a. New Retirement Unit
 1. Cost more than \$1,000 in boiler or turbogenerator plant or \$500 in other accounts,
 2. Be readily separable and separately useable, and
 3. Have an expected useful life of more than one year. Valves that are requisitioned, including those inventoried, which cost more than 41,000 and are over 2" in size and are not replacements for an existing system are to be capitalized. (System valve replacements are to be charged to maintenance.)

b. Retirement Unit Replacement

1. cost more than \$1,000 in boiler or turbogenerator plant or \$500 in other accounts, and
2. Be a replacement of a similar retirement unit or consist of replacing minor property items that total to more than 50% of the existing retirement unit cost. If the 50% test is met, it is assumed a new retirement unit has been created. Retire 100% of the old unit and recapitalize the salvageable portion along with the new minor property item(s). (The replacement of existing minor property items costing 50% or less of the original retirement unit is to be charged to maintenance.)

c. Retirement System Addition

1. Be an addition to or an expansion of a system, and
2. Cost more than \$1,000 in boiler or turbogenerator plant or \$500 in other accounts, and
3. Be of permanent nature, and
4. Be an integral part of an existing system. (A system is a grouping of generic or interacting items forming a unified whole. Classification as a system is for accounting convenience and enables an efficient and methodical means to account for a grouping of items which are frequently changing as a result of additions and replacements. Classification as a system may be appropriate where specific item identity is difficult to ascertain. Financial Services will make all system determinations. When it is evident that multiple items are purchased on multiple requisitions, possibly on different dates, for the same system project, the capitalization decision shall be based on the total project cost.)

d. Retirement System Replacement

1. Be an integral part of an existing system,
2. Be of permanent nature, and
3. Cost more than 50% of the existing retirement system. If the 50% test is met, it is assumed a new retirement system has been created. Retire 100% of the old system and recapitalize the salvageable portion along with the new replacement cost. (Replacement of an existing system costing 50% less of the original system is to be charged to maintenance.)

e. New Minor Property Item

1. Minor property item not previously existing, and
2. Be of a permanent nature, and
3. Cost exceeds 25% of the retirement unit of which it will become a part or \$10,000, the smaller of the two. (Otherwise, the addition of minor property items is to be charged to operations.)

f. Minor Property item Replacement with Betterment

1. Be of a permanent nature, and
2. Result in a substantial betterment with the primary aim of making the property affected more useful, more efficient, more durable, or capable of greater capacity. Capitalize the cost in accordance with the NOTE 1 below.

g. Computer Software and Software Upgrades

1. Capital any new software purchase of \$1,000 or more if used with a boiler or turbogenerator computer of \$500 or more if used for any other computer, as long as the new software has a useful life of more than one year.
2. Any software upgrade should be capitalized if the cost of the upgrade exceeds 25% of the software which it will become a part or \$10,000, the smaller of the two. The 25% must be \$1,000 or more if used with a boiler or turbogenerator computer or \$500 or more if used for any other computer. The software upgrade must have a life of more than one year.

NOTE 1: In all cases above except e., the amount capitalized is governed by standard accounting principles. For e. above, the amount capitalized is equal to the difference between the cost of the new minor property item and the cost of replacement without betterment at today's prices. The remaining dollars are to be charged to maintenance.

NOTE 2: A work order is required when constructing, fabricating, modifying, installing, or removing capital facilities or equipment. See Estimate Construction Work Order procedure number 011.210.08 for details.

REFERENCES: Excerpts taken from REA Bulletin 181-1 (Page 101-13) and 181-2 (Page 1).

Big Rivers Electric Corporation
Depreciation Rate Schedule
May 1, 2010

<u>Account</u>		<u>%</u>
Production		
303	Training Costs	1.94
311	Structures	1.71
312	Boiler Plant	1.79
312 A-K	Boiler Plant – Environmental	1.89
314	Turbine	1.66
315	Electric Equipment	1.60
316	Misc Equipment	1.83
341	CT – Structures	2.31
342	CT – Fuel Holders and Accessories	2.32
343	CT – Prime Movers	2.47
344	CT – Generators	2.23
345	CT – Accessory Electrical Equipment	2.23
346	CT – Misc Equipment	2.27
Transmission		
352	Structures	1.76
353	Station Equipment	2.22
354	Towers	2.28
355	Poles	3.24
356	Lines	2.47
General Plant		
390	Structures	2.59
391	Office Furniture & Equipment	1.11
392	Vehicles	5.62
393	Stores Equipment	3.57
394	Tools, Shop, & Garage Equipment	2.85
395	Laboratory Equipment	2.86
396	Power Operated Equipment	3.70
397	Communication Equipment	4.35
398	Misc. Equipment	5.44

BIG RIVERS ELECTRIC CORPORATION
BALANCE SHEET
AS OF DECEMBER 31, 2009

ASSETS	CURRENT YEAR	PRIOR YEAR	VARIANCE
1. TOTAL UTILITY PLANT IN SERVICE	1931,116,387.99	1783,587,001.36	147,529,386.63
2. CONSTRUCTION WORK IN PROGRESS	55,256,846.79	8,185,239.98	47,071,606.81
3. TOTAL UTILITY PLANT	1986,373,234.78	1791,772,241.34	194,600,993.44
4. ACCUM PROVISION FOR DEPR & AMORT	(908,099,499.70)	(879,073,594.80)	(29,025,904.90)
5. NET UTILITY PLANT	1078,273,735.08	912,698,646.54	165,575,088.54
6. NON-UTILITY PROPERTY - NET			
8. INVEST IN ASSOC ORG PATRONSHE CAPITAL	3,576,487.80	3,384,730.60	191,757.20
9. INVEST IN ASSOC ORG OTHER GENERAL FUNDS	684,993.00	684,993.00	
12. OTHER INVESTMENTS	15,333.85	15,333.85	
13. SPECIAL FUNDS	243,878,494.91	510,213.30	243,368,281.61
14. TOTAL OTHER PROPERTY AND INVESTMENTS	248,155,309.56	4,595,270.75	243,560,038.81
15. CASH - GENERAL FUNDS	243,538.53	6,193.09	237,345.44
16. CASH - CONSTRUCTION FUNDS - TRUSTEE			
17. SPECIAL DEPOSITS	571,738.53	570,634.47	1,104.06
18. TEMPORARY INVESTMENTS	59,886,883.46	38,423,956.90	21,462,926.56
20. ACCOUNTS RECEIVABLE - SALES OF ENERGY	19,902,094.99	18,640,706.45	1,261,388.54
21. ACCOUNTS RECEIVABLE-OTHER NET	5,281,594.89	1,823,031.64	3,458,563.25
22. FUEL STOCK	37,829,643.95		37,829,643.95
23. MATERIALS & SUPPLIES - OTHER	20,412,537.94	756,008.54	19,656,529.40
24. PREPAYMENTS	5,013,932.41	4,291,456.80	722,475.61
25. OTHER CURRENT & ACCRUED ASSETS	2,312,935.29	4,594.61	2,308,340.68
26. TOTAL CURRENT & ACCRUED ASSETS	171,454,939.99	64,516,542.50	106,938,397.49
27. UNREPT DEBT DISC & RETRACED PROF LOSS	927,458.89	735,246.94	192,211.95
28. REGULATORY ASSETS			
29. OTHER DEFERRED DEBITS	6,672,013.82	91,890,500.65	(85,218,486.83)
30. ACCUMULATED DEFERRED INCOME TAXES			
31. TOTAL ASSETS AND OTHER DEBITS	1505,483,457.34	1074,436,207.38	431,047,249.96
EQUITIES AND LIABILITIES			
32. MEMBERSHIPS	75.00	75.00	
33. NET PATRONSHE CAPITAL			
34. OPERATING MARGINS - PRIOR YEAR	(244,639,283.68)	(272,715,872.23)	28,076,588.55
35. OPERATING MARGINS - CURRENT YEAR	(6,877,453.58)	15,852,798.55	(22,830,252.13)
36. NONOPERATING MARGINS - PRIOR YEAR	97,816,916.06	85,853,983.56	11,962,932.50
36. NONOPERATING MARGINS - CURRENT YEAR	538,307,710.27	11,962,932.50	526,344,777.77
37. OTHER MARGINS & EQUITIES	(5,116,422.80)	4,444,502.20	(9,560,925.00)
38. TOTAL MARGINS & EQUITIES	579,591,941.27	(154,601,580.42)	734,193,521.69
39. LONG-TERM DEBT - BRS	766,451,745.03	848,981,786.92	(182,530,041.89)
42. LONG-TERM DEBT - OTHER	142,100,000.00	170,137,976.09	(28,037,976.09)
45. TOTAL LONG-TERM DEBT	908,551,745.03	1019,119,763.01	(110,568,017.98)
49. NOTES PAYABLE			
50. ACCOUNTS PAYABLE	34,019,327.98	15,167,552.79	18,851,775.19
54. TAXES ACCRUED	456,638.14	1,022,543.10	(565,904.96)
55. INTEREST ACCRUED	9,097,431.78	8,038,660.07	1,058,771.71
56. OTHER CURRENT & ACCRUED LIABILITIES	9,409,621.62	2,111,339.08	7,298,282.54
57. TOTAL CURRENT & ACCRUED LIABILITIES	52,981,039.52	26,320,095.04	26,660,944.48
58. DEFERRED CREDITS	207,347,581.11	156,300,498.43	51,047,082.68
47. OPERATING RESERVES	27,211,550.41	7,297,421.32	19,914,129.09
46. OBLIG UNDER CAPITAL LEASRS - NON-CURRENT			
60. TOTAL LIABILITIES AND OTHER CREDITS	1505,483,457.34	1074,436,207.38	431,047,249.96

Vendor Proposal Scoring Data

Vendor	Selection Criteria	Weight	MRV	Weighted Score	Burns & Mac	Weighted Score	Gannett Fleming	Weighted Score	Alliance	Weighted Score
	Reputation and reliability	70	6	420	10	700	8	560	7	490
	Fee	80	5	400	7	560	9	720	8	640
	Experience with Depreciation Studies	100	2	200	10	1000	8	800	6	600
	Relevant Testimony Experience	60	5	300	7	420	8	480	7	420
	Industry Position	70	6	420	10	700	8	560	7	490
	Scope of Work Outlined	80	5	<u>400</u>	8	<u>640</u>	8	<u>640</u>	9	<u>720</u>
	Vendor Score			2140		4020		3760		3360

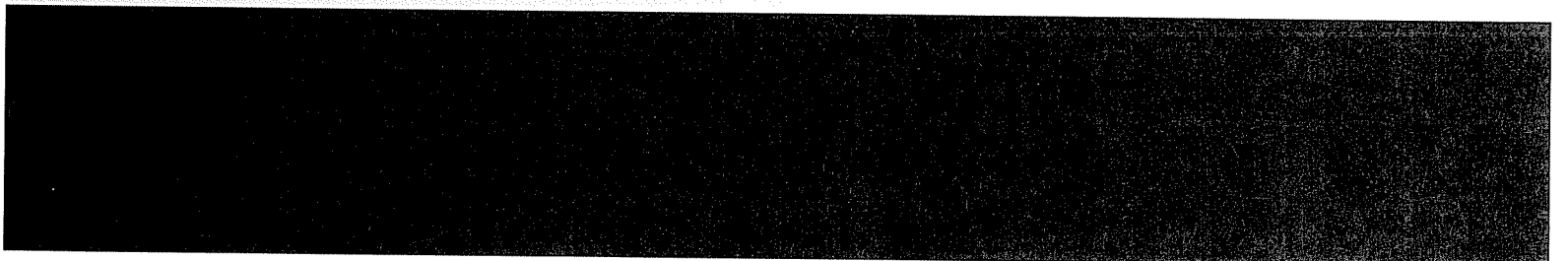
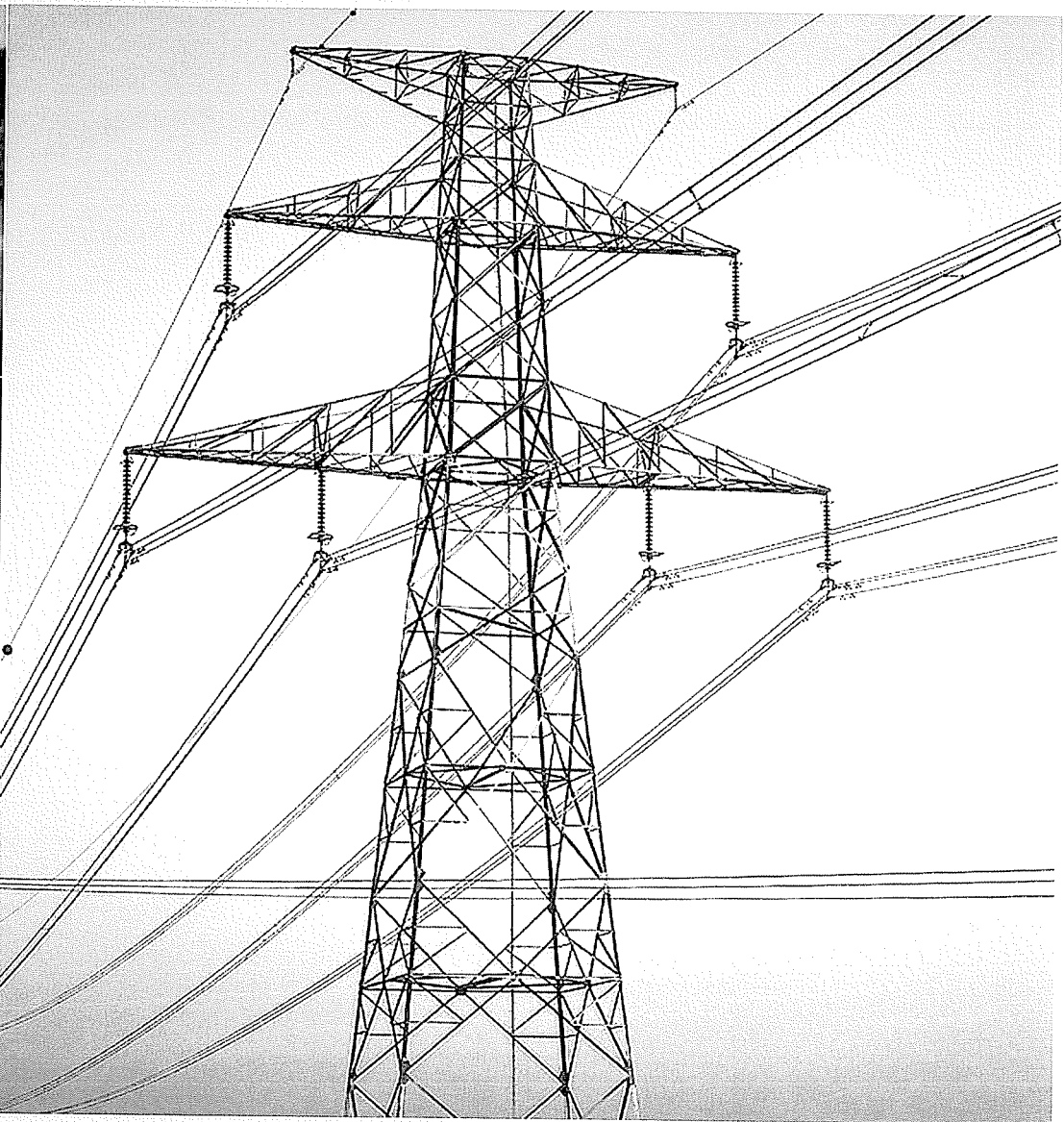
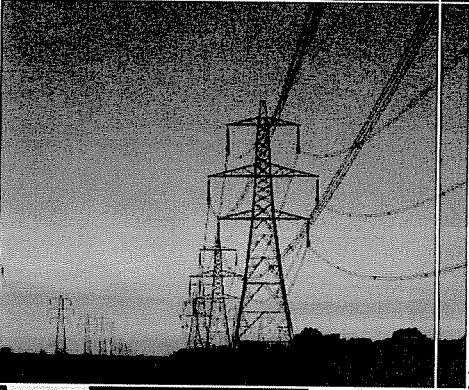
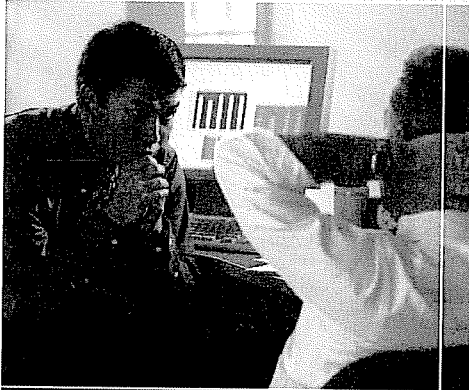
**Burns &
McDonnell**
SINCE 1898



Proposal for Cost of Service and Rate Design Study

Submitted to: **Big Rivers Electric Corporation**

October 2010





October 14, 2010

Dana Clevidence
Director of Procurement
Big Rivers Electric Corporation
201 Third Street
Henderson, Kentucky 42420

Re: Proposal for Cost of Service and Rate Design Study

Dear Ms. Clevidence:

Burns & McDonnell is pleased to submit our proposal to complete a Cost of Service and Rate Design Study (Study) for Big Rivers Electric Corporation (Big Rivers). This Study will provide a review and analysis of wholesale rate objectives and rate structure for Big Rivers to apply for general adjustments to rates for member distribution cooperatives. Burns & McDonnell's broad depth of electric utility experience, along with our extensive experience working with electric cooperatives, makes us an excellent choice for this assignment. Our capabilities to offer a full range of services, including financial and planning studies, environmental studies and analysis, engineering design, and construction services, were developed as we grew to meet the needs of our electric cooperative clients. We have helped these clients meet Rural Utilities Service (RUS) requirements for over 60 years.

Burns & McDonnell has staff with the expertise to serve all aspects of the expected tasks to complete the Study. We are proposing a project manager with extensive experience in utility rate matters and familiarity with issues that impact your business.

The proposed project director for the assignment, Mr. Ted Kelly, was the project manager on a similar assignment for Associated Electric Cooperative, Inc. and directed overall project activities. In addition, he personally completed over a dozen of the individual distribution system cost unbundling studies. This and other projects are similar to the study that Big Rivers is looking to complete and Burns & McDonnell's previous experience will prove to be valuable in this Study effort.

Briefly, Burns & McDonnell makes an excellent choice for this assignment due to:

- A long history of working with electric cooperatives, and knowledge of current RUS requirements.
- A firm with the capability to provide the full range of services needed to support the needs of Big Rivers that may arise.
- A firm with current, recent, and extensive experience serving the electric utility industry.
- The dedication and support of approximately 3,000 employee-owners at Burns & McDonnell. As a 100% employee-owned company, the staff assigned has a vested interest in satisfying the needs of Big Rivers.

Burns & McDonnell appreciates being considered for this effort, and the opportunity to work with Big Rivers on this important project. We would be pleased to discuss any part of this proposal with you at your convenience. Please call me at 816-822-3208, if you have any questions.



Dana Clevidence
October 14, 2010
Page 2

Sincerely,

BURNS & MCDONNELL

A handwritten signature in black ink, appearing to read "Ted J. Kelly". The signature is fluid and cursive, with the first letters of each word being capitalized and prominent.

Ted J. Kelly
Principal and Project Director
Business & Technology Services

PROPOSED WORK PLAN

Proposed Work Plan



Big Rivers has issued an RFP for consulting services to complete a Cost of Service and Rate Design Study. Burns & McDonnell understands the scope desired by Big Rivers and is prepared to complete the services to meet the specific needs of Big Rivers.

As Burns & McDonnell moves through each phase of the services required, we will follow a process that will include:

- sharing of information
- analysis
- presentation of preliminary results
- education
- agreement on final results

This approach keeps all stakeholders on the same page and produces results that reflect not only Burns & McDonnell's analysis, but input from Big Rivers. We are prepared to work with the Big Rivers staff in completing the services. Big Rivers staff will be fully involved in all aspects of the services.

Each phase of the services will end with a review and presentation of the results to Big Rivers either face-to-face or by conference call. Burns & McDonnell will work with Big Rivers to reach agreement on the status of the project, and discuss the work to be accomplished in the next phase of the project.

In competing the study Burns & McDonnell will assist Big Rivers in developing dynamic pricing mechanisms to promote and support energy efficiency and demand side management programs.

Scope of Services

Big Rivers' project objectives, as identified in the RFP, include using the results of the Study in an upcoming application for general adjustments in existing wholesale rates to the three Member-Systems to the Kentucky Public Service Commission. The study therefore is proposed to be developed based on methodology generally accepted within the industry and based on current and reliable data. The primary objectives of Big Rivers for the Study are to:

- Develop an unbundled pro forma test year cost of service;
- Develop a proposed wholesale rate structure for Big Rivers' Rural and Large Industrial rate classifications that reflects Big Rivers' cost of providing service and results in a fair and equitable distribution of Big Rivers' revenue requirement to its Member-Systems.
- Develop a rate design that appropriately considers load factor, load size, energy efficiency and demand-side management programs.
- Provide a sufficient return to Big Rivers.

Burns & McDonnell is prepared to provide services to complete all the scope of services currently being requested by Big Rivers. The scope of services will include: Data Gathering and Review; Cost of Service and Rate Design; Rate Design; Study Process Services; and Development of Project Deliverables. We have broken these services down into a six phase process to complete the desired Study. Phase 1 services will include data collection and analysis.

Proposed Work Plan (continued)



Phase 2 services will involve development of the revenue requirement. Phase 3 is the detailed cost of service analysis. Phase 4 is the rate design efforts. Phase 5 is the preparation and presentation of the study report including a thorough review of the study model template that will be developed and provided to Big Rivers for future use. Phase 6 is to assist Big Rivers with the preparation and development of the rate case for filing, as needed. Costs for Phase 6 are not included in the base fee for our proposed services.

Our general approach to completing each phase of the services is outlined below. More specific details can be discussed and finalized in the initial project kick-off meeting.

Phase 1 – Data Collection and Analysis

In this phase, Burns & McDonnell will clarify our understanding of Big Rivers' goals and objectives for the desired services and share our philosophies on the issues and process of wholesale electric rate making including revenue requirements, rate base, cost of capital, cost of service, and rate design. We will also collect the information needed to complete the services.

Task A -- Collect Information

Burns & McDonnell will initiate the services by developing a comprehensive list of data and information required from Big Rivers. Categories of information to be requested include financial data, sales and load statistical data, power supply data, rate information, etc. Based on previous experience and the fact that Big Rivers follows generally accepted accounting principals, Burns & McDonnell believes that the data provided will facilitate a smooth initiation of the analysis.

Task B – Conduct Kickoff Meeting

Burns & McDonnell will meet with the Big Rivers' management and staff to discuss the services. During this kickoff meeting, Big Rivers' objectives and Burns & McDonnell's approach for the services will be reviewed. This meeting will provide a forum for Burns & McDonnell and Big Rivers to discuss the basic tenets of the revenue requirements, rate base, cost of capital, cost of service, and rate design. Taking time at the beginning of this assignment to make sure that all involved understand the entire ratemaking and rate case process will result in a much more efficient project.

At this kick-off meeting, requested data and information that has been compiled by Big Rivers will be reviewed and the status of all outstanding items requested will be determined.

Task C – Review of Rate Designs for Consideration

Burns & McDonnell will assess and discuss various wholesale rate designs for consideration to determine which rate design options will be most compatible and supportive of Big Rivers' goals for this Study. This task will be initiated early in the study process to allow adequate time to investigate rate design options and fully evaluate the appropriateness for Big Rivers.

Phase 2 – Revenue Requirement

Burns & McDonnell will begin Phase 2 of the study with a thorough review of the financial statements and supporting data provided by Big Rivers for the test period. Burns & McDonnell will then work with Big Rivers to develop the test year revenue requirement that will ultimately be utilized for the rate design process. Various components of Big Rivers' revenues and its costs of providing electric service to its consumers should be analyzed and reviewed. The

Proposed Work Plan (continued)



resulting pro forma financial statements will provide an indication of the sufficiency (or insufficiency) of Big Rivers' existing wholesale rates to recover the costs and to meet Big Rivers' financial performance requirements during the test year.

Task A – Develop Revenue Requirement

Burns & McDonnell will review the financial statements provided by the Big Rivers staff that includes Big Rivers' annual revenues, operating expenses, non-operating expenses, net income, etc. for the test year. Burns & McDonnell will develop the revenue requirement for the selected test period for Big Rivers incorporating input from Big Rivers.

Assumptions used to develop the revenue requirement will be reviewed regarding changes in revenue levels, operating expenses, and debt structure determined to be required for the test year to reflect financial results that are consistent with Big Rivers' objectives, i.e. times interest earned ratios (TIER), debt service coverage (DSC), operating margins, etc.

Task B – Review Revenue Requirement With Staff

A meeting will be held with the Big Rivers staff to review and discuss the preliminary revenue requirement. Burns & McDonnell will provide explanations of any recommended changes for possible inclusion in the analysis. After Big Rivers has had the opportunity to revise the analysis, Burns & McDonnell and Big Rivers will agree upon all revisions to the assumptions used in the development of the revenue requirements. The test-year revenue requirement provides the foundation of the subsequent unbundled cost-of-service analysis

Phase 3 – Detailed Cost-of-Service Analysis

The cost-of-service analysis results in the development of a detailed breakdown of the annual revenue requirement and rate base. In Phase 2 of the Study, the adequacy of the existing rates for recovering the annual revenue requirement at the system level was determined. In Phase 3, Big Rivers should determine the adequacy of the current rates in recovering the revenue requirement allocated to the corresponding member system.

In general, the process described below for completing the detailed cost-of-service analysis for Big Rivers Big Rivers will be the same process used to complete separate cost of service analyses for each of the 16 distribution cooperatives. The key difference in completing the cost of service analyses for the distribution cooperatives will be that costs will be allocated to each of the rate classes within each system.

Task A – Functionalize Costs

Burns & McDonnell will review the allocation factors developed by Big Rivers that will serve as the bases for functionalizing costs. The first segregation of costs in a cost-of-service analysis is the assignment of the cost components of the revenue requirement to functional service areas, i.e. production, transmission, distribution, customer service, etc. For this analysis, Burns & McDonnell will discuss with Big Rivers which functional services to use to assign the annual revenue requirement based on Big Rivers' current system operation.

The amounts included in the annual revenue requirement for each component of revenue, expense, and rate base will be assigned to or split between the

Proposed Work Plan (continued)



various functional services. These assignments will be made through direct assignment to a specific related function, assumed percentage breakdowns based on estimated levels of related activities within multiple functions, ratios of statistical factors affecting multiple functions, and composite ratios of the assignments resulting from the previous methods.

Task B – Allocate Costs to Member Systems and Smelter Contracts

The annual revenue requirement and rate base will be allocated among Big Rivers' member systems and to the Smelter Wholesale Contracts. Burns & McDonnell will discuss with Big Rivers the allocation methods used by staff in completing the study. Certain allocation methods are more appropriate than others, depending upon the cost structure and financial goals of Big Rivers.

Burns & McDonnell will produce a summary of the allocated revenue requirement and rate base by member system and calculate the actual rate of return provided by the rates charged to each member. This output will be compared with the projected revenue to be generated by each member to estimate the extent to which the current rates would recover the corresponding allocated share of the annual revenue requirement.

The analysis will be completed with an understanding and consideration of Big Rivers' wholesale tariff riders which are automatic cost recovery mechanisms that currently include an environmental surcharge, a fuel adjustment clause, an Unwind Surcredit, a Member Rate Stability Mechanism, and a Rebate Adjustment and the Non-FAC PPA. In addition, the Surcharge and TIER Adjustment charge pursuant to the Smelter contracts will be considered.

Task C – Review Cost- of-Service

Burns & McDonnell will conduct a review meeting with Big Rivers staff to review and discuss the preliminary cost-of-service analysis results. Any revisions to the assumptions used in the cost-of-service analysis will be agreed upon for purposes of finalizing the analysis. In addition, guidance will be provided to Big Rivers as to any adjustments to the revenue recovery.

Phase 4 – Rate Design

The results of the cost-of-service analysis are one of several considerations in the process of designing electric rates. Other considerations include the structure of current rates, price stability, revenue stability, ease of administration, and specific objectives of Big Rivers. In this final phase of the Study, proposed wholesale rates will be developed to be compatible and supportive of Big Rivers' goals.

Burns & McDonnell will develop an appropriate set of rate design criteria and objectives in consultation with Big Rivers and the Member Systems. These criteria will then be followed in developing proposed rates.

Task A – Evaluate Current Rates

Burns & McDonnell will utilize the results of the review of the current rate classifications and the cost-of-service analysis to evaluate the appropriateness of the current rate schedules. From this review, Burns & McDonnell will identify strengths and weaknesses of the existing rate structures and will provide recommendations to Big Rivers for appropriate modifications to ensure new rates are compatible and supportive of Big Rivers' goals and objectives. The proposed rates will include bundled and unbundled structures that will consider coincidental versus non coincidental demand, time of day and/or

Proposed Work Plan (continued)



*Task B – Develop
Proposed Rates*

seasonal rates, critical peak and/or real time pricing, or other options identified.

Proposed rates will be developed for review by Big Rivers. These rates will be developed to consider the allocated revenue requirement and to take into consideration proper on-peak and off-periods, energy efficiency objectives and demand side management programs being considered or implemented by Big Rivers. The proposed rates developed and annual revenues generated with the rates should be estimated using the historical billing data.

Once the rates are prepared, Burns & McDonnell will develop a comparison of revenue generation from each Member-System under the existing and proposed wholesale rates. If the proposed rate adjustments are determined to be significant, a phased in approach to implementation may be recommended.

*Task C – Review Rate
Design with Staff*

Burns & McDonnell will meet with the Big Rivers staff to discuss the proposed rates and the recommendations contained therein. During this meeting, agreement will be reached as to any revisions to the rate design and any corrections or revisions required in order to finalize the proposed rates.

*Task D – Present
Findings to Big Rivers*

Following the review of proposed rates with the Big Rivers staff, Burns & McDonnell will participate in a presentation of the study results to Big Rivers' Board and others, as appropriate.

**Phase 5 – Study
Report Preparation**

Burns & McDonnell will prepare a draft report showing the results of each task identified for the analysis. This report will describe the approach taken in completing each task, as well as the inputs used, the assumptions made, and the results obtained. The results will be presented in tabular form and will provide the proposed recommendations for Big Rivers' consideration. Five copies of the draft report will be submitted to Big Rivers for review. Following the issuance of the draft report, Burns & McDonnell will schedule a conference call with the Big Rivers staff to discuss the results of the Study as presented in the draft report. This call will facilitate a clear understanding of the Study results on the part of the staff prior to the report being issued in final form to Big Rivers. At the conclusion of the results review call, Burns & McDonnell will be prepared to complete final editing of the report. Based on the comments and questions received and reviewed, the report will be revised, as appropriate, and will be issued in final form. Twenty-five copies of the final Study report will be provided to Big Rivers. The final Study report will also be provided in electronic format. The Excel spreadsheet models developed in completing the Study will also be provided to Big Rivers.

Burns & McDonnell will also provide Big Rivers with a fully functioning Excel spreadsheet model of the revenue requirements and cost of service analysis. We propose to provide a review session with appropriate Big Rivers' staff to review the model and discuss how revisions and updates should be completed.

**Phase 6 – Assist Staff
in the Development of
a Rate Case Filing**

Following the final approval of proposed rates by Big Rivers, Burns & McDonnell will assist the Big Rivers staff in the development of a rate case filing to the Kentucky PSC if desired. The specifics of this assistance will follow the guidelines and policies set forth by the PSC and will be determined

Proposed Work Plan (continued)



once Big Rivers decides to move forward with the rate filing. Services which Burns & McDonnell may provide are guidance and direction to Big Rivers staff in the development of the actual filing documents, provision of expert testimony to support analysis Burns & McDonnell prepares, review of Big Rivers staff prepared testimony, and any other assistance determined to be necessary in a rate case proceeding before the PSC.

PROPOSED PROJECT TEAM

Proposed Project Team



Key Personnel

When Big Rivers decides to pursue the completion of the project, Burns & McDonnell will make the appropriate individuals available to provide the necessary services. Our proposed project team would be structured as follows:

Mr. Ted Kelly will serve as project director. Mr. Kelly has extensive experience in utility rate matters and has performed various cost-of-service and rate design studies for clients across the country. As project director, he will ensure satisfactory completion of the work and be directly responsible for the services. Besides having responsibility for completing certain aspects of the proposed work, he will ensure that other appropriate resources within our multi-disciplined, full-service firm are brought in as needed to complete the various aspects of each phase of the project. Mr. Kelly has managed numerous similar studies over the past five years including studies for Kauai Island Utility Cooperative, Lihue, Hawaii; Heartland Consumers Power District, Madison, South Dakota; Western Farmers Electric Cooperative, Anadarko, Oklahoma; Lakeland, Florida; Naperville, Illinois; Dover, Delaware; Glenwood Springs, Colorado; and Owensboro, Kentucky. He has also managed rate study work for Associated Electric Cooperative, Springfield, Missouri and numerous unbundling studies for many of Associated's member distribution systems. Mr. Kelly has provided expert witness testimony for work associated with rates studies during his 30-plus year career.

Mr. Adam Young will serve as project manager. Mr. Young will be responsible for completing the detailed analysis and preparing the rate model for the electric system. Mr. Young has developed and used financial models as part of a number of studies. These studies have included financial analysis, determination of revenue and revenue requirements, cost-of-service analyses, and rate analyses and design. Mr. Young was responsible for completing the detailed analysis for recent similar studies including Lakeland, Florida, Owensboro, Kentucky, and Dover, Delaware. He has assisted with various financial and rate analysis for rural cooperatives including work for Western Farmers Electric Cooperative, Anadarko, Oklahoma

Ms. Sara Worrall will serve as a senior project analyst. Ms. Worrall has been actively involved as project analyst in several cost-of-service and rate studies for various utilities, including system development fees. She has been responsible for analyzing required capital expenditures, evaluating revenue and debt financing, and allocating costs to various customer classes. She has also determined cost-based rates based on projected revenues and expenses using detailed financial models. Her project experience includes serving as the principal project analyst on electric rate studies for Naperville, Illinois, Dover, Delaware, and Western Farmers Electric Cooperative.

Mr. Gerron Blackwell will be available to serve as project analyst. Mr. Blackwell has developed and used financial models on a number of project assignments. These studies have included various financial and rate study projects. He has been involved in rate studies for clients including Owensboro, Kentucky; McPherson, Kansas; Dover, Delaware, and Lakeland, Florida.

Mr. Stanley Abromaitis will serve as quality manager and senior project advisor. During his 32-year career, Mr. Abromaitis has provided technical analysis, project management, expert witness testimony, and a wide range of planning related services to more than 100 domestic and overseas electric,

Proposed Project Team (continued)



natural gas and water utility clients, regulatory bodies, and governmental agencies.

Detailed resumes for the project team members are provided on the following pages. These resumes provide extensive information concerning the experience our senior consultants have in providing services to clients across the country. Additional resumes can be provided upon request.

Ted J. Kelly

Project Director



Expertise

- Utility Rate Analyses
- Cost of Service
- Utility Planning and Operations Analysis
- Procedural Analysis
- Financial Analysis
- Cost-Benefit Analysis
- Valuation Methodology

Education

- B.S. in Economics with Minor in Engineer Management, University of Missouri-Rolla, 1977
- MBA in Utility Regulation and Management, Indiana University, 1983

Organizations

- Council of Energy Advisors
- Empire Who's Who of Executives and Professionals 2003-04, 2005-06
- National Register's Who's Who in Executives & Professionals 2002-03
- American Water Works Association

Committees

- Texas Public Power Association Marketing & Customer Service

Total Years of Experience

31

Years With Burns & McDonnell

12

Start Date

July 1998

Mr. Kelly is a Principal in Business & Technology Services at Burns & McDonnell. In this capacity, Mr. Kelly is responsible for managing a variety of projects for utilities relating to financial and management issues. He is the Department Head of the finance and markets area of Business & Technology Services. Mr. Kelly's project experience includes analysis of utility operations and management; strategic and business planning; cost-benefit analysis; financial feasibility; economic impacts; revenue requirements; financial and cost accounting; cost of service; rate design; contributions in aid of construction; resource acquisition strategies; power supply planning; and valuations of utility property. He has managed numerous projects involving in-depth financial analysis. Mr. Kelly has over 30 years of utility financial consulting experience.

Mr. Kelly has been involved in utility assignments involving the determination of revenue requirements and cost of service by customer class. Specific studies include projections of revenues and expenses; normalization of test period data; analyses of customer class load characteristics; development of customer class cost allocation factors; analyses of customer bill frequency data; design of cost of service rates; calculations of revenue under proposed rates; and preparation of testimony. Mr. Kelly has completed studies for electric, water, wastewater, stormwater, and gas utility systems. His work has included presentation of testimony before state regulatory commissions.

Mr. Kelly has managed, performed, and assisted utilities in developing business plans with the purpose of establishing goals, strengthening long-range strategic financial plans, and considering organizational restructuring. Mr. Kelly has conducted extensive data collection, interviews, and evaluations regarding markets, services, development programs, organization and management structure, financial feasibility, and regulatory strategies. He has assisted clients with the development of a business plan for organizational restructuring. He has performed various financial analyses that have included evaluation of life cycle costs, determination of internal rates of return, and calculation of net present value.

Mr. Kelly has led efforts on behalf of a number of clients in fulfilling the clients' bond resolution requirements for consulting engineer's letters and reports. Many projects include preparation of engineer's reports to be included in official statements for revenue bond issues. Mr. Kelly has also performed numerous valuation, feasibility, and property appraisals pertaining to acquisition or overall value of utility properties. These studies include property inventories, inspections, and the review of utility operations, management, and accounting records. Other areas of assistance for the acquired systems include reviews of staffing adequacy, work scheduling and planning, review of network crews and vehicle maintenance facilities.

Clients for whom Mr. Kelly has recently performed electric rates studies include: Kauai Island Utility Cooperative; Dover Electric Department; Lakeland Electric; Heartland Consumers Power District; Owensboro Municipal Utilities; Naperville Department of Public Utilities; Associated Electric Cooperative; Jackson, Missouri; Carthage, Missouri; Ames Municipal Electric System; McPherson Board of Public Utilities, Kansas; and Glenwood Springs, Colorado.

Cost-of-Service and Unbundling Study, Associated Electric Coop., Inc., Springfield, Missouri

Coordinated work on retail cost-of-service analyses for member distribution cooperatives. Utilizing a customized model to provide unbundled utility costs for individual services or functional categories. Model further incorporates handling of activity based costing functions and expense elements within the utility accounts defined by the FERC Uniform System of Accounts.



***Cost-of-Service and Rate Study, Kauai Island Utility Cooperative
Lihui, Hawaii***

Completed a comprehensive cost-of-service study for the KIUC. The analysis included development of a financial forecast, cost-of-service analysis, and rate design efforts. The primary objective of the study was to determine the adequacy of existing revenues generated through rates for service and to complete a proper allocation of cost responsibilities. Completed detailed cost allocations and rate design. A major accomplishment was the development of a spreadsheet model to calculate proper recovery of costs. The analysis performed includes development of adjusted revenue requirements and the allocation of unbundled cost of service by consumer class. The resulting class cost of service is used as the basis for designing rates reflective of costs associated with serving various classes of consumers.

***Electric Rate Analysis and Cost of Service Study, Lakeland Electric
Lakeland, FL***

Mr. Kelly was the project manager responsible for preparing an electric rate analysis and cost of service study for Lakeland Electric. The cost of service analysis was required due to Florida Public Utilities Commission regulations and served as the basis for the setting of new electric rates. This study also developed time of use (TOU) electric rate structures that will support the implementation of Lakeland Electric's Smart Grid project.

***Electric Rate and Cost of Service Study, Owensboro Municipal Utilities
Owensboro, KY***

Mr. Kelly was the project manager for a detailed electric rate analysis and cost of service study for Owensboro Municipal Utilities (OMU). The study was required due to address cost increases and the inability to fully meet revenue requirements. In completing the study, rate schedules were revised to incorporate critical requirements related to customer service conditions.

***Electric Rate Analysis and Cost of Service Study, City of Dover, DE
Dover, DE***

Mr. Kelly was the project manager responsible for preparing an electric rate analysis and cost of service study for the City of Dover, DE. The rate analysis and cost of service analysis incorporated changes in Dover's new wholesale power supply contract with Pace Global Energy Services. Mr. Kelly also provided rate design services to Dover on three previous studies over the past 10 years.

***Cost-of-Service and Rate Study, Columbia Basin Electric Cooperative
Heppner, Oregon***

Prepared a study and report on the cost-of-service and electric rates of the cooperative on two separate occasions. Designed rate schedules to provide the necessary increase in revenues from sales.

***Cost-of-Service and Rate Study, Osage Valley Electric Cooperative
Butler, Missouri***

Managed the preparation of a cost-of-service study and developed the adjusted revenue requirement and the allocated unbundled cost-of-service by consumer class. Adjusted revenue requirement was allocated to consumer classification based on detailed billing data, sample load research data and assumptions formatted by Burns & McDonnell and system staff. Compared revenue generated by existing rates by class to allocated revenue requirements resulting from the cost-of-service analysis. Provided recommendations for rate increases and decreases required to recover the cost-of-service for each consumer classification.



***Cost-of-Service and Rate Analysis Study, Ozark Electric Cooperative
Mt. Vernon, Missouri***

Managed the preparation of cost-of-service study to adjust revenue requirement to allocate unbundled cost-of-service to consumer classes. Compared revenue generated by existing rates by class the allocated revenue requirements resulting from the cost-of-service analysis. Recommended rate increases and decreases required to recover the cost-of-service for each consumer classification.

***Cost-of-Service and Rate Study, West Central Electric Cooperative, Inc.
Higginsville, Missouri***

Prepared a cost-of-service study and developed to adjust revenue requirement and allocate unbundled cost-of-service to consumer classes. Compared revenue generated by existing rates by class to allocated revenue requirements resulting from the cost-of-service analysis. Recommended rate increases and decreases necessary to recover the cost-of-service for each consumer classification.

***Cost-of-Service and Rate Analysis Study, Southwest Electric Cooperative
Bolivar, Missouri***

Managed the preparation of a cost-of-service study and developed the adjusted revenue requirement and the allocated unbundled cost-of-service by consumer class. Compared revenue generated by existing rates by class to allocated revenue requirements resulting from the cost-of-service analysis. Provided recommendations for rate increases and decreases required to recover the cost-of-service for each consumer classification.

***Cost-of-Service and Rate Design Study, Barry Electric Cooperative
Cassville, Missouri***

Prepared a cost-of-service study and developed to adjust revenue requirement and allocate unbundled cost-of-service to consumer classes. Compared revenue generated by existing rates by class to allocated revenue requirements resulting from the cost-of-service analysis. Recommended rate increases and decreases necessary to recover the cost-of-service for each consumer classification.

***Cost-of-Service and Rate Study, Barton County Electric Cooperative, Inc.
Lamar, Missouri***

Prepared cost-of-service study to adjust revenue requirement and allocate unbundled cost-of-service to consumer classes. Compared revenue generated by existing rates by class the allocated revenue requirements resulting from the cost-of-service analysis. Recommended rate increases and decreases necessary to recover the cost-of-service for each consumer classification.

***Cost-of-Service and Rate Analysis Study, Webster Electric Cooperative
Marshfield, Missouri***

Managed the preparation of a cost-of-service study and developed the adjusted revenue requirement and the allocated unbundled cost-of-service by consumer class. Compared revenue generated by existing rates by class to allocated revenue requirements resulting from the cost-of-service analysis. Provided recommendations for rate increases and decreases required to recover the cost-of-service for each consumer classification.

***Cost-of-Service and Rate Analysis Study, Se-Ma-No Electric Cooperative
Mansfield, Missouri***

Prepared a cost-of-service study and developed to adjust revenue requirement and allocate unbundled cost-of-service to consumer classes. Compared revenue generated by existing rates by class to allocated revenue requirements resulting from the cost-of-service analysis. Recommended rate increases and decreases necessary to recover the cost-of-service for each consumer classification.

Adam Young, PE

Project Manager



Expertise

- Financial Analysis
- Utility Rate Analysis
- Cost-of-Service Analysis
- Due Diligence Reviews
- Power Supply Evaluations
- On-Site Energy System Project Development
- Central Utility Plant Economic Analysis
- Valuation Analysis

Education

- B.S. in Mechanical Engineering, University of Missouri, Columbia, 2003
- MBA, University of Missouri, Kansas City, 2007

Organizations

- American Society of Mechanical Engineers

Registration

- Professional Engineer, Missouri

Total Years of Experience

8

Years With Burns & McDonnell

8

Start Date

January 2002

Mr. Young is a project engineer in the Business & Technology Services Division at Burns & McDonnell. Mr. Young specializes in engineering and financial analysis in the electric utility industries. During his career, he has gained a broad base of experience in project management, business development, financial analysis, economic analysis, technology integration, and system planning. Prior to working in the Business & Technology Services Division, Mr. Young worked in the Process and Industrial Division of Burns & McDonnell as a mechanical engineer and engineering intern where he was responsible for the detailed mechanical engineering design of oil refineries, food processing plants, power plants, and chemical plants. A summary of Mr. Young's most engagements is listed below.

Electric Rate Analysis and Cost of Service Study, Lakeland Electric *Lakeland, FL, 2009*

Prepared a detailed electric rate analysis and cost of service analysis for Lakeland Electric. The cost of service analysis was required due to Florida Public Utilities Commission regulations and served as the basis for the setting of new electric rates. One of the key goals of this study was to develop retail electric rate structures that will support the implementation of Lakeland Electric's smart grid rollout.

Electric Rate Analysis and Cost of Service Study, Owensboro Municipal Utilities

Owensboro, KY, 2008

Prepared a detailed electric rate analysis and cost of service analysis for Owensboro Municipal Utilities (OMU). The rate analysis and cost of service analysis was required due to OMU's new power supply arrangements with its existing coal plant.

Demand Side Management Planning, Columbia Water & Light *Columbia, MO, 2007*

Developed and evaluated multiple demand side management programs as part of Columbia Water & Light's Integrated Resource Planning project. The programs developed during the study were evaluated with New Energy Associates Integrated Resource Planning software "Strategist".

Coal Power Plant Project Financing, Western Farmers Electric Cooperative *Anadarko, OK, 2007*

Prepared the loan application documents for Rural Utilities Services (RUS) financing for the new 750 MW Hugo 2 coal-fired power plant located in Oklahoma. Also prepared loan application documents for RUS financing for all Western Farmers Electric Cooperative generation and transmission projects between 2008 and 2012.

Coal Power Plant Valuation, Seminole Electric Cooperative *Tampa, FL, 2006*

Prepared a report summarizing the impact of proposed regulatory compliance projects on the value of Seminole Generating Station. The projects included a new Selective Catalytic Reactor, and Flue Gas Desulfurization Unit.

Electric Rate Analysis and Cost of Service Study, City of Dover, DE *Dover, DE, 2006*

Prepared a detailed electric rate analysis and cost of service analysis for the City of Dover, DE. The rate analysis and cost of service analysis incorporated changes in Dover's new wholesale power supply contract with Pace Global Energy Services.

Sara K. Worrall
Senior Project Analyst



Expertise

- Economic/Financial Modeling and Analysis
- Cost of Service and Rate Design
- Production Cost Modeling
- Risk Analysis

Education

- B.S. in Business Administration, University of Kansas, 2001

Total Years of Experience

9

Years With Burns & McDonnell

9

Start Date
2001

Ms. Worrall is an analyst in Business & Technology Services at Burns & McDonnell. Her particular area of expertise is in financial analysis, with focus on market assessments and pro forma presentations. Ms. Worrall is skilled in financial modeling, financial analyses, and risk analysis.

Ms. Worrall has been actively involved as project analyst in several cost-of-service analyses and rate studies for various utilities. She has been responsible for analyzing required capital expenditures, evaluating revenue and debt financing, and allocating costs to various customer classes. She has also determined cost-based rates based on projected revenues and expenses using detailed financial models. Ms. Worrall has completed an extensive three-day seminar given by the American Water Works Association. The seminar was titled Financial Management: Cost of Service Rate-Making. Ms. Worrall has also served as a project analyst on several consulting engineer's reports for utility revenue bond issues. She has been responsible for performing financial cash flow analyses including reviews of debt service coverage levels.

Clients for whom Ms. Worrall has provided financial analysis, rates, and cost of service assistance include:

- Western Farmers Electric Cooperative
- Glenwood Springs, Colorado
- Kauai Island Utility Cooperative
- Carrollton, Missouri
- City of Naperville, Illinois
- Owensboro Municipal Utilities, Kentucky
- City of Dover, Delaware
- City of Gardner, Kansas

Ms. Worrall has developed and used financial models as part of a number of studies. She has developed pro-forma income statements to be used as part of several economic analyses. Ms. Worrall has also run load and resource production-costing models and developed production-costing models for various power supply alternatives using an in-house production-costing model software.

Ms. Worrall also has experience in risk analysis. She has performed fault tree analysis to determine critical components related to reliability of supply for utility systems and decision tree analysis to assess the relative risks of various options. Ms. Worrall also has experience in performing risk analyses using @Risk[®] software. She has used this expertise in several projects to help determine the riskier items within costs estimates and also to help clients determine the contingency on large projects.

Expertise

- Economic Analysis
- Financial Forecasting
- Valuation Analysis
- Utility Rate Analysis
- Cost-of-Service Analysis

Education

- MBA in Finance, University of Missouri-Kansas City, 2007
- B.S. in CADD Technology, Central Missouri State University, 2003

Total Years of Experience

6

Years With Burns & McDonnell

6

Start Date

2004

Mr. Blackwell is an economic analyst in the Business & Technology Services group at Burns & McDonnell. Mr. Blackwell specializes in financial modeling, financial analysis, forecasting, and valuation assessment. Specific experience includes the projections of revenues and expenses, normalization of test period data, analyses of customer class load characteristics, development of customer class cost allocation factors, design of cost-of-service rates, and calculations of revenue under proposed rates. Analyses performed include development of revenue requirements forecasts, cost-of-service analysis, consolidation of customer classes, and various modifications to the rate design structure. Mr. Blackwell has assisted in efforts on behalf of our clients to determine property useful life and valuation. This information has been used in supporting documentation for bond financing.

Prior to coming to the Business & Technology Services group, Mr. Blackwell worked as a mechanical detailer for Burns & McDonnell's Energy division. A summary of Mr. Blackwell's engagements is presented below.

Electric Cost of Service and Rate Study, Board of Public Utilities, McPherson, KS

Prepared a detailed electric rate analysis and cost of service analysis and model for the Board of Public Utilities of McPherson, KS. In completing the study, prepared forecasts of revenues and revenue requirements, completed cost allocations and developed revised rates including modification to rate structures by customer class. Assisted with the preparation of the project report and presentation of results and recommendations.

Electric Rate Analysis and Cost of Service Study, Lakeland Electric Lakeland, FL

Served as an analyst in preparing an electric rate analysis and cost of service study for Lakeland Electric. The cost of service analysis was required due to Florida Public Utilities Commission regulations and served as the basis for the setting of new electric rates. This study also developed time of use (TOU) electric rate structures that will support the implementation of Lakeland Electric's Smart Grid project.

Electric Rate Analysis and Cost of Service Study, Heartland Consumers Power District

Madison, SD

Prepared a detailed electric rate analysis and cost of service analysis for Heartland Consumers Power District. For the study, updated unbundled rates were developed for transmission, demand, and energy charges. The report included a ten-year financial forecast to illustrate the effects of the rate adjustments.

Coal Power Plant Valuation, Cedar Bay Generating Company

Jacksonville, FL

Burns & McDonnell conducted a valuation analysis of the Cedar Bay Generating Plant with a reproduction cost new less depreciation approach. In completing this analysis, Mr. Blackwell was responsible for evaluating the technical performance of the power plant and calculating its appraised value based on historical construction costs, market indices, and other related information provided by Cedar Bay staff.

Rate Comparison Study, Owensboro Municipal Utilities

Owensboro, KY

Assessed the standing of OMU in the market to ensure its rates remained competitive with regional utility providers. In completing the study, Mr. Blackwell was responsible for comparing the retail electric rates of OMU those of competitors. The study included the calculation of typical bills at different consumption and demand levels.

Stanley C. Abromaitis

Quality Manager/Senior Project Advisor



Expertise

- Competitive Market Strategies
- Project Feasibility Evaluations
- Electric/Natural Gas/Water System Planning
- Power Supply RFPs and Proposals
- System Modeling and Forecasting
- Management/Operational Reviews
- Consultant Engineer's Report

Education

- B.S. in Mechanical Engineering, Leigh University, 1967
- Master of Engineering Administration, University of Utah, 1972

Organizations

- United States Airforce Officer
- Pi Tau Sigma

Total Years of Experience

35

Years With Burns & McDonnell

9

Start Date

June 2000

During his 32-year career, Mr. Abromaitis has provided technical analysis, project management, expert witness testimony, and a wide range of planning related services to more than 100 domestic and overseas electric, natural gas and water utility clients, regulatory bodies, and governmental agencies.

Project Feasibility Studies - Mr. Abromaitis has served as the Project Management and has directly participated in numerous studies involving utility production facilities, central utility plants and the technical and economic evaluation of resource options. Such studies have been performed for universities and electric and natural gas utility systems. Areas of focus included:

- Projected electric and steam system requirements
- Assessment of existing system capabilities vs requirements
- Identification of technological options (electric, steam)
- Evaluation of fuel supply (electric, natural gas, coal)
- Assessment of energy market opportunities (buy / sell)
- Life-cycle cost analysis / economic comparison of alternatives
- Recommendations for long-term capital programs
- Pro forma financial results for alternative options

Electric System Planning – Mr. Abromaitis has served as the Project Management and has directly participated in numerous electric system planning studies. Had direct responsibilities in preparing and evaluating electric utility system-wide integrated resource plans. Performed analyses and submitted expert witness testimony on various issues, including:

- Local markets and the demand for electric energy
- Econometric / end-use modeling techniques
- Integrated resource planning process
- Supply-side resource options
- Fuel availability and prices
- Energy market opportunities – RFP process
- Life-cycle cost analysis / economic comparison of alternatives
- Recommendations for long-term capital programs
- Pro forma financial results

Power Supply Acquisition / RFP Process – Mr. Abromaitis has considerable recent experience to the acquisition of electric power supply through solicitation of power supply proposals and price bids from qualified interested parties.

Services have included:

- Assessment of client power requirements
- Preparation of Request for Proposals (RFP)
- Oversight of the RFP solicitation process
- Evaluation of power supply proposals
- Preparation of Purchase Power Agreements (PPA)
- Customized cost-analysis models
- Evaluation of “real-time” pricing bids
- Contract negotiations
- Workshops and presentations



Natural Gas Distribution System Planning – Mr. Abromaitis has served as the Project Management and has directly participated in numerous natural gas distribution system planning studies. Had direct responsibilities in preparing and evaluating system-wide integrated resource plans. Performed analyses and submitted expert witness testimony on various issues, including:

- Local markets and the demand for natural gas
- Econometric / end-use modeling techniques
- Integrated resource planning process
- Natural gas availability and prices
- Life-cycle cost analysis / economic comparison of alternatives
- Recommendations for long-term capital programs

Modeling and Forecasting - Mr. Abromaitis has managed and actively participated in 50 multi-disciplined utility system modeling and load forecasting projects for electric, natural gas and water utilities. Prepared power requirements studies and reports for submission to governmental bodies. Developed integrated set of computer load forecasting models and supporting data bases for client use in on-going, in-house planning activities.

Models developed included:

- Demographic/economic models – regional / national-level linkage
- Housing/customer models - regional / national-level linkage
- Econometric / end-use models of energy sales by customer class
- Econometric load models - monthly and annual system peak loads
- Econometric daily load profile models

Most recently, Mr. Abromaitis developed for a utility client a cost analysis model that provided for the “real-time” analysis of *electric market prices and supplier power supply bids*. Analysis performed incorporated projections of energy prices (natural gas and coal) and electric power market prices (PJM, MISO).

Management / Operational Performance Reviews - Mr. Abromaitis has managed and/or participated as a lead consultant in 14 comprehensive management and operational performance assessments of electric, natural gas, and combination electric and natural gas utility systems in seven state regulatory jurisdictions. His focus has been on the evaluation of energy resource planning-related functions and activities, including:

- Management policies and practices
- Corporate planning – goals and objectives
- Corporate performance measurement
- Organization and staffing
- Customer markets and services
- Corporate marketing activities
- System load requirements
- Competitive resource planning
- Power Purchase Agreements
- Fuel Supply and Contracts



Expert Witness Testimony - Prepared and presented written and oral testimony on behalf of:

- City of New Orleans, LA
Gas Planning, Supply, Contracts, Docket No. UD-98-2
- City of New Orleans, LA
Electric System Resource Planning, Docket No. UD-92-2B
- City of New Orleans, LA
Electric System Resource Planning, Docket No. UD-92-2A
- Fall River Gas Company, MA
Gas System Resource Requirements, Docket No. 92
- Public Utilities Commission of OH
Gas Planning, Supply, Contracts, Docket, On-going
- Sayles Hydro Association, CA
Electric Market Assessment, Docket 87-03-082
- West Texas Utilities Company, TX
Electric Load Forecast, Rate Impacts, Docket No. 5204
- Jacksonville Electric Authority, FL
Electric System Resource Planning, Docket No. 810045 EU
- Boston Edison Company, MA
Electric System Resource Planning, Docket No. DPU 19494
- Boston Edison Company, MA
Electric System Resource Planning, Docket No. EFSC 78 2

PROPOSED PROJECT SCHEDULE AND TIMELINE

Proposed Project Schedule and Timeline



Schedule

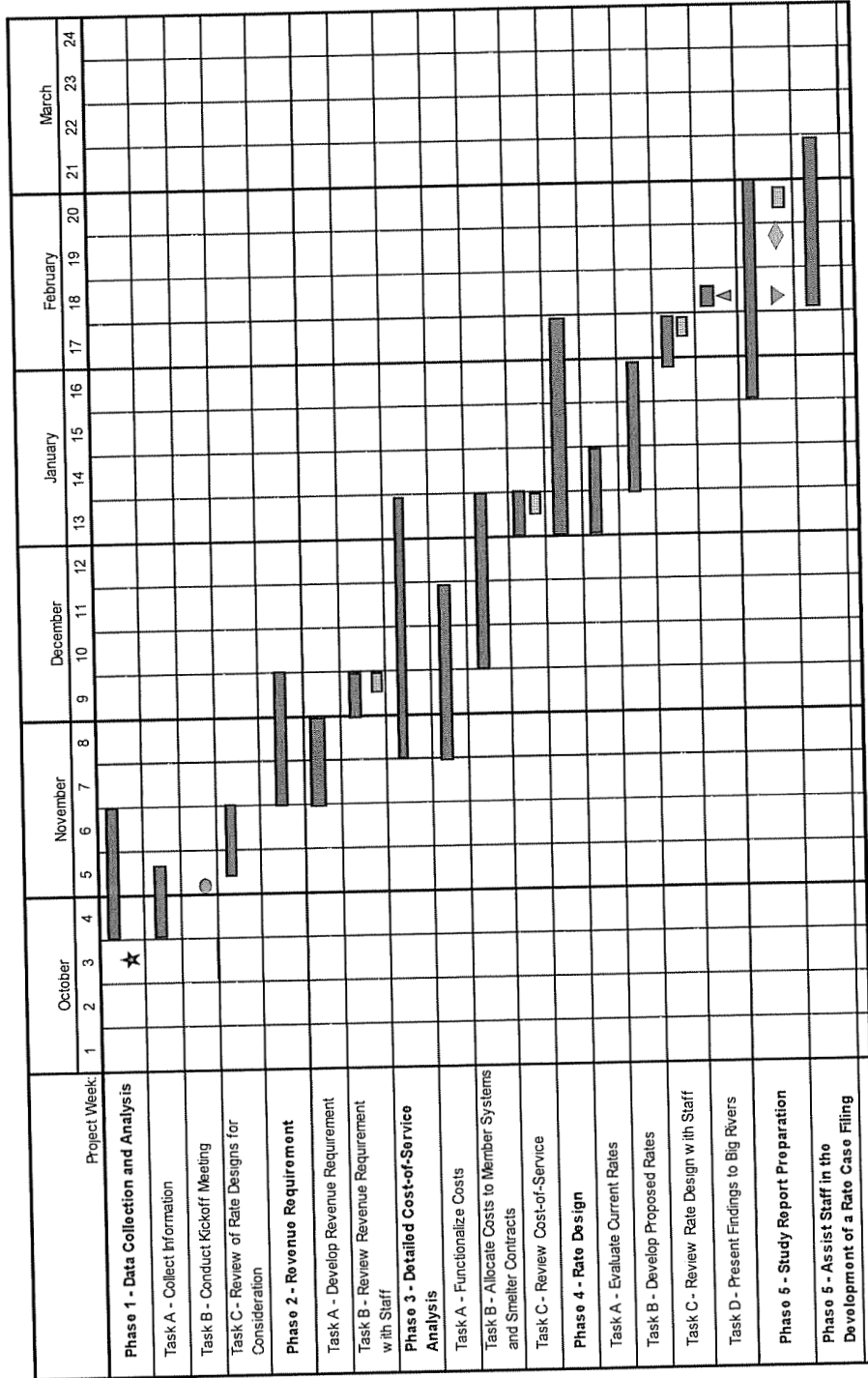
When Big Rivers decides to proceed with an agreement with Burns & McDonnell for the completion of the project, our project team will be prepared to initiate the assignment immediately. We are prepared to complete the work on this project within a schedule acceptable to Big Rivers and agreed to prior to notice to proceed and execution of the contract agreement.

Burns & McDonnell anticipates an approximate four month schedule will be needed to complete the project, assuming requested data is made available in a timely fashion. We believe the proposed schedule is adequate to complete a thorough study, provide Big Rivers with ample opportunity to review preliminary project results, and maintain close client/consultant interaction and communication. If the selection is awarded according to the schedule identified in the RFP, Burns & McDonnell will be prepared to initiate the study the week of October 25, 2010. The Study report will be completed and delivered to Big Rivers by February 18, 2011. We are willing to consider schedule alternatives to meet Big Rivers' study objectives and needs. The proposed schedule is shown on the table on the following page.

Proposed Project Schedule and Timeline (continued)



Proposed Work Schedule



- Key:
- ▬ Length of Task
 - Kickoff Meeting
 - ★ Contract Award
 - ▭ Project Meeting or Conference Call
 - ▭ Draft Report
 - ▽ Final Report
 - ▲ Study Presentations

REFERENCES

References



References

Burns & McDonnell is experienced in providing professional consulting services related to preparation of rate studies and provision of rate design services. Below are references for several relevant projects. Additional references can be provided upon request. Descriptions of these, and other projects, are provided on the following pages. We encourage Big Rivers to contact these references concerning our ability and performance. We have an excellent record of completing projects on time and within established budgets.

Financial Forecast Development and Wholesale Rate Impact Analysis

Services provided from 2004 through 2009.

Cost Unbundling and Cost-of-Service Analysis and Modeling

Services provided from 1998 through 2005.

Electric Cost-of-Service Rate Study

Services provided from 1996 through 2010. Most recent rate update completed in 2008.

Electric Cost-of-Service and Rate Study

Services provided from 1999 through 2010. Most recent services provided from 2008 through 2010.

Electric Cost-of-Service and Rate Study

Services provided from 2002 through 2010, ongoing. Most recent rate update completed in early 2009.

Western Farmers Electric Cooperative

John Toland
Principal Production Engineer
701 NE 7th Street
Anadarko, OK 73005-2231
(405) 247-4351
j_toland@wfec.com

Associated Electric Cooperative

Mark Woodson
Economic Development Manager
PO Box 754
Springfield, MO 65801-0754
(417) 881-1204
mwoodson@aeci.org

Naperville Department of Public Utilities

Mr. Mark Curran
Assistant Director
400 South Eagle Street
Naperville, IL 60540
(630) 305-5934
curranm@naperville.il.us

Owensboro Municipal Utilities, Owensboro, Kentucky

Jim Grise
Director of Finance
2070 Tamarack Road
Owensboro, KY 42303
(270) 926-3200 ext. 202
grisejr@omu.org

Dover Electric Department, Dover, Delaware

Donna Mitchell
Treasurer/Finance Director
City of Dover, Delaware
15 East Loockerman Street
Dover, DE 19903
(302) 736-7019
dmitchell@dover.de.us

References (continued)



Qualifications and Experience

Burns & McDonnell's broad depth of electric utility experience, along with our extensive experience working with electric cooperatives, makes us an excellent choice for this assignment. Our capabilities to offer a full range of services, including depreciation rate analysis, cost-of-service and rate design studies, financial and planning studies, environmental studies and analysis, engineering design, and construction services, were developed as we grew to meet the needs of our electric cooperative clients. We have helped cooperatives meet RUS requirements for over 60 years.

To ensure clients obtain efficient utility or organizational management, Burns & McDonnell's Business & Technology Services group provides comprehensive financial and management services. Utility managers rely on the group's expertise in electric load forecasts, resource evaluations, rate studies, and transmission system planning studies. The Business & Technology Services group can also help your organization prepare for future industry changes through competitiveness evaluations, strategic planning, decision analyses, and valuation appraisals.

Our firm has provided utility rate consultation services to numerous RUS cooperative utility clients over the years. These projects have included all facets of analysis of utility revenue requirements, cost-of-service analysis and allocations, traditional and innovative rate design, and presentation and support of study results before utility boards, regulatory commissions, and other public forums.

A brief list of electric cooperative clients and municipal electric utility clients that Burns & McDonnell has recently provided cost-of-service and rate design services is listed below.

Electric Cooperatives:

- Dairyland Power Cooperative, La Crosse, Wisconsin
- Heartland Consumer Power District, District Madison, South Dakota
- Midwest Energy, Hays, Kansas
- Sunflower Electric Cooperative, Hays, Kansas
- Kauai Island Utility Cooperative, Lihue, Hawaii
- Western Farmers Electric Co-op, Anadarko, Oklahoma
- Associated Electric Cooperative, Inc., Springfield, Missouri
- Glidden Rural Electric Cooperative, Glidden, Iowa
- Southern Maryland Electric Cooperative, Hughesville, Maryland
- Great River Energy, Elk River, Minnesota
- Upper Missouri G&T Electric Cooperative, Sidney, Montana

References (continued)



Municipal Electric Utilities

- Lakeland Electric, Lakeland, Florida
- Owensboro Municipal Utilities, Owensboro, Kentucky
- Dover Electric Department, Dover, Delaware
- Naperville Department of Public Utilities, Naperville, Illinois
- City of Jackson, Jackson, Missouri
- Carrollton Municipal Utilities, Carrollton, Missouri
- Public Works Department, City of Glenwood Springs, Colorado
- Ames Municipal Electric System, Ames, Iowa

Kauai Island Utility Cooperative, Lihue, Hawaii

Burns & McDonnell completed a comprehensive cost-of-service study for the Kauai Island Utility Cooperative (KIUC). The analysis included development of a financial forecast, cost-of-service analysis, and rate design efforts. The primary objective of the study was to determine the adequacy of existing revenues generated through rates for service and to complete a proper allocation of cost responsibilities. We completed detailed cost allocations and rate design. A major accomplishment was the development of a spreadsheet model to calculate proper recovery of costs. The analysis performed includes development of adjusted revenue requirements and the allocation of unbundled cost of service by consumer class. The resulting class cost of service is used as the basis for designing rates reflective of costs associated with serving various classes of consumers. Based on the analyses completed, Burns & McDonnell provided recommendations to KIUC pertaining to cost allocations and revised rates.

Associated Electric Cooperative, Inc., Springfield, Missouri

Burns & McDonnell completed a comprehensive cost-of-service program for Associated Electric Cooperative, Inc. and its 51-member distribution cooperatives. During this assignment Burns & McDonnell staff refined our cost-of-service model Unbundle™ so as to provide a standard, yet custom, cost-of-service study approach to all member systems. The assignment for Associated and its member systems extended beyond a standard cost-of-service study and included presentation of the model as well as results to each of the distribution cooperatives. Staff was trained on the theory of cost-of-service and the use of the Unbundle™ model through classroom sessions held across the state of Missouri. Burns & McDonnell developed all of the training material including audio visual aids and comprehensive training manual for the Excel-based cost-of-service model. Burns & McDonnell then completed this program by developing a benchmarking process that was based on the unbundled cost from this study. As a result of our work on this assignment, Associated's member cooperatives all completed meaningful cost-of-service studies at a reasonable cost, developed tools to use in analyzing their cost-of-service in the future, identified "best practices" through the benchmarking process, and obtained a better understanding of their costs as they prepared for

References (continued)



deregulation.

The reports prepared for each of the studies completed to date contain a description of the results of the electric cost-of-service analysis performed for the member system. The primary objectives of each study include:

- To determine the revenue required to meet all operating and capital costs as well as the member's financial objectives.
- To assess the adequacy of revenues provided by existing retail rates as compared to the revenue requirement.
- To establish a basis with which to unbundle costs associated with providing electricity to each consumer class.

The cost-of-service analysis performed by Burns & McDonnell consists of the development of an adjusted revenue requirement, the assignment of various costs and margins which make up the revenue requirement to the electric utility functions (i.e. power supply, distribution), and the further unbundling of these functionalized costs to specific tasks (meter reading, pole inspections, etc.). These functionalized and unbundled costs were then allocated to the various consumer classifications. The resulting class cost of service provides the basis for the development of new electric service rates.

Glidden Rural Electric Cooperative, Glidden, Iowa

Burns & McDonnell performed a retail cost of service analysis and rate design study on behalf of Glidden Rural Electric Cooperative. The analysis performed included development of adjusted revenue requirements and the allocated unbundled cost of service by consumer class. The resulting class cost of service was used as the basis for designing rates reflective of costs associated with serving various classes of consumers. Based on the analyses completed, Burns & McDonnell provided recommendations to Glidden pertaining to cost allocations and revised rates.

Western Farmers Electric Co-op, Anadarko, Oklahoma

Burns & McDonnell developed an integrated financial model for Western Farmers Electric Co-op (WFEC). Burns & McDonnell is currently using this integrated financial model to assist WFEC in evaluating the impact of new capital projects. The integrated financial model provided WFEC with an income statement, balance sheet, and statement of sources and uses of cash for the next 20 years. Graphs and summary tables were provided to allow WFEC to understand the key drivers of costs and revenue for each new capital project.

The integrated financial model consists of two major components: the revenue forecast and the cost forecast. The revenue forecast component projects the usage and estimated bills for each member system and large customer on a monthly basis for a 20-year timeframe. The revenue forecast utilizes historical usage by customer, WFEC's power requirements study, and escalation rates in its projections. The revenue forecast can be modified to evaluate different billing determinates in the future years. The revenue forecast reflects Western Farmers' current practices and maintain the flexibility to analyze completely new, and yet undefined, expansion plans and pricing policies.

The cost forecast component incorporates WFEC's historical operating and fixed costs, the production cost model output, and escalation rates to develop a

References (continued)



20-year forecast of expenses. The cost forecast was developed with enough detail to identify the specific costs for each of the existing generation facilities, any new generation facilities, transmission, distribution, and general and administrative (G&A) expenditures. A concise summary of costs is generated with detailed back up tables supporting and explaining the basis of the cost projections.

Southern Maryland Electric Cooperative, Hughesville, Maryland

Burns & McDonnell has completed a variety of cost-of-service and retail rate design studies for Southern Maryland Electric Cooperative. These assignments have ranged from traditional cost of service studies to innovative retail rate designs. The primary objectives of the studies were to determine the adequacy of existing revenues generated through rates for service and to complete a proper allocation of cost responsibilities. Most assignments included detailed cost allocations and rate design. In addition, Burns & McDonnell evaluated alternative rate structures to assist Southern Maryland comply with Maryland's PURPA requirements. A major accomplishment was the development of an improved purchased power cost adjustment charge which quickly and accurately recovered South Maryland's wholesale power costs. A spreadsheet model was developed to calculate proper recovery of purchased power costs. Testimony and exhibits were filed before the Maryland Public Service Commission to support all studies and recommendations.

Great River Energy (formerly Cooperative Power Association), Elk River, Minnesota

Burns & McDonnell performed a Wholesale Cost of Service and Competitive Analysis study for Great River Energy (GRE). GRE is a generation and transmission cooperative, serving 17 distribution cooperatives throughout the southern half of Minnesota. The major emphasis of the cost-of-service study was to identify costs for the members in the areas of generation, transmission, and customer service. Burns & McDonnell analyzed the RUS/FERC system of accounts to perform the allocation of costs to the different functions provided by GRE.

The results of the study allowed GRE to better understand its costs and competitive position as it faced the prospect of deregulation of the electric utility industry. As part of the study, Burns & McDonnell prepared a comparative analysis of GRE with other peer utilities as well as utilities in the region where the members compete for electric sales. The comparative benchmark study ranked GRE with 10 other utilities in numerous financial and production areas.

Upper Missouri G&T Electric Cooperative, Sidney, Montana

Burns & McDonnell completed a wholesale cost-of-service analysis and rate design study for Upper Missouri G&T Electric Cooperative on two separate occasions. The studies involved measuring the cost of service for each of Upper Missouri's 11 members, surveying and meeting with each member to assess their rate design objectives, and developing rates that would adequately reflect the varying costs of service to the members as well as their rate design goals. The rates adopted encouraged member marketing while not penalizing

References (continued)



non-growing member cooperatives. Upon completion of the cost-of-service and rate design studies, Burns & McDonnell developed a monthly billing program for Upper Missouri. Use of this program reduced Upper Missouri's billing preparation time from two days to less than three hours.

Tri-County Electric Cooperative, Azle, Texas

Burns & McDonnell completed work on retail cost-of-service and rate design study for Tri-County Electric Cooperative in Azle, Texas. Tri-County is a regulated distribution cooperative; therefore, this project included the creation of a comprehensive detailed rate application to the Texas Public Service Commission. The filing package included detailed schedules supporting the cost of service, extensive sample utility bill calculations under the proposed rates, and a long-range financial forecast showing the impact of the proposed rates. In addition, Burns & McDonnell provided written testimony of two expert witnesses in support of the rate filing. The financial forecast included in the rate filing encompassed projected financial results for a four-year period. The projected results were evaluated under several indicators including interest coverage (TIER) and debt service coverage ratios, general funds balances, debt-to-equity ratio, and rates of return. Detailed inflows and outflows of funds were projected for each year of the forecast. The forecast model was included with written testimony submitted by Burns & McDonnell. This testimony was accepted by the Texas Commission as justification for the level of margins requested by Tri-County in its revenue requirement.

Lakeland Electric, Lakeland Florida

Burns & McDonnell has prepared a comprehensive cost of service and rate design study for Lakeland Electric. Lakeland Electric required a study that would address a number of financial issues for the electric utility. The major objectives of the study included a base cost analysis, cost allocation and cost of service analysis, recommendations of utility rates that are fair and practical based on the cost of service analysis, and rate recommendations including time of use pricing and power factor incentive pricing.

The study performed by Burns & McDonnell consisted of several phases. The annual revenue requirement used in the subsequent phases of the study was developed based on a five-year financial forecast of Lakeland Electric's revenues and expenses. This financial forecast included projections of known changes in annual costs of large dollar items, such as power cost projections, based on information provided by Lakeland Electric. Other categories of expenses were forecasted using historical trends or assumed annual rates of inflation. The forecast results were used as the annual revenue requirement basis for the test year.

The cost-of-service analysis included the assignment, or unbundling, of the various costs included in the annual revenue requirement to Lakeland Electric's functional services (i.e. power supply, transmission, distribution, customer service, etc.). These unbundled cost components of the adjusted annual revenue requirement were then allocated to the various electric rate classes. The resulting allocated cost-of-service for each rate classification was compared to the annual revenues for each class to assess the projected cost recovery provided by the existing retail rates.

References (continued)



The results of the financial forecast and cost-of-service analysis provided a basis for potential revisions to electric service rates for consideration by Lakeland Electric. Proposed rates were developed to recover the required levels of revenues to meet revenue requirements. Particular emphasis was placed on time of use pricing and power factor incentive pricing. The study report presented a discussion on the implications of the financial forecast and cost-of-service results on Lakeland Electric's current electric rates and described the proposed modifications to those retail rates. Comparisons of sample monthly bills based on the current and proposed rates for each customer classification were also presented.

Owensboro Municipal Utilities, Owensboro, Kentucky

Burns & McDonnell assisted Owensboro Municipal Utilities (OMU) with an electric cost of service study and also evaluated the Energy Policy Act of 2005 requirements impacts on OMU. Burns & McDonnell previously assisted OMU through the preparation of a cost-of-service analysis and rate study for the electric and water systems. Included in this study were specific tasks that included system financial planning, cost-of-service analysis, and rate design. The results of the study were presented to the utility board and to the city council.

Prior to undertaking this study, Burns & McDonnell completed preparation of work on updating the water and electric system financial planning models. This project required a complete restructuring of the water and electric system forecasting models into Excel files. Burns & McDonnell worked with OMU staff in the restructuring process to assure the models would be in a format consistent with other OMU financial information. As part of the process, Burns & McDonnell trained OMU staff on using the model and making adjustments to the model when appropriated in the future.

This project required a complete restructuring of the water and electric system forecasting models into Excel files. Burns & McDonnell worked with OMU staff in the restructuring process to assure the models would be in a format consistent with other OMU financial information. As part of the process, Burns & McDonnell trained OMU staff on using the model and making adjustments to the model when appropriated in the future.

Dover Electric Department, Dover, Delaware

Burns & McDonnell completed a comprehensive electric revenue requirement, cost-of-service, and rate design study for the Dover Electric Department. A five-year financial forecast was developed to estimate Dover's annual revenue requirement and included projections of annual revenues, expenses and the resulting net margins, as well as projections of cash flows, over a five-year period. The forecast included consideration of annual levels of internally generated funds from operations and Dover's projected capital expenditure requirements. These estimates were used to forecast Dover's need for additional funds through retail rate adjustments, external capital financing, and/or transfers from reserves.

The annual revenue requirement developed from the forecast was used as the basis for the cost-of-service analysis. Five functional services were provided by Dover to its utility customers. Each component of the annual revenue

References (continued)



requirement including operating expense, net income, net non-operating margins, and other revenue was assigned to one or more of these functional services. The annual revenue requirement was further allocated to Dover's retail rate classifications. These allocations were developed to reflect the relative impact each rate class has had on the level of each component of the annual revenue requirement. Dover had over 25 rate schedules. The definitions of these rate classifications were evaluated and many were combined, such that only seven separate classes remained.

Proposed rates were developed that were consistent with Dover's rate objectives. The proposed rate design for each class generally followed the existing rate structure and was developed to achieve a balance between the objectives to provide full recovery of the costs of providing service, to base the retail rates on the allocated cost-of-service, and to minimize the impacts of rate changes on individual groups of customers. Comparison of monthly bills calculated for varying levels of consumption based on the existing rates and the proposed rates were developed. As part of the rate design process, consideration was given to comparisons of monthly bills based on the proposed Dover rates with the current rates of neighboring utilities. The proposed rate design also included a new methodology for calculating the annual power cost adjustment rate (PCA).

Burns & McDonnell is currently updating the cost-of-service analysis and rate study to incorporate changes associated with a new power supply agreement including a significant increase to the overall cost.

Naperville Department of Public Utilities, Naperville, Illinois

Burns & McDonnell performed a cost-of-service and rate design study for the Naperville Department of Public Utilities (Naperville) in 2007. Prior to this study, other similar studies were completed in 1994, 1995, 1998, 2000, and 2003. The studies have been to reflect changes in underlying costs of providing services to the customers of the utility system. The most recent study included the determination of the Naperville electric utility's cost-of-service under several different potential power supply scenarios. This allowed the City of Naperville to make a determination of what impacts each potential power supply source would have upon its retail rates charged to its customers.

The rate design portion of the study included an analysis of the consumption characteristics of the utility's customers to determine if the existing customer classifications adequately reflected differentiation among customer load profiles. New rate classes were included in the cost-of-service allocations and corresponding rate schedules were developed for each resulting class of customers. This study also included an in-depth analysis of the utility's existing system development charge and its impact on future capital requirements.

As the City of Naperville's rate consultant, Burns & McDonnell has performed analyses related to the electric utility's rates to complete an unbundled cost-of-service analysis along with rate design services. Burns & McDonnell also assisted Naperville in the analysis and negotiations of rates and terms under which the electric utility would take over a 15 MW load located within its corporate limits but served by another utility. The assistance provided resulted in the client's success in offering the prospective substantial savings on its

References (continued)



utility cost without compromising the electric utility's full cost recovery.

Burns & McDonnell also completed a review and evaluation of the performance of the implemented electric utility rates following the previous cost-of-service and rate design study. This assessment identified several areas in which the client could enhance its competitive position if changes in philosophy were incorporated in its approaches to costing and retail rate design during the rate update.

PROPOSED COMPENSATION

Proposed Compensation



Burns & McDonnell is proposing to complete the services necessary to prepare the Cost of Service and Rate Design Study on behalf of Big Rivers. The project will be performed by Burns & McDonnell on an hourly fee plus expense basis. Compensation due will be based on an agreed to amount. Burns & McDonnell proposes to provide services related to the wholesale rate study as described in the Proposed Work Plan section of our proposal for an estimated fee ranging from \$75,000 to \$80,000 depending on the final agreed to scope of work and excluding the provision of services related to the development of the rate case filing including expert testimony. The attached details show a fee estimate of \$77,600 based on 468 man hours to complete the desired Study. Expenses associated with four trips by the project director and five trips by the project manager to visit with Big Rivers are included. Expenses associated with the trips are estimated to be approximately \$5,600.

Burns & McDonnell has developed an initial estimate to provide assistance in representing the Study in connection with the associated rate case proceeding before the PSC, including responding to data requests, providing written testimony, and serving as an expert witness. The level of assistance could vary greatly depending on the assistance we are asked to provide. The estimate for providing this assistance could range from \$15,000 to \$25,000 or could be more based on specific requests from the PSC to support the Big Rivers rate filing. Once the level of assistance is more clearly defined we will be able to provide a more defined cost estimate for this service.

Hourly billing rates are shown on the Schedule of Hourly Professional Service Billing Rates that would apply to the project work. A copy of these rates are provided at the back of this section. Out of pocket expenses are charged at cost. A technology charge of \$9.90 per labor hour is billed for normal computer usage, long distance telephone, fax, photocopy, and mail services.

Burns & McDonnell anticipates billing Big Rivers on a monthly basis for the fees and expenses incurred for the Study. Billing could be tied to specific milestones if preferred by Big Rivers. For example, milestones could be completion of the current cost-of-service methodology, completion of the wholesale rate design review and rate development, and completion of rate study report.

Any work requested by Big Rivers beyond that outlined in the scope of services and completed by Burns & McDonnell personnel will be billed on an hourly fee plus expense basis.

Additional details on the proposed fee estimate are shown on the following page.

Proposed Compensation (continued)



Big Rivers Electric Cooperative Wholesale Electric Rate Study Cost Estimate and Proposed Project Hours

Labor Hours							Estimated Total Hours	Total Labor & Expense \$	
Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Assist Staff in the Development of a Rate Case Filing			
Data Collection and Project Startup	Revenue Requirement	Detailed Cost-of-Service Analysis	Rate Design	Study Report Preparation					
16	18	12	18	24			88	\$16,632	
16	32	40	40	32			160	\$24,480	
	4	4	4				12	\$1,836	
4	48	56	56	40			204	\$23,460	
	1	1	1	1			4	\$736	
							0	\$0	
							0	\$0	
	36	103	113	97	0	0	468	\$67,144	
Total Hours and \$									
	\$5,932	\$14,614	\$15,624	\$16,758	\$14,216	\$0		\$67,144	
	8.8%	21.8%	23.3%	25.0%	21.2%	0.0%		\$143	
Total Labor \$									
%									
Notes:									
Out-of-Pocket Expenses									
Travel Expenses									\$5,560
Technology Charge									\$0
Report Copy Expenses									\$4,633
Total Expense \$									\$10,456
Total Project Cost									
Total Estimated Cost per Task									\$77,600
Cumulative Total Estimated Cost									
Cumulative Project Hrs & Cost									
Cumulative Total Hours									468
Cumulative Labor Dollars									\$67,144
Cumulative Expense Dollars									\$10,456
Notes									
(1) Assumes 4 project trips for project director, 5 project trips for project manager.									

Schedule of Hourly Professional Service Billing Rates

<u>Position Classification</u>	<u>Classification Level</u>	<u>Hourly Billing Rate</u>
General Office*	5	\$56.00
Technician*	6	\$63.00
Assistant*	7	\$74.00
	8	\$105.00
	9	\$115.00
Staff*	10	\$126.00
	11	\$142.00
Senior	12	\$153.00
	13	\$163.00
Associate	14	\$175.00
	15	\$184.00
	16	\$189.00
	17	\$196.00

NOTES:

1. Position classifications listed above refer to the firm's internal classification system for employee compensation. For example, "Associate", "Senior", etc., refer to such positions as "Associate Engineer", "Senior Architect", etc.
2. For any nonexempt personnel in positions marked with an asterisk (*), overtime will be billed at 1.5 times the hourly labor billing rates shown.
3. Project time spent by corporate officers will be billed at the Level 17 rate plus 25 percent.
4. For outside expenses incurred by Burns & McDonnell, such as authorized travel and subsistence, and for services rendered by others such as subcontractors, the client shall pay the cost to Burns & McDonnell plus 10%.
5. A technology charge of \$9.90 per labor hour will be billed for normal computer usage, computer aided drafting (CAD), long distance telephone, fax, photocopy and mail services. Specialty items (such as web and video conferencing) are not included in the technology charge.
6. Monthly invoices will be submitted for payment covering services and expenses during the preceding month. Invoices are due upon receipt. A late payment charge of 1.5% per month will be added to all amounts not paid within 30 days of the invoice date.
7. The services of contract/agency personnel shall be billed to Owner according to the rate sheet as if such contract/agency personnel is a direct employee of Burns & McDonnell.
8. The rates shown above are effective for services through December 31, 2010, and are subject to revision thereafter.

REQUIRED FORMS

U.S. DEPARTMENT OF AGRICULTURE

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY
AND VOLUNTARY EXCLUSION - LOWER TIER COVERED TRANSACTIONS**

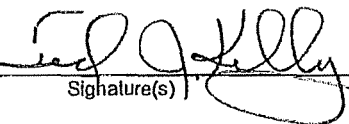
This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR Part 3017, Section 3017.510, Participants' responsibilities. The regulations were published as Part IV of the January 30, 1989, Federal Register (pages 4722-4733). Copies of the regulations may be obtained by contacting the Department of Agriculture agency with which this transaction originated.

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Burns & McDonnell Engineering Company, Inc. Cost of Service and Rate
Organization Name PR/Award Number or Project Name Design Study

Ted J. Kelly, Principal
Name(s) and Title(s) of Authorized Representative(s)

 10/14/10
Signature(s) Date

Instructions for Certification

1. By signing and submitting this form, the prospective lower tier participant is providing the certification set out on the reverse side in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later than determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transactions," "debarred," "suspended," "ineligible," "lower tier covered transactions," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0059. The time required to complete this information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

EQUAL OPPORTUNITY ADDENDUM
To Be Inserted in Construction Contracts and
Subcontracts, and Materials Contracts and Purchase Orders

PART I

The Contractor represents that:

It has does not have , 100 or more employees, and if it has, that

It has has no , furnished the Equal Employment Opportunity -- Employers Information Report EEO-I, Standard Form 100, required of employers with 100 or more employees pursuant to Executive Order 11246 and Title VII of the Civil Rights Act of 1964.

The Contractor agrees that it will obtain, prior to the award of any subcontract for more than \$10,000 hereunder to a subcontractor with 100 or more employees, a statement, signed by the proposed subcontractor, that the proposed subcontractor has filed a current report on Standard Form 100.

The Contractor agrees that if -it has 100 or more employees and has not submitted a report on Standard Form 100 for the current reporting year and that if this contract will amount to more than \$10,000, the Contractor will file such report, as required by law, and notify the Owner in writing of such filing prior to the Owner's acceptance of this Proposal.

PART II

CERTIFICATION OF NONSEGREGATED FACILITIES

The Contractor certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest-rooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The Contractor agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that it will retain such certifications in its files.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

PART III

EQUAL OPPORTUNITY CLAUSE

During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race,

color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(3) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.

(5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965- and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

(6) In the event of the Contractor's noncompliance with- the nondiscrimination clauses of this contract or with any of the said rules regulations or orders, this contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11,246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in the said Executive Order or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.

(7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The term "Contractor" shall also mean "Bidder" or " Seller" in case of materials and equipment contracts and purchase orders. and "Subcontractor" in the case of subcontracts.

The provisions of this addendum are not applicable to any. contract or subcontract not exceeding \$10,000.

This addendum supersedes the similar representations and provisions which may be contained in the contract form to which this addendum is attached. The Contractor may disregard the superseded representations and provisions.

Burns & McDonnell Engineering Company, Inc.

By  _____
CONTRACTOR

Principal _____
TITLE

10/14/10 _____
DATE



EQUAL EMPLOYMENT OPPORTUNITY POLICY

Burns & McDonnell is an affirmative action, equal opportunity employer and hereby reaffirms its commitment to ensure equal treatment for all individuals in its policies and practices affecting recruiting, hiring, transfers, promotions, compensation, benefits and training.

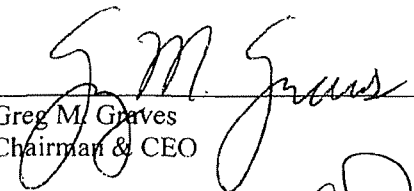
To provide equal employment and advancement opportunities to all individuals, employment decisions at Burns & McDonnell will be based on merit, qualifications, and abilities. Burns & McDonnell does not discriminate in employment opportunities or practices on the basis of race, color, religion, sex (including pregnancy, childbirth or related medical conditions), national origin, ancestry, age, disability, family care status, protected veteran status, marital status, sexual orientation or any other characteristic protected by applicable law.

Burns & McDonnell will make reasonable accommodations for qualified individuals with known disabilities unless doing so would result in an undue hardship. Burns & McDonnell prohibits harassment of any individual on the basis of any characteristic listed above. For information regarding Burns & McDonnell's internal policies for addressing complaints of harassment, please refer to the Burns & McDonnell's Anti-Harassment Policy.

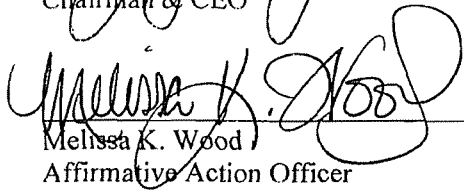
This policy governs all aspects of employment, including selection, job assignment, compensation, discipline, termination, and access to benefits and training.

Any employees with questions or concerns about any type of discrimination in the workplace are encouraged to bring these issues to the attention of their immediate supervisor or the Affirmative Action Officer. Employees can raise concerns and make reports without fear of reprisal, harassment, intimidation, threats, coercion or discrimination because they: (1) file a complaint with Burns & McDonnell or with federal, state, or local agencies; (2) assist or participate in any investigation, compliance review, hearing, or any other activity related to the administration of any federal, state or local equal employment opportunity or affirmative action statute; (3) oppose any act or practice made unlawful by federal, state or local law requiring equal employment opportunity or affirmative action; or (4) exercise any other employment right protected by federal, state or local law or its implementing regulations.

Burns & McDonnell maintains an audit and reporting system to determine overall compliance with its equal employment opportunity mandates and to respond to any specific complaints applicants or employees file with Burns & McDonnell. Overall responsibility for the implementation of Burns & McDonnell's equal employment opportunity programs and for affirmative action compliance activities is assigned to the Affirmative Action Officer, Melissa K. Wood, who may be reached at (816) 822-3129.



Greg M. Graves
Chairman & CEO



Melissa K. Wood
Affirmative Action Officer

UNITED STATES DEPARTMENT OF AGRICULTURE

NOTICE TO APPLICANTS - CERTIFICATION/DISCLOSURE REQUIREMENTS RELATED TO LOBBYING

Section 319 of Public Law 101-121 (31 U.S.C.), signed into law on October 23, 1989, imposes new prohibitions and requirements for disclosure and certification related to lobbying on recipients of Federal contracts, grants, cooperative agreements, and loans. Certain provisions of the law also apply to Federal commitments for loan guarantees and insurance; however, it provides exemptions for Indian tribes and tribal organizations.

Effective December 23, 1989, current and prospective recipients (and their subtier contractors and/or subgrantees) will be prohibited from using Federal funds, other than profits from a Federal contract, for lobbying Congress or any Federal agency in connection with the award of a particular contract, grant, cooperative agreement or loan. In addition, for each award action in excess of \$100,000 (or \$150,000 for loans) on or after December 23, 1989, the law requires recipients and their subtier contractors and/or subgrantees to: (1) certify that they have neither used nor will use any appropriated funds for payment to lobbyists; (2) disclose the name, address, payment details, and purpose of any agreements with lobbyists whom recipients or their subtier contractors or subgrantees will pay with profits or nonappropriated funds on or after December 23, 1989; and (3) file quarterly updates about the use of lobbyists if materials changes occur in their use. The law establishes civil penalties for noncompliance.

If you are a current recipient of funding or have an application, proposal, or bid pending as of December 23, 1989, the law will have the following immediate consequences for you:

- You are prohibited from using appropriated funds (other than profits from Federal contracts) on or after December 23, 1989, for lobbying Congress or any Federal agency in connection with a particular contract, grant, cooperative agreement, or loan;
- you are required to execute the attached certification at the time of submission of an application or before any action in excess of \$100,000 is awarded; and
- you will be required to complete the lobbying disclosure form if the disclosure requirements apply to you.

Regulations implementing Section 319 of Public Law 101-121 have been published as an Interim Final Rule by the Office of Management and Budget as Part III of the February 26, 1990, *Federal Register* (pages 6736-6746).

UNITED STATES DEPARTMENT OF AGRICULTURE

CERTIFICATION REGARDING LOBBYING - CONTRACTS, GRANTS, LOANS
AND COOPERATIVE AGREEMENTS

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement;

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this

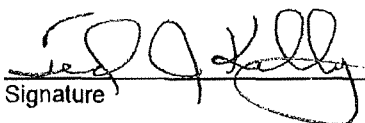
Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions;

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Burns & McDonnell Engineering Company, Inc. Rate Design Study
Organization Name Cost of Service and Award Number or Project Name

Ted J. Kelly, Principal
Name and Title of Authorized Representative


Signature

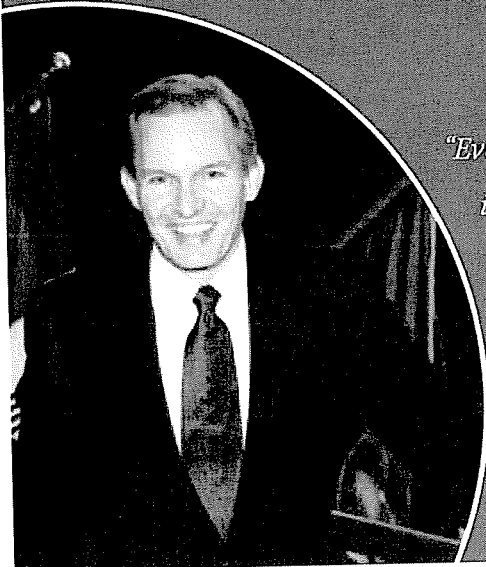
10/14/10
Date



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Proposal For
Cost of Service
&
Rate Design Study

Submitted to:

Big Rivers
ELECTRIC CORPORATION

Prepared by:

ENERVISION[™]

October 13, 2010

EnerVision, Inc.
4170 Ashford Dunwoody Road
Suite 550
Atlanta, GA 30319

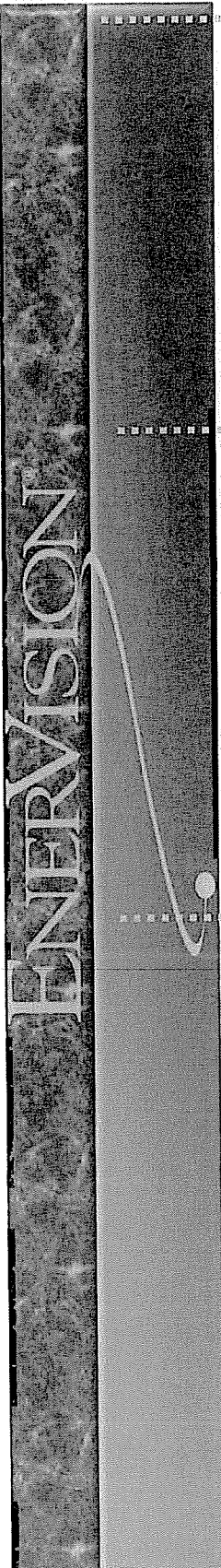


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Executive Summary

Big Rivers Electric Corporation is seeking proposals for the performance of a Wholesale Cost of Service and Rate Design Study. The experience, knowledge and skills of the EnerVision staff make it uniquely qualified to provide this study and meet the needs of Big Rivers and your Member-Systems, customers and regulators.

Members of the EnerVision project team previously led the Rates function at the nation's largest G&T, managed the Rates Department for one of largest investor-owned utilities and have performed cost of service, rate design and pricing development projects for a number of distribution cooperatives. We will bring this broad range of experience to focus for Big Rivers to help you meet your objectives of:

- Developing an unbundled pro forma test year cost of service study, and
- Developing proposed wholesale rates that equitably distribute cost responsibility across your Member-Systems while meeting your energy efficiency and DSM objectives and providing a sufficient return.

When developing cost of service studies and rates, EnerVision does not utilize a typical black box program but tailors our analysis to the needs of our client. This results in a study that supports the specific rate objectives and strategies to be fed by the cost of service study and gives us the ability to provide a spreadsheet model of the COS analysis for the future benefit of our client.

Timing and Scope of Work

Big Rivers, in your RFP, laid out a fairly aggressive timeline for the development and completion of the cost of service study, rate design and a full report for use in your upcoming rate case at the KPSC. EnerVision will work closely with Big Rivers' staff and, as appropriate, Member-Systems and customers to provide rates and the COS support for those rates and deliver your report before your milestone schedule for its completion. We will then work closely with you in support of your rate filing to gain approval of your new rates.

The scope of our proposed work under this proposal includes:

- **Understanding Your Needs** Discussing and gaining a full understanding of your needs and strategies for the COS and rate design study up front to assure those needs are met and strategies achieved effectively and cost-efficiently within your time schedule.
- **Data Gathering and Review** Based on our understanding of your needs we will provide you an initial list of data requirements to complete the study. We will use this data to gain a full understanding of your operations, financial requirements and wholesale rate structure. While we strive to request up front all the data that is needed, we typically find that supplemental data is required during the project and will work with Big Rivers' staff on any supplemental data requests.
- **Cost of Service and Rate Design**
 - EnerVision will perform an average embedded, fully allocated and unbundled COS template that will allocate your costs into Production (including separation into capacity and energy), Transmission and Other categories. We understand the rate case test year will not be established until after completion of the initial study and are prepared to update the study at that time.
 - Our study will determine the revenue requirement associated with each functional category in terms of total dollars and cost per appropriate billing unit.
 - EnerVision understands Big Rivers' special considerations and will work with you to meet the needs of customers under special contracts, evaluate alternative

cost and rate design approaches and develop our analysis with appropriate consideration of your tariff riders and other cost recovery mechanisms.

- EnerVision's COS analysis will include development of an Open Access Transmission Tariff (OATT) rate for Big Rivers in accordance with MISO requirements, including ancillary services rates and other transmission-related charges.

- **Design of Rates**

- EnerVision will work with you and your Member-Systems to assure our rate design criteria and objectives meet your needs, including:
 - Recovery of the targeted revenue requirement;
 - Development of rate components that reflect the cost of providing service;
 - Providing appropriate price signals to Member-Systems that reflect not just the cost of providing service but also the other strategic objectives of Big Rivers, including energy efficiency and demand side management; and,
 - Assuring rates are generally acceptable to your Member-Systems.
- We will evaluate and demonstrate to Big Rivers the appropriate basis for setting each unbundled rate component.
- EnerVision will provide recommendations for bundled and unbundled wholesale rate structures applicable to the Member-Systems reflecting time-based and innovative structures based on our discussions with your staff and the Member-Systems.
- Our study will include a comparison of the proposed wholesale rates to existing and alternative rates and recommend a phase-in approach if the proposed increases are so significant as to be considered "rate shock" by your Member-Systems.

- **Project Process**

- EnerVision will work closely with your management, staff and Member-Systems up front and through the process, as your thoughts and objectives are key to the success of this project. We understand and plan on a minimum of 3 face-to-face

meetings and will be flexible to meet as needed to make sure your objectives for the study are met.

• **Deliverables**

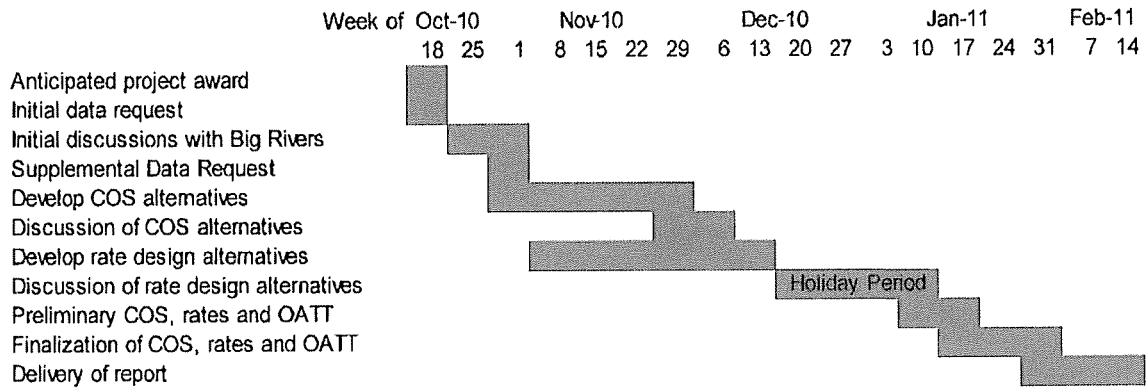
- EnerVision will document the study into a written report that fully explains, in words and visually, the work performed and the results of the study.
- We will provide a fully functioning Excel spreadsheet mode of the COS analysis that can be updated with future test year data.
- We have included, in the Cost Proposal section, our hourly rates to be applicable to our assistance in representing the study before the KPSC in support of your rate case proceeding.

Project Schedule

EnerVision recognizes that proper planning will be key to meeting Big Rivers’ objectives for this project within the approximate timeline you provided. In support of our proposal we have prepared this initial project schedule, which we consider “initial” because it will be revised as needed based on our discussions with you to assure we meet your needs and fit the schedules of your management, staff and Member-Systems.

Provide initial data request based on typical study needs	Upon awarding of project
Supplemental data request reflecting discussions with Big Rivers regarding specific objectives and system characteristics	As soon as discussions can be scheduled
Development of COS methodologies to accomplish project objectives	November 30, 2010
Discussion with Big Rivers of alternatives and determination of methodologies to be utilized for the study (to be scheduled up front)	By December 10, 2010
Development of rate design alternatives	December 17, 2010
Discussion with Big Rivers’ staff, management and Member-Systems (as appropriate) regarding rate alternative methodologies, including rationale used by EnerVision	By January 7, 2011
Delivery of preliminary COS analysis, rates and draft OATT to Big Rivers for discussion	January 21, 2011
Finalization of COS, rates and OATT based on feedback from Big Rivers	February 4, 2011
Delivery of COS and rate design study report	February 15, 2011

Graphic Presentation of Initial Project Schedule



It is EnerVision’s practice to provide frequent, typically weekly, updates on the status of projects and monthly invoicing of billable time. This gives clients the opportunity to track both the status of the project and progress against the budget for the project.

EnerVision's Qualifications, Firm Experience and References

Qualifications

EnerVision is a consulting firm located in Atlanta, Georgia that provides business, management, marketing and technical services for electric utilities and other clients. Our qualification for this work includes not only EnerVision activities, but work performed by EnerVision staff prior to the formation of the company in 1997. EnerVision staff includes management and key employees formerly comprising Oglethorpe Power Corporation's (OPC) rate function. In addition, our project manager, Barry Birkett, was formerly manager of the Rate Department at Florida Power & Light, where he oversaw the cost of service, load research and rate design functions and presented testimony in support of all three functions before the FERC and Public Service Commission. EnerVision has performed Cost of Service Studies and Rate Development for a number of distribution cooperative clients, with repeat work done for each. The experience of our project team also includes staff who have participated in the development and analysis of Open Access Transmission Tariffs, including rates, for a variety of clients as well as in their experience prior to the formation of EnerVision.

We feel our most relevant experiences for this project are the work EnerVision staff performed while at OPC and work we did more recently for TVA. While at OPC, EnerVision staff performed cost studies and prepared rates in a very challenging environment, needing to meet the needs and objectives of 39 Member-Systems with divergent needs and objectives while assuring that OPC would achieve needed financial objectives. In addition to direct rates for the OPC Member-Systems, our work included end-use rates employed by the Member-Systems for their large commercial and industrial customers, in particular in proposals to customers over 900 kW with competitive supply choice and in support of growing energy efficiency and DSM programs. This work was done by involving and considering the specific needs of the Member-Systems and finding a balance to best fit the needs of all 39 as well as overall OPC objectives.

Our work for TVA was likewise very relevant to this project and challenging. EnerVision was engaged by TVA to participate in the development and evaluation of alternative rate structures as TVA considered the transition from pass-through rates to more traditional pricing. Our work included meeting with TVA distributors and industrial customers to determine their needs, which were incorporated into rate alternatives. Those needs included the competitive needs of the industrials and the distributors who served them and supporting the distributors' innovative pricing and energy efficiency efforts, which needed to be melded with TVA's desire to send price signals reflecting its cost of providing service.

EnerVision has valuable experience at the state regulatory commission level. Our project leader, Barry Birkett has prepared and defended testimony in base rate and cost recovery mechanism proceedings before the Florida Public Service Commission, including introducing and gaining approval of groundbreaking recovery mechanism for purchase power fixed costs that contributed significantly to the company's revenue stability and reduced the need for full base rate proceedings. In addition to Mr. Birkett's experience, EnerVision's Chairman, Nelson Hawk, has significant experience testifying at the state regulatory level on various matters and previously served as Director for the Regulatory Affairs group of a major investor-owned utility. While Mr. Hawk is not formally listed on the project team, he would participate in the review of any testimony prepared by EnerVision and in witness preparation.

EnerVision is not aware of any conflict of interest that would affect our ability to complete this project for Big Rivers.

Ownership History

EnerVision was initially created in 1997 by spinning off the business, rates, and marketing services group of Oglethorpe Power Corporation (OPC) into a separate subsidiary. This allowed EnerVision to offer its skills and talents to clients outside of Georgia. In October 1998, a group of EnerVision employees bought the enterprise from OPC, creating a company that is an employee-owned consulting organization.

Breadth of Services

EnerVision has associates with the collective experience of over 200 years in the energy and consulting industry. EnerVision provides services from strategic visioning to program implementation for its more than 150 clients in over thirty (30) states. EnerVision has worked with national organizations, statewide organizations, as well as individual public utilities. Our strengths include DSM and energy efficiency program development and analysis, strategic planning, management consulting, power supply planning and analysis (including renewable resources), power marketing negotiations, transmission services and interconnection agreements, SCADA, telecommunications, pricing, cost of service studies, distributed generation evaluation, AMR/AMI, and diversification services. EnerVision has direct experience helping our clients explore, plan, and successfully implement new business strategies, products, programs, and services.

EnerVision Experience

EnerVision has conducted cost of service and rate design projects for a number of clients, including distribution cooperatives, municipal utilities and large wholesale suppliers. We have not followed a single formulaic approach with these projects, instead designing the project based on the needs of the client and the specific situation being faced by the client. This approach is facilitated by the EnerVision cost of service model, which is not a static model but is tailored to the needs of the specific project.

EnerVision is particularly proud of the fact that, in a competitive market for rate services, all of our distribution clients are repeat customers. This tells us that they feel we are meeting their needs and providing them a service that is of value to them.

EnerVision Project Leader

Barry Birkett, EnerVision Vice President and the practice leader of our Wholesale and Retail Rates Services business line, will be Big Rivers' project leader. Barry has 25 years of experience working with electric utility rates in cooperative, municipal and investor-owned utility environments.

EnerVision Project Team

In addition to Barry, the EnerVision project team includes:

- Elaine Johns, EnerVision CEO and former Manager, Pricing and Rates at Oglethorpe Power Corporation
- Thomas Siegrist, Vice President
- Joshua Warmack, Senior Consultant
- Ronnie Donaldson, Consultant

Their biographies can also be found in the Appendix. As you will see, EnerVision is offering a team with range of experience levels to get the job done right and efficiently from a cost standpoint. While these will be the primary members of the team, EnerVision will bring in other staff resources as needed to assure timely and quality services.

References

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tom.smith@opc.com

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(865) 632-2101
tdkilgore@tva.gov
(also was OPC President/CEO during our work there)

Bob Ray
President/CEO
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EnerVision Contact Information

Any questions or other communications regarding this proposal during the evaluation process may be directed to:

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4170 Ashford Dunwoody Road
Suite 550
Atlanta, GA 30319
(678) 510-2912
barry.birkett@enervision-inc.com

Cost Proposal

Listed below are EnerVision’s 2010 hourly billing rates, which would be applicable to work done under the base project as well as providing assistance in representing the Study in connection with the rate case proceedings before the KPSC. EnerVision will guarantee these rates for the completion of the base project but the rates are subject to change for application to subsequent activities. These billing rates already include overhead and administrative charges. Our standard business practice is to directly pass through to the client all expenses related to travel and direct business items at cost. Each visit to Big Rivers is estimated to result in \$600 - \$1000 in out-of-pocket expenses, depending primarily on airfares at the time of travel.

2010 Professional Rates	
	<u>Rate</u>
Chairman	\$250
President/CEO	\$250
Vice President	\$220
Principal Consultant	\$195
Senior Consultant	\$160
Consultant	\$130
Technical	\$100
Administrative	\$60

EnerVision finds it difficult to accurately estimate the time associated with a Cost of Service Study and Rate Development because these activities are very dependent on the availability of data and decisions made by our client as we move through the process. This is particularly true is a complex study of this magnitude involving the interaction of not only Big Rivers’ management and staff but also Member-Systems and key customers. The following is a breakdown of the expected time and associated billings for the project scope reflected above. Our proposal, consistent with our relationship with most clients, is to bill actual time on a monthly basis. At the same time, we will consider other arrangements if Big Rivers so desires.

Breakdown of Estimated Time by Major Task

Data collection and analysis, including billing data, load research, capital cost and expense data, tariffs, and related discussions with Big Rivers	60-80 hours
Development of COS, including alternative methodologies and discussions with Big Rivers	80-100 hours
Development and evaluation of alternative rate structures, including discussions with Big Rivers	70-85 hours
Design of proposed rates based on agreed COS methodologies and rate structures	40-65 hours
Development of Big Rivers' OATT, including associated charges	50-75 hours
Preparation of draft and final reports, including discussions with Big Rivers	30-50 hours
Total Estimated Time and Associated Billings	330-365 hours \$66K to \$73K

Your RFP also called for an hourly proposal for assistance as requested by Big Rivers' management in connection with your rate case proceeding. It is our proposal that the rates above be applied to the actual time spent in meeting your requests. Barry Birkett would be the EnerVision witness supporting the COS and rates and he would take the lead in coordinating our responses to your requests, involving the most appropriate EnerVision staff members to best meet your needs. If you need additional information on this aspect of this proposal we would be pleased to discuss it further.

Thank you for considering EnerVision for assisting you in developing

Big Rivers' Cost of Service and Rate Design Study.

Appendix

EnerVision Team Biographies

Barry Birkett, Vice President

Elaine Johns, President/CEO

Tom Siegrist, Vice President

Joshua Warmack, Senior Consultant

Ronnie Donaldson, Consultant

Barry T. Birkett
Vice President

- *30 years of utility experience*
- *Expert in power supply contract analysis, negotiations and administration*
- *Innovative rates and pricing experience*
- *Years of renewable energy involvement*



Mr. Birkett has 30 years of broad electric utility experience, with specialization in rates and pricing; power supply analysis and negotiations; and contract administration. His background is unique, with experience in all of these areas from the perspective of both the buyer and seller at the wholesale and retail levels. He heads EnerVision's Renewable Energy and Rates and Pricing practice areas and is a key member of the Power Supply practice area, with experience managing major Power Supply projects. He has managed a number of significant projects for EnerVision's cooperative and municipal clients.

Mr. Birkett is a key player in the negotiations of major power supply agreements benefiting a number of clients, with power purchases under these agreements valued in the billions of dollars. One of his current activities is the management of contract administration for the largest of those contracts, which includes monitoring of contract compliance, serving as operations contact on behalf of the clients, managing the review of bills, power cost projections and numerous other activities.

Mr. Birkett's activities also include assisting clients in the assessment of their power supply needs and alternatives. In this role, he has provided a "second look" to clients who wanted an additional opinion or perspective on a new contract or relationship under consideration. His actions have resulted in contract improvements that have given EnerVision clients greater confidence in moving forward.

Mr. Birkett has worked with clients on renewable energy matters for several years, including renewables issue tracking, needs planning, project identification and contract negotiation. He has advised clients seeking to be proactive in the renewable energy area and those responding to mandates.

Mr. Birkett has managed extensive pricing projects. These entailed performing cost-of-service studies, developing pricing strategies, rate design and implementation. Among other initiatives, Mr. Birkett developed an innovative residential pricing program, prepared many successful client customer choice proposals, and created the pricing strategy for a client's dispersed generation program.

Prior to joining EnerVision, Mr. Birkett spent 16 years with the FPL Group, where he held a number of analytical and customer contact positions, including 7 years as Manager of Rate and Research. In that role, he led a team of over 20 analytical personnel. His activities also included testifying before the Federal Energy Regulatory Commission (FERC) and Florida Public Service Commission in support of the company's rate and tariff proposals and their applications.

Mr. Birkett holds a Bachelor of Science in Industrial Management from the Georgia Institute of Technology and a Masters of Business Administration from Florida International University.

Elaine H. Johns**President/CEO**

- *25+ years utility strategic planning and power supply planning experience*
- *Proven capability in wholesale power supply planning, financial and economic analysis, wholesale and retail rates and strategic & business planning*
- *Expertise in benchmarking, statistical analysis, and economic models*



Ms. Elaine Johns has over 25 years of consulting experience in areas ranging from strategic planning, power supply planning, utility rates, marketing, and economic analysis. She provides overall leadership and direction for the company's power supply service offerings, builds relationships and pursues new business for the firm. As EnerVision's President/CEO, she is responsible for the operations of the firm. In addition, Ms. Johns is an owner of the company.

Ms. Johns completed numerous and various power purchase agreements for a number of electric cooperatives around the country. Under her direction, EnerVision staff also provides power supply contract administration support. She also works with clients in assessing, defining and negotiating the relationships between wholesale provider and distributor.

Ms. Johns recognizes that a key component to success in the wholesale power market area is maintaining good relationships with the market players, and she has acquired a highly respected reputation within the market while representing EnerVision's utility clients.

In addition to her work in power supply, Ms. Johns also is one of EnerVision's strategic planning facilitators. Working with clients' senior management and key staff as well as Boards of Directors, Ms. Johns' projects have included developing mission and vision statements, corporate goal setting, organizational assessments and design, succession planning and personnel assessments. She also conducts educational sessions for Boards on the electric utility industry and wholesale power markets.

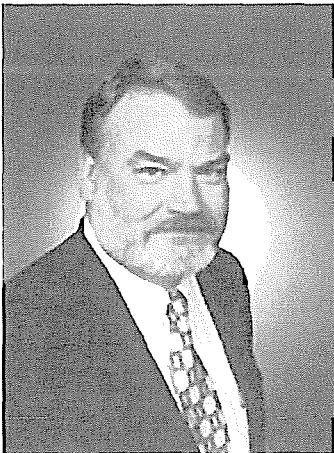
Previously, Ms. Johns had been at Oglethorpe Power for 13 years. She has conducted economic analyses on such subjects as power generation options and fuel procurement strategies. Her involvement included support in governmental approval and auditing processes. She was instrumental in obtaining the loan approval for an 800-MW pumped storage hydro plant from the Rural Utilities Service. She held various management positions ranging from Manager, Corporate Planning & Reporting to Manager, Pricing & Rates, and Manager of Commercial/Industrial Marketing & Pricing. Ms. Johns managed corporate strategic pricing, power cost analyses and the corporate competitiveness studies which included statistical analysis and benchmarking techniques. Toward the end of her employment at Oglethorpe, she was assigned to special corporate projects; one of which developed the company's corporate focus and strategies which resulted in the landmark restructuring of Oglethorpe Power.

Ms. Johns is a member of the Institute of Industrial Engineers, a former mentor in the Georgia 100 Program and a current mentor at the Georgia Tech Alumni Association. She holds positions on the Johns Creek Cluster Local School Advisory Council and Fulton County Superintendent's Parents Council. She is a volunteer coach in the high school program at North Point Community Church. Mrs. Johns has a Bachelor's degree in Industrial and Systems Engineering from the Georgia Institute of Technology.

**Thomas W. Siegrist,
P.E.**

Vice President

- *Over 30 years experience in electric system operations, planning, marketing, engineering and maintenance.*
- *Proven capabilities in negotiating complex contracts*
- *Extensive experience facilitating diverse groups to find success in working together*



Mr. Siegrist has over 30 years of diverse electric utility experience including electric system operations, system protection and control, engineering design, system planning, power contracts and strategic planning. In his current position with EnerVision, Mr. Siegrist leads its transmission and system operations practice areas.

Mr. Siegrist's projects include analyses of the Georgia Integrated Transmission System in a deregulated environment, and the potential impacts of Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs) on electric cooperatives.

Mr. Siegrist works with cooperatives to help them integrate distributed generation, direct load control and "Green Power" resources into their daily power mix, and to create and implement interconnection policies and procedures. He also works with transmission dependent cooperatives, Independent Power Producers and commercial and industrial clients to assist them with interconnection and transmission service arrangements.

Before the formation of EnerVision, Mr. Siegrist served in several senior positions with Oglethorpe Power Corporation including Vice President positions in Electric System Operations, Electric System Planning, Transmission Engineering, Telecommunications, and Transmission Operations & Maintenance. In Electric System Operations, he led efforts to establish Oglethorpe Power's control center operations, qualifying Oglethorpe to join the Southeastern Electric Reliability Council, and enabling Oglethorpe to participate in power markets for the first time.

Mr. Siegrist played a key role in Oglethorpe Power's 1998 restructuring in helping to create one of the first Independent System Operators, Georgia System Operations Corporation, and one of the first Independent Transmission Companies, Georgia Transmission Corporation.

Mr. Siegrist served on the Georgia Integrated Transmission System's Joint Committee for Operations and Planning, and the Joint Subcommittee for Operations. He also represented Oglethorpe Power at the Southeastern Electric Reliability Council.

Mr. Siegrist served on or supported several national programs including the Alliance for Cooperative Energy Services (ACES), the Public Power Association, the Cooperative Research Network (CRN) the Electric Power Research Institute (EPRI) and Touchstone Energy[®].

Prior to joining Oglethorpe Power in 1978, Mr. Siegrist worked with Florida Power & Light Company in Transmission and Generation Test Engineering as well as Distribution Engineering. Mr. Siegrist holds a Bachelors Degree in Electrical Engineering from The Georgia Institute of Technology (1975), and is a registered Professional Engineer in the State of Georgia (1988).

Joshua Warmack**Senior Consultant**

- *Certified Energy Manager*
- *Innovative*
- *Strong analytical skills*
- *Organized*
- *Proven ability to meet client needs*



Mr. Warmack joined EnerVision in the summer of 2004 as a Consultant. Prior to joining EnerVision, he was a co-op student at Georgia Power Company and worked in various departments. He utilizes his electric utility experience to respond quickly and decisively to the needs of clients. Joshua was promoted to Senior Consultant during 2006.

Mr. Warmack has worked on and continues to provide consulting services with rate design and cost-of-service projects for distribution cooperatives.

Mr. Warmack has been particularly skilled at assisting clients with renewable resource and energy efficiency projects during the past two years. He has been directly involved supporting renewable resource/green power program activities with a large group of EnerVision clients. He also has represented EnerVision and its clients with various regulatory, environmental and utility organizations concerning energy efficiency program initiatives. Recently, he has been assigned to lead a renewable resource project with a major client to help them meet emerging regulatory requirements.

In July 2008, Mr. Warmack completed the continuing education course, Fundamentals of Energy Auditing, at the University of Wisconsin Madison. He increased his knowledge of how commercial building energy systems operate and improved upon the skills necessary to measure building performance. In May 2009, Mr. Warmack earned the title of Certified Energy Manager through the Association of Energy Engineers. This title demonstrates a high level of competence and ethical fitness for energy management.

For the last three years, Mr. Warmack has assisted a statewide cooperative organization with administering an energy efficiency, demand side management, and demand response survey of all of the organization's member cooperatives. Mr. Warmack oversees the data acquisition, compilation, and analyses, as well as, final report production.

Mr. Warmack is also currently assisting a cooperative client through EnerVision's Total Energy Planning (TEP) process. TEP is a decision-making process which helps utilities to define their energy resource strategies and goals by incorporating three core areas: Energy Innovation (energy efficiency, DSM, etc.), Renewable Energy, and Traditional Generation.

Mr. Warmack has a Bachelor Degree of Science in Industrial Engineering from the Georgia Institute of Technology.

**Ronnie Donaldson
Consultant**

- *Well-organized*
- *Strong analytical skills*
- *Persistent and hard-working*
- *Proven ability to meet client needs*



Mr. Donaldson joined EnerVision in January of 2010 as a Consultant. His recent project assignments include a requirements service procurement process supporting a group of 11 cooperatives, in which his work has included the development of resource needs, analysis and evaluation of proposals and preparation of recommendations for the client Boards of Directors to consider.

Mr. Donaldson was also involved in the analytical phase RFP process for another group of client cooperatives. He assisted in the development and analysis of each proposal submitted to the client.

Mr. Donaldson provides analytical support for existing North Carolina and Georgia clients in the areas of monthly bill validation, annual budgeting, and power cost projections.

He began his career while in school as an intern for Gardner Metal Systems in an industrial plant. He designed and implemented a new supply chain system in order to effectively improve the plant's overall efficiency.

Mr. Donaldson decided to pursue a career in serving the electric utility industry and joined the EnerVision team. Mr. Donaldson uses his excellent technical and communication skills, his broad mathematical aptitude and analytical skills, and maintains a sense of urgency and competitive drive to ultimately provide results which fill the needs of the client.

Mr. Donaldson graduated from the Georgia Institute of Technology with a Bachelor Degree in Industrial and Systems Engineering.

BIG RIVERS ELECTRIC CORPORATION
HENDERSON, KENTUCKY

PROPOSAL FOR
COMPREHENSIVE DEPRECIATION STUDY



Harrisburg, Pennsylvania

Calgary, Alberta

Valley Forge, Pennsylvania



GANNETT FLEMING, INC.
P.O. Box 67100
Harrisburg, PA 17106-7100
Location:
207 Senate Avenue
Camp Hill, PA 17011
Office: (717) 763-7211
Fax: (717) 763-4590
www.gannettfleming.com

June 4, 2010

Big Rivers Electric Corporation
Purchasing Department
P.O. Box 24
Henderson, KY 42419-0024

Ladies and Gentlemen:

Proposal for Comprehensive Depreciation Study

The Valuation and Rate Division of Gannett Fleming, Inc. is pleased to submit this proposal to Big Rivers Electric Corporation (Big Rivers) to conduct a depreciation study related to the electric utility assets. Our proposal is based on your Request for Proposal (RFP) dated May 1, 2010, as well as our experience in conducting depreciation studies for other electric utility companies.

The proposed study will encompass reviews of the available plant accounting data, current service life, salvage and cost of removal parameters, and adequacy of the current depreciation rates, reserves and procedures. We will schedule field visits to major facilities and meetings with engineering and management personnel to gain an understanding of the assets, current operating and maintenance procedures and investment plans as they relate to depreciation rates. We will also consider external and environmental factors that affect depreciation rates and we will make recommendations for changes to Big Rivers' current depreciation rates, methods and procedures as indicated.

The study will be conducted in two phases. During the first phase we will analyze the available historical data, review current depreciation policies and procedures, and estimate service lives and net salvage percents for each depreciable group. During the second phase, we will make calculations of annual and accrued depreciation and recommend annual depreciation accrual rates and book reserve reallocation (if necessary). We will prepare a report for Big Rivers setting forth the study results and recommendations in a form suitable for filing with the Kentucky Public Service Commission. We will provide expert testimony and support of our study before the regulatory commission as required. The study for Big Rivers will be conducted under the direction of John J. Spanos of our Harrisburg, Pennsylvania, office.



Gannett Fleming

**Big Rivers Electric Corporation
Henderson, KY 42419-0024**

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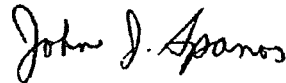
June 4, 2010

This proposal includes the following sections: Company Profile, Qualifications and Experience, Client References, Project Work Plan, Study Support, Fee Schedule, Work Plan Schedule, Conflicts of Interest, and Forms.

We appreciate the opportunity of submitting this proposal to Big Rivers. If you have any questions or comments, please do not hesitate to contact me at (717) 763-7212, ext. 2246 or via email at jspanos@gfnet.com.

Respectfully submitted,

GANNETT FLEMING, INC.



**JOHN J. SPANOS
Vice President
Valuation and Rate Division**

JJS/krm

COMPANY PROFILE

COMPANY PROFILE

Gannett Fleming is an international organization of several consulting companies with a total staff of approximately 2,000 with expertise in numerous disciplines. The firm's headquarters is located in suburban Harrisburg, Pennsylvania. Regional offices are maintained in 22 states and in Calgary, Alberta.

The Valuation and Rate Division of Gannett Fleming, Inc. provides services related to the regulation of public utility rates. The practice developed following the establishment of uniform systems of account for utility companies in the late 1930's. Initial work related to original cost research, development of continuing property records and valuations for rate base purposes. Depreciation services grew rapidly in the 1950's with the advent of machine computing and the ability to perform analyses and calculations using the methods pioneered by Robley Winfrey and others at Iowa State University in the 1930's and 1940's. Revenue requirement, cost of service allocation and rate design studies, although performed throughout our history, became a significant segment of our business during the double-digit inflation years of the 1970's. The Valuation and Rate Division of Gannett Fleming, Inc. also has prepared and submitted numerous rate-of-return studies to various state utility commissions.

The Valuation and Rate staff is preeminent in the field of depreciation. We remain informed with respect to, and in many cases, help to form the standards of depreciation practice in the utility and railroad industries. Gannett Fleming has four Certified Depreciation Professionals (CDPs) and currently has two members on the faculty of the Society of Depreciation Professionals.

We have an unparalleled depth and breadth of experience in conducting depreciation studies. Our clients range in size from the smallest water utility to the

largest railroad, and our studies, although mostly conducted for rate regulation purposes, also are conducted for income tax, book and insurance purposes. As a result, we bring a fresh perspective and a wealth of experience to each assignment and tailor our approach to the individual requirements of the client. We have a significant number of staff assigned to the conduct of depreciation studies and are committed to providing continuous quality services to our clients.

A representative sampling of our extensive experience in performing depreciation and other related studies for the gas and electric industries, as well as other utilities, is contained in the Qualifications and Experience section of this proposal.

Our division website is located at: www.gfvrd.com, and our corporate website is located at: www.gannettfleming.com.

QUALIFICATIONS AND EXPERIENCE

QUALIFICATIONS AND EXPERIENCE

The depreciation study for Big River will be conducted under the supervision of John J. Spanos, who also will take professional responsibility for the study before the Kentucky Public Services Commission (KPSC). Mr. Spanos is a Certified Depreciation Professional as designated by the Society of Depreciation Professionals, a national organization of individuals involved in public utility and railroad depreciation issues.

Mr. Spanos has completed the multi-year course work offered by Depreciation Programs, Inc. (DPI). Mr. Spanos is located in the firm's Harrisburg, Pennsylvania, headquarters with technical and administrative support staffs available to assist on the project.

Mr. Spanos's resume is set forth on the following pages.

JOHN J. SPANOS

TECHNICAL SPECIALTIES

- Public Utility Plant Depreciation
- Public Utility Plant Original Cost

PERSONAL INFORMATION

M.B.A., York College of Pennsylvania, 1997

B.S., Industrial Management and Mathematics, Carnegie-Mellon University, 1986

Member, Society of Depreciation Professionals

Alternate, American Gas Association Industry Accounting Committee

Certified Depreciation Professional

EXPERIENCE

Mr. Spanos joined the firm in 1986 and is a Vice President. He assembles and oversees the basic data required for depreciation studies, conducts statistical analyses of accounting data, estimates service life and net salvage, and calculates annual and accrued depreciation. He performs field inspections for purposes of estimating service lives and verifying property records for original cost, bond indenture and depreciation studies. He also has supervised the updating of continuing property records.

Several assignments include:

- The Cincinnati Gas & Electric Company and Subsidiaries - Depreciation Studies for Gas and Electric. The studies included development of annual depreciation rates for all gas and electric plant in service for The Cincinnati Gas & Electric Company; Union Light, Heat and Power Company; and The Lawrenceburg Gas Company. Field inspections of electric and gas facilities were performed. Statistical analyses of service life and salvage data were conducted. Annual and accrued depreciation were calculated using several alternative bases and procedures.
- Chugach Electric Association - Depreciation Study. The elements of the study included a field inspection of power plants and major substations, data assembly and life analysis for generation and transmission accounts, discussions with management regarding outlook, the estimation of service life and net salvage and the calculation by plant account of annual depreciation rates.
- Northwest Territories Power Corporation. The depreciation study included assembly of basic data from the Corporation's property record listing, statistical analyses of retirements for indications of service life, an extensive field review of facilities, discussions with management regarding the outlook for the property, calculations of annual and accrued depreciation using several accepted procedures and bases and a report setting forth the study results.
- Omaha Public Power District. The study involved supervision of OPPD personnel assembling the basic plant accounting data required for analysis of historical indications of service life and net salvage. The data were analyzed using both the retirement rate method and the simulated plant record method. The net salvage estimates for the power plants were based on a regression analysis of industry cost of retiring data that correlated the cost per kilowatt with each unit's kilowatt capacity. A field review and discussions with management provided an outlook for future service lives compared to historical indications. The calculations of annual and accrued depreciation using several combinations of procedures and bases were performed and presented to management.

JOHN J. SPANOS, cont.

- Penn Fuel Gas, Inc. This assignment involved 26 service districts which were organized into seven operating groups for this gas distribution company. Our responsibilities included establishing continuing property records for each district. Some districts had previous work performed and others needed a complete review of accounting records, field inspections and digitization of distribution maps. The original costs and property identification were entered into an in-house created computer data base to facilitate the preparation of a service life study and the establishment of a mechanized property record system.

- Pennsylvania-American Water Company. Several studies have been performed for the Company and include the estimation of service lives, unitization of acquired treatment plant facilities and the determination of original costs for acquired water systems. The service life study included data assembly of two predecessor water systems, statistical analyses of service life and calculation of annual depreciation accrual rates for a rate filing with the state commission. The unitization of treatment plant facilities included a field inspection of each acquired plant and identification of property on a retirement unit basis for establishing property records. The determination of the original cost of assets to be acquired from small water systems within Pennsylvania included field reviews of the water systems, verification of plant accounting records, Handy-Whitman indexing of property costs and establishment of original cost less depreciation.

- Duquesne Light Company. The assignment involved performing an independent engineer's certificate report of actual property in service. A random sample of all types of property was selected and verified through a physical inventory. The thorough physical inventory included production, transmission, distribution and general plant. The final results were documented and filed with the Company's mortgage bond trustee.

- United Telephone of New Jersey, Inc. This assignment included an extensive physical inventory of telephone plant for the five predecessor companies. A random sample of each type of property for each predecessor company was inventoried by serial number. The final results were documented and filed with the Company's mortgage bond trustee.

- Nova Gas Transmission Ltd. The study incorporated the use of time-based depreciation for transmission and general accounts and unit of production depreciation method for gathering accounts. The data were assembled by account and statistical analyses of service life and salvage were performed. For the gathering accounts, the property was identified by specific production areas for calculation of depreciation on a unit basis. Field inspections of gas transmission facilities were conducted. Discussions with key personnel regarding management policy compared to several depreciation alternatives were presented for determination of final depreciation rates.

Mr. Spanos' technical education has included formal instructional programs offered by Depreciation Programs, Inc. Courses successfully completed include "Techniques of Life Analysis", "Techniques of Salvage and Depreciation Analysis", "Forecasting Life and Salvage", "Modeling and Life Analysis Using Simulation", and "Managing a Depreciation Study". Mr. Spanos also completed the week long course "Introduction to Public Utility Accounting" conducted by the American Gas Association.

DEPRECIATION STUDIES

Management responsibility, utility regulation, income tax preparation, and property valuations require estimates of annual depreciation accrual rates and accrued depreciation. The experience of Gannett Fleming's professional staff relates specifically to the capital recovery concerns of most regulated utilities, and provides a basis for advising its clients as to the methods of depreciation or service life and salvage analysis to be applied in a particular circumstance.

Depreciation services provided for regulated public utilities and railroads typically include the following:

1. Service life studies and depreciation calculations in support of rate base claims and annual depreciation expense claims in customer rate filings.
2. Expert testimony in support of depreciation studies during rate hearings.
3. Book depreciation reserve studies for the purpose of establishing a starting point for the use of the book reserve, or adjusted book reserve, for ratemaking purposes.
4. Service life and salvage studies in support of book depreciation rates.
5. Drafting petitions and stipulations to document the agreements reached with the Commission staff and other parties.
6. Periodic recomputation of depreciation rates based on remaining life, equal life group, and life-span procedures for book purposes.

Informed engineering judgment based on the consideration of all relevant factors results in proper estimates of service life and salvage for capital recovery purposes. Such judgment is the synthesis of the application of modern statistical techniques, including actuarial methods, to analyze known factors of the past; knowledge of the character, use, and location of the property; the observed features at the time of visual inspection; the anticipated events in the future, including the plans of management for the foreseeable future; and a general knowledge of similar property.

Gannett Fleming personnel have a complete working knowledge of depreciation methods, procedures, and techniques that reduce the risk of incomplete capital recovery. In its studies, rates for capital recovery for large unit facilities are designed through the use of the life-span technique, utilizing scheduled or estimated retirement dates, and the use of a remaining life basis. In its studies for mass utility plant, Gannett Fleming encourages the institution of the equal life group procedure (ELG), on a go-forward basis, in conjunction with either a remaining life basis or a whole life with true-up basis.

During its more than thirty years of experience in the use of electronic computers, Gannett Fleming developed extensive software for service life and salvage analyses and the calculation of depreciation by a wide variety of methods and procedures. With the advent of personal computers, Gannett Fleming converted its principal mainframe computer applications to personal computers and subsequently has offered its depreciation analysis software for public utility and railroad company use on a licensing basis.

The following is a list of clients for whom Gannett Fleming has conducted depreciation studies in recent years.

<u>Client</u>	<u>Approximate Original Cost* (Millions)</u>	<u>Date of Initial Study</u>	<u>Number of Study Updates</u>
ELECTRIC UTILITIES			
Allegheny Energy Greensburg, Pennsylvania	\$ 8,450	1972	10
Alliant Energy Cedar Rapids, Iowa	3,107	2001	-
Alliant Energy - WPL Madison, Wisconsin	2,703	2007	-
AmerenUE St. Louis, Missouri	8,345	2002	-
Arizona Public Service Company Phoenix, Arizona	6,163	1993	1
Avista Corporation Spokane, Washington	2,593	2007	-
Bonneville Power Administration Portland, Oregon	4,799	1999	1
CenterPoint Energy Houston, Texas	11,365	1989	2

<u>Client</u>	<u>Approximate Original Cost* (Millions)</u>	<u>Date of Initial Study</u>	<u>Number of Study Updates</u>
ELECTRIC UTILITIES (cont'd)			
Central Hudson Gas and Electric Poughkeepsie, New York	\$ 1,014	2005	1
Central Vermont Public Service Corp. Rutland, Vermont	385	2007	-
Chugach Electric Association, Inc. Anchorage, Alaska	651	1992	4
Cinergy Corporation Cincinnati, Ohio	4,546	1989	2
Dominion Virginia Power Richmond, Virginia	7,539	2002	-
Duke Power Company Charlotte, North Carolina	8,627	2005	-
Duquesne Light Company Pittsburgh, Pennsylvania	3,878	1976	8
East Kentucky Power Cooperative Winchester, Kentucky	2,040	2006	-
El Paso Electric El Paso, Texas	1,001	2002	1
Entergy Arkansas Little Rock, Arkansas	7,240	2010	-
Entergy Gulf States Louisiana, LLC Lake Charles, Mississippi	6,371	2010	-
Entergy Louisiana, LLC New Orleans, Mississippi	6,686	2010	-
Entergy Mississippi Jackson, Mississippi	2,951	2010	-
Entergy Texas Beaumont, Texas	2,893	2010	-
E.ON U.S. Services Louisville, Kentucky	6,864	2007	-

<u>Client</u>	<u>Approximate Original Cost* (Millions)</u>	<u>Date of Initial Study</u>	<u>Number of Study Updates</u>
Greater Missouri Operations - ECORP Kansas City, Missouri	\$ 52	2010	-
Great Missouri Operations-L&P Jurisdiction Kansas City, Missouri	427	2010	-
Greater Missouri Operations MPS Jurisdiction Kansas City, Missouri	1,786	2010	-
Kansas City Power & Light Kansas Jurisdiction Kansas City, Missouri	2,451	2010	-
Kansas City Power & Light Missouri Jurisdiction Kansas City, Missouri	2,973	2010	-
Houston Lighting & Power Company Houston, Texas	11,365	1989	2
MidAmerican Energy Corporation Des Moines, Iowa	964	2004	1
Nevada Power Company Las Vegas, Nevada	3,458	2003	1
Newfoundland Light & Power St. Johns, Newfoundland	987	1996	1
Nolin Rural Electric Cooperative Elizabethtown, Kentucky	50	1998	-
Northern Indiana Public Service Corp. Murrillville, Indiana	335	2007	-
NSTAR Electric & Gas Company Westwood, Massachusetts	3,821	2004	-
Oklahoma Gas and Electric Oklahoma City, Oklahoma	4,083	2003	1
Omaha Public Power District Omaha, Nebraska	2,164	1997	2

<u>Client</u>	<u>Approximate Original Cost* (Millions)</u>	<u>Date of Initial Study</u>	<u>Number of Study Updates</u>
ELECTRIC UTILITIES (cont'd)			
Owen Electric Cooperative, Inc. Owenton, Kentucky	\$ 91	1991	2
Pacific Gas and Electric San Francisco, California	14,031	2000	-
PPL Electric Utilities Corp. Allentown, Pennsylvania	4,424	2004	1
PSI Energy, Inc. Indianapolis, Indiana	4,394	1998	1
Puget Sound Energy Bellevue, Washington	4,983	2007	-
SCANA Columbia, South Carolina	5,129	2003	1
UGI Utilities, Inc.- Electric Division Kingston, Pennsylvania	116	1969	10
Union Light Heat & Power Company Cincinnati, Ohio	224	1988	2
West Penn Power Company Greensburg, Pennsylvania	2,862	1972	8
Westar Energy, Inc. Topeka, Kansas	2,448	2005	-

*Original Cost of Plant Included in Most Recent Study.

<u>Client</u>	<u>Approximate Original Cost* (Millions)</u>	<u>Date of Initial Study</u>	<u>Number of Study Updates</u>
NATURAL GAS UTILITIES AND OIL PIPELINES			
AltaGas Utilities Inc. Leduc, Alberta	\$ 208	1995	1
Apollo and Carnegie Natural Gas Companies Subsidiaries of USX Corporation Pittsburgh, Pennsylvania	110	1961	4
BC Gas Utility Ltd. Vancouver, British Columbia	1,772	1997	1
CenterPoint Energy - Arkla Houston, Texas	148	2002	-
CenterPoint Energy Gas Transmission Shreveport, Louisiana	1,162	2002	-
CenterPoint Energy Arkansas Little Rock, Arkansas	518	2004	-
CenterPoint Energy Oklahoma Lawton, Oklahoma	100	2003	-
Centra Gas Manitoba, Inc. Winnipeg, Manitoba	429	2000	-
The Cincinnati Gas & Electric Company Cincinnati, Ohio	580	1991	3
Citizens Gas & Coke Utility Indianapolis, Indiana	170	1965	4
Public Service Company of Colorado Denver, Colorado	1,021	2000	-
Columbia Gas of Maryland, Inc. Pittsburgh, Pennsylvania	61	1996	-
Columbia Gas of Ohio, Inc. Columbus, Ohio	1,354	1999	1
Columbia Gas of Pennsylvania, Inc. Pittsburgh, Pennsylvania	330	1952	14

<u>Client</u>	<u>Approximate Original Cost* (Millions)</u>	<u>Date of Initial Study</u>	<u>Number of Study Updates</u>
NATURAL GAS UTILITIES AND OIL PIPELINES (cont'd)			
Columbia Gas of Virginia, Inc. Richmond, Virginia	\$ 408	1998	1
Consolidated Natural Gas Company Subsidiaries Pittsburgh, Pennsylvania	2,000	1952	31
Enbridge Pipelines Inc. Edmonton, Alberta	2,603	1999	-
Equitable Gas Company Pittsburgh, Pennsylvania	680	1992	2
Laclede Gas Company St. Louis, Missouri	983	2005	1
MidAmerican Gas Company Des Moines, Iowa	965	2004	-
National Fuel Gas Company subsidiaries Buffalo, New York	1,500	1969	18
North Penn Gas Company Port Allegheny, Pennsylvania	81	1953	14
NSTAR Gas Company Westwood, Massachusetts	537	2004	-
Peoples Energy Corporation Chicago, Illinois	2,211	2000	1
Platte Pipe Line Company Calgary, Alberta	216	1999	-
PPL Gas Company Allentown, Pennsylvania	241	2003	-
T. W. Phillips Gas and Oil Co. Butler, Pennsylvania	170	1953	8

<u>Client</u>	<u>Approximate Original Cost* (Millions)</u>	<u>Date of Initial Study</u>	<u>Number of Study Updates</u>
NATURAL GAS UTILITIES AND OIL PIPELINES (cont'd)			
SCANA Corporation Columbia, South Carolina	\$ 438	2003	1
TransCanada Pipe Lines Limited Mainline Facilities Calgary, Alberta	12,198	1992	1
TransCanada Pipeline Limited Alberta Facilities Calgary, Alberta	6,664	1996	1
TransMountain Pipe Line Company Vancouver, British Columbia	39	1995	-
UGI Utilities, Inc. - Gas Division Valley Forge, Pennsylvania	602	1957	11
Union Light Heat & Power Company Cincinnati, Ohio	159	1991	3
Virginia Natural Gas, Inc. Norfolk, Virginia	448	1997	1
RAILROADS			
Burlington Northern Santa Fe Corp. Topeka, Kansas	15,604	1984-86	3
Norfolk Southern Corporation Roanoke, Virginia	9,500	1987	4
Union Pacific System Omaha, Nebraska	9,000	1983-84	2

*Original Cost of Plant Included in Most Recent Study.

<u>Client</u>	<u>Approximate Original Cost* (Millions)</u>	<u>Date of Initial Study</u>	<u>Number of Study Updates</u>
WATER UTILITIES			
Anchorage Water & Wastewater Anchorage, Alaska	\$ 333	1985-86	2
Aqua Pennsylvania, Inc. (formerly Phila. Suburban) Bryn Mawr, Pennsylvania	478	1971	12
Artesian Water Company, Inc. Neward, Delaware	307	2007	-
Hampton Water Works Company Hampton, New Hampshire	18	1998	-
Indiana American Water Company Greenwood, Indiana	274	1996	1
Kentucky American Water Company Lexington, Kentucky	323	2007	-
Missouri American Water Company St. Louis, Missouri	254	2003	-
Pennsylvania American Water Company Hershey, Pennsylvania	1,249	1995	3
St. Louis County Water Company St. Louis, Missouri	495	1973	2
Virginia American Water Company Alexandria, Virginia	113	2004	-
The York Water Company York, Pennsylvania	56	1973	11

*Original Cost of Plant Included in Most Recent Study.

DEPRECIATION STUDIES OF ELECTRIC PLANT

**Allegheny Energy, Inc.
Greensburg, Pennsylvania**

The initial study for West Penn Power (subsidiary of Allegheny Energy) was conducted in 1972 and has been updated eight times. The original cost of the West Penn plant is approximately \$2.9 billion.

The studies consisted of two parts: (1) the estimation of survivor curves and (2) the calculation of annual and accrued depreciation. The survivor curve estimates were based on judgment which incorporated analyses of historical service life data, consideration of the condition and use of the property based on field inspections, the plans of management, and a general knowledge of electric property lives. The life span procedure was used for generating unit accounts. Life spans and interim survivor curves were estimated for each generating station. The annual and accrued depreciation were calculated for each vintage in each account using the estimated survivor characteristics and the attained age to compute the factors which were applied to the original cost. The assignment for West Penn Power Company also included the analysis and estimation of net salvage percents for use with the service life estimates in calculating book depreciation accrual rates.

The 2005 assignment was to prepare a depreciation study for the Company's \$4.9 billion of unregulated generating plant. The scope of work included general supervision of data assembly, statistical analyses of data, a field review of the property, discussions with management related to the outlook for property, the estimation of life spans, survivor curves and net salvage percents and the calculation of annual and accrued depreciation. Also, the Company's retirement units catalogue was reviewed and recommendation for revisions were made. The company adopted the results of the study in the third quarter of 2006.

The 2006 assignment was a depreciation study related to the Company's West Virginia electric utility property held by Monongahela Power Company and Potomac Edison Company. The West Virginia original cost is 2.2 billion for Monongahela Power company and \$419 million for Potomac Edison. The scope of work included general supervision of data assembly, statistical analyses of data, a field review of the property, discussions with management related to the outlook for property, the estimation of life spans, survivor curves and net salvage percents and the calculation of annual and accrued depreciation. The depreciation calculations were made for both the existing generation line-up in West Virginia and for a post-swap scenario which involved an exchange of assets between the regulated and unregulated subsidiaries. The study was filed with the West Virginia Public Service Commission in September 2006.

VALUATION OF ELECTRIC UTILITY PLANT

**Duquesne Light Company
Pittsburgh, Pennsylvania**

**UGI Utilities, Inc. Electric Division
Kingston, Pennsylvania**

The assignments were to prepare valuation studies of the electric utility plant of the companies for ratemaking purposes before the Pennsylvania Public Utility Commission. The scope of work included the trending of original cost, annual depreciation related to original cost, and accrued depreciation related to original and trended original cost.

The depreciation portion of the studies consisted of two parts: (1) the estimation of survivor curves and (2) the calculation of annual and accrued depreciation. The survivor curve estimates were based on judgment which incorporated analyses of historical service life data, consideration of the condition and use of the property based on field inspections, the plans of management, and a general knowledge of electric property lives. The life span procedure was used for generating unit accounts. Life spans and interim survivor curves were estimated for each coal fired and nuclear generating station. The annual and accrued depreciation were calculated for each vintage in each account using the estimated survivor characteristics and the attained age to compute the factors which were applied to the original cost.

The initial study for Duquesne Light Company was conducted in 1976 and has been updated eight times. The original cost of Duquesne's plant is nearly \$4 billion. The initial study for UGI Utilities, Inc.'s Electric Division was conducted in 1969 and has been updated ten times. The original cost of UGI Utilities, Inc.'s Electric Division's plant is approximately \$100 million.

DEPRECIATION STUDY OF ELECTRIC PLANT

**Omaha Public Power District
Omaha, Nebraska**

Omaha Public Power District (OPPD or the District) is a publicly owned electric utility that serves 270,000 customers in southeastern Nebraska including the City of Omaha. OPPD owns and operates two coal-fired power plants, one nuclear generating station and two gas/oil-fired peak shaving stations. The primary concern of management in initiating the study was the impact that competition would have on OPPD's ability to recover the cost of its power production facilities.

The basic plant accounting data required for analysis of historical indications of service life and net salvage were assembled by OPPD personnel in accordance with our written instructions and subsequent telephone discussions related to unique circumstances. The aged retirement data for location property such as the power plants, substations and general plant were analyzed using the retirement rate method. The unaged data for mass properties such as pole lines were analyzed initially by the simulated plant record method. The results of the simulated analyses and our experience in studying similar groups were incorporated in the selection of a retirement dispersion curve. The retirement dispersion curve, one of the Iowa type curves, was used to age the unaged retirements that were subsequently analyzed using the retirement rate method.

The analyses of net salvage included the use of data specific to OPPD, as well as industry data related to the cost of retiring coal-fired power plants. The net salvage estimates for the coal-fired power plants were based on a regression analysis of the industry cost of retiring data that correlated the cost per kilowatt with each unit's kilowatt capacity. The resultant values from the regression equation were applied to the OPPD units based on their capacity. The analyses for other plant were based on historical experience for the period 1977 through 1996. The experience was expressed as a percent of the original cost retired on annual and three-year moving average bases.

Calculations of annual and accrued depreciation using the several commonly used combinations of procedures and bases were performed based on preliminary estimates that resulted from the statistical analyses. Field reviews and discussions with management followed. Management provided its outlook with respect to future service lives and net salvage values and selected the average life procedure and remaining life basis as the depreciation system most in keeping with its capital recovery policy. The preliminary results also indicated that the net book values of the District's power production facilities were less than the market values of such capacity.

The service life and net salvage estimates were modified to reflect the outlook of management and incorporated in the final calculation of depreciation. A report setting forth the study results and statistical support for the estimates was prepared and submitted to management. OPPD's Board adopted the depreciation rates set forth in the report.

DEPRECIATION STUDY OF ELECTRIC PLANT

Newfoundland Power, Inc.
St. John's, Newfoundland

Newfoundland Power, Inc. (Newfoundland Power) is an investor-owned electric utility that serves approximately 172,000 customers throughout the island portion of the province of Newfoundland and Labrador. Newfoundland Power and its predecessor companies have been engaged in the production and sale of electricity since 1885. Newfoundland Power purchases about 90 percent of its electricity from the Crown Corporation, Newfoundland and Labrador Hydro, and generates the balance from its 33 smaller, mainly hydroelectric, generating stations. The total capacity of its generating facilities is approximately 150 megawatts. Newfoundland Power operates under the Board of Commissioners of Public Utilities of Newfoundland and Labrador which has jurisdiction over rates, policies, capital expenditures and the issuance of securities.

The assignment was to prepare a depreciation study of the electric utility plant in service for ratemaking purposes before the Board of Commissioners of Public Utilities of Newfoundland and Labrador. The scope of the work included supervision of plant accounting data assembly, estimation of survivor curves, the calculation of annual and accrued depreciation and the support of the study results during discovery and hearings.

The depreciation study report included two significant recommended changes to Newfoundland Power's existing depreciation practices. The first recommendation was to amortize the depreciation reserve variance at the plant account level rather than at the total company level if the variance exceeded five percent. The depreciation reserve variance is the difference between Newfoundland Power's book accumulated reserve and the calculated accrued depreciation or theoretical reserve. The reasons for the amortization of the depreciation reserve variance at the plant account level is to minimize the differences between the book and theoretical reserve. Also, it is more responsive to changes that have occurred over a period of years by providing a feedback mechanism that automatically adjusts the rate of capital recovery to coincide with annual plant activity.

The second recommendation included the use of amortization accounting rather than depreciation accounting for certain General Plant accounts. The change to amortization accounting for certain General Plant accounts was recommended because of the disproportionate plant accounting effort required when compared to the minimal original cost of the large number of items in these accounts. The recommendations set forth in the depreciation study report were accepted by Newfoundland Power and approved by the Board of Commissioners and Public Utilities of Newfoundland and Labrador.

DEPRECIATION STUDY OF ELECTRIC PLANT

Arizona Public Service Company
Phoenix Arizona

The assignment was to prepare a depreciation study of the electric plant of the company for book and ratemaking purposes. The study was submitted to the Arizona Corporation Commission.

The survivor curve and net salvage estimates were based on judgment which incorporated statistical analyses of historical data, consideration of the condition and use of the property based on field inspections, plans of management, and a general knowledge of electric property life and net salvage characteristics. The estimates of net salvage for steam production plant were based on industry data on decommissioning costs per kilowatt and the kilowatt capacity of the APS units. Net salvage associated with interim retirements at the nuclear production plant also was estimated.

The annual depreciation accrual rates were based on the straight line average service life procedure using the whole life basis. The rates were approved by the Commission.

DEPRECIATION STUDY OF ELECTRIC PLANT

Northwest Territories Power Corporation
Hay River, Northwest Territories

The Northwest Territories Power Corporation (NWTPC) provides electric service to numerous small communities throughout the territories. Power is generated by hydroelectric and diesel power stations.

The depreciation study included assembly of basic data from the Corporation's property record listing, statistical analyses of retirements for indications of service life, an extensive field review of facilities, discussions with management regarding the outlook for the property, calculations of annual and accrued depreciation using several accepted procedures and bases, and a report setting forth the study results.

Depreciation accrual rates were stipulated after negotiations and discussions with the Corporation's largest customer and accepted by the Public Utilities Board.

DEPRECIATION CONSULTING SERVICES

Reliant Energy (formerly HL&P Co.)
Houston, Texas

Owen Electric Cooperative, Inc.
Owenton, Kentucky

South Carolina Electric & Gas Company
Columbia, South Carolina

The assignments were to provide a variety of depreciation consulting services to these electric utilities. Since 1987, we have provided assistance to Reliant Energy personnel in the use of our Depreciation Analysis Software Package, as well as in depreciation theory. We completed our second depreciation study in 1994 and prepared testimony and exhibits for a rate proceeding. Analyses and calculations were performed by Reliant Energy personnel under our general supervision. The most recent study included the South Texas Project Nuclear Generating Station.

The data assembly task of our depreciation study for Owen Electric Cooperative was completed by the client's personnel under our direction. We conducted the statistical analyses of data and the estimation of life and salvage. Annual depreciation accrual rates were determined using the whole life and remaining life bases. The recommended remaining life depreciation accrual rates were approved by the Kentucky Public Service Commission.

Since 1992, we have provided training to South Carolina Electric & Gas Company in the use of our Depreciation Analysis Software Package and in the assembly of historical data. We have supervised and made recommendations to the client's personnel in making current service life and net salvage estimates and in computing remaining life book depreciation accrual rates for the electric, gas and common utility properties.

DEPRECIATION STUDIES OF GAS AND ELECTRIC PLANT

**Cinergy Corporation
Cincinnati, Ohio**

Depreciation studies have been performed for The Cincinnati Gas & Electric Company (CG&E), Union Light, Heat and Power Company (ULH&P), The Lawrenceburg Gas Company and PSI Energy, Inc. (PSI) subsidiaries of Cinergy Corp. The studies for CG&E and ULH&P included gas, electric and common plant. The initial studies for CG&E and ULH&P were conducted in 1989. The most recent studies, conducted in 1999, involved the electric plant of CG&E and PSI, and in 2001, involved gas plant for ULH&P. Study results have been submitted to the Ohio, Kentucky and Indiana regulatory commissions.

The scope of work included the preparation of instructions for the assembly of data by Cinergy personnel, review and post audit of the data, statistical analyses of the plant accounting data, field reviews of the property, discussions with management related to the outlook for the property, the estimation of survivor curves and net salvage, the calculation of annual and accrued depreciation and the preparation of reports setting forth the study results.

The statistical analyses of retirement for historical indications of service life were performed using the retirement rate method. Field reviews consisted of site visits to all power plants, gas peak shaving facilities, representative substations and regulating stations, office buildings and service centers. Special factors considered in the estimation of service lives for power plants included the impact of rehabilitation work performed in the late 1980's and early 1990's, requirements of the Clean Air Act, and the dynamic changes brought about by the deregulation of power markets. The calculations of depreciation were based on The straight line average life method using the remaining life basis. The reports set forth an explanation of the methods used in the studies, the bases for the estimates of survivor curves and net salvage, summaries of The results by account, statistical support for the estimates in graphical and tabular form, and the detailed calculations of depreciation by account and installation year.

REFERENCES

The following list contains client references for recent studies performed by Gannett Fleming for electric utilities.

REFERENCES
Alliant Energy 4902 N. Biltmore Lane Madison, WI 53718 Contact: Mr. Brian Madonia, Director of Accounting Services Telephone No.: 608/458-3358 EMAIL: brianmadonia@alliantenergy.com
Chugach Electric Association P.O. Box 196300 Anchorage, AK 99519-6300 Contact: Mr. Michael R. Cunningham, Controller Telephone No.: 907/762-4778 EMAIL: mike_cunningham@chugachelectric.com
Duke Energy 526 s. Church Street Charlotte, NC 28202 Contact: Mr. Carl J. Council, Jr., Director, Asset Accounting Telephone: 704/385-7387 EMAIL: CJCouncil@duke-energy.com
Dominion Resources 701 E. Cary Street Richmond, VA 23219 Contact: Ms. Sylvia Green, Manager Accounting – Fixed Assets Telephone: 804/771-3503 EMAIL: Sylvia_Green@dom.com
Nisource P.O. Box 117 Columbus, OH 43215-0117 Contact: Mr. Kevin T. Sollie, Depreciation Manager Telephone No.: 614/460-5913 EMAIL: ksollie@nisource.com
Oklahoma Gas and Electric P.O. Box 321 Oklahoma City, OK 73101-0321 Contact: Mr. Jim Buller, Manager Property Accounting Telephone: 405/553-3090 EMAIL: bullerja@oge.com
SCANA Services, Inc. 1426 Main Street Columbia, SC 29201 Contact: Mr. Chris Boswell, Corp. Tax, Supervisor, Depreciation and Valuation Telephone: 803/217-9579 FAX: 803/733-4073 EMAIL: cboswell@scana.com

PROJECT WORK PLAN

PROJECT WORK PLAN

Approach and Project Work Plan

Our approach to the conduct of depreciation studies consists of the following elements: (1) determine management's objectives and develop a Plan of Action to achieve such objectives; (2) assemble and review historical plant accounting data; (3) analyze historical data related to retirements; (4) observe representative portions of the property; (5) discuss outlook with operating and financial management, with proper consideration of regulatory precedent and industry trends; (6) estimate survivor curves and net salvage percents based on the analyses, outlook and industry precedent; (7) calculate annual and accrued depreciation; (8) prepare a report setting forth the methods and procedures used in the study; and (9) provide support for the study in regulatory proceedings.

We believe it is important to meet or conference with management before significant effort is expended on the study in order to establish the objectives for the study and ascertain management's policy regarding depreciation. Establishing this framework early will provide those involved in the study with necessary direction and schedule requirements.

Our approach to the estimation of service life and net salvage incorporates a rigorous analysis of the available historical data and extensive discussions regarding outlook for the plant. Our preference is to develop a database of aged additions, retirements, adjustments and balances and analyze these data using the retirement rate method. The development of the database would be performed by Big Rivers personnel under our general direction. When such data are not available or cannot be obtained in a timely or cost effective manner, the simulated plant record and computed

mortality methods are used to analyze service life. Net salvage is analyzed as a percent of retirements, with appropriate consideration of the impact the age of retirements has on such data.

The analyses of historical data are just the beginning of the life and salvage estimation process. An understanding of the forces which caused the historical retirements and the extent to which such forces and others will cause future retirements must be obtained from discussions with Big Rivers' management during field reviews and conferences. The synthesis of historical indications and outlook requires judgment based on experience and knowledge of industry trends and precedent.

The selection of the method, procedure and basis for calculating depreciation must consider management's concerns related to the risk of capital recovery and the impact and acceptance of changes in depreciation in the ratemaking process. Our in-house depreciation software is capable of calculating annual and accrued depreciation using any combination of the commonly-used procedures (average life, equal life or probable life) and bases (whole life or remaining life). Our normal approach is to advise management of the advantages and disadvantages of the several possible combinations, their regulatory acceptability and their impact on current levels of depreciation expense.

A draft report setting forth a description of the methods used, and the results of the study, will be submitted to management for review and comment. The final report incorporating management's comments will be suitable for use as an exhibit during a regulatory proceeding. We support the conclusions of our studies through expert testimony.

A brief narrative of the major work tasks involved in conducting a depreciation study is listed below:

Task 1. Project Initiation Meeting

Gannett Fleming will initiate the Big Rivers' depreciation study with a project initiation meeting in Henderson or via telephone conference to review the depreciation study objectives and plant accounting systems with Big Rivers' management and accounting representatives. Additionally, we will review with management the various depreciation methods, procedures and techniques that are available for use in the study of electric utility plant. The Gantt chart located in the Work Plan Schedule section of the proposal, addresses the major work tasks that will meet the desired completion date of October 15, 2010.

During the initial discussions, Gannett Fleming also will review Big Rivers' plant accounting system. The review will include samples of the engineering records, the continuing property records, and the general ledger. Our purpose in this review will be to gain an understanding of the data available for study, their consistency with the general ledger, the level of detail available for analysis and the accounting policies in effect during the period for which data are available.

Task 2. Data Assembly and Review

After our review, we will discuss Big Rivers' ability to provide the plant accounting data in a format suitable for input into our depreciation software programs. A detailed data assembly plan will be prepared by Gannett Fleming and provided to Big Rivers.

The plant accounting data assembled by Big Rivers will be reviewed by Gannett Fleming staff and a proprietary "post audit" computer program for control and logic. For example, items such as debit retirements will be identified and reviewed with Big Rivers' personnel to determine their circumstances and whether they require adjustment or represent correcting entries.

Task 3. Statistical Analyses of Data

Gannett Fleming will analyze the data assembled during Task 2 for historical indications of service life and net salvage characteristics. The retirement rate method of analysis will be used to develop indications of service life for those property groups where sufficient aged historical retirement data are available. Trends in average service life and survivor curve shape will be identified through the use of experience and placement bands analyses with the retirement rate model. Experience bands will identify the impact of economic and technological cycles on the service life of property groups. Placement bands will assist in identifying the relative impact the several forces of retirement have throughout the life cycle of a group of installation years. The selection of the bands for analysis will be based on a review of annual addition and retirement levels, a multiple original group life table, and preliminary discussion with operating management related to changes in materials used in construction, changes in installed technology and major retirement programs.

Annual net salvage, gross salvage, and cost of removal amounts will be expressed as a percent of annual retirements. Moving averages will be computed to smooth the annual indications.

During this task, we will determine the availability of vintaged or aged data for all accounting years for which data are available. However, in the event that sufficient aged data do not exist, annual gross plant additions and retirements will be used in accordance with the simulated plant record (SPR) method of life analysis. The SPR method will produce, for each depreciable category, historical indications of service life. The gross, i.e., unaged, annual retirements will be statistically aged and the resultant simulated aged retirements will be analyzed using the retirement rate method as described above.

Gannett Fleming routinely proposes amortization accounting for most general plant categories, and will review and identify the general plant categories where it would be appropriate for Big Rivers to use amortization accounting.

Task 4. Field Review and Management Conference

The field review will include visits to the Big Rivers' major above-ground facilities, such as generating stations, major substation, service centers and office buildings. The purpose of the field inspections will be to obtain information related to the operation and condition of the property and to evaluate any unique operating conditions.

We will meet with appropriate Big Rivers' personnel to obtain additional information related to the outlook for the property. The results of the statistical analyses conducted in Task 3, comparisons to the typical range of lives used in the industry, and our general experience will be reviewed as a basis for forecasting future survivor characteristics, gross salvage and cost of removal. The discussion will focus on the past forces of retirement which produced the historical indications of service life and net salvage and the extent to which future forces such as obsolescence, technology, environmental factors, etc., will be similar to or different from the past forces.

Task 5. Preliminary Estimates and Depreciation Calculations

The results of the statistical analyses performed during Task 3 will be combined with our knowledge of the service life and net salvage estimates for other electric utilities to arrive at judgments of average service life, survivor curve and net salvage percent for each depreciable property group. Annual depreciation accrual rates will be calculated by property group based on the estimated survivor curves and net salvage percents for electric plant in service as of December 31, 2009. The annual accrual rates will be calculated based on appropriate combinations of the several group depreciation procedures (average life group and equal life group) and bases (whole life and remaining

life). The calculated accrued depreciation or “theoretical reserve” also will be calculated for comparison to the book reserve. The appropriateness and desirability of reallocating the book reserve will also be examined during this task.

Task 6. Management Review

The results of the depreciation calculations and the bases for such calculations will be reviewed with management to insure that the results are in accordance with management’s capital recovery policies and outlook. Subsequent to the review, draft and final reports suitable for filing with the regulatory body will be prepared.

Task 7. Final Estimates and Calculations

Final calculations of depreciation accrual rates and accrued depreciation by account will be performed in order to reflect appropriate modifications as determined during the review with management.

Task 8. Draft and Final Reports

Gannett Fleming will draft a report for Big Rivers Electric Corporation setting forth the results of the study. The report will include a description of the methods used in the study, the depreciation calculations for each property group and the statistical analysis supporting the service life and net salvage estimates. The draft report will be submitted in either paper or electronic format to Big Rivers’ management for comments. The final report reflecting comments received from Big Rivers will be prepared and forward in both paper and electronic format by October 15, 2010.

Task 9. Regulatory Proceedings

Gannett Fleming will support the depreciation study throughout the regulatory process, responding to depreciation-related information requests, and providing expert testimony in a regulatory hearing.

The workload associated with the regulatory process varies significantly from one proceeding to another; therefore, it is difficult to estimate the effort associated with responding to information requests and actual attendance in hearings. Therefore, we have not developed an estimate of the hours required for this task; and, as such, this task has not been included in the calculation of our compensation. Gannett Fleming's charge for work subsequent to the submission of the report to Big Rivers is determined on an hourly (time and materials) basis using the same billing rates as used for all other tasks. A schedule that sets forth Gannett Fleming's billing rates is set forth in the Fee Schedule section of this proposal.

The anticipated schedule for the nine major work tasks previously presented in this section is set forth in the Gantt chart in the Work Plan Schedule section of the proposal.

The assumptions made within this proposal are based on an October 15, 2010 completion date. It is further assumed that data to be provided by Big Rivers will be available to Gannett Fleming in suitable form for each subsidiary company by end of June, 2010, and that Big Rivers personnel knowledgeable of the assets will be available to meet with Gannett Fleming personnel.

STUDY SUPPORT

STUDY SUPPORT

John Spanos will be available to prepare written responses to data requests related to and in support of the depreciation study prepared for Big Rivers Electric Corporation. He will prepare written testimony and/or direct testimony before the Kentucky Public Service Corporation, or the Rural Utilities Service.

Mr. Spanos has extensive experience testifying before regulatory agencies. The following pages list his cases testified.

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY

<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client/Utility</u>	<u>Subject</u>
1. 1998	Pa. PUC	R-00984375	City of Bethlehem-Bureau of Water	Original Cost and Depreciation
2. 1998	Pa. PUC	R-00984567	City of Lancaster	Original Cost and Depreciation
3. 1999	Pa. PUC	R-00994605	The York Water Company	Depreciation
4. 2000	D.T.&E.	DTE 00-105	Massachusetts-American Water Company	Depreciation
5. 2001	Pa. PUC	R-00016114	City of Lancaster	Original Cost and Depreciation
6. 2001	Pa. PUC	R-00016236	The York Water Company	Depreciation
7. 2001	Pa. PUC	R-00016339	Pennsylvania-American Water Company	Depreciation
8. 2001	PUC of Ohio	01-1228-GA-AIR	Cinergy Corp. - Cincinnati Gas and Electric Company	Depreciation
9. 2001	Ky. PSC	2001-092	Cinergy Corp. - Union Light, Heat and Power Company	Depreciation
10. 2002	Pa. PUC	R-00016750	Philadelphia Suburban Water Co.	Depreciation
11. 2002	Ky. PSC	2002-00145	Columbia Gas of Kentucky	Depreciation
12. 2002	NJ BPU	GR02040245	NUI Corporation/Elizabethtown Gas Co.	Depreciation
13. 2002	Id. PUC	IPC-E-03-7	Idaho Power Company	Depreciation
14. 2003	Pa. PUC	R-0027975	The York Water Company	Depreciation
15. 2003	Ind. URC	Cause 42359	Cinergy Corp. - PSI Energy, Inc.	Depreciation
16. 2003	Pa. PUC	R-00038304	Pennsylvania-American Water Co.	Depreciation
17. 2003	Mo. PSC	WR-2003-0500	Missouri-American Water Co.	Depreciation
18. 2003	FERC	ER-03-1274-000	NSTAR - Boston Edison Company	Depreciation
19. 2003	NJ BPU	BPU 03080683	South Jersey Gas Company	Depreciation
20. 2003	Nv. PUC	Doc. 03-10001	Nevada Power Company	Depreciation
21. 2003	La. PSC	U-27676	CenterPoint Energy - Arkla	Depreciation
22. 2003	Pa. PUC	R-00038805	Pennsylvania Suburban Water Co.	Depreciation
23. 2004	Alberta Energy & Util. Board	1306821	EPCOR Distribution, Inc.	Depreciation
24. 2004	Pa. PUC	R-00038168	National Fuel Gas Distribution Corp. (Pa.)	Depreciation
25. 2004	Pa. PUC	R-00049255	PPL Electric Utilities	Depreciation
26. 2004	Pa. PUC	R-00049165	The York Water Company	Depreciation
27. 2004	Ok. Corp.Cm.	PUD 200400187	CenterPoint Energy - Arkla	Depreciation
28. 2004	Oh. PUC	04-680-EI-AIR	Cinergy Corp. - Cincinnati Gas and Electric Company	Depreciation

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client/Utility</u>	<u>Subject</u>
29. 2004	RR Comm of Tx.	GUID#	CenterPoint Energy - Entex Gas Svcs. Div.	Depreciation
30. 2004	NY PUC	04-G-1047	National Fuel Gas Distribution Corp. (NY)	Depreciation
31. 2004	Ark. PSC	04-121-U	CenterPoint Energy - Arkla	Depreciation
32. 2005	Ill. Comm Cm	05-	North Shore Gas Company	Depreciation
33. 2005	Ill. Comm. Cm.	05-	Peoples Gas Light and Coke Company	Depreciation
34. 2005	Ky. PSC	2005-00042	Union Light Heat & Power	Depreciation
35. 2005	Ill. Comm Cm.	05-0308	MidAmerican Energy Company	Depreciation
36. 2005	Mo. PSC	GR-2005	Laclede Gas Company	Depreciation
37. 2005	Ks. Corp.Cm.	05-WSEE-981-RTS	Westar Energy	Depreciation
38. 2005	RR Comm of Tx	GUID #	CenterPoint Energy - Entex Gas Svcs Div.	Depreciation
39. 2005	FERC		Cinergy Corporation	Accounting
40. 2005	Ok. Corp.Cm.	PUD 200500151	Oklahoma Gas and Electric Co.	Depreciation
41. 2005	Ma. Dept Telecom & Energy	DTE 05-85	NSTAR	Depreciation
42. 2005	NY PUC	05-E-0934/05-G-0935	Central Hudson Gas & Electric Co.	Depreciation
43. 2005	AK Reg Cm	U-04-102	Chugach Electric Association	Depreciation
44. 2005	Ca. PUC	A.05-12-002	Pacific Gas & Electric	Depreciation
45. 2006	Pa. PUC	R-00051030	Aqua Pennsylvania, Inc.	Depreciation
46. 2006	Pa. PUC	R-00051178	T.W. Phillips Gas and Oil Co.	Depreciation
47. 2006	NC Util Cm.		Pub. Service Co. of North Carolina	Depreciation
48. 2006	Pa. PUC	R-00051167	City of Lancaster	Depreciation
49. 2006	Pa. PUC		Duquesne Light Company	Depreciation
50. 2006	Pa. PUC	R-00061322	The York Water Company	Depreciation
51. 2006	Pa. PUC	R-00051298	PPL Gas Utilities	Depreciation
52. 2006	PUC of Tx.	32093	CenterPoint Energy - Houston Electric	Depreciation
53. 2006	PSC of SC		Duke Energy Kentucky SCANA	Depreciation
54. 2006	Ak. Reg Cm	U-06-6	Municipal Light and Power	Depreciation
55. 2006	De. PSC		Delmarva Power and Light	Depreciation
56. 2006	In. URC	IURC43081	Indiana American Water Co.	Depreciation
57. 2006	Ak. Reg Cm	U-06-134	Chugach Electric Association	Depreciation

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client/Utility</u>	<u>Subject</u>
58. 2006	Mo PSC	WR-2007-0216	Missouri American Water Company	Depreciation
59. 2006	FERC	ISO5-82, et.al	TransAlaska Pipeline	Depreciation
60. 2006	Pa PUC	R-00061493	National Fuel Gas Distribution Corp. (PA)	Depreciation
61. 2007	NC Util Cm	E-7	Duke Energy Carolinas, LLC	Depreciation
62. 2007	Oh PSC	08-709-EL-AIR	Duke Energy Ohio Gas	Depreciation
63. 2007	Pa PUC	R-00072155	PPL Electric Utilities Corp.	Depreciation
64. 2007	Ky PSC	2007-00143	Kentucky American Water Company	Depreciation
65. 2007	Pa PUC	R-00072229	Pennsylvania American Water Co.	Depreciation
66. 2007	Ky PSC	2007-00008	NiSource - Columbia Gas of Kentucky	Depreciation
67. 2007	NY PSC	07-G-0141	National Fuel Gas Distribution Corp. (NY)	Depreciation
68. 2008	Ak PSC	U-08-004	Anchorage Water & Wastewater Utility	Depreciation
69. 2008	Tn Reg Ath	08-00039	Tennessee American Water Company	Depreciation
70. 2008	De PSC	08-96	Artesian Water Company	Depreciation
71. 2008	Pa PUC	R-2008-2023067	The York Water Company	Depreciation
72. 2008	Ks CC	08-WSEE1-RTS	Westar Energy	Depreciation
73. 2008	In URC	43526	Northern Indiana Public Service Co.	Depreciation
74. 2008	In URC	43501	Duke Energy Indiana	Depreciation
75. 2008	Md PSC	9159	NiSource - Columbia Gas of Maryland	Depreciation
76. 2008	Ky PSC	2008-000251	Kentucky Utilities	Depreciation
77. 2008	Ky PSC	2008-000252	Louisville Gas & Electric	Depreciation
78. 2008	Pa PUC	2008-2032689	Pennsylvania American Water Co.	Depreciation
79. 2008	NY PSC	08-E887/08-G0888	Central Hudson	Depreciation
80. 2008	WV TC	VE-080416/VG-8080417	Avista Corporation	Depreciation
81. 2009	Ill CC	09-	Peoples Gas, Light and Coke Co.	Depreciation
82. 2009	Ill CC	09-	North Shore Gas Company	Depreciation
83. 2009	DC PSC	1053	Potomac Electric Power Company	Depreciation
84. 2009	Ky PSC	2009-00141	NiSource - Columbia Gas of Kentucky	Depreciation
85. 2009	FERC	ER08-1056-002	Entergy Services	Depreciation
86. 2009	Pa PUC	R-2009-2097323	Pennsylvania American Water Co.	Depreciation
87. 2009	NC Util Cm	E-7, Sub 909	Duke Energy Carolinas, LLC	Depreciation
88. 2009	Ky PSC		Duke Energy Kentucky	Depreciation
89. 2009	Va St CC	PUE-2009-00059	Aqua Virginia, Inc.	Depreciation
90. 2009	PA PUC	2009-2132019	Aqua Pennsylvania, Inc.	Depreciation

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

91.	2009	Miss PSC	09-_____	Entergy Mississippi	Depreciation
92.	2009	Ak PSC	09-084-U	Entergy Arkansas	Depreciation
93.	2009	Tx PUC		Entergy Texas	Depreciation
94.	2009	Tx PUC	37690	El Paso Electric Co.	Depreciation
95.	2009	PA PUC	R-2009-2106908	The Borough of Hanover	Depreciation
96.	2009	Ks Corp Cm	10-KCPE-____-RTS	Kansas City Power & Light	Depreciation
97.	2009	PA PUC	R-2009-_____	United Water Pennsylvania	Depreciation
98.	2010	In URC		Northern Indiana Public Service Co.	Depreciation
99.	2010	PSC of WI		Wisconsin Public Service Corp.	Depreciation
100.	2010	Pa PUC	R-2010-2161694	PPL Electric Utilities Corp.	Depreciation
101.	2010	Ky PSC	2010-00036	Kentucky American Water Co.	Depreciation
102.	2010	PA PUC	R-2009-2149262	Columbia Gas of Pennsylvania	Depreciation
103.	2010	Mo PSC	GR-2010-0171	Laclede Gas Company	Depreciation
104.	2010	PSC of SC	2009-489-E	South Carolina Electric & Gas Co.	Depreciation
105.	2010	NJ Bd of PU	ER09080664	Atlantic City Electric	Depreciation
106.	2010	Va St. CC		Virginia American Water Company	Depreciation

FEE SCHEDULE

FEE SCHEDULE

The Valuation and Rate Division of Gannett Fleming, Inc. proposes to perform the services described in the Project Work Plan section, and other related services which you may authorize, on the basis of the hourly billing rates for our personnel, plus reimbursement of direct expenses, which are set forth in the Estimate of Cost schedule on the following page. Our time and materials estimates, including direct expenses, up to the October 15, 2010 report completion date are \$35,000.

Direct expenses include expenditures such as transportation, board and lodging, incidental expenses incurred while working at the client's location, and any other expenses required by virtue of the assignment and not incidental to the normal conduct of the study.

The hourly rates for our personnel, the estimated hours by person/classification and task, and the estimated direct expenses associated with travel and report production are presented for each subsidiary company in the tables at the end of this section.

Inasmuch as there are few interim deliverables, it is our preference to render invoices monthly based on the work performed during the preceding month.

As noted under Task 9 of the detailed work plan contained in the Project Work Plan section of this proposal, our time and materials quote excludes charges for work subsequent to the completion of the final report, i.e., work in connection with a proceeding before the KPSC. Charges for these services, as well as any others outside of the original scope of work provided in this proposal, as approved by Big Rivers, will be invoiced at the hourly rates shown on the Billing Rate Schedule located at the end of this section. Direct costs related to these services will be invoiced at cost. Post filing costs can range from \$5,000 to \$15,000.

The schedule on the following page sets forth the estimated hours and cost for each major work task.

BIG RIVERS ELECTRIC CORPORATION

DEPRECIATION STUDY

ESTIMATE OF COST

Task	J. J. Spanos (\$195/Hour)		Analysts (\$115/Hour)		Administrative Staff (\$80/Hour)		Direct Expenses	Total Cost
	Hours	Cost	Hours	Cost	Hours	Cost		
1. Project Initiation Meeting	4	\$780	4	\$460	0	\$0	\$0	\$1,240
2. Data Assembly and Review	12	2,340	40	4,600	3	240	0	7,180
3. Statistical Analyses of Data	12	2,340	16	1,840	0	0	0	4,180
4. Field Review and Management Conferences	16	3,120	16	1,840	4	320	2,500 *	7,780
5. Preliminary Estimates and Calculations	12	2,340	16	1,840	0	0	0	4,180
6. Management Review	4	780	2	230	2	160	0	1,170
7. Final Estimates and Calculations	8	1,560	12	1,380	0	0	0	2,940
8. Draft and Final Reports	16	3,120	12	1,380	16	1,280	550 **	6,330
9. Regulatory Proceedings ***								
Totals	84	\$16,380	118	\$13,570	25	\$2,000	\$3,050	\$35,000

* Lodging/Meals/Transportation.

** Includes \$550 for report reproduction and delivery costs.

*** To be billed per Billing Rate Schedule plus direct expenses.

GANNETT FLEMING, INC.
VALUATION AND RATE DIVISION

BILLING RATES

EFFECTIVE JANUARY 2, 2010

<u>Personnel</u>	<u>Hourly Rate</u>
SUPERVISORY STAFF	
P. R. Herbert, President	\$210.00
J. J. Spanos, Vice President	195.00
C. R. Clarke, Director, Western U.S. Services	195.00
L. E. Kennedy, Director, Canadian Services	195.00
H. Walker, III, Manager, Financial Studies	185.00
J. F. Wiedmayer, Jr., Project Manager, Depreciation	150.00
STAFF	
Analysts and Engineers	130.00
Associate Analysts and Engineers	115.00
Assistant Analysts and Engineers	105.00
Senior Technicians	90.00
Technicians	85.00
Support Staff	80.00

WORK PLAN SCHEDULE

WORK PLAN SCHEDULE

The schedule on the following page sets forth the work plan schedule by task.

BIG RIVERS ELECTRIC CORPORATION

DEPRECIATION STUDY

WORK PLAN SCHEDULE

<u>Task</u>	<u>July</u>	<u>August</u>	<u>Sept.</u>	<u>Oct</u>	<u>Beyond October 15</u>
1. Project Initiation Meeting	■				
2. Data Assembly and Review		■			
3. Statistical Analyses of Data			■		
4. Field Review and Management Conference				■	
5. Preliminary Estimates and Depreciation Calculations					■
6. Management Review					■
7. Final Estimates and Calculations					■
8. Draft and Final Reports					■
9. Regulatory Proceedings					■

CONFLICTS OF INTEREST

CONFLICTS OF INTEREST

We are not aware of any actual or potential conflicts of interest which might arise in connection with our firm's involvement with Big Rivers Electric Corporation.

FORMS



New Vendor/Vendor Information Change Form

All fields highlighted in GRAY indicate areas where information is REQUIRED.

1. Vendor Information

Vendor Name - Please enter company name. This field is limited to 35 characters.

Gannett Fleming, Inc.

A) Corporate Headquarters:

Street: 207 Senate Avenue
Town or City: Camp Hill
Zip/Postal Code: 17011
State/Prov.: PA
Country: USA
Telephone: 717-763-7211
Facsimile: 717-763-4590
Email address: jspanos@gfnet.com
Website: www.gfnet.com and www.gfvrd.com

B) Ordering Address (where to send purchase orders)

Street: 207 Senate Avenue
Town or City: Camp Hill
Zip/Postal Code: 17011
State/Prov.: PA
Country: USA
Telephone: 717-763-7211
Email address: crutter@gfnet.com
Sales Contact: Cheryl Rutter, Administrator



C) Remit-To Address (where to send invoice payments)

Street: PO Box 829160
Town or City: Philadelphia
Zip/Postal Code: PA
State/Prov.: 19182-9160
Country: USA
Accounts Receivable Contact: AccountsReceivable@gfnet.com
Telephone: 717-763-7211

DUNS Numbering 6 0 9 1 5 3 8 8 7

(Data Universal Numbering System)

Apply for a D-U-N-S Number, the industry standard for business listings

Do you accept Credit Cards? Yes No X

Definitions:

Corporate Headquarters - Most active office for your company that does business with Big Rivers Electric Corporation (BREC).
Ordering Address - Location(s) to which you wish BREC to SEND purchase orders. Use attachments as necessary.
Remit-to Address - Location to which you wish BREC to SEND invoice payments. Please attach copy of invoice for reference.

D) Payment Terms (If different then Net 30)

E) Supplier Type (Select one of the following)

Attorney/Legal Services <input type="checkbox"/>	<input type="checkbox"/>	Is your business one of the following (If yes, please include copy of certification) Check all the applicable categories:
Charity/Contribution <input type="checkbox"/>		MBE <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Coal/Natural Gas <input type="checkbox"/>		WBE <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Contractor (Services Only) <input type="checkbox"/>		Small Disadvantaged Business (SDB)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Professional Fees/Dues <input type="checkbox"/>		Veteran <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Retailer (Materials only) <input type="checkbox"/>		Service Disabled Veteran <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Other <input checked="" type="checkbox"/>		Hub Zone <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Specify Products and Services <u>Consulting Engr Services</u>		
If you are a United States-based company, are you qualified as a Small Business concern? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is your Company union affiliated? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If Yes, which union affiliated organization _____		

Under 15 U.S.C. 645(d), any person who misrepresents its size status shall (1) be punished by a fine, imprisonment, or both; (2) be subject to administrative remedies; and (3) be ineligible for participation in programs conducted under the authority of the Small Business Act.

John J. Spanos Signature of person providing information Vice President Title 6/4/10 Date

Indicate the following special classifications:

- Standard Industry Code (SIC Code): 8711
- North American Industry Code Standard (NAICS Code): 541330
- European Classification Code (eClass Code): _____

F) Contact Information

Who can we contact if we have questions concerning your qualifications and/or this submission?

Name: Cheryl Rutter
Telephone: 717-763-7211
E-mail: crutter@gfnet.com

Who can we contact "AFTER HOURS" for EMERGENCY SERVICE requirements?

Name: John J. Spanos, Vice President
Telephone: 717-763-7212, Ext. 2246
E-mail: jspanos@gfnet.com

The following section is to be completed by BREC personnel only.

Date of Input:	Input By:			
Date of Certification:	Type of Certification:	GSA	PSA	Qualified
Is this Vendor Request for One Time use only? * Yes _____ No _____ *If yes, this vendor will have a future inactive date inserted at time of creation based on the Payment Terms.				

G) If you are a Foreign-based company, indicate your TAX/VAT Registration: _____

H) If you are a United States-based company, complete Form W-9 as indicated. We are required by law to obtain a tax identification number when making a reportable payment to you. Failure to provide this information could result in a tax withholding of 31% and you may be subject to a \$50 penalty imposed by the I.R.S. In completing Form W-9, be sure that you CHECK APPROPRIATE BOX FOR CORPORATION/SOLE PROPRIETORSHIP / PARTNERSHIP OR OTHER. If individual or sole proprietorship, please list individual's name (please print) and Social Security Number. Make sure that YOUR TAX ID NUMBER IS 9 DIGITS.
The Business Name listed here will appear on purchase orders and checks.

**Request for Taxpayer
 Identification Number and Certification**

Give form to the requester. Do not send to the IRS.

Print or type your name on page 2. See specific instructions on page 2.

Name (as shown on your income tax return)
Gannett Fleming, Inc.

Business name, if different from above

Check appropriate box: Individual/sole proprietor Corporation Partnership
 Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) > _____ Exempt payee
 Other (see instructions) >

Address (number, street, and apt. or suite no.)
P.O. Box 67100

City, state, and ZIP code
Harrisburg, PA 17106-7100

Requester's name and address (optional)

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note: If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number

OR

Employer identification number
25-1613591

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here Signature of U.S. person > **LYNN E. KNEPP** Date > **06/01/2010**

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued).
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note: If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

Signature not necessary on electronic copy unless specifically outlined in the instructions on form W-9, Part II, note 4. In lieu of signature, provide vendor contact name in signature area.

Fax the completed form to 888-518-3410 or mail to Big Rivers Electric Corporation, Attn: Supply Chain, PO Box 24, 201 Third St. Henderson, KY 42420

U.S. DEPARTMENT OF AGRICULTURE

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY
AND VOLUNTARY EXCLUSION - LOWER TIER COVERED TRANSACTIONS**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR Part 3017, Section 3017.510, Participants' responsibilities. The regulations were published as Part IV of the January 30, 1989, Federal Register (pages 4722-4733). Copies of the regulations may be obtained by contacting the Department of Agriculture agency with which this transaction originated.

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Gannett Fleming, Inc.
Organization Name

Comprehensive Depreciation Study
PR/Award Number or Project Name

John J. Spanos, Vice President, Gannett Fleming, Inc. - Valuation and Rate Div.
Name(s) and Title(s) of Authorized Representative(s)

John J. Spanos
Signature(s)

6/4/10
Date

Instructions for Certification

1. By signing and submitting this form, the prospective lower tier participant is providing the certification set out on the reverse side in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later than determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transactions," "debarred," "suspended," "ineligible," "lower tier covered transactions," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

UNITED STATES DEPARTMENT OF AGRICULTURE

NOTICE TO APPLICANTS - CERTIFICATION/DISCLOSURE REQUIREMENTS RELATED TO LOBBYING

Section 319 of Public Law 101-121 (31 U.S.C.), signed into law on October 23, 1989, imposes new prohibitions and requirements for disclosure and certification related to lobbying on recipients of Federal contracts, grants, cooperative agreements, and loans. Certain provisions of the law also apply to Federal commitments for loan guarantees and insurance; however, it provides exemptions for Indian tribes and tribal organizations.

Effective December 23, 1989, current and prospective recipients (and their subtier contractors and/or subgrantees) will be prohibited from using Federal funds, other than profits from a Federal contract, for lobbying Congress or any Federal agency in connection with the award of a particular contract, grant, cooperative agreement or loan. In addition, for each award action in excess of \$100,000 (or \$150,000 for loans) on or after December 23, 1989, the law requires recipients and their subtier contractors and/or subgrantees to: (1) certify that they have neither used nor will use any appropriated funds for payment to lobbyists; (2) disclose the name, address, payment details, and purpose of any agreements with lobbyists whom recipients or their subtier contractors or subgrantees will pay with profits or **nonappropriated** funds on or after December 23, 1989; and (3) file quarterly updates about the use of lobbyists if materials changes occur in their use. The law establishes civil penalties for noncompliance.

If you are a current recipient of funding or have an application, proposal, or bid pending as of December 23, 1989, the law will have the following immediate consequences for you:

- You are prohibited from using appropriated funds (other than profits from Federal contracts) on or after December 23, 1989, for lobbying Congress or any Federal agency in connection with a particular contract, grant, cooperative agreement, or loan;

- you are required to execute the attached certification at the time of submission of an application or before any action in excess of \$100,000 is awarded; and

- you will be required to complete the lobbying disclosure form if the disclosure requirements apply to you.

Regulations implementing Section 319 of Public Law 101-121 have been published as an Interim Final Rule by the Office of Management and Budget as Part III of the February 26, 1990, **Federal Register** (pages 6736-6746).

UNITED STATES DEPARTMENT OF AGRICULTURE

**CERTIFICATION REGARDING LOBBYING - CONTRACTS, GRANTS, LOANS
AND COOPERATIVE AGREEMENTS**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement;

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this

Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions;

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Gannett Fleming, Inc.
Organization Name

Comprehensive Depreciation Study
Award Number or Project Name

John J. Spanos, Vice President, Gannett Fleming, Inc. - Valuation and Rate Division
Name and Title of Authorized Representative

John J. Spanos
Signature

6/4/12
Date

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0059. The time required to complete this information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

EQUAL OPPORTUNITY ADDENDUM
To Be Inserted in Construction Contracts and
Subcontracts, and Materials Contracts and Purchase Orders

PART I

The Contractor represents that:

It has does not have , 100 or more employees, and if it has, that

It has has not , furnished the Equal Employment Opportunity -- Employers Information Report EEO-1, Standard Form 100, required of employers with 100 or more employees pursuant to Executive Order 11246 and Title VII of the Civil Rights Act of 1964.

The Contractor agrees that it will obtain, prior to the award of any subcontract for more than \$10,000 hereunder to a subcontractor with 100 or more employees, a statement, signed by the proposed subcontractor, that the proposed subcontractor has filed a current report on Standard Form 100.

The Contractor agrees that if -it has 100 or more employees and has not submitted a report on Standard Form 100 for the current reporting year and that if this contract will amount to more than \$10,000, the Contractor will file such report, as required by law, and notify the Owner in writing of such filing prior to the Owner's acceptance of this Proposal.

PART II

CERTIFICATION OF NONSEGREGATED FACILITIES

The Contractor certifies that it does not maintain or provide for its employees any segregated facilities at any of its -establishments, and that it does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest-rooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The Contractor agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that it will retain such certifications in its files.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

PART III

EQUAL OPPORTUNITY CLAUSE

During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race,

color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(3) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.

(5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965- and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

(6) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules regulations or orders, this contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11,246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in the said Executive Order or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.

(7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The term "Contractor" shall also mean "Bidder" or "Seller" in case of materials and equipment contracts and purchase orders, and "Subcontractor" in the case of subcontracts.

The provisions of this addendum are not applicable to any contract or subcontract not exceeding \$10,000.

This addendum supersedes the similar representations and provisions which may be contained in the contract form to which this addendum is attached. The Contractor may disregard the superseded representations and provisions.

*Gannett Fleming, Inc. - Valuation and Rate
Division*
By John J. Spanos
Vice President
June 4, 2010



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
1/23/2010

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Gunn-Mowery, LLC P. O. Box 900 Camp Hill PA 17001-0900	CONTACT NAME:		
	PHONE (A/C, No, Ext): 717-761-4600	FAX (A/C, No): 717-761-6159	
	E-MAIL ADDRESS:		
	PRODUCER CUSTOMER ID #:		
INSURED Gannett Fleming, Inc. P. O. Box 67100 Harrisburg PA 17106-7100	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A: Discover Propt & Casualty		36463
	INSURER B:		
	INSURER C:		
	INSURER D:		
	INSURER E:		
		INSURER F:	

COVERAGES**CERTIFICATE NUMBER:** 1133246207**REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY	Y	Y	D262L00106	2/1/2010	2/1/2011	EACH OCCURRENCE	\$1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$1,000,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person)	\$10,000
							PERSONAL & ADV INJURY	\$1,000,000
							GENERAL AGGREGATE	\$2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	\$2,000,000
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC							\$
A	AUTOMOBILE LIABILITY	Y	Y	D262A00072	2/1/2010	2/1/2011	COMBINED SINGLE LIMIT (Ea accident)	\$1,000,000
	<input checked="" type="checkbox"/> ANY AUTO						BODILY INJURY (Per person)	\$
	<input checked="" type="checkbox"/> ALL OWNED AUTOS						BODILY INJURY (Per accident)	\$
	<input checked="" type="checkbox"/> SCHEDULED AUTOS						PROPERTY DAMAGE (Per accident)	\$
	<input checked="" type="checkbox"/> HIRED AUTOS							\$
	<input checked="" type="checkbox"/> NON-OWNED AUTOS							\$
	UMBRELLA LIAB						EACH OCCURRENCE	\$
	EXCESS LIAB						AGGREGATE	\$
	<input type="checkbox"/> OCCUR							\$
	<input type="checkbox"/> CLAIMS-MADE							\$
	DEDUCTIBLE RETENTION \$							\$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY		Y	D262W00103	2/1/2010	2/1/2011	<input checked="" type="checkbox"/> WC STATUTORY LIMITS	OTH-ER
	<input type="checkbox"/> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y/N	N/A				E.L EACH ACCIDENT	\$500,000
	<input type="checkbox"/> If yes, describe under DESCRIPTION OF OPERATIONS below						E.L DISEASE - EA EMPLOYEE	\$500,000
A	when required by signed contract	Y	Y	D262L00106	2/1/2010	2/1/2011	Blanket Additional Waiver of Subro Primacy Applies	Insured Applies

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER**CANCELLATION 90**

SPECIMEN OF STANDARD COVERAGE
123 sample
sample PA 17011

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

John E. Smith

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CERTIFICATE OF LIABILITY INSURANCE

Page 1 of 2
DATE (MM/DD/YYYY)
04/01/2010

PRODUCER Willis of Pennsylvania, Inc. 26 Century Blvd. P. O. Box 305191 Nashville, TN 37230-5191	877-945-7378	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.
	INSURERS AFFORDING COVERAGE	
INSURED Gannett Fleming, Inc. PO Box 67100 Harrisburg, PA 17106-7100	INSURER A: New Hampshire Insurance Company	NAIC# 23841-002
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR INSR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$
	EXCESS / UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE DEDUCTIBLE \$ RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N If yes, describe under SPECIAL PROVISIONS below				WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	OTHER Professional Liability	21456764	4/1/2010	4/1/2011	\$1,000,000 Each Claim \$1,000,000 Aggregate

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

CERTIFICATE HOLDER

CANCELLATION

Evidence of Coverage

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

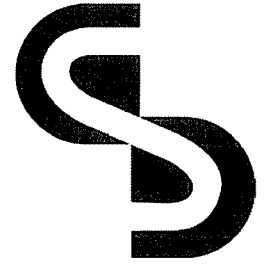
IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.



GDS Associates, Inc.
Engineers and Consultants

Big Rivers Electric Corporation

Proposal for

2011 Cost of Service and Rate Design Study

October 15, 2010

GDS Associates, Inc.
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Brent A. Saylor
Principal

GDS Associates, Inc.
Engineers and Consultants

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October 15, 2010

Ms. Dana Clevidence
Purchasing Department
Big Rivers Electric Corporation
201 Third Street
Henderson, KY 42420

Re: Request for Proposal – Wholesale Cost of Service and Rate Design Study

Dear Dana:

Enclosed is a proposal from GDS Associates, Inc. for submission to Big Rivers Electric Corporation (“Big Rivers”) in response to your solicitation dated September 24, 2010, i.e., Request for Proposal (“RFP”). We have provided 4 bound and 1 unbound hard copies of our proposal as well as an electronic copy on a CD in PDF format. We appreciate very much the opportunity to be considered for this important effort and to continue our successful business relationship with Big Rivers.

The RFP contains a number of significant cost of service and rate related matters that need to be addressed by Big Rivers. Our firm is extremely well qualified to meet the objectives of the study as well as the schedule requirements. GDS’ successful past experience with Big Rivers demonstrates our dedication in performing work of the highest quality and presenting the results in clear manner.

Also enclosed are three signed original “Purchasing Forms” that were included with the RFP.

- Certification Regarding Debarment
- Equal Opportunity Addendum
- Certification Related to Lobbying

Also included with the RFP was Big Rivers’ form of a General Services Agreement (“GSA”). As discussed in a call with Rob Toerne earlier this week, it was noted that the form contains provisions that would not be applicable for the consulting services that would be provided for this rate study. Further, it was discussed that the terms and conditions could be negotiable. As I mentioned to Rob, we have included the form of GDS’ Consulting Services Agreement in Appendix D, to illustrate some of the terms and conditions that could be contained in a GSA with Big Rivers. If GDS is selected to perform this project, we would certainly be willing to work with Big Rivers to develop a GSA that is more applicable



to the type of consulting services that GDS will provide with mutually agreeable terms and conditions.

We look forward to hearing from you after you have had a chance to review our enclosed proposal.

If you have any questions about the proposal, please do not hesitate to call.

Sincerely,

Brent A. Saylor
Principal

Enclosures

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1.0 GDS Qualifications

1.1 Company Overview

GDS Associates, Inc. (“GDS”) is pleased to offer this proposal to perform consulting services for Big Rivers Electric Corporation (“Big Rivers”) for the Cost of Service (“COS”) and Rate Design Study. The following sections contain a brief history of GDS, an overview of the project scope of services, GDS’ experience and qualifications in conducting such work, and the proposed pricing for the project.

Founded in 1986, GDS is a multi-service engineering/consulting firm headquartered in Marietta, Georgia, with offices in Austin, Texas; Madison, Wisconsin; Manchester, New Hampshire; Auburn, Alabama; Avon, Indiana; and Augusta, Maine. GDS has grown to a 170-person consulting firm that dependably serves many clients across the United States. GDS employees are highly motivated, dedicated and loyal to the firm as evidenced by our ability to attract and retain highly skilled and qualified staff.

GDS provides engineering and consulting services to electric utility clients around the country, covering a broad range of services in the areas of strategic planning, power supply planning, contract negotiations, risk management services, wholesale and retail rates, power plant and electric delivery facilities financing, transmission access and pricing, generation development and monitoring, demand-side management, and others. Cooperative and municipal systems are GDS’ target clients, and we gear our business towards being able to provide the services that those entities need, all under one roof.

The GDS mission statement is **“to help our clients succeed by anticipating and understanding their needs and by efficiently delivering quality services with confidence and integrity”**. In addition, the size and depth of the firm permits us to offer clients multiple sources of assistance, ensuring complete, competent, and timely service. GDS’ long history of meeting client needs has established our reputation within the industry. In fact, most of our project assignments are derived from repeat work for existing clients or from client referrals. GDS recognizes that no two clients or problems are exactly alike, so we strive to deliver “right-fit” solutions for each client’s particular situation.

GDS conducts its business in accordance with stated core values which we follow steadfastly in providing services to our clients.

OUR CORE VALUES:

- We endeavor to identify, then meet or exceed our clients’ needs.
- We gauge our overall success in terms of our clients’ success, by promoting a partnership perspective.
- We will conduct our practice at all times with honesty and integrity.
- Our consulting staff will possess the requisite knowledge and experience to solve our clients’ problems.

- Our services will be competently performed, and our work product will be presented in a professional, understandable manner.
- Our financial success is founded on long-term client relationships, proficient project management, and efficient infrastructure.
- We encourage professional development of our employees by providing opportunities for challenging work.
- We promote a working environment of mutual respect and cooperation among our employees

1.2 Related Experience

Conducting wholesale COS and rate studies for generation and transmission (“G&T”) cooperatives has been one of the core services of GDS since the firm’s inception. This experience coupled with GDS’ experience in advising many of these and numerous other G&Ts on a wide range of power supply matters gives GDS an in-depth understanding of cost causation and the relationships of costs that are necessary to develop an effective rate design. GDS principals and staff have decades of experience in both wholesale and retail COS and rate work and are well positioned to perform this project for Big Rivers.

In support of Big Rivers’ pursuit of membership in MISO, the RFP asks for COS analysis to support the development of an OATT rate in accordance with MISO’s Attachment O, as well as the development of ancillary service rates. GDS staff has helped multiple entities understand the requirements of FERC open access policy and be able to establish and update practices to handle the complexities of energy delivery. Areas of support have included:

- OATT Development and Modifications
- Evaluation of OASIS Business Practices
- OASIS Business Practice Development and Training

GDS has assisted several Cooperative and Municipal clients with the development of MISO Attachment O specific, and Attachment O-type transmission COS studies. In addition, GDS represents many of these clients in the annual review of other Utility formula transmission rate filings and annual updates in PJM and the SPP. (Most MISO transmission owners use the historical Attachment O calculations that don’t require annual filings at FERC).

Big Rivers

GDS has a long working relationship with Big Rivers and has performed a variety of consulting services for Big Rivers since the firm’s inception in 1986. Currently, GDS is working with Big Rivers to complete and file its 2010 Integrated Resource Plan. The following table identifies the types of services rendered and the corresponding dates.

Services Provided	Years
Power Supply Negotiations	1986
Wholesale Rate Revisions	1986
Financial Plan	1986
Civil Litigation Support (MEAM arbitration)	1987
Load Forecasts	1992-2010
Price Elasticity Analysis	1995
Integrated Resource Plan	2002, 2005, 2010
DSM Studies	2002, 2005, 2010
NERC and SERC Compliance	2010

Due to the extensive amount of prior work for Big Rivers, GDS has significant corporate knowledge of the Big Rivers power supply resources and arrangements, as well as its load requirements— all providing a valuable knowledge base for the conduct of the COS and rate study. In addition, we have developed a successful working relationship with Big Rivers' staff.

Due to our long-standing business relationship, there are no potential conflict of interest issues in GDS conducting this project for Big Rivers.

Other Utilities

Below are recent examples of wholesale and industrial rate development efforts that have been recently conducted by Mr. Saylor, as well as transmission cost studies conducted by Mr. Smith, both of whom will primary roles on the GDS project team for this study.

Hoosier Energy

In 2009, GDS completed a project with Hoosier Energy to revise their Standard Tariff applicable for sales between Hoosier and its member systems. The revised tariff that became effective in 2010. In addition to the "traditional" ratemaking objectives of meeting the G&T revenue requirements in a manner that is stable and fairly matches cost recovery with cost causation, the primary purpose of GDS' involvement in the effort was to ensure that the tariff contains appropriate incentives to the members for the implementation of Demand Side Management programs with a focus on demand response.

Other matters included a review of the COS study, evaluation and development of time-of-use ("TOU") energy rates, and development of transmission service level rates for large C&I loads. As is the case with all G&T cooperative rate studies that GDS conducts, the effects associated with cost shifting between members were closely monitored throughout the process.

At this time, GDS is conducting another project for Hoosier Energy for the purpose of developing a revised COS model. The primary objectives for the revisions are to simplify the model, provide flexibility for anticipated future requirements, conform the model for interfaces with data inputs, as well as develop output and summary reports that are useful for rate development, cost analysis and planning.

Prairie Power, Inc.

GDS assisted Prairie Power, Inc. ("PPI") in 2010 with development of rate structure alternatives as possible revisions to its member rate. The revisions were developed to address the pooling/risk sharing philosophies desired by the G&T and its members. The rate designs also addressed the issues of the disparities in the average member power costs and to ensure the provision of appropriate load factor incentives to the PPI members.

Mr. Smith is currently assisting PPI with the development of new Midwest ISO Schedule 2 Ancillary service rates (Reactive) for filing at FERC. These efforts include preparation of unit COS studies based on the FERC approved method of developing the Schedule 2 revenue requirements and support for a possible filing at FERC including written and live testimony.

Wabash Valley Power Association

GDS is currently working with Wabash Valley Power Association ("WVPA") for the development of revisions to the standard member wholesale rate structure. The project is expected to be completed this fall. The project has included efforts to identify, develop and evaluate alternatives for a single member rate that are focused on meeting WVPA's desired rate objectives. The rate alternatives have included the consideration of an incremental cost-based demand charge that is consistent with the desired demand response price signal and a revised billing demand window. In addition, the project has included the development of a TOU energy charge structure.

Dairyland Power Cooperative

During the period 2003 through 2007, GDS provided significant rate-related support to Dairyland Power Cooperative. This support included a comprehensive review and revision to the general member rate completed in late 2005 as well as several independent projects to evaluate and revise the special rates for C&I customers. These analyses included updates to Dairyland's TOU energy rate, and the development of a new Critical Peak Pricing ("CPP") rate available for certain C&I customers for implementation on a pilot basis.

PowerSouth Energy Cooperative

Early this year, GDS completed an effort for PowerSouth to evaluate a TOU energy rate for possible implementation in its general member rate as well as in its rates applicable to special C&I loads. The analysis included the detailed evaluation of hourly historical and projected production costs (both average and marginal costs) and hourly load – necessary for the consideration of TOU pricing. Objectives of the TOU rate for this client included improved cost-based pricing, revenue neutrality, margin neutrality in the event of shifts in load in response to the TOU prices, and potential cost shifts between members.

Altamaha Electric Membership Corporation

Mr. Saylor has significant experience in the development of rates for large commercial/industrial customers. An excellent example of this experience is the support

provided for Altamaha Electric Membership Corporation (“AEMC”), a distribution cooperative located in Lyons, GA. For more than ten years, GDS supported AEMC in the development and administration of rate alternatives for their former 70 MW industrial customer. Such alternatives included market-based, interruptible, stratified and real-time pricing structures. In addition, the customer had on-site generation which not only impacted the retail rate structures, but also required the development and implementation of purchase power arrangements.

Wolverine Power Supply Cooperative, Inc.

GDS has assisted in Wolverine’s OATT and member rate COS studies since the mid 1990’s. GDS assisted Wolverine in its original OATT filing at FERC, assisted in the formation of the Midwest ISO Michigan Joint Pricing Zone of which Wolverine is a transmission owner, and continues to assist Wolverine in developing its annual Attachment O revenue requirements calculations. Additionally, GDS has assisted in the development of Wolverine member COS studies and member rate design studies for the past 15 years. Wolverine is regulated by the FERC and these efforts have included the preparation of rate filing packages along with supporting testimony and work papers. Mr. Smith has been the primary Principal in-charge for support to Wolverine.

Distribution Cooperatives - Retail Rates

Over the years, GDS has performed hundreds of retail COS and rate studies for its clients. This experience has proven to be invaluable in understanding the potential impacts that revisions in a G&T’s rate structure may have on the retail rates of its members. With this knowledge, throughout the course of the study, we will be able to anticipate how proposed revisions in the Big Rivers rate structure may impact the retail rates and cash flows of the members.

1.3 References

Please see Appendix C for a list of GDS references.

1.4 GDS Project Team

GDS proposes to utilize key individuals from the firm with recognized depth of experience in rate design, COS analysis, Demand-Side Management (“DSM”) analysis, and transmission COS matters. The project team will be managed by two individuals of the firm: Brent Saylor, Principal; and Robert C. Smith, Principal. Also, Jacob Thomas, Project Manager will provide significant support to the COS and member rate design efforts. Brent will have responsibility for the overall management of the project as well as the COS and member rate development. Robert will have responsibility for the development of the OATT. Jacob will direct analytical matters such as development of the COS, models for rate development and member power cost analysis, as well as any other required technical analysis. Each of the three individuals has significant relevant prior experience in these areas.

As Project Manager, Mr. Saylor, will ensure that the project is conducted in an efficient manner and will meet the objectives of the project specified by Big Rivers. In addition, Mr.

Saylor will communicate with designated Big Rivers staff on a regular basis as to the progress of the work, the results to date, and any problems encountered.

Other Principals and senior staff of the firm will also be available to support the Project on an as-needed basis. John Hutts (Principal) and Brian Smith (Senior Project Manager). Both have significant prior work experience with Big Rivers. In addition, other staff will be available and used as necessary to supplement this group. Bios of the individuals that are expected to support this project are shown below, and resumes of the primary team members are contained in Appendix B.

Primary Team Members

Brent A. Saylor is a Principal of GDS and currently works in the areas of wholesale and retail rate studies, COS analyses, financial forecasts and other financial and rate design consulting services. He has worked with G&T cooperatives to successfully design and to implement and administer wholesale rates for sales to member cooperatives and for targeted commercial/industrial customers. Brent has conducted reviews of demand response programs for several G&T cooperatives to evaluate program benefits and alignment of pricing incentives with cost savings for both the G&T and the distribution cooperative member perspectives.

Prior to joining GDS, Brent worked for Oglethorpe Power Corporation for 16 years, and managed the rates and pricing area, as well as providing significant support to the corporate restructuring efforts.

Mr. Saylor has filed testimony in a wholesale rate filing in the state of Kansas and has presented testimony before the Georgia Public Service Commission.

Brent holds a Bachelor of Industrial Engineering with Honors from the Georgia Institute of Technology.

Robert C. Smith is Principal and Board Member of GDS. Mr. Smith has extensive experience in electric utility ratemaking and financial analysis. This experience includes numerous preparations of cost-of-service studies, rate design analyses, cash working capital analyses, the analysis of wholesale and retail rate filings and the preparation of retail and wholesale rate filings; the presentation of expert testimony before the Federal Energy Regulatory Commission in wholesale rate cases, before the Public Utility Commission of Texas, the Virginia State Corporation Commission, the Indiana Utility Regulatory Commission, the Maryland Public Service Commission, and the Public Utilities Commission of Ohio.

Rob earned a Bachelor of Science in Industrial Management from the Georgia Institute of Technology.

Jacob M. Thomas, P.E., Project Manager of GDS. Jacob specializes in statistics, economic analysis and quantitative research, including retail and wholesale rates, COS, DSM evaluation, load forecasting, consumer surveys, economic impact analysis and various data mining and analysis applications.

Jacob has worked on rate and COS studies for utilities in thirteen states and has performed demand response benefit/cost and achievable potential studies for cooperatives in seven states. Jacob is currently working on the demand response portion of the DSM analysis as a part of the IRP project being conducted for Big Rivers and has work on Big Rivers' load forecasts since 1996.

Mr. Thomas has provided written expert testimony before the Public Service Commissions in Michigan and Vermont, and appeared live for cross examination in Vermont. He has also contributed to evaluations filed with commissions in Delaware and Utah and with state legislatures in North Carolina, Vermont, and Virginia.

Jacob holds a BS of Industrial Engineering from Georgia Tech and an MBA from Auburn University with a concentration in Finance. He is a registered Professional Engineer in the State of Georgia and a member of the National Society of Professional Engineers, the American Statistical Association and the Institute of Industrial Engineers.

1.5 Conduct of the Project

The RFP calls for the project to commence later this month and to be completed by March 1, 2011. Highly experienced GDS staff is available to support the completion of the project objectives in accordance with this schedule.

GDS will work closely with Big Rivers' staff during all phases of the project – from collecting data and confirming project scope and objectives at the project outset, to discussing results and presentation material before reviewing them with the Board Committees and any member groups.

GDS believes that active participation by the members is essential to achieving successful project results, and we will support such member participation as directed by Big Rivers. Such support can include either the facilitation of meetings among all members, supporting meetings conducted by Big Rivers, or by participating in meetings/discussions with individual members.

2.0 Proposed Work Plan

Below is a summary of the Work Plan to meet the project objectives identified by Big Rivers. Appendix A contains a proposed timeline of the primary activities that will be conducted.

2.1 Initial Data Request and Review

GDS will develop and provide an initial data request to Big Rivers. The focus of the initial data request will be to gather test year data necessary to develop the COS and conduct the rate analysis. It is expected that the data request will primarily consist of accounting and financial reports, plant data, member and large customer load data, billing records, as well as information related to both normalization and pro forma test year adjustments. The data will supplement the information and corporate knowledge already in place at GDS.

The rate design portion of the RFP addresses the possibility of potential “rate shock.” It will certainly be important to understand the drivers and anticipated timing of any cost factors that would contribute to a large, sudden impact on overall rate levels in the foreseeable future.

2.2 Conduct Kick-off Meeting

GDS will work closely with Big Rivers’ staff in all phases of the project. We suggest that a kick-off meeting with key Big Rivers staff be conducted shortly after the commencement of the project to introduce key project members, clarify data requested and/or provided by Big Rivers in response to the data request, and to discuss anticipated project issues, including approaches for member interaction and involvement.

2.3 Develop Cost of Service

It is expected that the COS will include both normalization and pro forma adjustments to the actual test year revenues and expenses to produce a proper on-going financial position. The objective of this step is to determine the magnitude of overall revenue required to attain Big Rivers’ financial objectives and maintain a sound financial position.

To develop an unbundled COS, GDS will use an industry-tested spreadsheet model developed by GDS professionals. The model will be appropriately modified to capture the unique characteristics of the Big Rivers system. The COS study will be completed with full understanding of Big Rivers’ current tariffs, including riders; with the potential membership into MISO; and with Big Rivers’ rate design goals kept in mind.

Using industry accepted practices, the GDS model allocates the cooperative’s revenue requirements to various functions including production, transmission, and any other necessary categories such as distribution, metering and billing, or DSM. GDS will also provide special consideration in the development of the COS to the wholesale tariff riders that are identified in the RFP¹. Given that the COS will be filed with the Commission, GDS

¹ The riders listed in the RFP include an environmental surcharge, a fuel adjustment clause, and Unwind Surcredit, a Member

will provide a model that can withstand the scrutiny of regulatory review while still meeting Big Rivers' objectives for COS output and rate design. Also, any unique agreements in the wholesale smelter contracts for the recovery of costs will also be included in the COS. Once costs have been functionalized, GDS will allocate them to the Rural and Large Industrial rate classes using allocation factors that are consistent in the way that the costs are incurred.

GDS will review with the G&T staff the COS methodology in any level of detail desired to ensure that Big Rivers both understands and is comfortable with the approach. For areas of the methodology where there are reasonable alternatives, GDS will identify those and facilitate discussion to determine an appropriate method for Big Rivers.

Following completion of the initial COS, the model will be updated with more current data in preparation for filing with the Kentucky Public Service Commission ("PSC").

At the conclusion of the project, GDS can provide an electronic version of the final COS model to Big Rivers.

2.4 Determine Incremental Costs

The RFP lists potential member rate design criteria and objectives, with one element being "Providing proper price signals to the Member Systems". If any of the members are pursuing energy efficiency and demand response (collectively "DSM") programs, or if Big Rivers desires to consider an interruptible C&I rate design, then the proper price signal should have consideration of incremental capacity and energy costs. While average, embedded costs certainly determine overall rate levels, knowledge of incremental costs is critical to understand how system costs change "on the margin" due to load shape changes resulting from the implementation of DSM programs. It has been GDS's experience that certain G&T rate components should be closely aligned with (preferably long-run) incremental costs. This approach ensures that the members are appropriately compensated for demand response activities and avoids costs being shifted to members that may not participate in demand response to the same degree.

The evaluation will require analysis of Big Rivers' incremental generation and transmission related costs. We believe that we may be able to rely upon some of the related avoided cost analysis that has already occurred during the demand response portion of the current IRP project. As necessary, GDS will review Big Rivers' generation expansion plan and transmission capital budget to determine the long-run incremental costs of these functions. We will also examine potential energy settlement costs as a participant in MISO, or other sources of marginal energy supply, to evaluate incremental energy costs.

2.5 Evaluate Current Tariff and Alternative Structures

Each component of the Big Rivers tariff and the overall rate structure will be evaluated using rate design criteria and objectives that will be developed during the project.

Rate Stability Mechanism, a Rebate Adjustment and Non FAC PPA, in addition to the Surcharge and TIER Adjustment Charge applicable to the Smelter contracts.

GDS will evaluate all of the rate structure alternatives identified in the RFP² plus other alternatives that make sense for consideration. Three of the alternatives that Big Rivers desires to consider contain time-based energy charge components, and GDS will evaluate each of them. The basis of the evaluation is expected to include the following criteria:

1. The potential of each to track Big Rivers' average and marginal energy costs and provide improved cost-based pricing, as applicable
2. Level of support to energy efficiency programs.
3. Whether the concept can be reasonably reflected in the members' retail rates
4. Administration issues

Using the functionalized cost results of the COS and with consideration of rate design objectives, alternative rate structures will be developed. Such alternatives will include both bundled structures, consistent with the present rate, and unbundled structures with separate charges for generation, transmission and possibly for other service categories. The RFP also mentions the examples of evaluating equitable cost allocation and appropriate price signals in consideration of the load factor of end-uses. GDS can certainly develop rate design alternatives that have varying strengths of the underlying load factor incentive, with such alternatives based on the unique Big Rivers resources and load characteristics.

The rate structures will also be evaluated by projecting the cost impact for individual Members, as compared to the current rate. GDS is well accustomed to developing these types of individual member comparisons since they are an essential component of a G&T rate study. As these impacts are evaluated, it will likely be necessary to refine the proposed rate structure to ensure that the overall objectives are being met. GDS will identify the trade-offs of meeting objectives that result from making refinements to the rate.

For purposes of developing the project cost estimate, we have assumed that member billing determinant data is reasonably available for the analysis of rate structure alternatives, (since it will likely be developed from historic test year data) and that no significant effort is required to develop the data for purposes of this project.

The RFP describes that wholesale rate structures applicable to the Member-Systems should be developed and recommended. While it is clear that the COS will be performed to allocate costs to the Rural and Large Industrial rate classes, we have not included time to develop any special rates for the large C&I customers. If it is the intent of Big Rivers to develop such special rates, GDS certainly has the experience required to develop them, and we would be glad to discuss the necessary modifications to the scope of work and project cost estimate.

² Alternatives identified in the RFP are: i) CP vs. NCP demands, ii) Time of Use, iii) Critical Peak Pricing, iv) Real-Time Pricing

2.6 OATT Rate Development

MISO Attachment O

The MISO/Big Rivers filings made on October 1, 2010 (Docket Nos. ER11-15 and ER11-16) to (1) include Big Rivers as a MISO Pricing Zone, and (2) include tariff sheets and an attachment O calculation for Transmission revenue requirements are currently approved by the Kentucky Commission. As part of this cost of service request for proposals, Big Rivers is interested in developing new Attachment O revenue requirements calculations and new Ancillary Service rate calculations.

Transmission Owners in MISO have the discretion to propose to use either (1) the standard MISO Attachment O templates, or (2) specific transmission cost of service calculations if the Company can support those calculations and can convince the FERC that those specific calculations are appropriate for the Utility.³ Big Rivers has used the RUS Form 12 Attachment O template in its October 1 FERC filing and the template itself is relatively straight forward to complete. Since the template is based on historical Form 12 data and changes each June 1st, it may be unnecessary to tie the new Attachment O calculation to the new Member rate Cost of Service study. Only if Big Rivers desires to use “pro-forma” transmission revenue requirements each year with a later true-up will it be necessary to link the two. Our recommendation would be that Big Rivers choose the historical route since there is significantly less administrative cost and effort associated with using the standard FERC Approved Attachment O from year to year. Thus, GDS would propose to assist Big Rivers in establishing the annual review of its Attachment O calculations and as part of this effort, Big Rivers should be able to update its Attachment O revenue requirements in-house in conjunction with MISO.

Ancillary Services Rates

The Ancillary service rates in the current Big Rivers OATT appear to be based on 2006 vintage data and also appear to be based largely on FERC requirements and methods for calculating each rate. Big Rivers will probably need to update the rates for more current information and to reflect any effects of the “Unwind Transaction” and for changes in costs.

2.7 Support for Kentucky PSC rate case proceeding

The final component of the consulting services proposed herein is to assist in representing the Cost of Service and Rate Study in connection with the Kentucky PSC rate case. The cost of these services has not been included in the base cost of the proposal. As described by the RFP this support could include responding to data requests, providing written testimony and being an expert witness. GDS could also provide support for the development of exhibits and supporting work papers and rebuttal testimony.

It should be noted that, although the scope of services for this project is readily identifiable, the extent of activity required to provide support for the rate case is to some degree beyond

³ For example, there are Utilities in MISO that use the Attachment O format, but modify it to include forward looking estimates of test year costs with a true-up provision. The standard MISO Attachment O template is a historical cost of service from the previous calendar year.

the control of the Cooperative and GDS Associates. As a result, and as suggested by the RFP, rather than try to estimate an overall cost to provide such services, we have provide hourly rates for individuals that are expected to support the rate case process. The hourly rates below are applicable to any component of the rate case support- either development of testimony or technical documents or providing expert testimony.

<u>Individual</u>	2010 <u>Hourly Rate</u> ⁴
Brent Saylor	\$195
Rob Smith	\$225
Jacob Thomas	\$165
Engineer	\$115

2.8 Project Report

At the conclusion of the project, GDS will provide a written executive summary level report to describe the analysis conducted, the major findings, revisions adopted by Big Rivers as well as to identify any future rate analysis that should be conducted. The report will include narrative, tables, exhibits and graphs, as appropriate. A draft will be provided to Big Rivers for review before the completion of the project report.

⁴ Rates shown are for 2010. Rates for 2011 are not yet determined, but are expected to be approximately 3% higher than 2010 levels.

3.0 Project Fees and Schedule

GDS has the resources available to conduct the project in accordance with the proposed schedule requirements as described in the RFP. As stated earlier, Mr. Saylor will manage the effort to ensure that the project deliverables are provided in a timely fashion.

3.1 Estimated Fees - CONFIDENTIAL

Based on our understanding of the scope of the project, we have estimated the total of professional fees and project expenses to be approximately \$160,000. The components of this project cost estimate are contained in Appendix A.

GDS has prepared the project cost estimate based upon certain assumptions with regard to the scope and magnitude of work. The project expenses includes travel to Big Rivers for five occasions – one kick-off meeting, two for meetings with the Board Committees, one for a meeting(s) with members only, plus one visit to present the final results to the Big Rives Board of Directors. If the scope and magnitude of the work effort changes from the requirements as described herein, then GDS will work with Big Rivers to revise by mutual agreement the scope of work and related costs.

Should regulatory filings be need at FERC and/or the Kentucky Commission, the testimony would be prepared and presented by Robert C. Smith. The cost depends on the amount and duration of testimony and the proceeding at the particular regulatory agency.

Subject to any revisions that could result from discussions related to the terms and conditions of the General Service Agreement, GDS proposes to bill Big Rivers monthly on a time and materials basis in accordance with our standard fee schedule. The monthly billings will allow Big Rivers to monitor the services provided and the associated costs. Since the majority of the work contemplated by the project schedule is expected to occur during 2010, the costs have been estimated using our 2010 fee schedule. For labor fees incurred during next calendar year, GDS proposes to use its fee schedule for 2011. GDS will provide Big Rivers with the 2011 fee schedule as soon as it becomes available. At this time, it is expected that 2011 fees may be approximately 3% higher than 2010 levels.

Appendix A

Cost Estimate and Project Timeline

Proposal to **Big Rivers Electric Corporation**
In response to RFP for 2011 Cost of Service and Rate Design Study

October 15, 2010

Big Rivers Electric Corporation

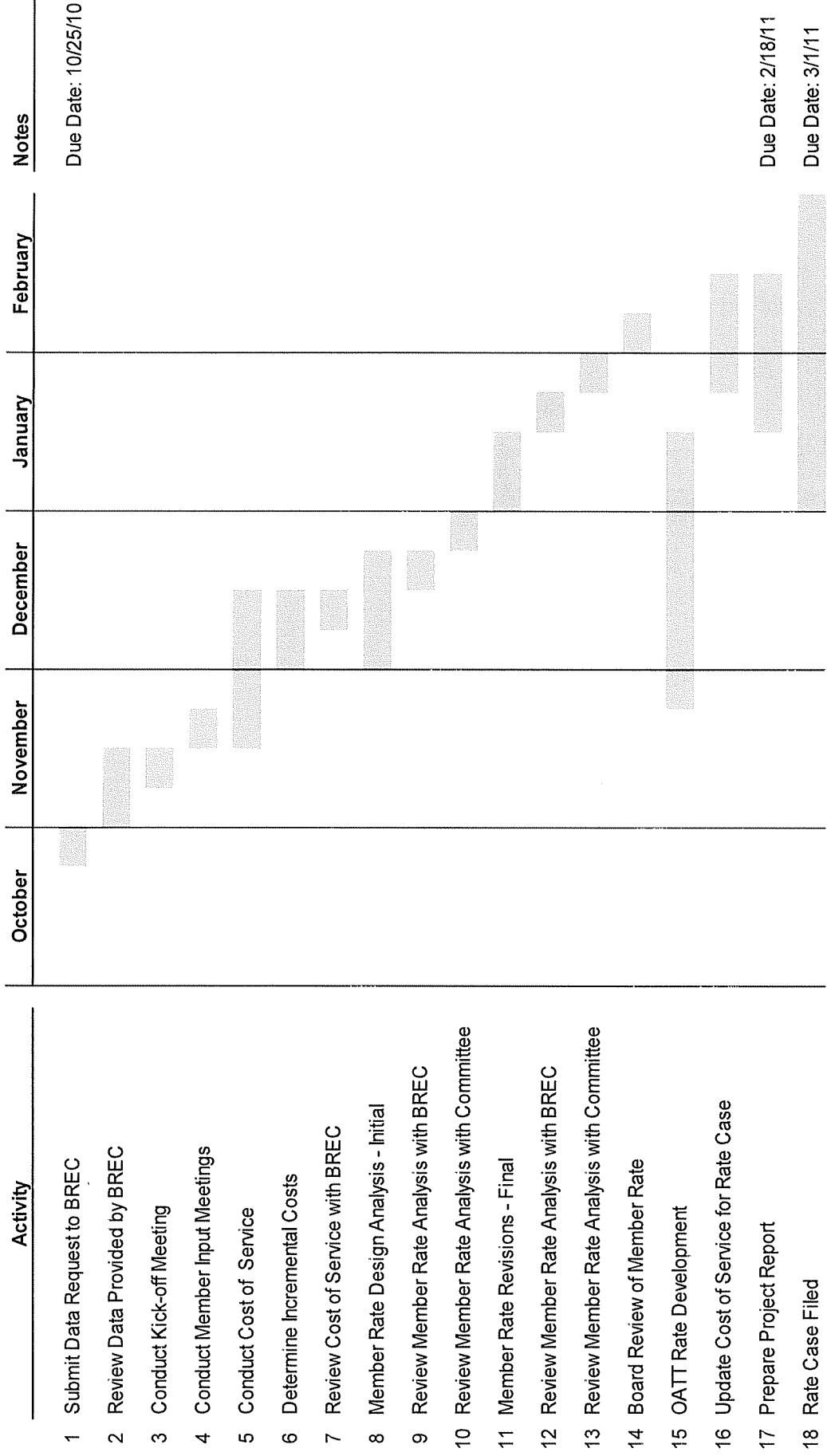
GDS Associates Estimated Costs for 2011 Cost of Service and Rate Design Study														
TASK	TASK DESCRIPTION	Brent Saylor - Principal	Robert Smith- Principal	Jacob Thomas - Project Manager	Jen Froelich - Engineer	Brian Smith - Senior Project Manager	Dan Burapavong - Engineer	Steve Shurbutt - GDS VP	Brenda Shadix - Admin Asst	Co-op Student	Total Labor Hours By Task	Total Labor Costs By Task	Non-Labor Costs (Travel, phone, etc.)	Total Costs by Task
Project	Project Mgt	12	4	0	0	0	0	0	0	0	16	\$3,240	\$200	\$3,440
Member Rate	Travel Expenses - 11 person-trips	0	0	0	0	0	0	0	0	0	0	\$0	\$8,250	\$8,250
2.1	Data Request and Review Data	10	10	10	4	4	4	0	0	0	42	\$7,530	\$0	\$7,530
2.2	Kick-Off Meeting	12	12	12	0	0	0	0	0	0	36	\$7,020	\$0	\$7,020
2.3	Prepare Cost of Service	20	10	40	40	10	10	0	0	20	150	\$21,400	\$0	\$21,400
2.4	Develop Incremental Costs	20	0	20	0	0	0	0	0	0	40	\$7,200	\$1	\$7,201
2.5	Develop Standard Member Rate - Bundled and Unbundled	24	0	40	40	0	0	0	0	0	104	\$15,880	\$0	\$15,880
	Develop Special Contract Rates	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0
1.5	Committee/Member Meetings (3)	36	24	12	0	0	0	0	0	0	72	\$14,400	\$0	\$14,400
1.5	Member Input Meetings	12	0	12	0	0	0	0	0	0	24	\$4,320	\$0	\$4,320
1.5	Board of Directors Meeting	12	12	0	0	0	0	0	0	0	24	\$5,040	\$0	\$5,040
2.3	Update COS and Rate Design for Rate Case	12	4	20	20	0	0	0	0	0	56	\$8,840	\$0	\$8,840
OATT Rate														
2.6	Update Attachment O	0	25	0	0	10	40	0	0	0	75	\$12,125	\$0	\$12,125
2.5	Update Ancillary service Rates/Costs	0	55	0	0	10	80	0	0	0	145	\$23,475	\$0	\$23,475
Report														
2.8	Prepare Study Report	24	16	40	104	8	24	0	20	20	132	\$21,060	\$100	\$21,160
	Total Consultant Hours:	194	172	206	104	42	158	0	20	20	916			
	2010 Hourly Rate:	\$195	\$225	\$165	\$115	\$190	\$115	\$210	\$95	\$50	-			
	Total Costs:	\$37,830	\$38,700	\$33,990	\$11,960	\$7,980	\$18,170	\$0	\$1,900	\$1,000	-	\$151,530	\$8,551	\$160,081

Committee/Member Meetings (6)

Note: All travel expenses are billed at cost with no mark-up.

**Big Rivers Electric Corporation
 Cost of Service and Rate Design Study**

Proposed Project Timeline



Appendix B

Resumes of Key Personnel

Brent A. Saylor

Principal



EDUCATION: Bachelor of Industrial Engineering, with Honors
Georgia Institute of Technology, 1979

Masters level coursework in Business Administration
Georgia State University, 1985-1986

PROFESSIONAL MEMBERSHIP: Institute of Industrial Engineers

YEARS OF EXPERIENCE: 30 Years Experience
GDS Associates, Present
Oglethorpe Power Corporation, 1981-1997
Tampa Electric Company, 1979-1981

EXPERIENCE:

Mr. Saylor currently works in the areas of wholesale and retail rate studies, cost of service analyses, financial forecasts and other financial and rate design consulting services. He has worked with generation and transmission (G&T) cooperatives to successfully design and to implement and administer the overall wholesale rate structure for sales to member cooperatives and for targeted commercial/industrial customers. A variety of wholesale rate structures have been developed and evaluated to meet the unique requirements of the G&T clients. Large commercial rates have been developed for both G&T and distribution clients including interruptible, critical peak pricing, load management and market-based alternatives.

Mr. Saylor has also experience in the development of initial and on-going power supply contractual arrangements between a G&T and its distribution member cooperatives.

He has conducted numerous economic analyses of Demand Side Management ("DSM") activities with a focus on demand response programs for G&T cooperatives to evaluate program benefits for both the G&T as well as the member distribution cooperative perspectives. The analyses have also provided results used to determine whether the pricing incentives in the member wholesale rate structure are aligned with the demand response benefits.

Mr. Saylor has worked with numerous Georgia cooperatives and other clients to develop, evaluate, acquire and administer power supply resources, with significant experience in:

- Evaluating various ownership and purchase power supply alternatives including requirements arrangements.
- Evaluation of renewable energy credits and power sale opportunities available to a large commercial client with customer-owned generation.
- Development and administration of purchase power agreements between distribution cooperatives and large commercial/industrial facilities with customer-owned generation.
- Managing the power supply arrangements for a distribution cooperative including evaluation of the subscription to future generation resource alternatives.
- Developing and evaluating generation resource pooling arrangements for energy accounting, capacity reserve sharing, and scheduling/dispatching.
- Conducting reviews of power supply billings to determine contract compliance, identify cost management opportunities, and ensure accuracy.

- Conducting economic feasibility of dispersed generation and on-going operations, administrative and billing credit issues.

In addition to conducting cost of service and retail rate studies for distribution cooperatives, Mr. Saylor also has provided assistance for numerous successful retail commercial/industrial customer competitive choice proposals including the development of tailored rate designs, sales proposal documents and service agreements. In addition, he works with distribution cooperatives in managing their relationships with large commercial customers by providing support for retail rate administration, and for the management of customer-owned generation and load control resources. Other retail experience includes the development of retail rates for special circumstances such as for net metering and the evaluation of line extension policies.

Mr. Saylor has also gained international experience with the completion of a project to perform an assessment of the retail pricing strategies employed by a Caribbean utility.

Prior to joining GDS, he was a member of the core team to complete the restructuring of Oglethorpe Power Corporation into separate generation, transmission and system operations companies. Responsibilities included the development of the unbundled and formulary rate schedules for the restructured companies, as well as participating in the development of a revised wholesale power contract, power pool mechanisms and the transmission tariff.

Prior to the restructuring effort, Mr. Saylor managed Oglethorpe's rates and pricing area, which successfully implemented several innovative pricing alternatives and managed the billing administration function:

- A family of commercial/industrial rates to assist Oglethorpe's members in being competitive with other power suppliers.
- A pilot project for Oglethorpe's first real-time pricing rate.
- Directing a project team to modify Oglethorpe's member rate policy to increase support of marketing programs by improving competitiveness for targeted loads.
- Numerous cost-based wholesale rate studies for Oglethorpe, including the corporation's first stratified (unbundled) rate structure.
- Billing administration matters and resolving conflicts with members.

Other experience includes:

- Administration of purchased power agreements, development of purchased power forecasts, and avoided cost calculations.
- Participation in resource planning processes which included the development and evaluation of supply and demand strategies.
- Managed marketing functions including market research and load forecast activities.

REGULATORY EXPERIENCE:

Kansas Corporation Commission
Georgia Public Service Commission

Robert C. Smith

Vice President



EDUCATION: Bachelor of Science in Industrial Management
Georgia Institute of Technology, 1982

EXPERIENCE:

Mr. Smith has extensive experience in electric utility ratemaking and financial analysis. This experience includes numerous preparations of cost-of-service studies, rate design analyses, cash working capital analyses, the analysis of wholesale and retail rate filings and the preparation of retail and wholesale rate filings; the presentation of expert testimony before the Federal Energy Regulatory Commission in wholesale rate cases, before the Public Utility Commission of Texas, the Virginia State Corporation Commission, the Indiana Utility Regulatory Commission, and the Public Utilities Commission of Ohio.

Specific Experience Includes:

4/79-2/86 Mr. Smith served as Coop student (1979-1981), and rate analyst (1982-1986) with Southern Engineering Company, and rate analyst (1986-1987) with GDS Associates, Inc.

2/86-Present GDS Associates, Inc., Project Consultant, Project Manager, Principal, Vice President

During his more than twenty-seven (27) years' experience in the electric utility industry, Mr. Smith has consulted with utilities and government agencies in dozens of states in the following areas:

- Analyses of pooling rates for cooperative generation and transmission systems.
- Preparation of cost-of-service studies for cooperative and municipal systems.
- Analyses of cost-of-service studies filed by others with the Federal Energy Regulatory Commission and various state regulatory commissions.
- Preparation of financial forecasts and forecasts of operations for rural electric generation and transmission systems.
- Preparation of operation budgets for rural electric generation and transmission systems.
- Development of computer-based billing systems for rural electric generation and transmission systems.
- Preparation of expert testimony on behalf of rural electric generation and transmission systems supporting rate changes before state regulatory authorities.
- Preparation of expert testimony on behalf of rural electric generation and transmission systems and municipals opposing IOU rate increases at the Federal Energy Regulatory Commission.
- Negotiation of Open Access Transmission revenue requirements and rates with Investor Owned Utilities.
- Establishment of stated and formula rates for G&T Cooperatives who have become FERC regulated.
- Establishment of annual revenue requirements for a Transmission Owning Entity in the California ISO.

- In addition, Mr. Smith has assisted in the preparation of expert testimony in over 25 cases before the Federal Energy Regulatory Commission and various state commissions and has been involved in settlement negotiations in several of those cases.

REGULATORY EXPERIENCE (Testimony):

Federal Energy Regulatory Commission

Gulf States Utilities Company, Docket Nos. ER84-568-000 and ER85-538-001
Virginia Electric and Power Company, Docket Nos. ER84-355-000 and ER90-540-000
Appalachian Power Company, Docket Nos. ER87-105, ER87-106, ER90-132-000, ER90-133-000, and ER92-323-000
Blue Ridge Power Agency, et al., Docket No. EL89-53-000
Carolina Power & Light Company, Docket No. EL91-28-000
Delmarva Power & Light Company, Docket No. ER93-96-000
Detroit Edison Company, Docket No. OA96-78-000
East Texas Electric Cooperative, Inc., Docket Nos. ER95-1175-000 and ER96-485-000
Wolverine Power Supply Cooperative, Inc., Docket Nos. ER04-132-000 and EL04-38-000
International Transmission Company, Docket No. ER00-3295-003
City of Anaheim, California, Docket No. EL05-131-000
TEC Trading, Inc. Triennial Market Analysis Update, Docket No. ER01-2783-007
New Dominion Energy Cooperative, Docket No. ER05-20-000
Old Dominion Electric Cooperative, Inc., Docket No. ER97-4314
Entergy Services, Inc., Docket No. ER07-956

Public Utility Commission of Texas

Sam Rayburn G&T, Inc., Docket Nos. 6440, 6797, 7991, 8595, 9447, 10982, and 12522.
Tex-La Electric Cooperative of Texas, Inc., Docket No. 7279, 10462, and 12289.
Northeast Texas Electric Cooperative, Inc., Docket No. 11384

Virginia State Corporation Commission

Appalachian Power Company, Case No. PUE900026
Appalachian Power Company, Case No. PUE2006-00065

Indiana Utility Regulatory Commission

Public Service Indiana, Cause No. 38707-FAC50
Duke Indiana, Cause No. 38707-FAC67-S1

Public Utilities Commission of Ohio

Monongahela Power Company, Case No. 04-880-EL-UNC

Maryland Public Service Commission

Potomac Electric Power Company, Case No. 9092

ARTICLES AND PUBLICATIONS:

Smith, R. "FERC Regulation and Market Based Rates – Challenges and Opportunities." *TransActions Newsletter*, GDS Associates, Inc. Volume 304. July 2004.

RECENT FERC TRANSMISSION CASES IN WHICH MR. SMITH HAS PARTICIPATED ON BEHALF OF



TRANSMISSION CUSTOMER CLIENTS:

Baltimore Gas & Electric/PHI – Docket No. ER05-515
Entergy Services, Inc., Docket Nos. ER05-959, ER06-1088, ER07-927, ER08-1057
American Electric Power (West) – Docket No. ER07-1069
American Electric Power (East) – Docket No. ER08-1329
Virginia Electric & Power – Docket No. ER08-92
Progress Energy Carolina – Docket No. ER08-889
Potomac Appalachian Transmission Highline, LLC – Docket No. ER08-386
PPL Electric Utilities - Docket No. ER08-1457
Pacific Gas & Electric Company – Docket Nos. ER08-1318, ER07-1213, ER06-1325
Southern California Edison – Docket No. ER06-186 and ER08-1343
San Diego Gas & Electric – ER07-284
City of Pasadena, California – Docket No. EL05-18
City of Anaheim, California – Docket No. EL05-131
East Texas Electric Cooperative – Docket No. EL07-27

Jacob M. Thomas, PE

Project Manager



EDUCATION: Master of Business Administration, Finance
Auburn University, 2006

Bachelor of Science in Industrial Engineering
Cooperative Program, With Highest Honors
Georgia Institute of Technology, 2000

ENGINEERING REGISTRATION: Registered Professional Engineer in Georgia

PROFESSIONAL MEMBERSHIPS: National Society of Professional Engineers (NSPE)
American Statistical Association (ASA)
Institute of Industrial Engineers (IIE)

EXPERIENCE:

1996-Present: GDS Associates, Inc.

Employed as cooperative student and began full time employment in 2000. Compiled three years of work experience in GDS' Distribution Services Department as cooperative student. Project experience includes load & financial forecasting, residential consumer surveys, cost of service studies, retail rate design, economic impact analysis, benefit-cost analyses, load management evaluation, and market research.

Specific experience includes:

- ◆ Developed conservation water and wastewater rates for municipals in Georgia. The rates were compliant with Metropolitan North Georgia Water Planning District guidelines. Analysis included development of revenue-neutral and rate increase inverted block designs, customer impact evaluations, and design of criteria for new large use commercial rates.
- ◆ Developed benefit-cost and net present value evaluations of existing and possible expansion of demand response and load management systems for electric utilities in Arkansas, Indiana, Kentucky, Michigan, Mississippi, South Carolina, Texas and Wisconsin. Specific work included development of costs associated with the system, estimating benefits gained through load reduction, identification of alternative and new technologies for possible expansion, and creation and use of simulation models for testing sensitivities. Analysis has included load control devices on various residential appliances as well as commercial, agricultural, and industrial applications.
- ◆ Prepared financial forecasts for electric cooperatives in South Carolina, Virginia, Tennessee and Georgia. Work included regression analysis, review of current long-term debt situation, customer and demand forecasts, plant forecasts, and sensitivity analysis. The work in Tennessee was in support of a case involving annexation in which scenarios were developed wherein certain consumers and plant were annexed by a local municipal. Work has also included modifications to a custom-made financial forecast to increase its functionality (completed in Microsoft Excel and Visual Basic).
- ◆ Various energy management related projects for a municipal water and wastewater utility in Georgia.
 - Developed an electric power usage and billing analysis model. The model is used to calculate bills on over 60 different electric accounts on various rate schedules that belong to the utility. It then generates

graphical representations of key parameters and trends needed by the management to determine ways to reduce power costs. Performed economic analyses of various electric rate options for several of the utility's larger electric accounts. Rates examined included time-of-use, real time pricing, contract off-peak pricing and other specialty rates.

- Estimated benefits and costs associated with purchase and operation of both diesel-fired and methane-fired generators for use at their Water and Wastewater Treatment Facilities.
- ◆ Completed an economic impact analysis of instituting a Renewable Portfolio Standard in the state of North Carolina. Utilized IMPLAN Input/Output software to determine the job impacts on the state economy of various RPS portfolios compared to a portfolio composed of conventional fossil fuel resources. Direct, indirect, and induced job impacts were measured for construction, operations and maintenance, and pertinent fuel supplies for various conventional and renewable resources, as well as effects of electricity price increases on residential and commercial consumers.
- ◆ Economic impact analysis of continued operation of nuclear power plant in Vermont. Analysis included impacts to Vermont economy in general, Vermont government, and in-state utility ratepayers. Prepared testimony as an expert witness on economic analysis on behalf of the Department of Public Service.
- ◆ Developed long-term load forecasts for electric utilities in Arkansas, Missouri, Kentucky, Louisiana, Texas, Oklahoma, Virginia and South Carolina. Work included end-use, statistically adjusted engineering (SAE) models and econometric modeling, weather normalization analysis, development of economic and weather forecast scenarios, and sensitivity analysis of key model input parameters. Also included updating and maintaining various databases related to the projects.
- ◆ Reviewed forecasting methodologies and processes of utilities in British Columbia, Delaware, and Utah. Provided feedback on model specifications, procedures, assumptions, and documentation.
- ◆ Expert witness in a natural gas retail rate study in Michigan. Subject of testimony was weather normalization methodologies in forecasting.
- ◆ Developed state-wide energy supply and consumption projections by major customer classification and type of fuel for Vermont Department of Public Service and Virginia Department of Mines, Minerals, and Energy. Utilized Energy Information Administration data and econometric and trending techniques to complete projections.
- ◆ Developed day-ahead load forecasting models for utilities in Virginia, Texas, Kentucky and Louisiana. Work included evaluation of regression and neural network model specifications, weather normalization, sensitivity analysis and statistical testing of the validity of the models chosen. A program was developed through Excel/VBA to allow the utilities to use the models easily and efficiently on a daily basis and to create and maintain a database of forecast parameters and historical data. One project also included a training session with the clients, highlighting the mechanics and differences of neural networks and regression models.
- ◆ Used regression modeling and other statistical analysis to estimate load reduction impacts for a water heater control program in South Carolina. Data included samples of hourly data for individual residential accounts with and without water heater controls.
- ◆ Assisted with conducting residential consumer surveys for cooperatives in Texas. Specific work included questionnaire design, sample selection and validation, data tabulation and formulation of survey databases, analysis of results and reporting findings. Analytical work has also been performed on end-use and energy efficiency surveys conducted for municipalities and cooperatives in New York, Vermont, and Massachusetts.
- ◆ Programmed commercial retail market analysis models in SAS and Excel/VBA for a marketing research firm. The models produce the statistical analysis and reporting of survey data collected electronically. Outputs include voluminous reports with extensive analysis and graphical representation. Benchmarking analysis is also conducted.

- ◆ Prepared data mining applications and statistical billing estimation models for an electric utility in Georgia. The models are utilized by the utility to ensure greater meter-reading accuracy and to monitor/investigate possible situations of power theft. Work included general data cleaning and mining techniques, extensive regression analysis and weather normalization of data, and statistical testing of the validity of the models chosen.
- ◆ Assisted in development of wholesale rates for G&Ts in Indiana and Wisconsin. Work involved projections of cost pools and billing units, development of pro forma rates and impacts on member systems, evaluation of rate alternatives and riders, and considering the implications of an aggressive load management program.
- ◆ Designed cost of service models and performed retail rate analysis for municipals and cooperatives in Alabama, Alaska, Arkansas, Florida, Georgia, Massachusetts, Ohio, South Carolina, Texas, and Virginia. Specific work has included development of cost allocation factors in various areas of operation, calculation of impacts of rate changes to customers, determination of the company's financial competitive position, classification of plant investment and operating expenses, development of pro forma financial statements, and alternative rate design calculations.

SOFTWARE/PROGRAMMING EXPERTISE:

Statistical Analysis System (SAS), Visual Basic, Microsoft Office, MetrixND forecasting software, Crystal Ball simulation software, IMPLAN Economic Input/Output Analysis software, Lotus 1-2-3, Word Perfect, Quatro Pro, OrgPlus, SQL, Minitab.

REGULATORY EXPERIENCE:

Delaware Public Service Commission
Michigan Public Service Commission
Utah Public Service Commission
Vermont Public Service Commission

Appendix C

References

For Brent A. Saylor:

Client Name: Hoosier Energy – Bloomington, Indiana
Client Contact: Mike Rampley, Senior Vice President, Marketing and Business Development
mrampley@hepn.com
812-876-2021
Scope of Services: 1. Develop revisions to wholesale tariff for sales to member cooperatives to ensure appropriate demand response incentives
2. Review and provide comments on COS model
3. Develop revised COS model (on-going)

Client Name: Prairie Power – Jacksonville, Illinois
Client Contact: John Dalton, VP of Engineering / Operations / Planning
jdalton@ppi.coop
217-245-6161
Scope of Services: Develop revisions for consideration to wholesale rate for sales to member cooperatives to address the pooling/risk sharing philosophies and provide appropriate load factor incentives.

Client Name: Wabash Valley Power Association – Indianapolis, Indiana
Client Contact: Jeff Conrad, Chief Financial Officer
jeffc@wvpa.com
317-481-2800
Scope of Services: 1. Develop a single alternative to the member rate.
2. Ensure appropriate demand response incentives and development of a TOU energy charge structure.

Client Name: Georgia Energy Cooperative – Tucker, Georgia
Client Contact: Glenn Loomer, President/CEO
glenn.loomer@georgiaenergycoop.com
770-270-7500
Scope of Services: 1. Developed formulary wholesale rate structure and accompanying rate schedule to pool costs of member power supply resources.
2. Developed Commercial/Industrial Riders.
3. Provide on-going support for rate administration and monthly billing to members.

Client Name: Dairyland Power Cooperative – La Crosse, Wisconsin
Client Contact: Bob Mueller, Vice President of Finance & Administration
rcm@dairynet.com
608-788-4000
Scope of Services: 1. Conduct comprehensive review of the general member wholesale rate.
2. Conduct review and revise special C&I rates.
3. Conduct Benefit-Cost analysis of demand response programs.

Client Name: Altamaha EMC – Lyons, Georgia
Client Contact: Romanous Dotson, General Manager
romanous.dotson@altamahaemc.com
912-526-8181

Scope of Services: 1. Develop and administer retail rates for large C&I customer.
2. Develop purchase power arrangements.
3. Conduct retail COS and rate study

For Robert C. Smith:

Client Name: Wolverine Power Supply Cooperative, Inc.
Client Contact: Kimberly Molitor
kmolitor@wpsci.com
231-779-3340

Scope of Services: Assistance with construct of the MISO Michigan Joint Pricing Zone in which Wolverine is a transmission owner and annual Attachment O development assistance.

Client Name: Corn Belt Power Cooperative
Client Contact: Kevin Bornhoft
Kevin.Bornhoft@cbpower.coop
515-332-2571

Scope of Services: Assisted Corn Belt with update of its OATT revenue requirements and rate charges – Stand Alone system.

Client Name: Owensboro Municipal Utilities
Client Contact: Jim Grise
grisejr@omu.org
270-926-3200

Scope of Services: Assisted Owensboro with development of transmission revenue requirements for credits on E.On system.

Client Name: Old Dominion Electric Cooperative, Inc. (ODEC)
Client Contact: Catherine Powers
cpowers@odec.com
804-747-0592

Scope of Services: Assist with annual transmission formulary update filing by ODEC in PJM and assisted ODEC in intervention in NOVEC's Schedule 2 Ancillary filing at FERC.

Appendix D
GDS Associates Consulting Services Agreement

CONSULTING SERVICES AGREEMENT

THIS AGREEMENT, made as of the ____ day of _____, 200__, by and between GDS Associates, Inc. (“GDS Associates”), a corporation and validly existing under the laws of the State of Georgia and _____ (“Client”), _____ and validly existing under the laws of the State of _____.

WITNESSETH

WHEREAS, GDS Associates is engaged in the business of providing professional engineering and general consulting services; and

WHEREAS, Client desires to retain the services of GDS Associates; and

WHEREAS, GDS Associates is willing to provide Client with certain consulting services, and Client is willing to accept such services, all upon the terms and conditions contained herein.

NOW, THEREFORE, for and in consideration of the mutual covenants contained herein, the parties hereto hereby agree as follows:

1. SERVICES

This Agreement shall be applicable, to all professional engineering, engineering consulting, and other consulting services performed for or on behalf of Client by GDS Associates (“Services”) as described in Exhibit A attached hereto and which is incorporated herein and made a part hereof.

2. TERM

(a) Except as otherwise provided herein, this Agreement is effective from the date first written above and shall remain in effect until the earlier of (i) termination in writing by

either party or (ii) upon completion of the Services specified in Exhibit A and payment of all amounts owing to GDS Associates for such Services.

- (b) (i) This Agreement may be terminated upon the receipt of thirty (30) days' written notice of such termination by either party from the other.
- (ii) In the event of any termination under this subparagraph (b), GDS Associates shall be compensated as provided herein for all Services rendered up to and including the date of receipt of notice of termination.

3. RESPONSIBILITIES OF CLIENT

With regard to the Services, Client, without limitation, shall:

- (a) designate and authorize an officer or other agent of Client to act on Client's behalf in all matters reasonably related to the project;
- (b) provide GDS Associates with all criteria and necessary information;
- (c) furnish to GDS Associates all existing studies, reports, and other data available to Client pertinent to the project;
- (d) obtain for GDS Associates' use additional reports, data, or information as may be reasonably required by GDS Associates;
- (e) review and examine all Services provided by GDS Associates to Client and, when necessary, obtain counsel, whether legal or otherwise, in connection with decisions made pursuant to or collateral to such Services.

In performing Services hereunder, GDS Associates shall have the right to justifiably rely on any and all such studies, reports, data, and services provided to GDS Associates by or on behalf of Client.

4. BREACH

In the event either party hereto breaches any of the provisions of this Agreement, the non-breaching party at its option may give the breaching party written notice of such breach and shall allow the breaching party reasonable time to cure such breach. In the event such breach is not cured within said time, this Agreement shall terminate, and Client shall compensate GDS Associates for all Services performed or contracted for up to and including the date of the termination of this Agreement.

5. COMPENSATION

GDS Associates shall be compensated for Services in accordance with Exhibit B attached hereto and which is incorporated herein and made a part hereof.

6. PAYMENT

GDS Associates shall submit statements to Client for all charges and Services rendered by GDS Associates and for costs incurred by GDS Associates as provided in Exhibit B hereto. Client agrees to pay promptly to GDS Associates all amounts stated on each such statement. If payment is not received by GDS Associates within thirty (30) days after GDS Associates' delivery of such statement to Client by U.S. Mail or otherwise, the amounts due GDS Associates may include a monthly charge equal to the higher of: (a) the prime rate plus one percent (1%) divided by twelve (12); or (b) an amount equal to eighteen percent (18%) annually, one and one-half percent (1-1/2%) monthly. Such monthly charge shall accrue on all amounts due from said thirtieth (30th) day through the date on which such statement is paid in full; provided, however, that in no event shall such charge exceed the maximum legal rate allowable by law. Client understands and agrees that in the event of non-payment, GDS Associates may, after giving written notice to Client, suspend Services under this Agreement. The failure of GDS Associates

to impose any such charges or suspend any Services for any period of time shall not constitute a waiver of GDS Associates' right to do so at any future date.

In the event Client fails to pay GDS Associates all amounts which become due under this Agreement, or fails to perform any of its obligations hereunder, and GDS Associates refers such matter to an attorney, Client agrees to pay, in addition to any amounts due hereunder, any and all costs incurred by GDS Associates as a result of such action, including reasonable attorneys' fees.

7. DOCUMENTS, SOFTWARE, SYSTEMS, AND PROCESSES

- (a) Unless otherwise provided Exhibit A, all documents provided by GDS Associates to Client pursuant to this Agreement are instruments of service with respect to a particular project and are not intended or represented to be suitable for reuse by Client or others. Client understands and agrees that any such reuse by Client without the written verification and authorization by GDS Associates of such reuse shall be at Client's sole risk and without liability or legal exposure to GDS Associates.
- (b) Unless otherwise provided in Exhibit A, all software, systems, and processes formulated or developed by GDS Associates in connection with a project pursuant to this Agreement are the sole property of GDS Associates, and Client shall have no rights to the use of nor make any proprietary claims to such software, systems, processes or items.
- (c) Without limitation, GDS Associates shall not be liable for any suits or claims for infringement of any patent rights or copyrights resulting from GDS Associates' infringement of such rights in connection with any Project Assignment involving any invention, design, process, product, or device specified or included in a Project Assignment by Client.

8. COST CONTROL

Opinions of probable costs, financial evaluations, feasibility studies, economic analyses of alternate solutions, and utilitarian considerations of operations and maintenance costs prepared by GDS Associates hereunder shall be made on the basis of GDS Associates' best judgment as a consulting firm in accordance with generally accepted standards. Client understands and agrees that GDS Associates' opinions, evaluations, studies, analyses, and considerations are often based on conditions over which GDS Associates has no control and that any such studies, analyses, evaluations, and opinions of probable costs prepared by GDS Associates must of necessity be speculative. Accordingly, GDS Associates in no way warrants or represents that any of such studies, analyses, evaluations, or opinions of probable costs will not vary as a result of such conditions.

9. INDEMNIFICATION AND INSURANCE

- (a) Client understands and agrees that Client shall immediately indemnify and hold GDS Associates harmless against and in respect to, without limitation, any and all actions, suits, proceedings, demands, assessments, judgments, costs, expenses, losses or attorneys' fees (hereinafter referred to as "Liabilities") arising out of, in connection with, or as a result of the performance of Services by GDS Associates on behalf of Client; provided, however, that such indemnification shall not apply to the extent GDS Associates is liable for any such Liability due to GDS Associates' negligence.
- (b) Without limitation, Client understands and agrees that in the event Client is required to indemnify GDS Associates under the provisions of this Paragraph 9 for Services, or costs or expenses associated thereunder, the terms and conditions for compensation of GDS

Associates contained in Paragraph 5 hereof shall be controlling where applicable and to the fullest extent possible.

10. PROJECT ASSIGNMENTS

- (a) Client understands and agrees that all Services provided by GDS Associates to Client shall be upon the terms and conditions contained in this Agreement. Client understands and agrees and further warrants and represents to GDS Associates that such Services shall only be performed pursuant to the terms and conditions of this Agreement and may only be amended as provided herein.
- (b) Exhibit A to this Agreement specifies the duties and responsibilities of GDS Associates pursuant to this Agreement. To the extent there is a conflict between this Agreement and Exhibit A, this Agreement shall prevail.
- (c) Any project schedule, as it pertains to the project, and any subsequent modification thereto shall be prepared with GDS Associates' concurrence. GDS Associates shall not be liable for any damages arising from late performance caused by riots, storms, fire, explosions, war, embargo, acts of God, or any other cause beyond GDS Associates' reasonable control.
- (d) GDS Associates agrees to use its best efforts to commence work on the project as scheduled and to comply with the project schedule as mutually agreed upon by Client and GDS Associates. Client agrees that it shall furnish GDS Associates with all necessary data and fulfill its responsibilities and obligations hereunder in a timely manner. Client further agrees that if Client fails to fulfill its responsibilities and obligations in a timely manner hereunder, GDS Associates shall be due an extension of time to such project schedule due to such failure.

- (e) If Services required as a result of a change requested by the Client and mutually agreed to by the parties extend the time required for completion of the project, the time allocated for the Project Assignment shall be adjusted accordingly.

11. SUBCONTRACTORS

GDS Associates may, upon consultation with Client, retain qualified subcontractors from time to time to assist in the performance of Services under this Agreement.

12. CONTRACTUAL RELATIONS

Nothing contained in this Agreement or any amendments hereto shall create or cause any contractual relationship or liability between GDS Associates and any third parties.

13. SPECIAL AND CONSEQUENTIAL DAMAGES

In no event shall GDS Associates be liable for any special or consequential damages even if GDS Associates has been advised of the possibility of such damages.

14. GENERAL

This Agreement between GDS Associates and Client contains the entire agreement of the parties hereto regarding the subject matter hereof, and no representation, inducement, promise or agreement, oral or otherwise, between the parties hereto regarding the subject matter hereof, not embodied herein, shall be of any force or effect. The provisions hereof shall inure to the benefit of and be binding upon the parties hereto, their legal representatives, successors, and permitted assigns.

15. SEVERABILITY

If any clause or provision of this Agreement is held or deemed to be illegal, invalid, or unenforceable under present or future laws effective during the term hereof, then and in that event, it is the intention of the parties hereto that the remainder of this Agreement shall not be

affected thereby, and it is also the intention of the parties hereto that in lieu of each clause or provision of this Agreement that is illegal, invalid, or unenforceable, there be deemed to have been added as a part of this Agreement, a clause or provision as similar in terms to such illegal, invalid, or unenforceable clause or provision as may be possible, and at the same time, be legal, valid, and enforceable. All rights, powers, and privileges conferred hereunder upon the parties hereto shall be deemed cumulative of and in addition to those provided by law.

16. CAPTIONS

The captions in this Agreement are added as a matter of convenience only and shall not be considered in the construction, interpretation, or enforcement of any provision hereof.

17. ASSIGNMENTS

This Agreement may not be assigned by either party without the written approval of the other party; provided, however, approval of such assignment shall not be unreasonably withheld.

18. WAIVER

Any waiver at any time by either party hereto of its rights with respect to the other party or with respect to any matter arising in connection with this Agreement shall not be considered a waiver with respect to any subsequent default or matter.

19. NOTICES

All notices required to be given in writing under this Agreement shall be deemed delivered when deposited in the United States mail with first class postage prepaid unless otherwise provided herein. Such notice if being given to GDS Associates shall be addressed to:

President
GDS ASSOCIATES, INC.
Suite 800
1850 Parkway Place
Marietta, Georgia 30067-8237

and if being given to Client shall be addressed to:

Either party may change its respective notice address by written notice as specified above.

20. GOVERNING LAW

This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Georgia.

EQUAL EMPLOYMENT OPPORTUNITY Client hereby agrees to comply with Executive Order 11246, as amended, and its implementing Regulation, including the equal opportunity clause set forth in Section 202 of such Order and Section 60-1.4(a) of the Regulations, Title 41 CFR, Chapter 60, Parts 1-60. These provisions are incorporated into this Agreement. In addition, this Agreement incorporates by reference the Affirmative Action obligations of the Rehabilitation Act of 1973 at 41 CFR Section 60-741.1 and the Vietnam Era Veterans' Readjustment Act of 1974, at 41 CFR Section 60-2050.4, as amended.

IN WITNESS WHEREOF, the parties hereto have entered into this Agreement as of the date first written above.

Client”

By: _____(SEAL)

Title: _____

ATTEST:

By: _____(SEAL)

Title: _____
(CORPORATE SEAL)

GDS ASSOCIATES, INC.

By: _____(SEAL)

Title: _____

ATTEST:

By: _____(SEAL)

Title: _____
(CORPORATE SEAL)



PROPOSAL FOR:
WHOLESALE COST OF SERVICE AND
RATE DESIGN STUDY



Big Rivers Electric Corporation
Purchasing Department
Ms. Dana Clevidence
P.O. Box 24
Henderson, Kentucky 42419



October 13, 2010

Ms. Dana L. Clevidence
Procurement Agent
Big Rivers Electric Corporation
P.O. Box 24
Henderson, Kentucky 42419

RE: Wholesale Cost of Service and Rate Design Study

Dear Ms. Clevidence,

MR Valuation Consulting, LLC (“MRV Consulting”) is pleased to submit to the Big Rivers Electric Cooperative (“Big Rivers”) this proposal to complete a Wholesale Cost of Service and Rate Design Study (the “Study”).

We understand the primary objectives of the study are to:

- Develop an unbundled (e.g. power supply and transmission) pro forma test year cost of service (“COS”)
- Develop a proposed wholesale rate structure (e.g. demand and energy) for Big Rivers’ Rural and Large Industrial rate classifications that reflects Big Rivers’ cost of providing service and results in a fair and equitable distribution of Big Rivers’ revenue requirement to its Member-Systems. Big Rivers’ three Member-Systems are Jackson Purchase Energy Corporation, Kenergy Corp. and Meade County Rural Electric Cooperative.
- Develop a rate design (structure) that appropriately considers load factor, load size, energy efficiency and demand-side management programs (Big Rivers is currently conducting an integrated resource plan (“IRP”) study that should be complete early November 2010.)
- Provide a sufficient return to Big Rivers

MRV Consulting Expertise

MRV Consulting specializes in the valuation and strategic advisory of energy and utility assets for ratemaking, mergers and acquisitions, financial reporting, tax, financing, and other purposes in the US and internationally. We have historically advised companies on over 440 electric utility plants in over 130 transactions.

- The three senior members of our team have worked together for 12 years, and collectively, have over 40 years of experience at Deloitte & Touche

- Peter Hoffman has significant municipal account experience. He was Financial Advisor to the US Department of the Treasury monitoring The City of New York's financial problems and from 1981 through 1985 and was the senior partner responsible for Deloitte audit of New York. While at Deloitte, he was responsible for the Utility practice in the Tri-state region and was the lead partner on engagements for the Illinois Commerce Commission and The Republic of Turkey. In the former assignment, he determined market energy prices in Illinois in 1998 and 2000 and in the later, his team rewrote the Energy Law for Gas and Electricity. After retiring from Deloitte, he did significant work for the State of Israel in determining a model to be considered in going forward in restructuring the electric industry
- Mr. Raymond Makul, JD has over 35 years experience in all matters of public utility regulation, including utility cost of service and rate structures, regulatory policy and economics, energy production and use, economics of water and sewer systems, and telecommunications policy. He has extensive and broad-based knowledge of the regulatory process; economic, financial, and accounting principles and protocols underlying regulation; utility industry corporate objectives; and the internal workings of regulatory agencies and their staffs. He is a specialist on utility pricing structures and tariffs, and has been qualified as an expert witness in utility cost allocation, pricing and policy in multiple jurisdictions.
- Mr. Mark Rodriguez, ASA MRICS has 20 years of experience as an international energy and utility specialist, including five years as a Senior Manager in the Deloitte & Touche Valuation Group located in New York City plus five years as a construction project manager constructing several gas-fired cogeneration and waste-to-energy facilities. Mr. Rodriguez has supervised and performed a diversity of valuation and consulting engagements, including the valuation of gas transmission and distribution systems, telecommunications operations, water systems and facilities, electric generating facilities and systems, healthcare facilities and operations, commercial buildings, real estate and complex manufacturing, process and industrial facilities. His experience includes both domestic and international (Latin America and Europe) transactions.

Professional Fee

Our professional fees are based on an estimate of the amount of time that will be required to complete the proposed engagement as outlined above. Based on our experience with similar engagements, our professional fee to complete the Study is **\$130,000**.

The fee proposed does not include reimbursable expenses, for which you agree to remain responsible for their payment. Reimbursable expenses shall include, but not be limited to, travel, lodging, research data and administrative overhead expenses incurred by MRV Consulting on your behalf. Our fees are not contingent or dependent upon the results of our analyses or conclusions we may reach. Expenses associated with this engagement will be capped at 13 percent of our professional fee.

Ms. Dana L. Clevidence
Big Rivers Electric Cooperative
October 13, 2010
Page iii

Acceptance:

If the provisions of this proposal meet with your approval, we ask that you confirm your acceptance by signing below, returning a signed copy to us, and keeping this original proposal for your files. In addition, we typically receive a retainer equal to 25 percent of our proposed fee. Upon your approval of this engagement, we will submit to you an invoice for the retainer fee.

We certainly appreciate this opportunity to provide our services and are prepared to discuss this proposal further should you have any questions. Please feel free to contact me at (732) 780-6010 or through MRodriguez@MRValuation.com.

Respectfully submitted,



Mark Rodriguez, ASA MRICS
Managing Partner
MR Valuation Consulting, LLC

Engagement Acceptance:

The signature below indicates the Big River's acceptance of this proposal, including the Terms and Conditions included in Attachment E.

Print Name

Title

Signature

Date

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A: Proposed Work Plan



1. Meeting with Client

We will begin the engagement by having a kick off meeting with Big Rivers to establish specific objectives and expectations, gain an understanding of property and load records available from the Client.

2. Cost of Service

- a) We will develop an average embedded unbundled cost of service template that will allocate Big Rivers' fixed and variable costs among production, transmission, and other relevant capacity parameters.
- b) We will establish a cost of service based revenue requirement associated with each unbundled category expressed in relevant billing parameters.
- c) We will apportion Big Rivers functionalized revenue requirement to the rural and large industrial rate classes in accordance with cost of service principles. Such allocation shall be performed consistent with several proposed alternative allocation scenarios
- d) The impact of the special contract sales to the two large aluminum smelters served by the Kenergy system will be reflected. Costs and revenues associated with Big Rivers wholesale tariff riders will be taken into account including the way such riders revenue is recovered from its customers as well as the kind of functionalized costs such riders represent. Our cost of service / rate design analysis will include development of an Open Access Transmission Tariff in accordance with MISO guidelines and the appropriate allocation of all costs related to Big Rivers relationship with Midwest Independent System Operator ("MISO").

3. Rate Design

- a) While an embedded cost of service study provides a guide to the appropriate level of cost recovery from each customer class, deviation for good cause is permissible. Moreover, strict use of embedded costs to establish all tariff pricing will not necessarily communicate appropriate price signals to member systems so that they may incorporate such price signals in their own retail tariffs. We shall develop an overall rate design and tariff specific rate designs that will produce the targeted revenue requirement, reflect the cost of providing service to its wholesale customers, and provide appropriate price signals to member systems. Using the cost of service study as a guide plus current cost information (marginal cost considerations), develop a rate design that reflects cost of service, incorporates desirable price signals, and results in a stable and predictable revenue stream for Big Rivers. This shall be done in consultation with Big Rivers and its member systems.

- b) We will undertake a review of the unbundled wholesale rate components and their levels for their conformance with sound cost of service analysis and rate principles.
- c) We shall recommend a rate structure that reflects cost of service principles and equity. Among the issues that are relevant are whether peak demands for billing purposes should be based on coincident vs. non coincident peaks, the desirability of time of day and seasonal rate structures, real time pricing, including curtail able load credits, opportunity costs to Big Rivers associated with capacity and energy that could otherwise be sold at wholesale prices to other systems.
- d) Review and establish billing determinants, and based upon those billing determinants develop revenue from each member system and present and proposed wholesale rates, and other wholesale rates that maybe presented for consideration. If any specific recommendation appears attractive but would result in a disproportionate increase in rates to any member system means of addressing rate shock shall be presented.

4. Process

The input of Big Rivers management staff and member systems is essential to any assignment of this kind. As a result, we would plan an initial meeting before any major work gets underway to become aware of concerns, opinions, recommendations, and hands on experience of the client.

5. Deliverables

- a) Develop a cost of service spreadsheet analysis in Microsoft Excel format that conforms to accepted industry practice.
- b) Develop demand and energy allocators and direct assignment of costs as appropriate for reincorporation in the Excel cost of service analysis that reflects accepted cost causation principles. Include alternative allocations of demand and energy costs for consideration as appropriate.
- c) Determine the rate of return produced by existing rates by class. Ascertain what revenue changes would be needed by customer class to bring all customer classes to cost at the new rate levels.
- d) Recommend proposed revenue targets by class taking into account cost of service, rate continuity, and the avoidance of rate shock.
- e) Develop actual recommendations for rate changes taking into account cost of service, rate continuity, and the avoidance of rate shock.

- f) We want to take an investigation of propriety of time differentiating rates including seasonal rates, and time of day rates, and other rate design considerations to reflect appropriate price signals such as demand credits, or other pricing mechanisms to manage load as appropriate.
- g) Recommend rates for ancillary services, the most major being reactive power.
- h) Investigate and present to the extent possible an open access transmission tariff based upon Midwest ISO guidelines.
- i) As needed, we will attend discovery and / or settlement meetings with commission staff or other parties. We will provide an expert witness to defend the analysis and recommendations including rebuttal testimony, if necessary, and we would also provide support in review and analysis of opposition testimony if necessary.
- j) If necessary, we will provide any support in any post hearing briefing.

B: Proposed Project Team

Project Staffing

RAYMOND MAKUL, JD – DIRECTOR

Mr. Makul has over 35 years experience in all matters of public utility regulation, including utility cost of service and rate structures, regulatory policy and economics, energy production and use, economics of water and sewer systems, and telecommunications policy. He has extensive and broad-based knowledge of the regulatory process; economic, financial, and accounting principles and protocols underlying regulation; utility industry corporate objectives; and the internal workings of regulatory agencies and their staffs. He is a specialist on utility pricing structures and tariffs, and has been qualified as an expert witness in utility cost allocation, pricing and policy in multiple jurisdictions. He also has experience in day to day management of utility operations, supervising a staff of 30 wage employees, and the associated development of operating budgets and plans. He also served as Division Director of a government agency overseeing the utility industry. In that role, he set the goals, priorities and direction of a group consisting of over 20 professional employees and associated Staff, and numerous outside consultants and contractors. His educational background of engineering, business administration, and law affords insights into all critical aspects of utility operations and regulation and oversight of the industry. His recent experience includes advisory services in the following areas, for the following clients or client groups:

- Regulatory economic, engineering and accounting issues, for the Ministry of Energy and Natural Resources, Republic of Turkey;
- Regulatory economic, engineering and accounting issues, for the Ministry of Infrastructures, State of Israel;
- Regulatory legal, accounting, and environmental issues, for publicly-owned utilities, municipal/county governments, regulatory agencies, and consumer groups;
- Investment opportunities in the utility industry, for a major investment management group;
- Representation of municipal utility systems in procurement of bulk electricity and water service from investor owned utilities
- Advisor to a regional water supply commission in the negotiation of water interchange agreements with an investor owned utility.

Holder of a Bachelor's Degree in Electrical Engineering, a Master's Degree in Business Administration, and Doctorate in Law, Mr. Makul is a member of the New Jersey and District of Columbia Bars. He has 10 years experience in utility consumer advocacy at the New Jersey (USA) Division of Rate Counsel, including two years as Chief of Electric [Regulatory] Litigation and four years as Director of the Division. He subsequently served the Division for three years as Senior Litigation Advisor on complex matters of electric industry regulation, including rate proceedings, long-term power supply contracts, utility prudence reviews, and long-term utility contract reviews.

Mr. Makul has also served as a policy witness in utility regulatory proceedings dealing with other matters, including: (a) competitive safeguards in transitioning energy markets; (b)

development of incentive/disincentive utility pricing policies, and related accounting issues; (c) utility mergers and divestitures; (d) cogeneration policy and franchise rights; and (e) appropriate utility pricing policies and accounting and service standards. In 2005-06, Mr. Makul represented a coalition of New Jersey Municipal Sewage operators in the proposed PSE&G/Exelon merger case before the New Jersey Board of Public Utilities.

Outside of litigation, he has assisted industrial customers in the negotiation of utility service improvements, and local governments in the pricing of rights-of-way for electric transmission and distribution lines. Mr. Makul has, within the last two years, advised or represented over twenty (20) municipal or regional water departments, sewer departments and utility authorities, and several corporations on energy and utility matters, including water supply pricing issues. He has also assisted two entities seeking to start new utility operations in the State of New Jersey. He also assists a private energy consulting firm in its negotiations with utilities and review of energy supply arrangements, contracts and agreements. Mr. Makul also serves as a Director and regulatory/legal/management resource to R3 Energy of Tarrytown NY, a firm that provides energy consulting services to the private sector.

Partial List of Present/Past Clients:

- Wisconsin Citizens Utility Board
- Pennsylvania Office of Consumer Advocacy
- Delaware Public Advocate
- Colorado Office of Consumer Advocacy
- New Mexico Public Service Commission Staff
- Philadelphia Public Advocate/Community Legal Services
- Connecticut Resource Recovery Authority
- New Jersey Cable Television Association
- Hoffmann - La Roche Corp.
- US Sasol Chemical Company
- Merck Corporation
- JC Penney Corp.
- Newhouse Publishing
- Two separate Bulk Purchasers Group of twelve New Jersey municipal utilities and Municipal Utility Authorities (24 utilities total).
- Municipal Intervenor Group of seven New Jersey Franchising municipalities.
- Camden County, New Jersey
- Mount Laurel NJ Municipal Utilities Authority
- University of Chicago Law School Civil Litigation Clinic
- North Jersey District Water Supply Commission
- Bayway Refinery, Linden New Jersey (under multiple owners)
- New Jersey Division of Rate Counsel
- Utah Farm Bureau
- NJ Coalition for Fair Competition
- Deloitte & Touche, LLP

Education:

- Bachelor of Science, Electrical Engineering – New Jersey Institute of Technology 1968
- Master of Business Administration – Rutgers Graduate School of Management 1973
- Juris Doctor, Rutgers Newark School of Law 1976

Employment Record:

- Senior Advisor, Essential Industry – Restructuring Group, Deloitte & Touche LLP, 1999 - Present
- Independent Regulatory Attorney, 1990 - Present
- Director, Division of Rate Counsel – New Jersey Department of the Public Advocate, 1986 - 1989
- Independent Regulatory Consultant, 1986
- Senior Consultant and Partner, Woodside Associates – Stamford, Connecticut, 1983 - 1985
- Deputy Public Advocate, Division of Rate Counsel – New Jersey Department of the Public Advocate, 1976 - 1982
- Various engineering and operations positions – Exxon Corporation, 1968 - 1973

Experience Details:

R3 Energy, Tarrytown New York ***2008-present***

- Part owner. Provide regulatory/legal/management support to a firm that provides energy consulting services to public and private sector clients in the New York metropolitan area. .

Deloitte & Touche LLP (subcontractor) **1999 - 2002**

- Analysis and presentation of interrelated economic, engineering, legal, accounting and policy issues applicable to the restructure of the electric and natural gas industries within the Republic of Turkey, and electric industry within the State of Israel. Responsible for developing recommended protocols among the several industry sectors and between each sector and end users of electricity and natural gas in a competitively structured industry.

New Jersey Department of Public Advocate **1986 - 1989**

- Director of the Division of Rate Counsel. In that position, supervised, directed, and coordinated the efforts of a staff of 20 attorneys, 5 accounting/economics professionals, and numerous independent consultants. Responsible for all annual and project budgets. Agency mission was the review and investigation of all matters affecting the cost of regulated utility service in the State of New Jersey, and developing affirmative recommendations submitted to the New Jersey Board of Public Utilities. Managed an annual budget of \$4 million.

Independent Consultant and Attorney

1986, 1990 - 2010

- As an expert analyst on electric cost apportionment and retail pricing, routinely worked with systems of accounts and developed analytical formulae for the apportionment of joint electric natural gas, and water costs among customer groups and classifications. Developed criteria for the development of economic performance standards applicable to non-competitive facilities by benchmarking their performance against comparable facilities in the competitive market. Project leader on several complex analyses of the economic need for transmission facilities and other proposed electric infrastructure improvements. Advised an investment group on competitive opportunities created by the introduction of competition to the electric industry. On behalf of a trade organization, undertook an analysis and report of potential harmful cross subsidization of competitive lines of business by non-competitive lines of business within a restructured electric utility industry, and recommended remedies and alternative proposals for restructure. Assist large scale users of electricity and natural gas and water in achieving a reliable, practical and cost effective supply in a competitive market. Have assisted numerous New Jersey local water departments on matters involving purchase of bulk water for resale. Advisor to numerous municipal water systems regarding wholesale water purchase agreements and rates. Advisor to several large volume retail users regarding just and reasonable rates for service, and development of competitive options. Advisor to a large wholesale water supply authority on water interchange agreements with other large water supply purveyors.

Woodside Associates

1983 - 1985

- Routinely undertook electric cost apportionment analyses, involving the analyses of revenues, costs and investments as reported under uniform systems of accounts for the purpose of developing cost based prices for bundled and unbundled utility services, including full retail service, standby service, back-up and supplementary power. Undertook analyses of the electric reliability goals of a distribution utility, how those goals were set, and the cost-effectiveness of the utility's strategies and efforts to meet its goals. Undertook an analysis of a utility merger for economies and diseconomies, from the perspective of the energy-consuming public. In connection with the same proposed merger, performed a review of the proposed accounting treatment and reasonableness of business terms and payment provisions, including their rate-making implications.

Department of the Public Advocate, State of New Jersey

1976 - 1982

- Responsible for oversight of all investigations involving all matters impacting rates and conditions for the provision of all New Jersey regulated utility service. Initiated regulatory discussion, including specific proposals, on the opening of monopoly electric systems to third party independent sources of supply. Issues addressed included the economic and engineering issues associated with the allowance of private generation to operate synchronized and interconnected with public electric supply, including: proposed terms and conditions of the provision of standby and supplemental service, buy-back rates for excess energy and capacity, simultaneous buy all and sell all economic structures, and other related proposals.

Exxon Corporation

1968 - 1973

- As an electrical engineer, was responsible for the daily oversight of operation of numerous utility systems, including the electric system and water supply systems, at the largest petroleum refinery on the US East coast. Negotiated with the monopoly utility for necessary electric supply improvements, and for a large steam supply. Undertook engineering/economic analyses of the costs likely to be incurred/savings likely to be achieved associated with large-scale changes in the scope of operation at the refinery site. Responsibilities included the daily supervision and employee development of 30 wage employees, and the preparation of annual utility department budgets.
- Conducted an energy balance audit of the entire refinery. This five year assignment provided Mr. Makul his broad knowledge foundation of the engineering and technical operations of major utility systems.

Community Activities

Justice of the Peace, Andover Vermont

Amateur Radio Operator (FCC license K1XV), first licensed in 1962 at age of 14. Active in Emergency Services activities. License Class- Amateur Extra. President of two radio clubs.

MARK RODRIGUEZ, ASA, MRICS – MANAGING PARTNER

Mr. Rodriguez is the founder and managing partner of MRV Consulting, LLC.

Mark Rodriguez is a mechanical engineer, an Accredited Senior Appraiser with the American Society of Appraisers (“ASA”), and a Member of the Royal Institution of Chartered Surveyors (“MRICS”). Mr. Rodriguez has over 20 years of experience, including five years as a Senior Manager in the valuation group of Deloitte & Touche. His previous responsibilities included business development, marketing and project management of numerous electric utility, power, and high technology related valuation-consulting projects throughout North America, Latin America and Europe. Mr. Rodriguez also has a Masters Degree in Managerial Accounting.

Mark specializes in serving electricity, gas, and water utility related clients as well as domestic and international independent power producers.

He has supervised and performed a diversity of valuation, appraisal and consulting engagements, including the valuation of public utilities, independent power producers, complex manufacturing and industrial facilities, commercial buildings and residential apartments. His experience includes both domestic and international transactions. These valuation advisory assignments were performed for appraisals, market valuations, purchase price allocations, cost segregation studies, litigation support, project financing, transactional pricing for taxation and management reporting purposes, property tax, transfer tax, acquisitions, divestitures, insurance, due diligence, non-cash charitable contributions, and useful life analyses.

Specifically, these transactions included the valuation of tangible assets, intangible assets, and goodwill; purchase price allocations for tax and financial reporting including compliance with the Financial Accounting Standards Board Accounting Standards Codification 805 and Financial Accounting Standards Board Statements No. 141, 142, 143, and 144. Additionally, he has completed both domestic and international valuation and assignments to comply with International Financial Reporting Standards (“IFRS”) and International Valuation Standards (“IVS”). These transactions have commonly involved financial, economic, and statistical analysis to establish market values, cost segregation, and overall transactional structuring.

Mr. Rodriguez has analyzed a variety of electric generating facilities and public utility related assets including: base load power plants, capacity and peaking facilities, and transmission and distribution assets. In addition, he has analyzed both electric and gas transmission lines and distribution systems including gas regulating stations and electrical substations.

To date, Mark has completed valuation of over 440 power plants in over 130 separate transactions, totaling over 155,000 MW of total capacity valued. Mr. Rodriguez has supervised and performed numerous engagements involving the valuation of intangible assets including contracts, power purchase agreements, transitional agreements, mineral and fossil fuel rights, transmission constraint contracts, pollution credits, computer technology, trade names, trained and assembled workforce, leases, goodwill and going concern. Specializations include

MARK RODRIGUEZ, ASA, MRICS (continued)

discounted cash flow and direct capitalization models, statistical analyses including price forecasting, cost segregation studies and business entity and business interest valuations.

Deloitte & Touche, New York, NY

Senior Manager – Director of Energy & Utility Valuations

1995 to 1999

Mr. Rodriguez had five years experience as a Senior Manager in the valuation group of Deloitte & Touche located in New York City. He served as the developer and head of the Independent Power and Public Utilities Valuation Practice that included business development, marketing, and project management of numerous industrial, commercial, public utility and independent power related valuation-consulting projects throughout North America, Latin America, and Europe.

Mr. Rodriguez has performed valuation studies of facilities and equipment in the electric utility industry for a variety of purposes including management information, mergers and acquisitions, privatization, deregulation and corporate restructuring. These valuation studies have generally involved financial, economic and statistical analysis to establish fair market values, residual values and remaining useful lives. He has analyzed a variety of electric generating facilities ranging from large utility base load power plants to smaller independent power plants including coal, gas, hydroelectric, resource recovery, biomass, fossil fuel, black liquor, sludge/hazardous and biomass projects. Additional facility valuation assignments prepared by Mr. Rodriguez include electric transmission and distribution systems and natural gas networks.

Mechanical / Electrical Project Engineer

1990 to 1995

Mr. Rodriguez obtained over five years of progressively responsible engineering and construction management experience with specific expertise in industrial and commercial contracting. Mr. Rodriguez has served as a project engineer on the following capital projects:

- Sayreville Cogeneration Facility, 311MW natural gas fired combined cycle cogeneration facility in Sayreville, NJ
- Bellingham Cogeneration Facility, 311MW gas/oil fired combined cycle cogeneration facility in Bellingham, MA
- Northumberland County Prison, 1000 bed correctional facility built on a design/sale/leaseback program for PA Department of Corrections in Shamokin, PA
- Erie County Prison, 1000 bed correctional facility built on a design/sale/leaseback program for PA Department of Corrections in Albion, PA
- Allegheny County Jail, 1,800 cell efficient inner city high rise jail for the County of Allegheny in downtown, Pittsburgh, PA
- Lakewood Cogeneration Facility, 237 MW natural gas fired combined cycle cogeneration facility in Lakewood, NJ
- Mercer County Resource Recovery Facility, design and permitting for this future 52 MW facility in Trenton, NJ
- Onondaga Resource Recovery Facility, 40 MW facility in Syracuse, NY

MARK RODRIGUEZ, ASA, MRICS (continued)

Professional Affiliations:

- ASA, American Society of Appraisers - Accredited Senior Appraiser
 - Accredited Senior Appraiser with the American Society of Appraisers
 - ASA Designation in Machinery & Technical Specialties
 - Member of American Society of Appraisers – North Jersey Chapter #73
 - ASA Northern New Jersey Chapter, President, 2004/2005
 - ASA Northern New Jersey Chapter, Vice President, 2003/2004
 - ASA Northern New Jersey Chapter, Chapter Secretary, 2002/2003
- MRICS, The Royal Institution of Chartered Surveyors – Member
- Appraisal Issues Task Force (AITF) – Member
- The American Society of Mechanical Engineers (ASME) – Member
 - Member #: 2008068; Since 1989
- Society of Depreciation Professionals (SDP) – Member

Education:

- Master of Science in Managerial Accounting – New Jersey Institute of Technology 1998
- Bachelor of Science in Mechanical Engineering – NJIT 1990
- ASA – American Society of Appraisers
 - ME204: Machinery and Equipment Valuation – Advanced Topics and Report Writing
 - ME203: Machinery and Equipment Valuation – Advanced Topics and Case Studies
 - ME202: Machinery and Equipment Valuation Methodology
 - ME201: Introduction to Machinery and Equipment Valuation
 - Appraisal Institute: I410 – Uniform Standards of Professional Practice (USPAP)
- Real Estate Certificate Program – Monmouth University 2007
 - REC405: Regulation and Real Estate Development Process
 - REC404: Lease Negotiations and Analysis
 - REC402: Real Estate Appraisal, Valuation and Income Analysis
 - REC401: Real Estate Law
 - Real Estate Finance, Investment and Taxation

MARK RODRIGUEZ, ASA, MRICS (continued)

Speaking Engagements:

- Power & Electricity World Latin America 2009 – Pre-Conference Workshop Topic “*Creating and Measuring Value - Power Plant Development*,” Miami, Florida US
- Power & Electricity World Latin America 2009 – Panel Topic “*Latin Power Generators’ Point of View*,” Miami, Florida US
- Corpbanca IFRS Seminar 2008 – Presentation Topic “*IFRS Implementation and the Affect on Fair Value*,” Santiago Chile
- FCG Annual Fall Conference 2007 – Presentation Topic “*Cost Segregation: A Service that Pays for Itself*,” Chicago, Illinois US
- International Association of Assessing Officers 72nd Annual International Conference 2006 – Presentation Topic “*Recognizing & Separating Real Property, Personal Property, and Intangible Values in Common Indications of Value*,” Milwaukee, Wisconsin. US
- Workshop Leader for the 5th Annual Electric Asset Valuation Conference 2003 – Presentation Topic “*Getting the Most for Your Appraisal Dollar – Valuation Techniques, Theories and Practices*,” Houston, Texas. US
- Numerous presentations at seminars and conferences regarding financial advisory services, business valuations, and cost segregation studies

Testimonial Experience (Expert Witness):

Mr. Rodriguez has prepared appraisals for over 25 litigation cases. In addition to the following trials and hearings, Mr. Rodriguez has presented his appraisals in several arbitrations and at several property tax appeal boards.

- State of Michigan Tax Tribunal – Testified as an expert witness in 2010 regarding the valuation and appraisal of personal property owned by Ford Motor Company
- Ogle County Board of Review, Illinois – Testified as an expert witness in 2007 regarding the valuation and appraisal of the Exelon Byron Nuclear Power Station
- Will County Board of Review, Illinois – Testified as an expert witness in 2006 regarding the valuation and appraisal of the Exelon Braidwood Nuclear Power Station
- Massachusetts Tax Appellate Court, Boston – Testified as an expert witness in 2006 regarding the valuation and appraisal of utility property owned by MCI World Com, Inc.
- Supreme Court of the State of New York, County of Westchester – Testified in the 2006 divorce case, Scharfman v. Scharfman, as an expert witness regarding the value of tax benefits derived from cost segregation of residential property assets
- Supreme Court of the State of New York, County of Saratoga – Testified as an expert witness in a 2003 trial regarding the valuation and appraisal of electric transmission assets owned by Niagara Mohawk
- Supreme Court of the State of New York, County of Saratoga – Testified as an expert witness in 2003 regarding the valuation and appraisal of the Spier Falls, Feeder Dam, and Sherman Island Hydroelectric Facilities

MARK RODRIGUEZ, ASA, MRICS (continued)

- Supreme Court of the State of New York, County of Onondaga, Fifth Judicial District – Testified as an expert witness regarding the valuation and appraisal of utility property owned by Niagara Mohawk
- Supreme Court of the State of New York, County of Fulton – Testified as an expert witness in 2002 regarding the valuation and appraisal of the Ephratah Hydroelectric Facility

Valuations Prepared for Litigation:

- State of Pennsylvania, Beaver County – The valuation and appraisal of the Bruce Mansfield Coal and the Beaver Valley Nuclear Plants for the Southside School District (Settled Prior to Court)
- State of Massachusetts, Franklin County – Prepared appraisal report for litigation support regarding the Northfield Mountain Hydroelectric Facility for the Town of Erving and Town of Northfield, MA (Settled)
- State of New York Supreme Court, County of Westchester – The valuation and appraisal of utility property owned by Consolidated Edison (Settled Prior to Court)

Municipalization / Privatization Projects

- PSEG Americas Inc. – Acquisition of hydroelectric and transmission assets in Peru. Assets included:
 - Yaupi – 108 MW Hydroelectric Facility located in Peru
 - Malpaso – 54 MW Hydroelectric Facility located in Peru
 - Pachachaca – 12 MW Hydroelectric Facility located in Peru
 - La Oroya – 9 MW Hydroelectric Facility located in Peru
 - Transmission Lines – 460 Miles of Single and Double Circuit Transmission Lines in Peru
 - Substations – 21 Medium-Voltage Level Substations in Peru
- Duke Energy, Acquisition of Oil-Fired Generating Assets in El Salvador. – Acquisition includes the Acajutla (220 MW); Soyapango (92 MW); and San Miguel (82 MW)
- Duke Energy – Acquisition of 2,237 MW, constituted of eight hydroelectric facilities along the Paranapema River in Brazil
- Sempra Energy and PSEG Americas Inc. – Acquisition of Energas S.A., a natural gas distribution company in central Chile, a controlling interest in Luz Del Sur, S.A., the second largest electricity distributor in Peru; and 32 percent of Central Puerto, S.A., the largest thermal electricity generator in Argentina, 2,100 MW
- The AES Corporation – Fair market valuation of tangible assets, purchase price allocation and estimation of “suggested” remaining useful lives for US GAAP reporting purposes for AES’s acquisition of Empresa de Generacion Bayano, S.A. (Bayano) and Empresa de Generacion Chiriqui, S.A. (Chiriqui). Bayano is comprised of a 150 MW hydro power generation facility and a 42 MW thermal plant, both located near Panamá

MARK RODRIGUEZ, ASA, MRICS (continued)

- City, Panamá. Chiriqui is comprised of two run-of-the-river power generation facilities, with a combined capacity of 90 MW, located in the western part of Panamá.
- Reliant Energy (Formerly Houston Industries) – Fair market valuation of tangible assets and estimation of “suggested” remaining useful lives for US GAAP reporting purposes for HIE’s acquisition of Compania de Alumbrado Electrico de San Salvador, S.A. (CAESS), Empresa Eléctrica de Oriente, S.A. (EEO) and Distribuidora Eléctrica de Usulután, Sociedad de Economía Mixta (DEUSEM). CAESS, EEO and DEUSEM own and operate electricity distribution networks that provide electricity to approximately 530,000 customers throughout El Salvador.
- Confidential Investor – Fair market valuation, Rail Marshalling Yard, Antwerp, Belgium
- Convergence Communications, Inc. – Fair market valuation of tangible and intangible assets, purchase price allocation and estimation of “suggested” remaining useful lives for US GAAP reporting purposes for CCI’s acquisition of Interamerican Net de Venezuela, S.A. (Interanet). Interanet is an Internet service provider located in Maracaibo, Ciudad Ojeda and Puerto La Cruz, Venezuela.
- Convergence Communications, Inc. – Fair market valuation of tangible and intangible assets, purchase price allocation and estimation of “suggested” remaining useful lives for US GAAP reporting purposes for CCI’s acquisition of Cablevisa, S.A. (Cablevisa) and Multicable, S.A. (Multicable). Cablevisa and Multicable provide multi-channel subscription television services in and around San Salvador, El Salvador.
- Confidential Investor – Fair market valuation, Rail Marshalling Yard, Klagenfurt, Austria
- Confidential Investor – Fair market valuation, OBB Rail Marshalling Yard, Vienna, Austria
- Confidential Investor – Fair market valuation, Dallas DART Bus Facilities, Dallas, TX
- Confidential Investor – Fair market valuation, Chicago Transit Authority, Various Rail and Bus Facilities, Chicago, IL
- Confidential Investor – Fair market valuation, Miami Metro Dade Bus Facilities, Miami, FL
- Confidential Investor – Fair market valuation, Bi-State Development Bus Facilities, St. Louis, MO
- Confidential Investor – Fair market valuation, Tri-Metro, Various Rail and Bus Facilities, Portland, OR
- Confidential Investor – Fair market valuation, New Jersey Transit, Various Rail and Bus Facilities, Newark, NJ
- Confidential Investor – Fair market valuation, RTD Denver, Various Bus Facilities, Denver, CO

PETER HOFFMAN – MANAGING DIRECTOR

Mr. Hoffman's career spans 39 years with Deloitte & Touche and its predecessors. He was a partner for 27 years. He was responsible for the Utility practice in the Tri-state region and was the lead partner on engagements for the Illinois Commerce Commission and The Republic of Turkey. In the former assignment, he determined market energy prices in Illinois in 1998 and 2000 and in the later, his team rewrote the Energy Law for Gas and Electricity. After retiring from Deloitte, he did significant work for the State of Israel in determining a model to be considered in going forward in restructuring the electric industry. In the Turkey and Israel projects, Mr. Hoffman worked with Mr. Makul who is part of our team for the project.

Mr. Hoffman had final responsibility for the Deloitte insurance claims in 1993 (WTC bombing) and 2001-2002 (September 11th disaster), settling the latter claim for over \$100,000,000. During his last twelve years with Deloitte, 15-20 percent of the operations of the Tri-State Region (Metropolitan New York, New Jersey and Connecticut) reported to him and he was the primary developer of new businesses for the Firm. Between 1975 and 1987, Mr. Hoffman was responsible for the Real Estate Practice in the Northeastern Region of the Firm and a member of the Firm's Real Estate Industry Management Committee. Through 1985, he was an Audit Partner responsible for public company audits, audits of governmental entities and various large-scale consulting services to clients.

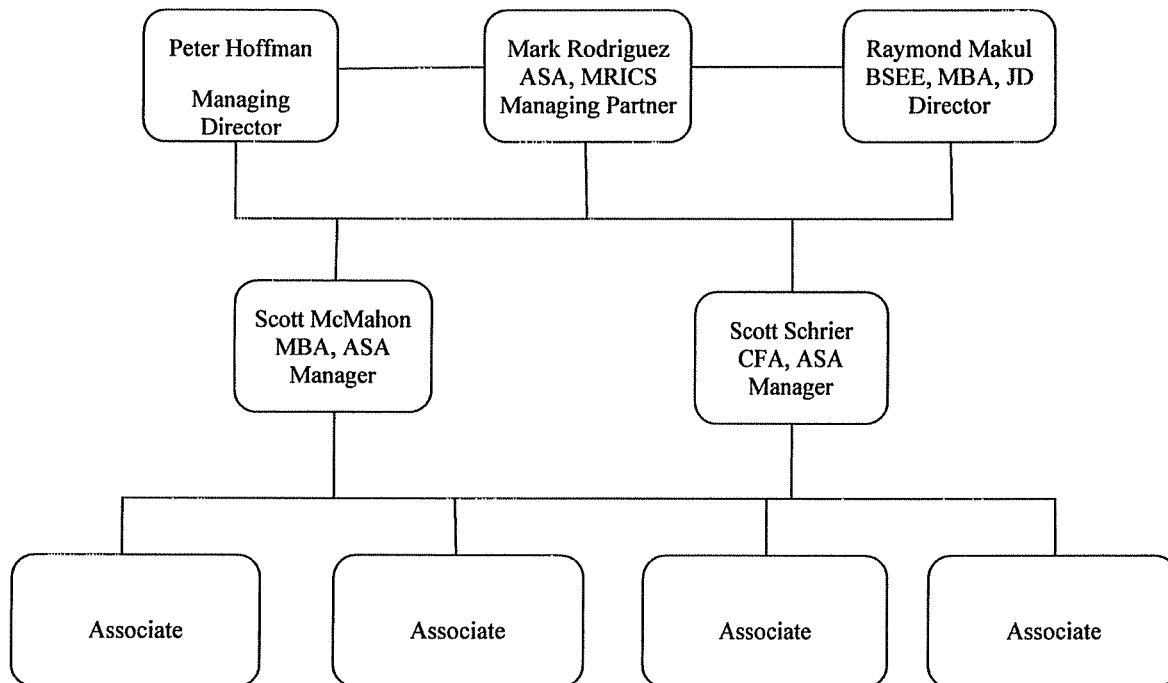
SCOTT MCMAHON, MBA, ASA – MANAGER

Scott McMahon will be the Project Manager for this engagement responsible for the day-to-day project management and coordination. Mr. McMahon is a manager and leads the business valuation group of MRV Consulting. He has significant experience conducting valuations of utilities, businesses, business interests, closely held stock, and large industrial facilities with a particular expertise valuing all types of transmission and distribution, solar, renewable, electric, and gas generation projects. He has an MBA in finance and is an Accredited Senior Appraiser with the American Society of Appraisers in the discipline of Business Valuation.

SCOTT SCHRIER, CFA, ASA – MANAGER

Scott Schrier is a Project Manager responsible for the day-to-day project management and coordination. Mr. Schrier is a manager within the business valuation and machinery & equipment groups of MRV Consulting. Mr. Schrier holds a bachelor of science in electrical and computer engineering, and is an Accredited Senior Appraiser with the American Society of Appraisers in the discipline of Machinery & Technical Specialties. Mr. Schrier is currently pursuing a dual designation in Business Valuation and is a CFA Charter Holder. Mr. Schrier values tangible and intangible assets, businesses, and business interests.

Organizational Chart



C: Proposed Project Schedule and Timeline

Big Rivers Electric Corporation
Wholesale Cost of Service & Rate Design Study
October 13, 2010

Project Schedule

We are prepared to begin this engagement immediately, upon your acceptance of the terms of this letter, our receipt of a signed engagement letter and payment of a retainer.

Assuming a start date of October 20, 2010, we can provide the final report on or before February 11, 2011. This schedule is contingent upon the timely receipt of all reasonably required data in an agreed upon format, as well as the availability of facility management and local personnel on an as needed basis. **If this schedule does not meet your needs, please contact us immediately.**

Big Rivers Electric Corporation
 Wholesale Cost of Service & Rate Design Study
 October 13, 2010

PROPOSED WORKPLAN SCHEDULE AND TIMELINE FOR BIG RIVERS COST OF SERVICE AND RATE DESIGN STUDY

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	30-Oct	1-Oct	8-Nov	16-Nov	24-Nov	1-Dec	8-Dec	15-Dec	22-Dec	29-Dec	5-Jan	12-Jan	19-Jan	26-Jan	2-Feb	9-Feb	16-Feb	23-Feb	1-Mar	8-Mar	15-Mar	22-Mar	29-Mar
Activity																							
Meet with client to ascertain client objective and concerns																							
Ascertain availability of relevant property records and load research data to ascertain costs to be allocated and development of cost allocators																							
Prioritize specific data requests of client and perform initial analysis of data received																							
Report back to client on results of initial analysis. Receive and incorporate client feedback																							
Communicate with accounting witnesses who is developing actual system revenue requirement for the rate case																							
Developing cost of service excel spreadsheet model																							
Developing allocators for use in the model based upon load data received and analyzed																							
Using the excel model, determine the impact of alternative allocators in "what if" trials																							
Report back to client and receive feedback and incorporate such feedback																							
Develop rate design																							
File draft report with client and obtain feedback																							
Finalize report updating accounting numbers as may exist at that point in time																							
Provide further updates as appropriate and needed																							
Provide an expert witness who will be available for discovery conferences, or other meetings as necessary																							
Respond to written discovery as needed																							
Provide client with assistance as needed in evaluating and addressing testimony as of other parties																							
Assistance in settlement negotiations and case bidding																							
Milestone Dates																							
Develop Rate Design (1/10/2011)																							
Draft Report (2/1/2011)																							
Final Report (2/11/2010)																							

D: References

Big Rivers Electric Corporation
 Wholesale Cost of Service & Rate Design Study
 October 13, 2010

Client Name, Address & Contact Person
Pam Carolan, PE Executive Director Mount Laurel Municipal Utilities Authority 1201 South Church St Mount Laurel NJ 08054
Colleen DeStefano Deputy Executive Director North Jersey District Water Supply Commission 1 Orechio Drive Wanaque, NJ 07465
William Dunn Executive Director Mount Holly Municipal Utilities Authority PO Box 486 37 Washington Street Mount Holly, NJ 08060
Mr. Laurence M. Brook Unitil Corporation Controller and Chief Accounting Officer 6 Liberty Lane West, Hampton, NH 03842 (603) 773-6510
David Hillery Niagara Mohawk Power Corporation Manager 300 Erie Boulevard West, Syracuse, NY 13202 (315) 428-5222
George Chan TransCanada Power, LTD Director, Corporate Taxation 450 1 st Street S.W. Calgary, Alberta Canada T2P5H1 (403) 920-2824
Joshua Whit, Esquire Whitt Law 70 South Constitution Drive Aurora, IL 60506-7335 (630) 897-8875

E: Proposed Compensation

Professional Fees and Expenses

The professional fees are based on the estimated time required to complete the service and on the level of expertise required. We will bill the Client based on the time spent plus expenses. MRV Consulting will submit monthly invoices or invoices at the completion of each phase for professional fees and expenses, completed to date. Expenses shall include, but are not limited to, travel, research data, express mail, data collection charges and the report processing expenses incurred by MRV Consulting. Major report processing charges include activities requiring the out-sourcing of copying and binding, such as special format copying, report copying, binding, and shipping. The professional fee and expenses for this engagement is presented below:

Project Cost Summary

Professional Fee	\$	130,000
<u>Expenses (Capped)</u>		<u>16,900</u>
Total Fee and Expenses	US \$	146,900 (Not To Exceed – Fee Cap)

MRV Consulting requires a retainer equivalent to 25 percent of the engagement fee before work may proceed. MRV Consulting will provide the Client with monthly invoices and will require immediate payment of all invoices. In addition, we can perform expert witness testimony and depositions as well as other consulting services related to the study at the rates listed below.

Hourly Billing Rate Schedule

<u>Name</u>	<u>Title</u>	<u>Discounted Hourly Billing Rate</u>
Mark Rodriguez	Managing Partner	\$ 400.00
Peter Hoffman	Managing Director	\$ 400.00
Ray Makul	Director	\$ 375.00
Scott McMahon	Manager	\$ 250.00
Scott Schrier	Manager	\$ 250.00
Associate	Associate	\$ 200.00
Ninive Gomes	Administrator	\$ 80.00

F: Conflicts of Interest

Big Rivers Electric Corporation
Wholesale Cost of Service & Rate Design Study
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MRV Consulting currently has no conflicts of interest with Big Rivers Electric Corporation regarding the requested depreciation study. There are NO situations or circumstances which would create a biased environment.

Our professional fees are NOT based on or in any way associated with the outcome of this study.

**Attachment A: Certification Regarding
Debarment (Form 1048)**

U.S. DEPARTMENT OF AGRICULTURE

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY
AND VOLUNTARY EXCLUSION - LOWER TIER COVERED TRANSACTIONS**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR Part 3017, Section 3017.510, Participants' responsibilities. The regulations were published as Part IV of the January 30, 1989, Federal Register (pages 4722-4733). Copies of the regulations may be obtained by contacting the Department of Agriculture agency with which this transaction originated.

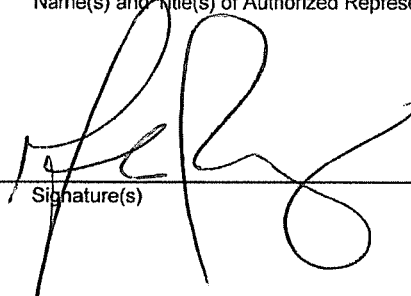
(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

MR Valuation Consulting, LLC
Organization Name

BIG-002
PR/Award Number or Project Name

Mark Rodriguez - Managing Member
Name(s) and Title(s) of Authorized Representative(s)



Signature(s)

October 13, 2010
Date

Form AD-1048 (1/92)

Instructions for Certification

1. By signing and submitting this form, the prospective lower tier participant is providing the certification set out on the reverse side in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transactions," "debarred," "suspended," "ineligible," "lower tier covered transactions," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Big Rivers Electric Corporation
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Attachment B: Equal Opportunity
Addendum

Big Rivers Electric Corporation

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB Control Number. The OMB Control Number for this information collection is 0572-0059. The time required to complete this information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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**EQUAL OPPORTUNITY ADDENDUM
To Be Inserted in Construction Contracts and
Subcontracts, and Materials Contracts and Purchase Orders**

PART I

The Contractor represents that:

It has does not have , 100 or more employees, and if it has, that

It has has not furnished the Equal Employment Opportunity -- Employers Information Report EEO-I, Standard Form 100, required of employers with 100 or more employees pursuant to Executive Order 11246 and Title VII of the Civil Rights Act of 1964.

The Contractor agrees that it will obtain, prior to the award of any subcontract for more than \$10,000 hereunder to a subcontractor with 100 or more employees, a statement, signed by the proposed subcontractor, that the proposed subcontractor has filed a current report on Standard Form 100.

The Contractor agrees that if -it has 100 or more employees and has not submitted a report on Standard Form 100 for the current reporting year and that if this contract will amount to more than \$10,000, the Contractor will file such report, as required by law, and notify the Owner in writing of such filing prior to the Owner's acceptance of this Proposal.

PART II

CERTIFICATION OF NONSEGREGATED FACILITIES

The Contractor certifies that it does not maintain or provide for its employees any segregated facilities at any of its -establishments, and that it does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest-rooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The Contractor agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that it will retain such certifications in its files.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

PART III

EQUAL OPPORTUNITY CLAUSE

During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race,

Big Rivers Electric Corporation
Wholesale Cost of Service & Rate Design Study
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color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(3) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.

(5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965- and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

(6) In the event of the Contractor's noncompliance with- the nondiscrimination clauses of this contract or with any of the said rules regulations or orders, this contract may be canceled, terminated or suspended in whole- or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11,246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in the said Executive Order or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.

(7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The term "Contractor" shall also mean "Bidder" or " Seller" in case of materials and equipment contracts and purchase orders. and "Subcontractor" in the case of subcontracts.

The provisions of this addendum are not applicable to any contract or subcontract not exceeding \$10,000.

This addendum supersedes the similar representations and provisions which may be contained in the contract form to which this addendum is attached. The Contractor may disregard the superseded representations and provisions.

MR Valuation Consulting, LLC
CONTRACTOR
By Mark Rodriguez
Managing Member
TITLE
October 13, 2010
DATE

Big Rivers Electric Corporation
Wholesale Cost of Service & Rate Design Study
October 13, 2010

Attachment C: Form Regarding Lobbying

UNITED STATES DEPARTMENT OF AGRICULTURE

NOTICE TO APPLICANTS - CERTIFICATION/DISCLOSURE REQUIREMENTS RELATED TO LOBBYING

Section 319 of Public Law 101-121 (31 U.S.C.), signed into law on October 23, 1989, imposes new prohibitions and requirements for disclosure and certification related to lobbying on recipients of Federal contracts, grants, cooperative agreements, and loans. Certain provisions of the law also apply to Federal commitments for loan guarantees and insurance; however, it provides exemptions for Indian tribes and tribal organizations.

Effective December 23, 1989, current and prospective recipients (and their subtier contractors and/or subgrantees) will be prohibited from using Federal funds, other than profits from a Federal contract, for lobbying Congress or any Federal agency in connection with the award of a particular contract, grant, cooperative agreement or loan. In addition, for each award action in excess of \$100,000 (or \$150,000 for loans) on or after December 23, 1989, the law requires recipients and their subtier contractors and/or subgrantees to: (1) certify that they have neither used nor will use any appropriated funds for payment to lobbyists; (2) disclose the name, address, payment details, and purpose of any agreements with lobbyists whom recipients or their subtier contractors or subgrantees will pay with profits or **nonappropriated** funds on or after December 23, 1989; and (3) file quarterly updates about the use of lobbyists if materials changes occur in their use. The law establishes civil penalties for noncompliance.

If you are a current recipient of funding or have an application, proposal, or bid pending as of December 23, 1989, the law will have the following immediate consequences for you:

- You are prohibited from using appropriated funds (other than profits from Federal contracts) on or after December 23, 1989, for lobbying Congress or any Federal agency in connection with a particular contract, grant, cooperative agreement, or loan;
- you are required to execute the attached certification at the time of submission of an application or before any action in excess of \$100,000 is awarded; and
- you will be required to complete the lobbying disclosure form if the disclosure requirements apply to you.

Regulations implementing Section 319 of Public Law 101-121 have been published as an Interim Final Rule by the Office of Management and Budget as Part III of the February 26, 1990, **Federal Register** (pages 6736-6746).

UNITED STATES DEPARTMENT OF AGRICULTURE

**CERTIFICATION REGARDING LOBBYING - CONTRACTS, GRANTS, LOANS
AND COOPERATIVE AGREEMENTS**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement;

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this

Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions;

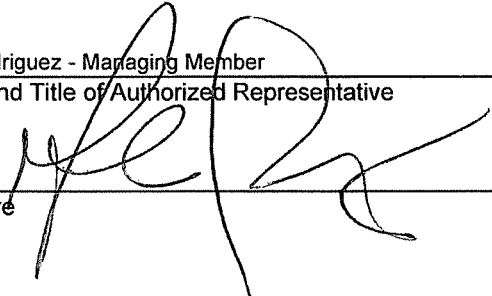
(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

MR Valuation Consulting, LLC
Organization Name

BIG-002
Award Number or Project Name

Mark Rodriguez - Managing Member
Name and Title of Authorized Representative


Signature

October 13, 2010

Date

Big Rivers Electric Corporation
Wholesale Cost of Service & Rate Design Study
October 13, 2010

**Attachment D: New Jersey Minority
Business Enterprise Certificate**

Big Rivers Electric Corporation
Wholesale Cost of Service & Rate Design Study
October 13, 2010

CHRIS CHRISTIE
Governor

KIM GAUDAGNO
Lt. Governor



ANDREW P. SIDAMON-ERISTOFF
Acting State Treasurer

State of New Jersey

DEPARTMENT OF THE TREASURY
DIVISION OF MINORITY AND WOMEN BUSINESS DEVELOPMENT
P.O. BOX 026
TRENTON, NJ 08625-034
PHONE: 609-292-2146 FAX: 609-292-8764

CERTIFIED

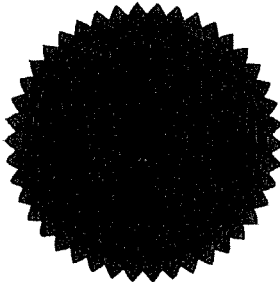
under the

Small Business Set-Aside Act and Minority and Women Certification Program

This certificate acknowledges **MR VALUATION CONSULTING LLC** is a MBE owned and controlled company, which has met the criteria established by N.J.A.C. 17:46.

This certification will remain in effect for three years. Annually the business must submit, not more than 20 days prior to the anniversary of the certification approval, an annual verification statement in which it shall attest that there is no change in the ownership, control or any other factor of the business affecting eligibility for certification as a minority or women-owned business.

If the business fails to submit the annual verification statement by the anniversary date, the certification will lapse and the business will be removed from the SAVI that lists certified minority and women-owned business. If the business seeks to be certified again, it will have to reapply and pay the \$100 application fee. In this case, a new application must be submitted prior the expiration date of this certification.




Francis E. Blanco
Director

Certificate Number: 51672-22

Issued: February 4 2010

Expiration: February 3, 2013

**Attachment E: New Vendor / Vendor
Information Change Forms**

New Vendor/Vendor Information Change Form

All fields highlighted in GRAY indicate areas where information is REQUIRED.

1. Vendor Information

Vendor Name – Please enter company name. This field is limited to 35 characters.

MR VALUATION CONSULTING, LLC

A) Corporate Headquarters:

Street: 5 Professional Circle # 208 35 Characters or less
 Town or City: Colts Neck 35 Characters or less
 Zip/Postal Code: 07722
 State/Prov.: New Jersey
 Country: USA
 Telephone: 732-780-6000
 Facsimile: 732-780-6020
 Email address: MRodriguez@MRValuation.com
 Website: www.MRVALUATION.COM

B) Ordering Address (where to send purchase orders)

Street: 5 Professional Circle # 208 35 Characters or less
 Town or City: Colts Neck 35 Characters or less
 Zip/Postal Code: 07722
 State/Prov.: New Jersey
 Country: USA
 Telephone: 732-780-6000
 Email address: 732-780-6020
 Sales Contact: Mark Rodriguez 732-780-6010

C) Remit-To Address (where to send invoice payments)

Street: 5 Professional Circle # 208 35 Characters or less
 Town or City: Colts Neck 35 Characters or less
 Zip/Postal Code: 07722
 State/Prov.: New Jersey
 Country: USA
 Accounts Receivable Contact : Ninive Gomes
 Telephone: 732-780-6002

DUNS Numbering									
1	0	3	1	1	7	8	2	1	

(Data Universal Numbering System)

Apply for a D-U-N-S Number, the industry standard for business listings

Do you accept Credit Cards? Yes _____ No X

Definitions:

Corporate Headquarters – Most active office for your company that does business with Big Rivers Electric Corporation (BREC).
Ordering Address – Location(s) to which you wish BREC to SEND purchase orders. Use attachments as necessary.
Remit-to Address – Location to which you wish BREC to SEND invoice payments. Please attach copy of invoice for reference.

D) Payment Terms (If different then Net 30)

Big Rivers Electric Corporation

Wholesale Cost of Service & Rate Design Study

E) Supplier Type (Select one of the following)

October 13, 2010

- Attorney/Legal Services
- Charity/Contribution
- Coal/Natural Gas
- Contractor (Services Only)
- Professional Fees/Dues
- Retailer (Materials only)
- Other

Specify Products and Services _____

If you are a United States-based company, are you qualified as a Small Business concern? No Yes

Is your Company union affiliated? No Yes If Yes, which union affiliated organization _____

Is your business one of the following (If yes, please include copy of certification) Check all the applicable categories:

MBE Yes No

WBE Yes No

Small Disadvantaged Business (SDB)? Yes No

Veteran Yes No

Service Disabled Veteran Yes No

Hub Zone Yes No

Under 15 U.S.C. 645(d), any person who misrepresents its size status shall (1) be punished by a fine, imprisonment, or both; (2) be subject to administrative remedies; and (3) be ineligible for participation in programs conducted under the authority of the Small Business Act.

Signature of person providing information

Managing Member

Title

October 13, 2010

Date

Indicate the following special classifications:

Standard Industry Code (SIC Code): 8748, 7389

North American Industry Code Standard (NAICS Code): 541990, 541690, 541618, 531320

European Classification Code (eClass Code): _____

F) Contact Information

Who can we contact if we have questions concerning your qualifications and/or this submission?

Name: Mark Rodriguez

Telephone: 732-780-6010

E-mail: MRodriguez@MRValuation.com

Who can we contact "AFTER HOURS" for EMERGENCY SERVICE requirements?

Name: Scott Schrier

Telephone: Manager

E-mail: SSchrier@MRValuation.com

The following section is to be completed by BREC personnel only.

Date of Input:

Input By:

Date of Certification:

Type of Certification:

GSA

PSA

Qualified

Is this Vendor Request for One Time use only? * Yes _____ No _____ *If yes, this vendor will have a future inactive date inserted at time of creation based on the Payment Terms.

G) If you are a Foreign-based company, indicate your TAX/VAT Registration: _____

H) If you are a United States-based company, complete Form W-9 as indicated. We are required by law to obtain a tax identification number when making a reportable payment to you. Failure to provide this information could result in a tax withholding of 31% and you may be subject to a \$50 penalty imposed by the I.R.S. In completing Form W-9, be sure that you CHECK APPROPRIATE BOX FOR CORPORATION/SOLE PROPRIETORSHIP / PARTNERSHIP OR OTHER. If individual or sole proprietorship, please list individual's name (please print) and Social Security Number. Make sure that YOUR TAX ID NUMBER IS 9 DIGITS.

The Business Name listed here will appear on purchase orders and checks.

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Form **W-9**
 (Rev. October 2007)
 Department of the Treasury
 Internal Revenue Service

**Request for Taxpayer
 Identification Number and Certification**

Give form to the
 requester. Do not
 send to the IRS.

Print or type
 See Specific Instructions on page 2.

Name (as shown on your income tax return)
MR Valuation Consulting, LLC

Business name, if different from above

Check appropriate box: Individual/Sole proprietor Corporation Partnership
 Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ Exempt payee
 Other (see instructions) ▶

Address (number, street, and apt. or suite no.)
5 Professional Circle Suite 208

City, state, and ZIP code
Colts Neck, NJ 07722

Requester's name and address (optional)

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
or
Employer identification number
22 3702437

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2, above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here Signature of U.S. person ▶  Date ▶ 05/07/2009

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

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Attachment F: General Services Agreement

**Big Rivers Electric Corporation
GENERAL SERVICES AGREEMENT**

This General Services Agreement (this "General Services Agreement") is made this 13 day of October, 2010 by and between Big Rivers Electric Corporation ("Company") and MR Valuation Consulting, LLC ("Contractor"), a New Jersey Limited Liability Company (list state of entity's organization and entity type, such as "Kentucky corporation" or "Kentucky limited liability company", etc.).

WHEREAS, Contractor desires the opportunity to provide goods and/or services to Big Rivers Electric Corporation from time to time, and Big Rivers Electric Corporation desire the opportunity to engage Contractor to provide such goods and/or services; and

WHEREAS, the parties intend that this General Services Agreement sets forth the exclusive set of terms and conditions which shall govern the performance of the "Work" (as defined below) by Contractor for the Company should the Company engage Contractor to provide Work.

NOW THEREFORE, in consideration of the premises, the mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties do agree as follows:

ARTICLE 1 DEFINITIONS

- 1.01 **Agreement:** "Agreement" shall mean this General Services Agreement, along with any "Specifications, (as defined below) and/or Purchase Order (as defined below) issued by Company and/or ", etc any other documentation as may be executed by the parties in accordance with Article 2, and/or other agreed collateral document pursuant to which the Work is to be performed.
- 1.02 **Applicable Laws:** "Applicable Laws" shall mean any and all applicable federal, state, or local laws, regulations, codes, ordinances, administrative rules, court orders, permits or executive orders.
- 1.03 **Contract Price:** "Contract Price" shall mean the aggregate of the particular consideration set forth in one or more Purchase Orders or other Statements of Work or as otherwise agreed upon. Unless otherwise agreed in writing, the Contract Price includes all applicable taxes, duties, fees, and assessments of any nature, including without limitation all sales and use taxes, due to any governmental authority with respect to the Work.
- 1.04 **Contractor:** "Contractor" shall mean the entity designated as the "Contractor" in the opening paragraph of this Agreement.
- 1.05 **Company:** "Company" shall mean Big Rivers Electric Corporation
- 1.06 **Purchase Order:** Company may, at its discretion, issue its own "Purchase Order Standard Terms and Conditions" (collectively referred to as a "Purchase Order") that may supplement, but in no way or manner ever supersede, this Agreement with respect to any conflicting terms and conditions.
- 1.07 **Specifications:** "Specifications" shall mean any specifications, instructions, drawings, schedules, a Purchase Order, contracts, scopes of work, and/or statements of work.
- 1.08 **Work:** "Work" shall include those services and/or goods set forth in this Agreement.
- 1.09 **Tools and Equipment:** "Tools and Equipment" shall mean any tools, equipment, rigging and other general supplies on the Company's premises where the Work is being performed that is either owned and/or leased by Company or by any of its Affiliates.

ARTICLE 2 SCOPE; BINDING EFFECT

[Revised 12/18/2008 bnh]

1

Unless otherwise agreed in a writing executed by each of the parties which evidences a clear intention to supersede this Agreement, the parties intend that this Agreement apply to all transactions which may occur between the Company on one hand and Contractor on the other hand during the term of this Agreement and which are related to the provision of goods and/or services by Contractor for the benefit of the Company. Neither the Company makes any commitment to Contractor as to the exclusiveness of this relationship or as to the volume, if any, of business the Company will do with Contractor. The parties do, however, anticipate that the parties will agree from time to time for the performance of Work by Contractor. Such agreement for the provision of Work shall be reflected by (a) each of the parties executing a mutually acceptable Statement of Work under this Agreement or (b) Company providing a Purchase Order or other Statement of Work to Contractor and Contractor accepting such Purchase Order or other Statement of Work (including by commencing performance pursuant to such Purchase Order or other Statement of Work). In the event Company provides a Purchase Order or other Statement of Work to Contractor and Contractor commences performance, unless such Purchase Order or other Statement of Work expressly provides otherwise, Contractor hereby agrees to the formation of a binding agreement as described in the Purchase Order or other Statement of Work upon Contractor's commencement of performance, waives any argument that it might otherwise have under Applicable Laws that the Purchase Order should have been executed by each of the parties to be enforceable and further agrees to not contest the enforceability of such Purchase Order or other Statement of Work on those grounds, and agrees to not contest the admissibility of Company's records related to such Purchase Order or other Statement of Work that are kept in the ordinary course by Company. In addition, in no event shall the terms and conditions of any proposal, Purchase Order or other Statement of Work, acknowledgement, invoice, or other document unilaterally issued by Contractor be binding upon Company without Company's explicit written acceptance thereof. Any Work performed by Contractor without Company's binding commitment for such Work either via a duly executed or accepted Purchase Order or other Statement of Work under this Agreement shall be at Contractor's sole risk and expense, and Company shall have no obligation to pay for any such Work.

ARTICLE 3 CONDITIONS AND RISKS OF WORK; LABOR HARMONY

Unless the applicable Statement of Work expressly provides otherwise, Contractor agrees that before beginning any Work Contractor shall carefully examine all conditions relevant to such Work and its surroundings, and, unless Contractor notifies Company in writing that it will not perform the Work under such conditions, Contractor shall assume the risk of such conditions and shall, regardless of such conditions, the expense, or difficulty of performing the Work, fully complete the Work for the stated Contract Price applicable to such Work without further recourse to Company. Without limiting the foregoing, Contractor specifically recognizes that Company and other parties may be working concurrently at the site. Information on the site of the Work and local conditions at such site furnished by Company in specifications, drawings, or otherwise is made without representation or warranty of any nature by Company, is not guaranteed by Company, and is furnished solely for the convenience of Contractor. All drawings and other documents, if any, required to be submitted to Company for review shall be submitted in accordance with the mutually agreed to schedule, and, if no schedule applies, such drawings or other documents shall be submitted by Contractor without unreasonable delay. No Work affected by such drawings and other documents shall be started until Contractor is authorized to do so by Company. In case of a conflict between or within instructions, specifications, drawings, schedules, Purchase Order(s) and/or other Statements of Work, Company shall resolve such conflict; and Company's resolution shall be binding on Contractor. Contractor agrees that all labor employed by Contractor, its agents, or subcontractors for Work on the premises of Company shall be in harmony with all other labor being used by Company or other contractors working on Company's premises. Contractor agrees to give Company immediate notice of any threatened or actual labor dispute and will provide assistance as determined necessary by Company to resolve any such dispute. Contractor, its agents, or subcontractors shall remove from Company's premises any person objected to by Company in association with the Work.

ARTICLE 4 COMPANY CHANGES IN WORK

The scope of and conditions applicable to the Work shall be subject to changes by Company from time to time. Such changes shall only be enforceable if documented in a writing executed by Company. Except as

otherwise specifically set forth in this Agreement, changes in the scope of or conditions applicable to the Work may result in adjustments in the Contract Price and/or the Work schedule in accordance with this Article 4. If Contractor believes that adjustment of the Contract Price or the Work schedule is justified, whether as a result of a change made pursuant to this Article or as a result of any other circumstance, then Contractor shall (a) give Company written notice of its claim within five (5) business days after receipt of notice of such change or the occurrence of such circumstances and (b) shall supply a written statement supporting Contractor's claim within ten (10) business days after receipt of notice of such change or occurrence of such circumstances, which statement shall include Contractor's detailed estimate of the effect on the Contract Price and/or the Work schedule. Contractor agrees to continue performance of the Work during the time any claim hereunder is pending. Company shall not be bound to any adjustments in the Contract Price or the Work schedule unless expressly agreed to by Company in writing. Company will not be liable for, and Contractor waives, any claims of Contractor that Contractor knew or should have known and that were not reported by Contractor in accordance with the provisions of this Article.

ARTICLE 5 FORCE MAJEURE

Neither party shall be liable to the other for any damages for any failure to perform or for any delays or interruptions beyond that party's reasonable control in performing any of its obligations under this Agreement due to acts of God, fires, floods, earthquakes, riots, war, acts of terrorism, civil insurrection, acts of the public enemy, or acts or failures to act of civil or military authority, unless the time to perform is expressly guaranteed. Contractor shall advise Company immediately of any anticipated and actual failure, delay, or interruption and the cause and estimated duration of such event. Any such failure, delay, or interruption, even though existing on the date of this Agreement or on the date of the start of the Work, shall require Contractor to within five (5) days submit a recovery plan detailing the manner in which the failure, delay, or interruption shall be remedied and the revised schedule. Contractor shall diligently proceed with the Work notwithstanding the occurrence thereof. This Article shall apply only to the part of the Work directly affected by the particular failure, delay, or interruption, and shall not apply to the Work as a whole or any other unaffected part thereof.

ARTICLE 6 CONTRACTOR DELAYS

Time is an important and material consideration in the performance of this Agreement by Contractor. Contractor agrees to cooperate with Company in scheduling the Work so that the project and other activities at Company's site will progress with a minimum of delays. Company shall not be responsible for compensating Contractor for any costs of overtime or other premium time work unless Company has provided separate prior written authorization for additional compensation to Contractor, and, if Company provides such written authorization, such additional compensation shall be limited to Contractor's actual cost of the premium portion of wages, craft fringe benefits, and payroll burdens. Contractor shall be liable for all failures, delays, and interruptions in performing any of its obligations under this Agreement which are not (a) caused by Company and reported in accordance with Article 4, (b) excused by Article 5, or (c) directed by Company pursuant to Article 7. Contractor shall, without adjustment to completion date or Contract Price, be obligated to make up time lost by such failures, delays, or interruptions. Company may suspend payments under this Agreement during the period of any such failure, delay, or interruption.

ARTICLE 7 COMPANY EXTENSIONS

Company shall have the right to extend schedules or suspend the Work, in whole or in part, at any time upon written notice to Contractor (except that in an emergency or in the event that Company identifies any safety concerns, Company may require an immediate suspension upon oral or written notice to Contractor). Contractor shall, upon receipt of such notice, immediately suspend or delay the Work. Contractor shall resume any suspended Work when directed by Company. If Contractor follows the requirements of Article 4, a mutually agreed equitable adjustment to the Contract Price or to the schedules for payments and performance of the remaining Work may be made to reflect Company's extension of schedules or suspension of the Work. Contractor shall provide Company all information Company shall request in connection with determining the amount of such equitable adjustment.

ARTICLE 8 INSPECTING, TESTING, AUDITING, AND USE OF TOOLS AND EQUIPMENT;

8.01 Right of Inspecting and Testing: Company reserves the right, but shall not be obligated, to appoint representatives to follow the progress of the Work with authority to suspend any Work not in compliance with this Agreement. The appointment or absence of an appointment, of such representatives by Company shall not have any effect on warranties. Acceptance or approval by Company's representative shall not be deemed to constitute final acceptance by Company, nor shall Company's inspection relieve Contractor of responsibility for proper performance of the Work. Inspection by Company's representative shall not be deemed to be supervision or direction by Company of Contractor, its agents, servants, or employees, but shall be only for the purpose of attempting to ensure that the Work complies with this Agreement. In the event Contractor fails to provide Company with reasonable facilities and access for inspection when advised, and if in the opinion of Company it becomes necessary to dismantle the Work for such inspection, then Contractor shall bear the expenses of such dismantling and reassembly.

8.02 Right of Auditing: Contractor shall maintain complete records relating to any cost-based (i.e., Work not covered by firm prices) components of the Work billed under this Agreement or relating to the quantity of units billed under any unit price provisions of this Agreement (all the foregoing hereinafter referred to as "Records") for a minimum of five years following the latest of performance of, delivery to Company of, or payment by Company for, such Work or units. All such Records shall be open to inspection and subject to audit and reproduction during normal working hours, by Company or its authorized representatives to the extent necessary to adequately permit evaluation and verification of any invoices, payments, time sheets, or claims based on Contractor's actual costs incurred in the performance or delivery of Work under this Agreement. For the purpose of evaluating or verifying such actual or claimed costs, Company or its authorized representative shall have access to said Records at any time, including any time after final payment by Company to Contractor pursuant to this Agreement. All non-public information obtained in the course of such audits shall be held in confidence except pursuant to judicial and administrative order. Company or its authorized representative shall have access, during normal working hours, to all necessary Contractor facilities and shall be provided adequate and appropriate work space to conduct audits in compliance with the provisions of this Article. Company shall give Contractor reasonable notice of intended audits. The rights of Company set forth in this paragraph shall survive the termination or expiration of this Agreement.

8.03 Use of Tools and Equipment: Company, in its sole discretion, may allow Contractor to use Company's Tools and Equipment for the Work and related activities at designated Company locations. Contractor shall indemnify and hold harmless Company and its Affiliates, including their respective officers, directors, shareholders, agents, members and employees (each an "Indemnified Party"), from and against any and all claims, damages, losses or liabilities arising out of, relating to, or in connection with, the use of Company's Tools and Equipment by Contractor, its agents, servants, employees or subcontractors, and will reimburse each Indemnified Party for all expenses (including attorney's fees and expenses) as they are incurred in connection with investigating, preparing or pursuing or defending any action, claim, suit or investigation or proceeding related to, arising out of, or in connection with, the use of Company's Tools and Equipment by Contractor, its agents, servants, employees or subcontractors, whether or not threatened or pending and whether or not any Indemnified Party is a party. Contractor, on behalf of itself or its agents, affiliates, officers and directors, and all of their predecessors, successors, assigns, heirs, executors and administrators, hereby irrevocably release, discharge, waive, relinquish and covenant not to sue, directly, derivatively or otherwise, Company and/or its Affiliates and each of their respective directors, officers, shareholders, members, partners (general or limited), employees and agents (including, without limitation, its financial advisors, counsel, proxy solicitors, information agents, depositories, consultants and public relations representatives) and all of their predecessors, successors, assigns, heirs, executors or administrators, and all persons acting in concert with any such person, with respect to any and all matters, actions causes of action (whether actually asserted or not), suits, damages, claims, or liabilities whatsoever, at law, equity or otherwise, arising out of, relating to, or in connection with the use of Company's Tools and Equipment by Contractor, its agents, servants, employees or subcontractors. Company shall in no event be liable for any claim whatsoever by or through Contractor, its employees, agents and/or subcontractors or by any third

party, for any inoperability or failure of the Tools and Equipment to perform as designed or intended, whether such claim is based in warranty, contract, tort (including negligence), strict liability or otherwise and whether for direct, incidental, consequential, special, exemplary or other damages. Contractor shall ensure that its employees, agents, subcontractors or servants shall inspect, exercise the appropriate level of care in the use, maintenance and repair of the Tools and Equipment, so as to minimize the incidence of casualties and injuries occurring in connection therewith.

ARTICLE 9 COMPLIANCE WITH APPLICABLE LAWS; SAFETY; DRUG AND ALCOHOL TESTING

9.01 Applicable Laws and Safety: Contractor agrees to protect its own and its subcontractors' employees and be responsible for their Work until Company's acceptance of the entire project and to protect Company's facilities, property, employees, and third parties from damage or injury. Contractor shall at all times be solely responsible for complying with all Applicable Laws and facility rules, including without limitation those relating to health and safety, in connection with the Work and for obtaining (but only as approved by Company) all permits and approvals necessary to perform the Work. Without limiting the foregoing, Contractor agrees to strictly abide by and observe all standards of the Occupational Safety & Health Administration (OSHA) which are applicable to the Work being performed now or in the future, as well as Company's Contractor Code of Business Conduct and Company's Contractor/Subcontractor Safety Policy which are both hereby incorporated by reference (Contractor hereby acknowledges receipt of a copy of such Company's Contractor Code of Business Conduct and Company's Contractor/Subcontractor Safety Policy) and any other rules and regulations of the Company, all of which are incorporated herein by reference. Contractor also agrees to be bound to any amendments and/or modifications that may be issued in the future by Company from time to time, with respect to Company's Contractor Code of Business Conduct and/or any of its related policies which are the subject of this Article 9. Contractor shall maintain the Work site in a safe and orderly condition at all times. Company shall have the right but not the obligation to review Contractor's compliance with safety and cleanup measures. In the event Contractor fails to keep the work area clean, Company shall have the right to perform such cleanup on behalf of, at the risk of and at the expense of Contractor. In the event Contractor subcontracts any of the Work, Contractor shall notify Company in writing of the identity of the subcontractor before utilizing the subcontractor. Contractor shall require all of its subcontractors to complete the safety and health questionnaire and checklists provided by Company and shall provide a copy of such documents to Company upon request. Contractor shall conduct, and require its subcontractors to conduct, safety audits and job briefings during performance of the Work. In the event a subcontractor has no procedure for conducting safety audits and job briefings, Contractor shall include the subcontractor in its safety audits and job briefings. All safety audits shall be documented in writing by the Contractor and its subcontractors. Contractor shall provide documentation of any and all audits identifying safety deficiencies and concerns and corrective action taken as a result of such audits to Company semi-monthly.

9.02 Hazards and Training: Contractor shall furnish adequate numbers of trained, qualified, and experienced personnel and appropriate safety and other equipment in first-class condition, suitable for performance of the Work. Such personnel shall be skilled and properly trained to perform the Work and recognize all hazards associated with the Work. Without limiting the foregoing, Contractor shall participate in any safety orientation or other of Company's familiarization initiatives related to safety and shall strictly comply with any monitoring initiatives as determined by Company. Contractor shall accept all equipment, structures, and property of Company as found and acknowledges it has inspected the property, has determined the hazards incident to working thereon or thereabouts, and has adopted suitable precautions and methods for the protection and safety of its employees and the property.

9.03 Drug and Alcohol: No person will perform any of the Work while under the influence of drugs or alcohol. No alcohol may be consumed within four (4) hours of the start of any person's performance of the Work or anytime during the workday. A person will be deemed under the influence of alcohol if a level of .02 percent blood alcohol or greater is found. In addition to the requirements of the drug testing program, as set forth in Company's rules and regulations, all persons who will perform any of the Work will be subject to drug and alcohol testing under either of the following circumstances: (i) where the person's performance either contributed to an accident or cannot be completely discounted as a contributing factor to an accident

which involves off-site medical treatment of any person; and (ii) where Company determines in its sole discretion that there is reasonable cause to believe such person is using drugs or alcohol or may otherwise be unfit for duty. Such persons will not be permitted to perform any Work until the test results are established. Contractor shall be solely responsible for administering and conducting drug and alcohol testing, as set forth herein, at Contractor's sole expense. As applicable and in addition to any other requirements under this Agreement, Contractor shall develop and strictly comply with any and all drug testing requirements as required by Applicable Laws.

9.04 Office of Compliance: The Company has an Office of Compliance. Should Contractor have actual knowledge of violations of any of the herein stated policies of conduct in this Article 9, or have a reasonable basis to believe that such violations will occur in the future, whether by its own employees, agents, representatives or subcontractors, or by another vendor and/or supplier of the Company and its employees, agents, representatives or subcontractors, or by any employee, agent and/or representative of Company, Contractor has an affirmative obligation to immediately report any such known, perceived and/or anticipated violations to the Company's Office.

ARTICLE 10 STATUS OF CONTRACTOR

Company does not reserve any right to control the methods or manner of performance of the Work by Contractor. Contractor, in performing the Work, shall not act as an agent or employee of Company, but shall be and act as an independent contractor and shall be free to perform the Work by such methods and in such manner as Contractor may choose, doing everything necessary to perform such Work properly and safely and having supervision over and responsibility for the safety and actions of its employees and the suitability of its equipment. Contractor's employees and subcontractors shall not be deemed to be employees of Company. Contractor agrees that if any portion of Contractor's Work is subcontracted, all such subcontractors shall be bound by and observe the conditions of this Agreement to the same extent as required of Contractor. In such event, Company strongly encourages the use of Minority Business Enterprises, Women Business Enterprises, and Disadvantaged Business Enterprises, as defined under federal law and as certified by a certifying agency that Company recognizes as proper.

ARTICLE 11 EQUAL EMPLOYMENT OPPORTUNITY

To the extent applicable, Contractor shall comply with all of the following provisions, which are incorporated herein by reference: (i) Equal Opportunity regulations set forth in 41 CFR § 60-1.4(a) and (c), prohibiting employment discrimination against any employee or applicant because of race, color, religion, sex, or national origin; (ii) Vietnam Era Veterans Readjustment Assistance Act regulations set forth in 41 CFR § 60-250.4 relating to the employment and advancement of disabled veterans and Vietnam era veterans; (iii) Rehabilitation Act regulations set forth in 41 CFR § 60-741.4 relating to the employment and advancement of qualified disabled employees and applicants for employment; (iv) the clause known as "Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals" set forth in 15 USC § 637(d)(3); and (v) the subcontracting plan requirement set forth in 15 USC § 637(d).

ARTICLE 12 INDEMNITY BY CONTRACTOR

12.01 Indemnity: Contractor shall be responsible for and shall defend, indemnify, and save harmless Big Rivers Electric Corporation from any and all damage, loss, claim, demand, suit, liability, fine, penalty, or forfeiture of every kind and nature, including, but not limited to, costs and expenses, including professional fees and court costs of defending against the same and payment of any settlement or judgment therefor, by reason of:

- (1) injuries or deaths to persons,
- (2) damages to or destruction of real, personal, or intangible properties,
- (3) violations of any other rights asserted against Big Rivers Electric Corporation, including patents, trademarks, trade names, copyrights, contract rights, and easements, or
- (4) violations of governmental laws, regulations or orders whether suffered directly by Big Rivers Electric Corporation itself, or indirectly by reason of claims, demands or suits against it, resulting or alleged to have resulted from acts or omissions of Contractor, its employees,

[Revised 12/18/2008 bnh]

agents, business invitees, or other representatives or from their presence on the premises of Big Rivers Electric Corporation, either solely or in occurrence with any alleged joint negligence of Big Rivers Electric Corporation.

Big Rivers Electric Corporation shall be liable for its sole negligence and to the extent of its concurrent negligence. Indemnification of Big Rivers Electric Corporation includes its officers, employees, and agents.

ARTICLE 13 ENVIRONMENTAL

13.01 Control: As required under the OSHA Hazard Communication Standard (29 CFR 1910.1200) and certain other Applicable Laws, Contractor or its subcontractors shall provide Material Safety Data Sheets ("MSDS") covering any hazardous substances and materials furnished under or otherwise associated with the Work under this Agreement. Contractor and its subcontractors shall provide Company with either copies of the applicable MSDS or copies of a document certifying that no MSDS are required under any Applicable Laws in effect at the worksite. **No asbestos or lead containing materials shall be incorporated into any Work performed by Contractor or otherwise left on the Work site without the prior written approval of Company.** Contractor and its subcontractors shall be solely responsible for determining if any chemical or material furnished, used, applied, or stored or Work performed under this Agreement is subject to any Applicable Laws.

13.02 Labeling: Contractor and its subcontractors shall label hazardous substances and materials and train their employees in the safe usage and handling of such substances and materials as required under any Applicable Laws.

13.03 Releases: Contractor and its subcontractors shall be solely responsible for the management of any petroleum or hazardous substances and materials brought onto the Work site and shall prevent the release of petroleum or hazardous substances and materials into the environment. All petroleum or hazardous substances and materials shall be handled and stored according to Contractor's written Spill Prevention Control and Countermeasures Plan or Best Management Practices Plan as defined under the provisions of the Clean Water Act, as amended, if either such Plan must be maintained pursuant to Applicable Laws. Contractor shall provide secondary containment for the storage of petroleum or hazardous substances and materials. The prompt and proper clean-up of any spills, leaks, or other releases of petroleum or hazardous substances and materials resulting from the performance of the Work under this Agreement and the proper disposal of any residues shall be Contractor's sole responsibility, but Contractor shall give Company immediate notice of any such spills, leaks, or other releases. Contractor shall be solely responsible for the storage, removal, and disposal of any excess or unused quantities of chemicals and materials which Contractor causes to be brought to the Work site.

13.04 Generated Wastes: Unless Company and Contractor expressly agree otherwise in writing, Contractor and its subcontractors shall be solely responsible for any wastes generated in the course of the Work, and Contractor shall handle, store, and dispose of such wastes in accordance with any Applicable Laws.

13.05 Survival: The obligations set forth in this Article shall survive termination or expiration of this Agreement.

ARTICLE 14 INSURANCE

14.01 Contractor's Insurance Obligation: Contractor shall provide and maintain, and shall require any subcontractor to provide and maintain the following insurance (and, except with regard to Workers' Compensation), naming Company as additional insured and waiving rights of subrogation against Company and Company's insurance carrier(s)), and shall submit evidence of such coverage to Company prior to the start of the Work. Seller's liability shall not be limited to its insurance coverage.

14.02 Insurance: Seller shall furnish certificates of insurance, in the name of the Big Rivers Electric Corporation, evidencing insurance coverage of the following types of minimum amounts:

- a. Workman's compensation and employers liability insurance covering all employees who perform any of the obligations under the contract or Purchase Order, in the amounts required by law. If any employer or employee is not subject to the workers compensation laws of the

governing state, then insurance shall be obtained voluntarily to provide coverage to the same extent as though the employer or employee were subject to such laws.

- b. Comprehensive general liability insurance covering all operation under the contract or Purchase Order: bodily injury - \$1,000,000 each occurrence and aggregate; property damage - \$1,000,000 each occurrence and aggregate. A combined single limit of \$1,000,000 for bodily injury and property damage liability is acceptable. The insurance may be in a policy or policies of insurance. A primary policy and an excess policy including the umbrella or catastrophe form is acceptable. Coverage should include contractual liability, broad form property damage liability, owner's and contractor's protective (independent contractor's) liability, products and completed operations hazard, explosion, collapse, and underground property damage hazard.
- c. Automotive liability insurance on all motor vehicles used in conjunction with the contract or Purchase Order, whether owned, nonowned, or hired; bodily injury - \$1,000,000 each person and \$1,000,000 each occurrence; property damage \$1,000,000 each occurrence. A combined single limit of \$1,000,000 for bodily injury and property damage liability is acceptable. The insurance may be in a policy or policies of insurance. A primary policy and an excess policy including the umbrella or catastrophe form is acceptable.

Certificates evidencing the insurance coverage's must be furnished before the commencement of work. If any work to be performed under this contract or Purchase Order is sublet, the contractor will be required to furnish proof of insurance from all subcontractors evidencing equal to or better coverage.

14.03 Quality of Insurance Coverage: The above policies to be provided by Contractor shall be written by insurance companies which are both licensed to do business in the state where the Work will be performed and either satisfactory to Company or having a Best Rating of not less than A-. These policies shall not be materially changed or canceled except with thirty (30) days written notice to Company from Contractor and the insurance carrier. Evidence of coverage, notification of cancellation or other changes shall be mailed to: Attn: Manager, Supply Chain, Big Rivers Electric Corp., P.O. Box 24, Henderson, KY 42419.

14.04 Implication of Insurance: Company reserves the right to request and receive a summary of coverage of any of the above policies or endorsements; however, Company shall not be obligated to review any of Contractor's certificates of insurance, insurance policies, or endorsements, or to advise Contractor of any deficiencies in such documents. Any receipt of such documents or their review by Company shall not relieve Contractor from or be deemed a waiver of Company's rights to insist on strict fulfillment of Contractor's obligations under this Agreement.

14.05 Other Notices: Contractor shall provide notice of any accidents or claims at the Work site to Company's Manager, Risk Management at Big Rivers Electric Corporation., P.O. Box 24, Henderson, KY 42419 and Company's site authorized representative.

ARTICLE 15 WARRANTIES

Contractor warrants that:

- (a) the Work will conform to any applicable Specification / Statement of Work; and any materials supplied in connection therewith shall be new, unused, and free from defect;
- (b) the Work will be suitable for the purposes specified by Company and will conform to each statement, representation, and description made by Contractor to Company;
- (c) the Work is not and shall not be subject to any encumbrance, lien, security interest, patent, copyright or trademark claims, infringements, or other defects in title; and
- (d) any labor or services performed pursuant to this Agreement shall be performed in a competent, diligent, and timely manner in accordance with the highest professionally accepted standards.

Contractor shall respond in writing to any warranty claim by Company within five (5) business days of the delivery of notice of such claim to Contractor.

ARTICLE 16 OWNERSHIP OF INTELLECTUAL PROPERTY; PATENTS

16.01 Ownership: All inventions, discoveries, processes, methods, designs, drawings, blueprints, information, software, works of authorship and know-how, or the like, whether or not patentable or copyrightable (collectively, "Intellectual Property"), which Contractor conceives, develops, or begins to develop, either alone or in conjunction with Company or others, in connection with the Work, shall be "work made for hire" and the sole and exclusive property of Company. Upon request, Contractor shall promptly execute all applications, assignments, and other documents that Company shall deem necessary to apply for and obtain letters patent of the United States and/or copyright registration for the Intellectual Property and in order to evidence Company's sole ownership thereof.

16.02 Royalties and License Fees: Contractor shall pay all royalties and license fees which may be payable on account of the Work or any part thereof. In case any part of the Work is held in any suit to constitute infringement and its use is enjoined, Contractor within a reasonable time shall, at the election of Company and in addition to Contractor's obligations under Article 12, either (a) secure for Company the perpetual right to continue the use of such part of the Work by procuring for Company a royalty-free license or such other permission as will enable Contractor to secure the suspension of any injunction, or (b) replace at Contractor's own expense such part of the Work with a non-infringing part or modify it so that it becomes non-infringing (in either case with changes in functionality that are acceptable to Company).

ARTICLE 17 RELEASE OF LIENS

Contractor hereby releases for itself and its successors in interest, and for all subcontractors and their successors in interest, any and all claim or right of mechanics or any other type lien upon Company's or any other party's property, the Work, or any part thereof as a result of performing the Work. Contractor shall execute and deliver to Company such documents as may be required by Applicable Laws to make this release effective and shall give all required notices to subcontractors with respect to ensuring the effectiveness of the foregoing release against those parties. Contractor shall secure the removal of any lien that Contractor has agreed to release in this Article within five (5) working days of receipt of written notice from Company to remove such lien. If not timely removed, Company may remove the lien and charge all costs and expenses to Contractor, including without limitation costs of bonding off such lien.

ARTICLE 18 ASSIGNMENT OF AGREEMENT; SUBCONTRACTING

Upon prior written notice given to Company, Contractor shall not, by operation of law or otherwise, assign and/or subcontract any part of the Work or this Agreement without Company's prior written approval. Such approval, if given by Company, shall not relieve Contractor from full responsibility for the fulfillment of any and all obligations under this Agreement. Under any and all circumstances, any permitted assignee of Contractor, whether or not such assignee shall be a division, subsidiary and/or affiliate entity of Contractor, shall also be fully bound by the terms of this Agreement and, furthermore, upon request by Company, each of Contractor and its permitted assignee shall provide sufficient financial information, as determined by Company in its sole discretion, necessary to validate such assignee's credit worthiness and ability to perform under this Agreement.

ARTICLE 19 INVOICES AND EFFECT OF PAYMENTS

19.01 Invoices: Within a reasonable period of time following the end of each calendar month or other agreed period, Contractor shall submit an invoice to Company that complies with this Article. Payments shall be made within thirty (30) days of Company's receipt of Contractor's proper invoice, and, in the event that Company's payment is overdue, Contractor shall promptly provide Company with a notice that such payment is overdue. Contractor's invoices shall designate the Company location which is the responsible party. Such invoices shall reference the contract / Purchase Order number and shall also show labor, material, taxes paid (including without limitation sales and use taxes, duties, fees, and other assessments imposed by governmental authorities), freight, and all other charges (including without limitation equipment rental) as separate items. All invoices shall be submitted with supporting documentation and in acceptable form and quality to Company's authorized representative. Should Company dispute any invoice for any reason, payment on such invoice shall be made within thirty (30) days of the dispute resolution. Payment of the invoice shall not release Contractor from any of its obligations hereunder, including but not limited to its warranty and indemnity obligations. Invoices shall not be delivered with goods, unless

expressly authorized by the Company, but all correspondence and packages related to this Agreement shall reference the Purchase Order / contract number assigned by Company.

19.02 Surcharges: All charges must be pre-approved and referenced within the purchase order or contract. Unapproved charges will not be accepted and will cause the invoice to be rejected and returned. This includes, but is not limited to, surcharges, packing charges, core charges, deposits, and/or any other added costs.

19.03 Taxes (Projects): If Company provides Contractor with an exemption certificate demonstrating an exemption from sales or use taxes in Kentucky, then Contractor shall not withhold or pay Kentucky sales or use taxes to the extent such exemption certificate applies to the Work (such exemption does not and shall not apply to any materials consumed by Contractor in performing the Work). **Contractor agrees that it shall not rely upon Company's direct pay authorization in not withholding or paying Kentucky sales or use taxes.** If Company does not provide Contractor with an exemption certificate demonstrating an exemption from sales or use taxes in Kentucky, Contractor shall be solely responsible for paying all appropriate sales, use, and other taxes and duties (including without limitation sales or use tax with respect to materials purchased and consumed in connection with the Work) to, as well as filing appropriate returns with, the appropriate authorities. To the extent specifically included in the Contract Price, Contractor shall bill Company for and Company shall pay Contractor all such taxes and duties, but Company shall in no event be obligated for taxes and duties not specifically included in the Contract Price or for interest or penalties arising out of Contractor's failure to comply with its obligations under this Section.

Taxes (Goods): Do not bill Kentucky Sales Tax: Blanket Direct Pay Authorization maintained under 103 KAR 31:030, Permit # 108814.

19.04 Billing of Additional Work: All claims for payments of additions to the Purchase Order / Contract Price shall be shown on separate Contractor's invoices and must refer to the specific change order or written authorization issued by Company as a condition to being considered for payment.

19.05 Effect of Payments/Offset: No payments shall be considered as evidence of the performance of or acceptance of the Work, either in whole or in part, and all payments are subject to deduction for loss, damage, costs, or expenses for which Contractor may be liable under any Purchase Order or set-off hereunder. Company, without waiver or limitation of any rights or remedies of Company, shall be entitled from time to time to deduct from any and all amounts owing by Company to Contractor in connection with this Agreement or any other contract with Company any and all amounts owed by Contractor to Company in connection with this Agreement or any other contract with Company.

19.06 Evidence of Payment to Subcontractors: Contractor shall, if requested by Company, furnish Company with a certificate showing names of Contractor's suppliers and subcontractors hereunder, and certifying to Company that said suppliers and subcontractors have been paid in full.

ARTICLE 20 ROUTING OF SHIPMENTS

Company shall have the option of specifying the routing of shipments. If freight is included in the Contract Price, and such specified routing increases Contractor's shipping costs, Contractor shall immediately so notify Company, and should Company still specify the more expensive routing, then Company shall reimburse Contractor for the increase actually incurred thereby.

ARTICLE 21 TERM AND TERMINATION

21.01 Term: This Agreement shall commence on the date set forth above and shall survive in full force and effect until terminated as set forth below. A termination under this Article 21 based on certain Work shall only apply to the Statement of Work that covers such Work. Any Statements of Work that do not relate to such Work shall not be affected by such a termination.

21.02 Termination for Contractor's Breach: If the Work to be done under this Agreement shall be abandoned by Contractor, if this Agreement or any portion thereof shall be assigned by operation of law or otherwise, if the Work or any portion thereof is sublet by Contractor without the permission of Company, if Contractor is placed in bankruptcy, or if a receiver be appointed for its properties, if Contractor shall make an assignment for the benefit of creditors, if at any time the necessary progress of Work is not being maintained, or if Contractor is violating any of the conditions or agreements of this Agreement, or has

executed this Agreement in bad faith, Company may, without prejudice to any other rights or remedies it may have as a result thereof, notify Contractor to discontinue any or all of the Work and terminate this Agreement in whole or part. In the event that Section 365(a) of the Bankruptcy Code or some successor law gives Contractor as debtor-in-possession the right to either accept or reject this Agreement, then Contractor agrees to file an appropriate motion with the Bankruptcy Court to either accept or reject this Agreement within twenty (20) days of the entry of the Order for Relief in the bankruptcy proceeding. Contractor and Company acknowledge and agree that said twenty (20) day period is reasonable under the circumstances. Contractor and Company also agree that if Company has not received notice that Contractor has filed a motion with the Bankruptcy Court to accept or reject this Agreement within said twenty (20) day period, then Company may file a motion with the Bankruptcy Court asking that this Agreement be accepted or rejected, and Contractor shall not oppose such motion.

21.03 Effect of Termination for Contractor's Breach: From the effective date of such termination notice, Contractor shall vacate the site, whereupon Company shall have the right but not the obligation to take possession of the Work wherever located, and Contractor shall cooperate with Company and cause Contractor's subcontractors to cooperate with Company so that Company can effect such possession. In obtaining replacement services, Company shall not be required to request multiple bids or obtain the lowest figures for completing the Work and may make such expenditures as shall best accomplish such completion and are reasonable given the circumstances. The expenses of completing the Work in excess of the unpaid portion of the Contract Price, together with any damages suffered by Company, shall be paid by Contractor, and Company shall have the right to set off such amounts from amounts due to Contractor.

21.04 Termination for Company's Convenience: Company may terminate this Agreement or one or more Statements of Work in whole or in part for its own convenience by thirty (30) days' written notice at any time. In such event, Company shall pay Contractor all direct labor and material costs incurred on the Work that is subject to such Termination prior to such notice, plus any reasonable unavoidable cancellation costs which Contractor may incur as a result of such termination, plus indirect costs or overhead on the portion of the Work completed, computed in accordance with generally accepted accounting principles less salvage value. As an alternative to salvage value reduction, Company shall have the right in its sole discretion to take possession of all or part of the Work.

ARTICLE 22 PUBLICITY

Contractor shall not issue news releases, publicize or issue advertising pertaining to the Work or this Agreement without first obtaining the written approval of Company.

ARTICLE 23 CONFIDENTIAL INFORMATION

All information relating to the Work or the business of Company, including, but not limited to, drawings and specifications relating to the Work, and customer information, shall be held in confidence by Contractor and shall not be used by Contractor for any purpose other than for the performance of the Work or as authorized in writing by Company. In the event that the Contractor assigns the work to one or more subcontractors, a signed confidentiality agreement between the Contractor and each subcontractor(s) will be provided to the Company prior to the provision of any information described in the immediately preceding sentence or the performance of any Work by the subcontractor. All drawings, specifications, or documents furnished by Company to Contractor or developed in connection with the Work shall either be destroyed or returned to Company (including any copies thereof) upon request at any time.

ARTICLE 24 MISCELLANEOUS

24.01 Waiver: No waiver by Company of any provision herein or of a breach of any provision shall constitute a waiver of any other breach or of any other provision.

24.02 Headings: The headings of Articles, Sections, paragraphs, and other parts of this Agreement are for convenience only and do not define, limit, or construe the contents thereof.

24.03 Severability: If any provision of this Agreement shall be held invalid under law, such invalidity shall not affect any other provision or provisions hereof which are otherwise valid.

Big Rivers Electric Corporation
Wholesale Cost of Service & Rate Design Study
October 13, 2010

24.04 State Law Governing Agreement: This Agreement shall be governed by, and construed in accordance with, the laws of the Commonwealth of Kentucky, without regard to its principles of conflicts of laws.

24.05 Enforcement of Rights: Company shall have the right to recover from Contractor all expenses, including but not limited to fees for and expenses of inside or outside counsel hired by Company, arising out of Contractor's breach of this Agreement or any other action by Company to enforce or defend Company's rights hereunder.

24.06 No Third Party Beneficiaries: Except for Contractor and Company, there are no intended third party beneficiaries of this Agreement and none may rely on this Agreement in making a claim against Company.

24.07 Notices: All notices and communications respecting this Agreement shall be in writing, shall be identified by the contract number, and shall be addressed as follows (which address either party may change upon five (5) days prior notice to the other party).

To Company:
Big Rivers Electric Corp.
Attn: Manager, Supply Chain
P.O. Box 24
Henderson, Kentucky 42419

To Contractor:
MR Valuation Consulting, LLC
Mark Rodriguez
5 Professional Circle, Suite 208
Colts Neck, NJ 07722
Fax No. 732-780-6020

IN WITNESS WHEREOF, the parties have entered into this Agreement on the date set forth in the introductory paragraph of this Agreement.

COMPANY:

Big Rivers Electric Corp.

Signature

Name (Please Print)

Title

Date

CONTRACTOR:

MR Valuation Consulting, LLC (Insert)

Signature

Name (Please Print)

Mark Rodriguez

Title

Managing Member

Date

October 13, 2010



IN ASSOCIATION
WITH



PROPOSAL FOR:
DEPRECIATION STUDY IN
ACCORDANCE WITH
RUS BULLETIN 1767B-1



Big Rivers Electric Corporation
Purchasing Department
Ms. Dana Clevidence, PSCM - Certified
Procurement Agent
P.O. Box 24
Henderson, Kentucky 42419

MR
Valuation Consulting LLC
Certified MBE Company

&



June 7, 2010

Ms. Dana L. Clevidence, PSCM-Certified
Procurement Agent
Big Rivers Electric Corporation
P.O. Box 24
Henderson, Kentucky 42419

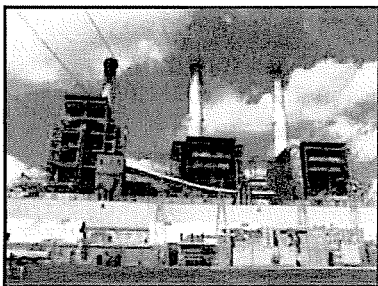
RE: Depreciation study performed for the facilities accounted in accordance with RUS Bulletin 1767B-1, Uniform System of Account.

Dear Ms. Clevidence,

MRV Consulting, LLC in association with Burns and Roe (collectively, referred to as "MRV/B&R") is pleased to submit to the Big Rivers Electric Cooperative ("Big Rivers") this proposal to complete a depreciation study (the "Study") to be performed for the five electric generation stations, 1,259 mile transmission system, and related buildings, fixtures, furnishings, machinery & equipment (the "Assets") owned by Big Rivers and accounted for in accordance with RUS Bulletin 1767B-1, Uniform of System of Accounts.

The joint team of MRV Consulting, LLC and Burns and Roe is the **Best Offeror Team** to represent Big Rivers Electric Corporation with regard to the depreciation study of the Facilities and Assets owned by Big Rivers Electric Corporation. MRV Consulting will be responsible for determining the effective ages and the overall depreciation analysis and Burns and Roe will assist in determining the remaining economic useful life.

The stations and transmission system (collectively, referred to as the "Facilities") included in the depreciation study are:



1. Robert A Reid Station (130 MW)
2. Kenneth C. Coleman Station (443 MW)
3. Robert D. Green Station (454 MW)
4. D.B. Wilson Station (417 MW)
5. Rights to Henderson Municipal Power and Light Station Two (212 MW)
6. 1,259 mile transmission system

Ms. Dana L. Clevidence
Big Rivers Electric Cooperative
June 7, 2010
Page ii

Assets in the Facilities include offices, services buildings, warehouses, turbine buildings, boiler buildings, railway buildings, land improvements, turbine equipment, boiler equipment, solid waste equipment, railway equipment coal yard equipment, machinery & equipment, etc. The deliverables of this engagement will provide Big Rivers with the following:

- Summary spreadsheet containing the following for the Assets and Facilities owned by Big Rivers:
 - Descriptions of Assets organized by Rural Utility Service (RUS) Bulletin 1767B-1, Uniform System of Accounts
 - Effective age for each account, for each Facility
 - Remaining Economic Useful Life for each account, for each Facility
 - Depreciation rates for each account, for each Facility
- Summary narrative report explaining our methodology, analysis and conclusions along with supporting detail

Our depreciation analysis and report will comply with the Uniform Standards of Professional Appraisal Practice (“USPAP”). An Accredited Senior Appraiser (“ASA”) with the American Society of Appraisers will sign our report.

In compliance with the request for proposal, we have attached our proposal for the depreciation study of the Facilities owned by Big Rivers.

Professional Fee

Our professional fees are based on an estimate of the amount of time that will be required to complete the proposed engagement as outlined above. Based on our experience with similar engagements, our professional fee to complete the depreciation study of the subject Facilities is **\$140,000**.

The fee proposed does not include reimbursable expenses, for which you agree to remain responsible for their payment. Reimbursable expenses shall include, but not be limited to, travel, lodging, research data and administrative overhead expenses incurred by MRV Consulting on your behalf. Our fees are not contingent or dependent upon the results of our analyses or conclusions we may reach. Expenses associated with this engagement will be capped at 13 percent of our professional fee.

Ms. Dana L. Clevidence
Big Rivers Electric Cooperative
June 7, 2010
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Acceptance:

If the provisions of this proposal meet with your approval, we ask that you confirm your acceptance by signing below, returning a signed copy to us, and keeping this original proposal for your files. In addition, we typically receive a retainer equal to 50 percent of our proposed fee. Upon your approval of this engagement, we will submit to you an invoice for the retainer fee.

We certainly appreciate this opportunity to provide our services and are prepared to discuss this proposal further should you have any questions. Please feel free to contact me at (732) 780-6010 or through MRodriguez@MRValuation.com.

Respectfully submitted,



Mark Rodriguez
Managing Partner
MR Valuation Consulting, LLC

Engagement Acceptance:

The signature below indicates the Big River's acceptance of this proposal, including the Terms and Conditions included in Attachment F.

Print Name

Title

Signature

Date

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*A: Description of MR Valuation
Consulting, LLC & Burns and Roe*



&





MR Valuation Consulting, LLC (MRV Consulting) is an international valuation consulting company that provides appraisals, valuation advisory consulting, and litigation support services to clients worldwide. Our practice includes 30 valuation professionals with engineering and finance degrees; designations by the American Society of Appraisers (ASA), the Appraisal Institute (AI), the Royal Institution of Chartered Surveyors (RICS), and the CFA Institute (CFA); and advanced degrees in business, accounting, finance, and law. Our recommendations and value conclusions support financial, tax, and management reporting.

MRV Consulting was founded in January of 2000 and its corporate headquarters are located in Colts Neck, NJ, with a branch office in Miami, FL. We also serve clients through our affiliate offices in Chile, Cyprus, Panama, Hong Kong, and mainland China.

Global Compliance and Regulatory Environment

Given today's global compliance and regulatory environment, the majority of our work is related to fair valuations for management reporting in accordance with Financial Accounting Standards Board Accounting Standards Codification 805 ("ASC 805", formerly SFAS 141R), Business Combinations, and for tax reporting purposes under Internal Revenue Code Section 1060, Special Allocation Rules for Certain Asset Acquisitions, and Section 338, Certain Stock Purchases Treated as Asset Acquisitions.

For international transactions, we are qualified and have experience conducting valuations for International Financial Reporting Standards ("IFRS") and International Accounting Standards ("IAS"). Further, we are members of RICS (The Royal Institution of Chartered Surveyors), which is a world renowned organization for the appraisal among other services for land, property, construction, and related environmental issues.

Our clients have chosen MRV Consulting because we:

- have specialized industry expertise
- understand the key tax and accounting issues both domestically and internationally
- have decades of valuation experience from Big four accounting firms and over 55 years combined professional valuation service to the financial, legal and tax community
- are an independent firm with No Sarbanes – Oxley issues
- have had our work product accepted by the SEC, IRS and both the Big four and regional accounting firms
- are personal service focused and extremely responsive
- have a diverse client base



Power and Energy Services

Burns and Roe's heritage is rooted in the engineering of power generation, from small cogeneration plants to large fossil-fueled, nuclear, and advanced renewable technology facilities.

The Company has provided engineering, procurement, and/or construction services for over 175 fossil-fueled generating units totaling over 75,000 megawatts. Burns and Roe also provides services related to the upgrade and retrofit of existing plants. Our focus is on utilities, transmission and distribution facilities, smart grid and energy related services.

Nuclear Services

At the forefront of nuclear technology since its inception, Burns and Roe stands strategically poised to develop the next generation of nuclear plants in providing clean, dependable and efficient energy. From our portfolio of commercial nuclear reactors engineered worldwide to our history of nuclear waste handling, retrofit programs and decommissioning and dismantling of facilities, Burns and Roe has the background of excellence and current expertise to offer a unique range of services for the next generation of nuclear energy.

Federal Services

Burns and Roe provides support services at several federal facility sites throughout the United States. The Company has executed several large contracts to alleviate the Department of Energy's nuclear waste stockpile including the disposition of radioactive material as products to be used as medical isotopes. The Company has also participated in the Department of Energy's Nuclear Materials Safety and Security Upgrade Program and International Nuclear Safety Program.

Operations and Maintenance Services

Burns and Roe provides expert operations and maintenance services throughout the world. The firm mobilizes and manages work forces for projects and facilities, large or small, simple or complex, in urban or remote locations. Burns and Roe supports both government and commercial organizations in the operation of total facilities or as a discrete service function.

Services offered by Burns and Roe include but are not limited to:

Financial Analysis

- Independent Engineering
- Due Diligence
- Technical Audits
- Construction Progress Reviews
- Funding Disbursement Certification
- Witness Testing
- Appraisals

Consultation and Studies

- Owner's Engineer Services
- Management Advisory Services
- Master Planning
- Technical and Economic Feasibility
- Site and Subsurface Investigations
- Market Surveys and Appraisals
- Permits and License Applications
- Environmental Impact Reports
- Fire Hazard Analyses

B: Experience and Qualifications

B1: MRV Consulting Experience

B2: List of MRV Consulting Power Plant Experience

B3: Burns and Roe Experience

B1: MRV Consulting Experience



MRV Consulting Experience:

MRV Consulting is a globally recognized valuation firm that provides quality valuations, appraisals, depreciation studies, and value related services internationally. MRV Consulting has performed depreciation studies for:

- Management Reporting (ASC 805)
- Federal Tax Reporting (Section 1060)
- Rate Base Scenarios
- Expert Witness Testimony
- Financial Reporting
- IFRS (International Financial Reporting Standard)
- Property Tax – Real Property vs. Personal Property
- State Transfer Tax
- Insurance Reporting
- IRC 754 Basis Adjustments

Listed below are recent depreciation studies and valuations performed in the energy

Niagara Mohawk Power Corporation

Performed a fair market valuation of tangible assets that included 16 transmission lines, two electrical substations, private natural gas distribution assets and three natural gas regulator stations. The valuation also included buildings and other real property assets. The appraisal was performed for litigation support purposes.

Unitil Corporation

Determined the fair market value for SFAS 141, IRC 1060, 338 and purchase price allocation of the \$175 million acquisition of two natural gas distribution utility companies serving more than 52,000 natural gas customers in 44 communities in New England. Included in the appraisal was 86 miles of FERC regulated gas transmission pipeline, which provides access to inter-state natural gas pipeline supplies.

TransCanada Power, LTD

Performed a fair valuation and purchase price allocation of the \$2.8 Billion acquisition of Ravenswood Generating Station. Ravenswood is a 2,480 megawatt dual fuel fired plant. The valuation included over 3,000 electric generating, distribution, and natural gas assets. Auxiliary buildings and associated property were also included in the acquisition.

Consumers Energy

Determined the fair market value of the gas transmission and distribution network throughout the state of Michigan. Consumers provides gas service to over 1.6 million residential, commercial and industrial customers in 44 counties. There are 1,700 miles of transmission pipeline and over 26,000 miles of distribution pipeline.

MichCon

Determined the fair market value of MichCon's gas transmission and distribution network and storage operations throughout the northern part of the state of Michigan. MichCon provides gas service to over 1.3 million residential, commercial and industrial customers. The company owns and operates 270 storage wells which represent about 33 percent of the underground working capacity in Michigan.

WPS Resources

Determined the fair market value of WPS's gas transmission and distribution network and storage operations in the state of Minnesota. The company provides gas service to about 200,000 customers throughout the state in 165 cities.

WPS Resources

Determined the fair market value of WPS's gas transmission and distribution network and storage operations in the state of Michigan. The company provides gas service to about 160,000 customers mainly in southern Michigan in 147 cities.

Gas Cuyana and Gas del Centro

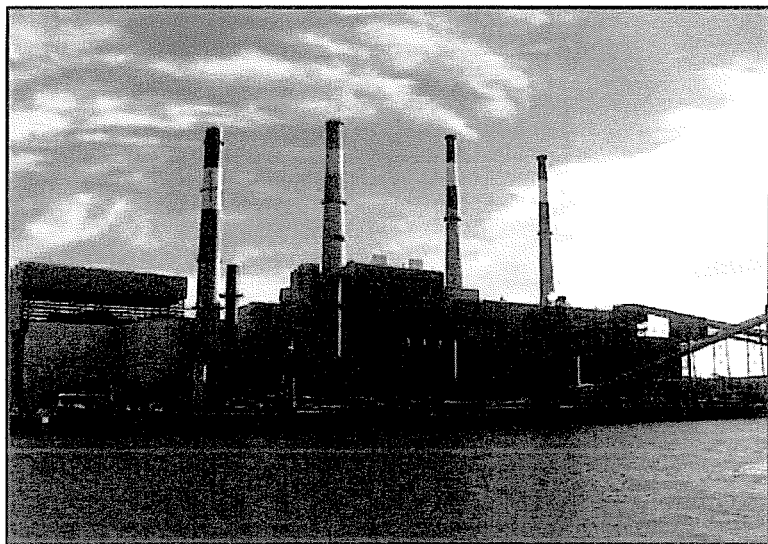
Determined the fair market value of both companies' gas transmission and distribution networks in Argentina. Both companies combined service over 1 million customers through 15,000 miles of transmission and distribution pipelines.

Twin City Power

Determined the fair market value of the gas assets, including natural gas high pressure line, and natural gas and propane gas distribution system, located in Hildale and Colorado City in the state of Utah.

Chilquinta Energía

Determined the fair market value of an ownership interest in Energías, a gas distribution company in Chile.



MARK RODRIGUEZ, ASA, MRICS

This project will be managed and performed under the direct supervision of Mr. Mark Rodriguez, ASA MRICS. Mr. Rodriguez is the founder and managing partner of MRV Consulting, LLC.

Mark Rodriguez is a mechanical engineer, an Accredited Senior Appraiser with the American Society of Appraisers, and a Member of the Royal Institution of Chartered Surveyors. Mr. Rodriguez has over 20 years of experience, including five years as a Senior Manager in the MRV / B&R of a "Big Four" accounting firm located in New York City. His previous responsibilities included business development, marketing and project management of numerous electric utility, power, and high technology related valuation-consulting projects throughout North America, Latin America and Europe. Mr. Rodriguez also has a Masters Degree in Managerial Accounting.

Mark specializes in serving electricity, gas, and water utility related clients as well as domestic and international independent power producers.

He has supervised and performed a diversity of valuation, appraisal and consulting engagements, including the valuation of public utilities, independent power producers, complex manufacturing and industrial facilities, commercial buildings and residential apartments. His experience includes both domestic and international transactions. These valuation advisory assignments were performed for appraisals, market valuations, purchase price allocations, cost segregation studies, litigation support, project financing, transactional pricing for taxation and management reporting purposes, property tax, transfer tax, acquisitions, divestitures, insurance, due diligence, non-cash charitable contributions, and useful life analyses.

Specifically, these transactions included the valuation of tangible assets, intangible assets, and goodwill; purchase price allocations for tax and financial reporting including compliance with the Financial Accounting Standards Board Accounting Standards Codification 805 and Financial Accounting Standards Board Statements No. 141, 142, 143, and 144. Additionally, he has completed both domestic and international valuation and assignments to comply with International Financial Reporting Standards (IFRS) and International Valuation Standards (IVS). These transactions have commonly involved financial, economic, and statistical analysis to establish market values, cost segregation, and overall transactional structuring.

Mr. Rodriguez has analyzed a variety of electric generating facilities and public utility related assets including: base load power plants, capacity and peaking facilities, and transmission and distribution assets. In addition, he has analyzed both electric and gas transmission lines and distribution systems including gas regulating stations and electrical substations.

To date, Mark has completed valuation of over 430 power plants in over 130 separate transactions, totaling over 155,000 MW of total capacity valued. Mr. Rodriguez has supervised and performed numerous engagements involving the valuation of intangible assets including contracts, power purchase agreements, transitional agreements, mineral and fossil fuel rights, transmission constraint contracts, pollution credits, computer technology, trade names, trained and assembled workforce, leases, goodwill and going concern. Specializations include

MARK RODRIGUEZ, ASA, MRICS (continued)

discounted cash flow and direct capitalization models, statistical analyses including price forecasting, cost segregation studies and business entity and business interest valuations.

Deloitte & Touche, New York, NY

Senior Manager – Director of Energy & Utility Valuations

1995 to 1999

Mr. Rodriguez had five years experience as a Senior Manager in the MRV / B&R of a “Big Five” consulting firm located in New York City. He served as the developer and head of the Independent Power and Public Utilities Valuation Practice that included business development, marketing, and project management of numerous industrial, commercial, public utility and independent power related valuation-consulting projects throughout North America, Latin America, and Europe.

Mr. Rodriguez has performed valuation studies of facilities and equipment in the electric utility industry for a variety of purposes including management information, mergers and acquisitions, privatization, deregulation and corporate restructuring. These valuation studies have generally involved financial, economic and statistical analysis to establish fair market values, residual values and remaining useful lives. He has analyzed a variety of electric generating facilities ranging from large utility base load power plants to smaller independent power plants including coal, gas, hydroelectric, resource recovery, biomass, fossil fuel, black liquor, sludge/hazardous and biomass projects. Additional facility valuation assignments prepared by Mr. Rodriguez include electric transmission and distribution systems and natural gas networks.

Mechanical / Electrical Project Engineer

1990 to 1995

Mr. Rodriguez obtained over five years of progressively responsible engineering and construction management experience with specific expertise in industrial and commercial contracting. Mr. Rodriguez has served as a project engineer on the following capital projects:

- Sayreville Cogeneration Facility, 311MW natural gas fired combined cycle cogeneration facility in Sayreville, NJ
- Bellingham Cogeneration Facility, 311MW gas/oil fired combined cycle cogeneration facility in Bellingham, MA
- Northumberland County Prison, 1000 bed correctional facility built on a design/sale/leaseback program for PA Department of Corrections in Shamokin, PA
- Erie County Prison, 1000 bed correctional facility built on a design/sale/leaseback program for PA Department of Corrections in Albion, PA
- Allegheny County Jail, 1,800 cell efficient inner city high rise jail for the County of Allegheny in downtown, Pittsburgh, PA
- Lakewood Cogeneration Facility, 237 MW natural gas fired combined cycle cogeneration facility in Lakewood, NJ
- Mercer County Resource Recovery Facility, design and permitting for this future 52 MW facility in Trenton, NJ
- Onondaga Resource Recovery Facility, 40 MW facility in Syracuse, NY

MARK RODRIGUEZ, ASA, MRICS (continued)

Professional Affiliations:

- ASA, American Society of Appraisers - Accredited Senior Appraiser
 - Accredited Senior Appraiser with the American Society of Appraisers
 - ASA Designation in Machinery & Technical Specialties
 - Member of American Society of Appraisers – North Jersey Chapter #73
 - ASA Northern New Jersey Chapter, President, 2004/2005
 - ASA Northern New Jersey Chapter, Vice President, 2003/2004
 - ASA Northern New Jersey Chapter, Chapter Secretary, 2002/2003
- MRICS, The Royal Institution of Chartered Surveyors – Member
- Appraisal Issues Task Force (AITF) – Member
- The American Society of Mechanical Engineers (ASME) – Member
 - Member #: 2008068; Since 1989
- Society of Depreciation Professionals (SDP) – Member

Education:

- Master of Science in Managerial Accounting – New Jersey Institute of Technology 1998
- Bachelor of Science in Mechanical Engineering – NJIT 1990
- ASA – American Society of Appraisers
 - ME204: Machinery and Equipment Valuation – Advanced Topics and Report Writing
 - ME203: Machinery and Equipment Valuation – Advanced Topics and Case Studies
 - ME202: Machinery and Equipment Valuation Methodology
 - ME201: Introduction to Machinery and Equipment Valuation
 - Appraisal Institute: I410 – Uniform Standards of Professional Practice (USPAP)
- Real Estate Certificate Program – Monmouth University 2007
 - REC405: Regulation and Real Estate Development Process
 - REC404: Lease Negotiations and Analysis
 - REC402: Real Estate Appraisal, Valuation and Income Analysis
 - REC401: Real Estate Law
 - Real Estate Finance, Investment and Taxation

MARK RODRIGUEZ, ASA, MRICS (continued)

Speaking Engagements:

- Power & Electricity World Latin America 2009 – Pre-Conference Workshop Topic “*Creating and Measuring Value - Power Plant Development*,” Miami, Florida US
- Power & Electricity World Latin America 2009 – Panel Topic “*Latin Power Generators’ Point of View*,” Miami, Florida US
- Corpbanca IFRS Seminar 2008 – Presentation Topic “*IFRS Implementation and the Affect on Fair Value*,” Santiago Chile
- FCG Annual Fall Conference 2007 – Presentation Topic “*Cost Segregation: A Service that Pays for Itself*,” Chicago, Illinois US
- International Association of Assessing Officers 72nd Annual International Conference 2006 – Presentation Topic “*Recognizing & Separating Real Property, Personal Property, and Intangible Values in Common Indications of Value*,” Milwaukee, Wisconsin, US
- Workshop Leader for the 5th Annual Electric Asset Valuation Conference 2003 – Presentation Topic “*Getting the Most for Your Appraisal Dollar – Valuation Techniques, Theories and Practices*,” Houston, Texas, US
- Numerous presentations at seminars and conferences regarding financial advisory services, business valuations, and cost segregation studies

Testimonial Experience (Expert Witness):

Mr. Rodriguez has prepared appraisals for about 25 litigation cases. In addition to the following trials and hearings, Mr. Rodriguez has presented his appraisals in several arbitrations and at several property tax appeal boards.

- State of Michigan Tax Tribunal – Testified as an expert witness in 2010 regarding the valuation and appraisal of personal property owned by Ford Motor Company
- Ogle County Board of Review, Illinois – Testified as an expert witness in 2007 regarding the valuation and appraisal of the Exelon Byron Nuclear Power Station
- Will County Board of Review, Illinois – Testified as an expert witness in 2006 regarding the valuation and appraisal of the Exelon Braidwood Nuclear Power Station
- Massachusetts Tax Appellate Court, Boston – Testified as an expert witness in 2006 regarding the valuation and appraisal of utility property owned by MCI World Com, Inc.
- Supreme Court of the State of New York, County of Westchester – Testified in the 2006 divorce case, Scharfman v. Scharfman, as an expert witness regarding the value of tax benefits derived from cost segregation of residential property assets
- Supreme Court of the State of New York, County of Saratoga – Testified as an expert witness in a 2003 trial regarding the valuation and appraisal of electric transmission assets owned by Niagara Mohawk
- Supreme Court of the State of New York, County of Saratoga – Testified as an expert witness in 2003 regarding the valuation and appraisal of the Spier Falls, Feeder Dam, and Sherman Island Hydroelectric Facilities

MARK RODRIGUEZ, ASA, MRICS (continued)

- Supreme Court of the State of New York, County of Onondaga, Fifth Judicial District – Testified as an expert witness regarding the valuation and appraisal of utility property owned by Niagara Mohawk
- Supreme Court of the State of New York, County of Fulton – Testified as an expert witness in 2002 regarding the valuation and appraisal of the Ephratah Hydroelectric Facility

Valuations Prepared for Litigation:

- State of Pennsylvania, Beaver County – The valuation and appraisal of the Bruce Mansfield Coal and the Beaver Valley Nuclear Plants for the Southside School District (Settled Prior to Court)
- State of Massachusetts, Franklin County – Prepared appraisal report for litigation support regarding the Northfield Mountain Hydroelectric Facility for the Town of Erving and Town of Northfield, MA (Settled)
- State of New York Supreme Court, County of Westchester – The valuation and appraisal of utility property owned by Consolidated Edison (Settled Prior to Court)

Municipalization / Privatization Projects

- PSEG Americas Inc. – Acquisition of hydroelectric and transmission assets in Peru. Assets included:
 - Yaupi – 108 MW Hydroelectric Facility located in Peru
 - Malpaso – 54 MW Hydroelectric Facility located in Peru
 - Pachachaca – 12 MW Hydroelectric Facility located in Peru
 - La Oroya – 9 MW Hydroelectric Facility located in Peru
 - Transmission Lines – 460 Miles of Single and Double Circuit Transmission Lines in Peru
 - Substations – 21 Medium-Voltage Level Substations in Peru
- Duke Energy, Acquisition of Oil-Fired Generating Assets in El Salvador. – Acquisition includes the Acajutla (220 MW); Soyapango (92 MW); and San Miguel (82 MW)
- Duke Energy – Acquisition of 2,237 MW, constituted of eight hydroelectric facilities along the Paranapema River in Brazil
- Sempra Energy and PSEG Americas Inc. – Acquisition of Energas S.A., a natural gas distribution company in central Chile, a controlling interest in Luz Del Sur, S.A., the second largest electricity distributor in Peru; and 32 percent of Central Puerto, S.A., the largest thermal electricity generator in Argentina, 2,100 MW
- The AES Corporation – Fair market valuation of tangible assets, purchase price allocation and estimation of “suggested” remaining useful lives for US GAAP reporting purposes for AES’s acquisition of Empresa de Generacion Bayano, S.A. (Bayano) and Empresa de Generacion Chiriqui, S.A. (Chiriqui). Bayano is comprised of a 150 MW hydro power generation facility and a 42 MW thermal plant, both located near Panamá

MARK RODRIGUEZ, ASA, MRICS (continued)

- City, Panamá. Chiriqui is comprised of two run-of-the-river power generation facilities, with a combined capacity of 90 MW, located in the western part of Panamá.
- Reliant Energy (Formerly Houston Industries) – Fair market valuation of tangible assets and estimation of “suggested” remaining useful lives for US GAAP reporting purposes for HIE’s acquisition of Compania de Alumbrado Electrico de San Salvador, S.A. (CAESS), Empresa Eléctrica de Oriente, S.A. (EEO) and Distribuidora Eléctrica de Usulután, Sociedad de Economía Mixta (DEUSEM). CAESS, EEO and DEUSEM own and operate electricity distribution networks that provide electricity to approximately 530,000 customers throughout El Salvador.
- Confidential Investor – Fair market valuation, Rail Marshalling Yard, Antwerp, Belgium
- Convergence Communications, Inc. – Fair market valuation of tangible and intangible assets, purchase price allocation and estimation of “suggested” remaining useful lives for US GAAP reporting purposes for CCI’s acquisition of Interamerican Net de Venezuela, S.A. (Interanet). Interanet is an Internet service provider located in Maracaibo, Ciudad Ojeda and Puerto La Cruz, Venezuela.
- Convergence Communications, Inc. – Fair market valuation of tangible and intangible assets, purchase price allocation and estimation of “suggested” remaining useful lives for US GAAP reporting purposes for CCI’s acquisition of Cablevisa, S.A. (Cablevisa) and Multicable, S.A. (Multicable). Cablevisa and Multicable provide multi-channel subscription television services in and around San Salvador, El Salvador.
- Confidential Investor – Fair market valuation, Rail Marshalling Yard, Klagenfurt, Austria
- Confidential Investor – Fair market valuation, OBB Rail Marshalling Yard, Vienna, Austria
- Confidential Investor – Fair market valuation, Dallas DART Bus Facilities, Dallas, TX
- Confidential Investor – Fair market valuation, Chicago Transit Authority, Various Rail and Bus Facilities, Chicago, IL
- Confidential Investor – Fair market valuation, Miami Metro Dade Bus Facilities, Miami, FL
- Confidential Investor – Fair market valuation, Bi-State Development Bus Facilities, St. Louis, MO
- Confidential Investor – Fair market valuation, Tri-Metro, Various Rail and Bus Facilities, Portland, OR
- Confidential Investor – Fair market valuation, New Jersey Transit, Various Rail and Bus Facilities, Newark, NJ
- Confidential Investor – Fair market valuation, RTD Denver, Various Bus Facilities, Denver, CO

FERNANDO SOSA

Professional Background:

MR Valuation Consulting, LLC
Manager

August 2007 to Present

Fernando Sosa is a manager within the machinery and equipment MRV / B&R of MRV Consulting, LLC. Mr. Sosa is a Candidate Member of the American Society of Appraisers pursuing a designation in Machinery and Technical Specialties.

Mr. Sosa has over nine years of experience in the valuation practice. Mr. Sosa performs valuations and appraisals of tangible assets. These valuations are performed for a variety of purposes, including purchase price allocations, cost segregation, insurance purposes, depreciation studies, asset based financing, and property tax appraisals.

Mr. Sosa has performed valuations and appraisals for hotels, resorts, fitness centers, lending institutions, assessor's offices, insurance companies, manufacturing facilities, distributions warehouses, construction equipment, hospitals, mental health facilities, city infrastructure, airports, water treatment plants and waste water treatment plants.

American Appraisal Associates
Manager

August 2006 to August 2007

Mr. Sosa managed a group of consultants focusing on public sector consulting engagements for insurable values and Governmental Accounting Standards Board ("GASB") Statement 34 compliance, was involved with training and mentoring associates in the Atlanta office, and served on the Waste Water and Water Treatment Plant valuation committee.

Deloitte Financial Advisory Services
Senior Associate

September 2005 to August 2006

Mr. Sosa performed machinery and equipment valuations for SFAS 141 including international engagements in México and Canada focused on multinational sporting equipment manufacturing, semiconductor industry, defense sector aerospace, dental industry, and steel reprocessing. Mr. Sosa also served on the mentoring and coaching committee and cross trained with the cost segregation group conducting tax studies for franchise retail stores and outlet shopping centers.

Marshall & Stevens, Inc.
Senior Consultant

September 2003 to September 2005

Mr. Sosa worked in the capital asset group of Marshall & Stevens. In this capacity, he performed property tax appraisals, purchase price allocations, asset based finance appraisals, and insurance appraisals for insurance risk pools, commercial properties, industrial properties, residential buildings, machinery and equipment. Clients included newspapers, nationwide

FERNANDO SOSA (continued)

retailer, manufacturing facilities, financial institutions, aviation maintenance, construction, and process plants.

**American Appraisal Associates
Senior Consultant**

August 2000 to September 2003

GASB 34 requires public entities to inventory fixed assets and depreciate them from original purchase date to present, arriving at net book value. Performed and managed large projects for various states, counties, municipalities, educational institutions, school districts, and public transportation agencies. Engagements were typically broad scale requiring a large staff and field time of 3 months to a year. Projects included providing insurable values for the equipment, buildings, and land improvements. Mentored and trained staff appraisers. Responsible for estimating project schedules, number of staff required, scheduling personnel, reviewing work, and performing appraisals.

Professional Affiliations:

- ASA, American Society of Appraisers – Candidate Member
 - Machinery and Technical Specialties
 - Member of American Society of Appraisers – Greater Miami Chapter #046

Education:

- Bachelor of Science in Business Administration concentration in Finance – Southeastern Louisiana University, Hammond, Louisiana
- ASA – American Society of Appraisers
 - ME204: Machinery and Equipment Valuation – Advanced Topics and Report Writing
 - ME203: Machinery and Equipment Valuation – Advanced Topics and Case Studies
 - ME202: Machinery and Equipment Valuation Methodology
 - ME201: Introduction to Machinery and Equipment Valuation
 - Uniform Standards of Professional Practice (USPAP)
- Principles of Appraisal Practice and Code of Ethics

International Engagements:

- London, England
- Madrid, Spain
- Quebradillas, Puerto Rico
- San Salvador, El Salvador
- Ciudad de Panamá, Panamá
- Tamuin, México
- Tecate, México
- Tijuana, México

JUSTIN BAIN, ASA

MR Valuation Consulting, LLC
Senior Consultant

July 2005 to Present

Justin Bain is a senior consultant within the business valuation group of MRV Consulting, LLC, with over four years of experience of valuation practice. He is an Accredited Senior Appraiser of the American Society of Appraisers designed in the Machinery & Technical Specialties discipline, with a specialty in Machinery & Equipment. He is also a Member of the American Society of Mechanical Engineers and the International Society of Pharmaceutical Engineers. He holds a Bachelor of Engineering in Mechanical Engineering from Stevens Institute of Technology.

Mr. Bain specializes in the valuation of machinery, equipment, and other tangible assets to support business valuations, appraisals, and litigation support projects. These tangible asset valuations are performed for a variety of purposes, including: cost segregation studies, purchase price allocations for US federal tax reporting, purchase price allocations for financial and management reporting (i.e. ASC 805/350, formerly known as SFAS 141/142 respectively), property tax, transfer tax, acquisitions, divestitures, insurance, due diligence, non-cash charitable contributions, depreciation studies, and useful life analyses.

Mr. Bain has performed asset valuations and appraisals of more than \$50 billion (in market value) of assets within the electric generation, transmission, and distribution industry. He has performed valuations of dozens of generation facilities. His experience includes coal, gas, hydroelectric, nuclear, oil, cogeneration, and combined cycle power plants.

Justin also has experience performing cost approach valuations, purchase price allocations, and cost segregation studies of industrial, commercial, and residential properties with a combined market value of over \$15 billion. This experience includes apartment buildings, assisted living facilities, industrial/manufacturing facilities, hotels, laboratories, medical centers, office buildings, restaurants, shopping centers, and warehouses. Mr. Bain also has experience in valuations of assets related to the transmission and distribution of natural gas, chemical, pharmaceutical, health care, high-technology, hospitality, telecommunications, retail, commercial, and utility industries.

Professional Affiliations and Association Memberships:

- American Society of Appraisers – Accredited Senior Appraiser
 - Discipline in Machinery & Technical Specialties
 - Member of American Society of Appraisers – North Jersey Chapter #073
- American Society of Mechanical Engineers
 - Member since 2004
- International Society of Pharmaceutical Engineers
 - Member since 2004

JUSTIN BAIN, ASA (continued)

Education:

- Bachelor of Engineering in Mechanical Engineering – Stevens Institute of Technology, Charles V. Schaefer School of Engineering, Hoboken, NJ
- National Tax Association & Wichita State University: 37th Annual Workshop for Ad Valorem Taxation of Communications, Energy and Transportation Properties
- ASA – American Society of Appraisers
 - ME 204: Machinery and Equipment Valuation – Advanced Topics and Report Writing
 - ME 203: Machinery and Equipment Valuation – Advanced Topics and Case Studies
 - ME 202: Machinery and Equipment Valuation Methodology
 - ME 201: Introduction to Machinery and Equipment Valuation
 - Appraisal Institute: I410 – Uniform Standards of Professional Practice (USPAP)

International Engagements:

- Tamuín, Mexico
- Changuinola, Panama

B2: List of MRV Consulting Power Plant Experience

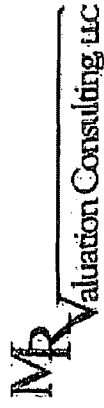
List of MRV Consulting Power Plants Experience

Number of Facilities	Facility	Location		Fuel Type	Capacity (MW)	Appraisal Date
		State	Country			
00001	Dolton Landfill Facility	Illinois	US	Bio-Gas	5.3	May 1, 2001
00002	Upper Rock Island County Landfill Facility	Illinois	US	Bio-Gas	3	May 1, 2001
00003	Fibrominn LLC Biomass-Fired Generation Facility	Minnesota	US	Biomass	55	December 31, 2009
00004	Berlin Biomass	New Hampshire	US	Biomass	58	June 5, 2008
00005	Ogdensburg Power Plant	New York	US	CCGT	80	April 1, 2008
00006	Rumford Generating Station	Maine	US	CCGT	265	January 4, 2002
00007	Tiverton Generating Plant	Rhode Island	US	CCGT	265	January 4, 2002
00008	Danskammer Generating Station	New York	US	CCGT	500	2002
00009	AES Ironwood Generating Station	Pennsylvania	US	CCGT	710	2002
00010	Tracy Generating Station	Nevada	US	CCGT	541	2002
00011	Piñon Pine Power Project	Nevada	US	CCGT	106	2002
00012	Red Oak Generating Station	New Jersey	US	CCGT	830	2002
00013	Teesside Nuclear Power Station	Teesside	United Kingdom	CCGT	1,875	August 10, 2002
00014	Attala Generating Facility	Mississippi	US	CCGT	526	2002
00015	Batesville Generating Station	Mississippi	US	CCGT	837	2002
00016	Selkirk Cogen	New York	US	CCGT	345	1995
00017	Generadora Acajutla, S.A. de C.V.	San Salvador	El Salvador	CCGT	300	2000
00018	Danskammer Generating Station	New York	US	CCGT	500	December 31, 2000
00019	Frederickson Power Plant	Washington	US	CCGT	249	August 1, 2006
00020	Lakewood Cogeneration Facility	New Jersey	US	CCGT	236	June 1, 2000
00021	Pittsfield Generating Facility	Massachusetts	US	CCGT	170	August 6, 2008
00022	Fairless Works Energy Center	Pennsylvania	US	CCGT	1,180	March 12, 2004
00023	Lakewood Cogeneration Facility	New Jersey	US	CCGT	236	May 8, 2008
00024	Newington Energy Facility	New Hampshire	US	CCGT	525	June 8, 2008
00025	CEEMI – West Springfield Station Unit 3	Massachusetts	US	CCGT	107	May 8, 2008
00026	Deepwater Generating Station	New Jersey	US	CCGT	239	May 31, 2001
00027	Bourbonnais Energy Center	Illinois	US	CCGT	1,000	August 15, 2001
00028	Teramo Project - Sithe Global Italia	Abruzzo	Italy	CCGT	1,000	October 3, 2005
00029	Sayreville Cogeneration Station	New Jersey	US	CCGT	311	2000
00030	Warren Generating Station	Pennsylvania	US	CCGT	150	2000
00031	Huntertown Generating Station	Pennsylvania	US	CCGT	71	2000
00032	Coastal Carolina Clean Power Plant	North Carolina	US	CCGT	25	April 1, 2007
00033	Ravenswood Generating Station	New York	US	CCGT	2,480	August 25, 2008
00034	Bellingham Cogeneration Facility	Massachusetts	US	CCGT	311	1998
00035	Sayreville Cogeneration Station	New Jersey	US	CCGT	311	1998

List of MRV Consulting Power Plants Experience

Number of Facilities	Facility	State		Location	Country	Fuel Type	Capacity (MW)	Appraisal Date
		State	Country					
00036	Southaven Power Generating Plant	Mississippi	US	US	US	CCGT	810	May 9, 2008
00037	AES Somerset Generating Station	New York	US	US	US	Coal	675	May 21, 2007
00038	AES Cayuga Power Facility	New York	US	US	US	Coal	306	May 21, 2007
00039	AES Shady Point	Oklahoma	US	US	US	Coal	320	1995
00040	Kindigh Generating Station	New York	US	US	US	Coal	675	2002
00041	Milliken Generating Station	New York	US	US	US	Coal	306	2002
00042	Big Cajun # Power	Louisiana	US	US	US	Coal	1,729	November 5, 2002
00043	Conemaugh Generating Station	Pennsylvania	US	US	US	Coal	1,711	2002
00044	Keystone Generating Station	Pennsylvania	US	US	US	Coal	1,711	2002
00045	Shawville Generating Station	Pennsylvania	US	US	US	Coal	613	2002
00046	Morgantown Generating Station	Maryland	US	US	US	Coal	1,412	2002
00047	Dickerson Generating Station	Maryland	US	US	US	Coal	837	2002
00048	Homer City Generating Station	Pennsylvania	US	US	US	Coal	1,884	2002
00049	Powerton Generating Station	Illinois	US	US	US	Coal	1,538	2002
00050	Joliet Generating Station	Illinois	US	US	US	Coal	1,044	2002
00051	Navajo Generating Station	Arizona	US	US	US	Coal	2,250	2002
00052	Mohave Generating Station	Nevada	US	US	US	Coal	1,580	2002
00053	Reid Gardner Generating Station	Nevada	US	US	US	Coal	605	2002
00054	Valmy Generating Station	Nevada	US	US	US	Coal	522	2002
00055	J.H. Campbell Generating Complex Unit 3	Michigan	US	US	US	Coal	820	July 23, 2002
00056	Karn Generating Complex - DE Karn Unit 1 & 2	Michigan	US	US	US	Coal	515	July 23, 2002
00057	BC Cobb Plant	Michigan	US	US	US	Coal	500	July 23, 2002
00058	J.H. Campbell Generating Complex Unit 2	Michigan	US	US	US	Coal	360	July 23, 2002
00059	J.R. Whiting Generating Plant	Michigan	US	US	US	Coal	328	July 23, 2002
00060	J.C. Weadock Generating Complex	Michigan	US	US	US	Coal	310	July 23, 2002
00061	J.H. Campbell Generating Complex Unit 1	Michigan	US	US	US	Coal	260	July 23, 2002
00062	Sunbury Generating Station	Pennsylvania	US	US	US	Coal	449.5	August 31, 2004
00063	Conemaugh Generating Station	Pennsylvania	US	US	US	Coal	1,711	September 1, 2006
00064	Keystone Generating Station	Pennsylvania	US	US	US	Coal	1,711	September 1, 2006
00065	AES Cayuga Power Facility	New York	US	US	US	Coal	306	January 1, 2003
00066	Mt. Tom Power Plant	Massachusetts	US	US	US	Coal	146	January 1, 2007
00067	St. Johns River Power Park	Florida	US	US	US	Coal	1,320	January 1, 2004
00068	Bruce Mansfield Generating Station	Pennsylvania	US	US	US	Coal	2,460	January 1, 2002 - 2003
00069	Bruce Mansfield Generating Station	Pennsylvania	US	US	US	Coal	2,460	January 1, 2004
00070	Westover Generating Station	New York	US	US	US	Coal	126	January 1, 1999 - 2001

Big Rivers Electric Cooperative, Inc.
 Depreciation Study in Accordance with RUS Bulletin 1767B-1
 June 07, 2010



List of MRV Consulting Power Plants Experience

Number of Facilities	Facility	Location		Fuel Type	Capacity (MW)	Appraisal Date
		State	Country			
00071	Lumberton Power Station	North Carolina	US	Coal	35	June 26, 2009
00072	Elizabethtown Power Station	North Carolina	US	Coal	35	June 26, 2009
00073	Conemaugh Generating Station	Pennsylvania	US	Coal	1,711	May 31, 2001
00074	Keystone Generating Station	Pennsylvania	US	Coal	1,711	May 31, 2001
00075	Indian River Generating Station	Delaware	US	Coal	784	May 31, 2001
00076	Colstrip Generation Station	Montana	US	Coal	2,094	1999
00077	J.E. Corette Plant	Montana	US	Coal	154	1999
00078	Morgantown Generating Station	Maryland	US	Coal	1,412	January 1, 2008
00079	Desert Rock Energy Project	New Mexico	US	Coal	1,500	October 3, 2005
00080	Toquop Energy Project	Nevada	US	Coal	750	October 3, 2005
00081	River Hill Power Project	Pennsylvania	US	Coal	300	October 3, 2005
00082	Desert Rock Energy Project	New Mexico	US	Coal	1,500	2011
00083	River Hill Power Project	Pennsylvania	US	Coal	300	2007
00084	Shawville Generating Station	Pennsylvania	US	Coal	613	2000
00085	Portland Generating Station & Bangor Ash Site	Pennsylvania	US	Coal	585	2000
00086	Seward Generating Station	Pennsylvania	US	Coal	521	2000
00087	Titus Generating Station	Pennsylvania	US	Coal	281	2000
00088	Westwood Generating Station	Pennsylvania	US	Coal	30	September 1, 2000
00089	Niagara Falls Generating Station	New York	US	Coal	53	May 31, 2002
00090	Sunbury Generating Station	Pennsylvania	US	Coal	449.5	September 30, 2004
00091	Conemaugh Generating Station	Pennsylvania	US	Coal/Diesel	1,711	2000
00092	Keystone Generating Station	Pennsylvania	US	Coal/Diesel	1,711	2000
00093	BL England Generating Station	New Jersey	US	Coal/Oil	447	May 31, 2001
00094	BL England Generating Station	New Jersey	US	Coal/Oil	447	February 8, 2007
00095	Navy I Geothermal Facility	California	US	Geothermal	90	January 1, 2006
00096	Navy II Geothermal Facility	California	US	Geothermal	90	January 1, 2006
00097	BLM East Geothermal Facility	California	US	Geothermal	60	January 1, 2006
00098	BLM West Geothermal Facility	California	US	Geothermal	30	January 1, 2006
00099	AES Bayano Hydroelectric Project	Chiriqui	Panama	Hydro	260	January 14, 1999
00100	AES Esiti Hydroelectric Project	Chiriqui	Panama	Hydro	120	January 14, 1999
00101	AES Los Valles Hydroelectric Project	Chiriqui	Panama	Hydro	54	January 14, 1999
00102	AES La Estrella Hydroelectric Project	Chiriqui	Panama	Hydro	48	January 14, 1999
00103	Helms Pumped Storage Facility	California	US	Hydro	1,212	April 4, 2001
00104	James B. Black Hydroelectric Generating Facility	California	US	Hydro	172	April 4, 2001
00105	Pit 5 Hydroelectric Generating Facility	California	US	Hydro	160	April 4, 2001

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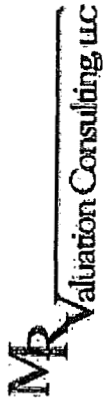
Number of Facilities	Facility	State	Location	Country	Fuel Type	Capacity (MW)	Appraisal Date
00106	Kerckhoff 2 Hydroelectric Generating Facility	California	US	US	Hydro	155	April 4, 2001
00107	Haas Hydroelectric Generating Facility	California	US	US	Hydro	144	April 4, 2001
00108	Belden Hydroelectric Generating Facility	California	US	US	Hydro	125	April 4, 2001
00109	Caribou 2 Hydroelectric Generating Facility	California	US	US	Hydro	120	April 4, 2001
00110	Poe Hydroelectric Generating Facility	California	US	US	Hydro	120	April 4, 2001
00111	Pit 7 Hydroelectric Generating Facility	California	US	US	Hydro	112	April 4, 2001
00112	Rock Creek Hydroelectric Generating Facility	California	US	US	Hydro	112	April 4, 2001
00113	Balch 2 Hydroelectric Generating Facility	California	US	US	Hydro	105	April 4, 2001
00114	Electra Hydroelectric Generating Facility	California	US	US	Hydro	98	April 4, 2001
00115	Pit 4 Hydroelectric Generating Facility	California	US	US	Hydro	95	April 4, 2001
00116	Stanislaus Hydroelectric Generating Facility	California	US	US	Hydro	91	April 4, 2001
00117	Pit 6 Hydroelectric Generating Facility	California	US	US	Hydro	80	April 4, 2001
00118	Caribou 1 Hydroelectric Generating Facility	California	US	US	Hydro	75	April 4, 2001
00119	Cresta Hydroelectric Generating Facility	California	US	US	Hydro	70	April 4, 2001
00120	Pit 3 Hydroelectric Generating Facility	California	US	US	Hydro	70	April 4, 2001
00121	Bucks Creek Hydroelectric Generating Facility	California	US	US	Hydro	65	April 4, 2001
00122	Pit 1 Hydroelectric Generating Facility	California	US	US	Hydro	61	April 4, 2001
00123	Tiger Creek Hydroelectric Generating Facility	California	US	US	Hydro	58	April 4, 2001
00124	Drum 1 Hydroelectric Generating Facility	California	US	US	Hydro	54	April 4, 2001
00125	Kins River Hydroelectric Generating Facility	California	US	US	Hydro	52	April 4, 2001
00126	Drum 2 Hydroelectric Generating Facility	California	US	US	Hydro	49.5	April 4, 2001
00127	Butt Valley Hydroelectric Generating Facility	California	US	US	Hydro	41	April 4, 2001
00128	Kerckhoff 1 Hydroelectric Generating Facility	California	US	US	Hydro	38	April 4, 2001
00129	Balch 1 Hydroelectric Generating Facility	California	US	US	Hydro	34	April 4, 2001
00130	Salt Springs Hydroelectric Generating Facility	California	US	US	Hydro	33	April 4, 2001
00131	Dutch Flat 1 Hydroelectric Generating Facility	California	US	US	Hydro	22	April 4, 2001
00132	A. S. Wishon Hydroelectric Generating Facility	California	US	US	Hydro	20	April 4, 2001
00133	DeSabia Hydroelectric Generating Facility	California	US	US	Hydro	18.5	April 4, 2001
00134	West Point Hydroelectric Generating Facility	California	US	US	Hydro	14.5	April 4, 2001
00135	Wise 1 Hydroelectric Generating Facility	California	US	US	Hydro	14	April 4, 2001
00136	Coleman Hydroelectric Generating Facility	California	US	US	Hydro	13	April 4, 2001
00137	Narrows No. 1 Hydroelectric Generating Facility	California	US	US	Hydro	12	April 4, 2001
00138	Kern Canyon Hydroelectric Generating Facility	California	US	US	Hydro	11.5	April 4, 2001
00139	Newcastle Hydroelectric Generating Facility	California	US	US	Hydro	11.5	April 4, 2001
00140	Halsey Hydroelectric Generating Facility	California	US	US	Hydro	11	April 4, 2001

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Number of Facilities	Facility	Location		Fuel Type	Capacity (MW)	Appraisal Date
		State	Country			
00141	Potter Valley Hydroelectric Generating Facility	California	US	Hydro	9.2	April 4, 2001
00142	Volta 1 Hydroelectric Generating Facility	California	US	Hydro	9	April 4, 2001
00143	Hat Creek 1 Hydroelectric Generating Facility	California	US	Hydro	8.5	April 4, 2001
00144	Hat Creek 2 Hydroelectric Generating Facility	California	US	Hydro	8.5	April 4, 2001
00145	Inskip Hydroelectric Generating Facility	California	US	Hydro	8	April 4, 2001
00146	Chili Bar Hydroelectric Generating Facility	California	US	Hydro	7	April 4, 2001
00147	South Hydroelectric Generating Facility	California	US	Hydro	7	April 4, 2001
00148	Spaulding 1 Hydroelectric Generating Facility	California	US	Hydro	7	April 4, 2001
00149	Spring Gap Hydroelectric Generating Facility	California	US	Hydro	7	April 4, 2001
00150	Centerville Hydroelectric Generating Facility	California	US	Hydro	6.4	April 4, 2001
00151	Tule River Hydroelectric Facility	California	US	Hydro	6.4	April 4, 2001
00152	Deer Creek Hydroelectric Generating Facility	California	US	Hydro	5.7	April 4, 2001
00153	Hamilton Branch Hydroelectric Generating Facility	California	US	Hydro	4.8	April 4, 2001
00154	Spaulding 2 Hydroelectric Generating Facility	California	US	Hydro	4.4	April 4, 2001
00155	San Joaquin 3 Hydroelectric Generating Facility	California	US	Hydro	4.2	April 4, 2001
00156	Merced Falls Hydroelectric Generating Facility	California	US	Hydro	3.5	April 4, 2001
00157	Kilarc Hydroelectric Generating Facility	California	US	Hydro	3.2	April 4, 2001
00158	San Joaquin 2 Hydroelectric Generating Facility	California	US	Hydro	3.2	April 4, 2001
00159	Wise 2 Hydroelectric Generating Facility	California	US	Hydro	3.1	April 4, 2001
00160	Alta Hydroelectric Generating Facility	California	US	Hydro	2	April 4, 2001
00161	Lime Saddle Hydroelectric Generating Facility	California	US	Hydro	2	April 4, 2001
00162	Phoenix Hydroelectric Generating Facility	California	US	Hydro	2	April 4, 2001
00163	Cow Creek Hydroelectric Generating Facility	California	US	Hydro	1.8	April 4, 2001
00164	Toadown Hydroelectric Generating Facility	California	US	Hydro	1.5	April 4, 2001
00165	Oak Flat Hydroelectric Generating Facility	California	US	Hydro	1.3	April 4, 2001
00166	Coal Canyon Hydroelectric Generating Facility	California	US	Hydro	0.9	April 4, 2001
00167	Crane Valley Hydroelectric Generating Facility	California	US	Hydro	0.9	April 4, 2001
00168	Volta 2 Hydroelectric Generating Facility	California	US	Hydro	0.9	April 4, 2001
00169	San Joaquin 1 Hydroelectric Generating Facility	California	US	Hydro	0.4	April 4, 2001
00170	Fife Brook Generating Station	Massachusetts	US	Hydro	10	June 17, 2002
00171	Cabot Hydroelectric Station	Massachusetts	US	Hydro	53	July 2, 2002
00172	Shepaug Hydroelectric Station	Connecticut	US	Hydro	43.4	July 2, 2002
00173	Stevenson Hydroelectric Station	Connecticut	US	Hydro	28.9	July 2, 2002
00174	Tunnel ICU Hydroelectric Station	Connecticut	US	Hydro	20.8	July 2, 2002
00175	Falls Village Hydroelectric Station	Connecticut	US	Hydro	11	July 2, 2002

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Number of Facilities	Facility	Location		Fuel Type	Capacity (MW)	Appraisal Date
		State	Country			
00176	Bulls Bridge Hydroelectric Station	Connecticut	US	Hydro	8.4	July 2, 2002
00177	Turner Falls No. 1 Hydroelectric Station	Massachusetts	US	Hydro	6.3	July 2, 2002
00178	Scotland Hydroelectric Station	Connecticut	US	Hydro	2.2	July 2, 2002
00179	Tunnel Hydroelectric Station	Connecticut	US	Hydro	2.1	July 2, 2002
00180	Taftville Hydroelectric Station	Connecticut	US	Hydro	2	July 2, 2002
00181	Robertville Hydroelectric Station	Connecticut	US	Hydro	0.6	July 2, 2002
00182	Bantam Hydroelectric Station	Connecticut	US	Hydro	0.3	July 2, 2002
00183	Nine Mile Point Unit 2 Nuclear Station	New York	US	Nuclear	1,140	July 2, 2002
00184	High Falls Hydroelectric Station	New York	US	Hydro Storage	15	July 2, 2002
00185	Kents Falls Hydroelectric Station	New York	US	Hydro	12.4	July 2, 2002
00186	Mill C Hydroelectric Station	New York	US	Hydro	6	July 2, 2002
00187	Cadyville Hydroelectric Station	New York	US	Hydro	5.5	July 2, 2002
00188	Mechanicville Hydroelectric Station	New York	US	Hydro	5	July 2, 2002
00189	Rainbow Falls Hydroelectric Station	New York	US	Hydro	2.6	July 2, 2002
00190	Harris Lake Hydroelectric Station	New York	US	Hydro	2	July 2, 2002
00191	Keuka Hydroelectric Station	New York	US	Hydro	2	July 2, 2002
00192	Conventional Hydro Generation - 13	Various	US	Hydro	73.5	July 23, 2002
00193	Capivara Hydroelectric Facility	Sao Paulo	Brazil	Hydro	640	2000
00194	Taquarucu Hydroelectric Facility	Sao Paulo	Brazil	Hydro	554	2000
00195	Chavantes Hydroelectric Facility	Sao Paulo	Brazil	Hydro	414	2000
00196	Rosana Hydroelectric Facility	Sao Paulo	Brazil	Hydro	372	2000
00197	Jurumirim Hydroelectric Facility	Sao Paulo	Brazil	Hydro	98	2000
00198	Canoas I Hydroelectric Facility	Sao Paulo	Brazil	Hydro	83	2000
00199	Salto Grande Hydroelectric Facility	Sao Paulo	Brazil	Hydro	74	2000
00200	Canoas II Hydroelectric Facility	Sao Paulo	Brazil	Hydro	72	2000
00201	Palmer Hydroelectric Generating Facility	New York	US	Hydro	48	September 1, 2005
00202	Curtis Hydroelectric Generating Facility	New York	US	Hydro	10.8	September 1, 2005
00203	Boott Hydroelectric Generating Facility	Massachusetts	US	Hydro	25	December 31, 2007
00204	Stuyvesant Falls Hydroelectric Generating Facility	New York	US	Hydro	2.8	December 22, 2006
00205	Bennetts Bridge Hydroelectric Facility	New York	US	Hydro	16	January 1, 1998 - 2001
00206	Lighthouse Hill Hydroelectric Facility	New York	US	Hydro	14	January 1, 1998 - 2001
00207	Kayuta Lake Hydroelectric Generating Facility	New York	US	Hydro	3.7	January 2, 2006
00208	Herkimer Hydroelectric Generating Facility	New York	US	Hydro	3.3	January 2, 2006
00209	Ogdensburg Hydroelectric Generating Facility	New York	US	Hydro	1.7	January 2, 2006
00210	Cranberry Lake Hydroelectric Generating Facility	New York	US	Hydro	0.9	January 2, 2006

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Number of Facilities	Facility	Location		Fuel Type	Capacity (MW)	Appraisal Date
		State	Country			
00211	Adams Hydroelectric Generating Facility	New York	US	Hydro	0.5	January 2, 2006
00212	Christine Falls Hydroelectric Generating Facility	New York	US	Hydro	0.5	January 2, 2006
00213	Forestport Hydroelectric Generating Facility	New York	US	Hydro	0.4	January 2, 2006
00214	Pontook Hydroelectric Facility	New Hampshire	US	Hydro	9.6	2005 until 2015
00215	Ephratah Hydroelectric Facility	New York	US	Hydro	5.5	March 1, 2000 - 2004
00216	Spier Falls Hydroelectric Facility	New York	US	Hydro	56	January 1, 1998 - 2001
00217	Sherman Island Hydroelectric Facility	New York	US	Hydro	29.8	January 1, 2000 - 2001
00218	Feeder Dam Hydroelectric Facility	New York	US	Hydro	28.8	January 1, 2000 - 2001
00219	Spier Falls Hydroelectric Facility	New York	US	Hydro	56	January 1, 1998 - 2001
00220	Sherman Island Hydroelectric Facility	New York	US	Hydro	29.8	January 1, 2000 - 2001
00221	Feeder Dam Hydroelectric Facility	New York	US	Hydro	28.8	January 1, 2000 - 2001
00222	Haypress Hydroelectric Project	California	US	Hydro	10	July 1, 2009
00223	CEEMI - Red Bridge Station	Massachusetts	US	Hydro	4.5	May 8, 2008
00224	CEEMI - Gardner Falls Station	Massachusetts	US	Hydro	3.7	May 8, 2008
00225	CEEMI - Indian Orchard Station	Massachusetts	US	Hydro	3.7	May 8, 2008
00226	CEEMI - Putts Bridge Station	Massachusetts	US	Hydro	3.2	May 8, 2008
00227	CEEMI - Dwight Station	Massachusetts	US	Hydro	1.5	May 8, 2008
00228	Kerr Dam	Montana	US	Hydro	196	1999
00229	Thompson Falls Dam	Montana	US	Hydro	94	1999
00230	Cochrane Dam	Montana	US	Hydro	60	1999
00231	Ryan Dam	Montana	US	Hydro	60	1999
00232	Holter Dam	Montana	US	Hydro	48	1999
00233	Morony Dam	Montana	US	Hydro	48	1999
00234	Rainbow Dam	Montana	US	Hydro	36	1999
00235	Black Eagle Dam	Montana	US	Hydro	21	1999
00236	Hauser Dam	Montana	US	Hydro	19	1999
00237	Mystic Lake Dam	Montana	US	Hydro	12	1999
00238	Madison Dam	Montana	US	Hydro	8	1999
00239	Yaupi Hydroelectric Station	Yaul	Peru	Hydro	108	December 11, 2001
00240	Malpaso Hydroelectric Station	Yaul	Peru	Hydro	54	December 11, 2001
00241	Pachachaca Hydroelectric Station	Yaul	Peru	Hydro	12	December 11, 2001
00242	La Oroya Hydroelectric Station	Yaul	Peru	Hydro	9	December 11, 2001
00243	Browns Falls Hydroelectric Facility	New York	US	Hydro	17	January 1, 2001
00244	South Edwards Hydroelectric Facility	New York	US	Hydro	2,68	January 1, 2001
00245	Flat Rock Hydroelectric Facility	New York	US	Hydro	6	January 1, 2001

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Number of Facilities	Facility	Location		Fuel Type	Capacity (MW)	Appraisal Date
		State	Country			
00246	Bujagali Hydroelectric Project		Uganda	Hydro	250	October 3, 2005
00247	Piney Generating Station	Pennsylvania	US	Hydro	27	2000
00248	York Haven Generating Station	Pennsylvania	US	Hydro	19	2000
00249	Deep Creek Hydroelectric Generating Station	Maryland	US	Hydro	18	2000
00250	Palmer Hydroelectric Generating Facility	New York	US	Hydro	48	July 11, 2001
00251	Curtis Hydroelectric Generating Facility	New York	US	Hydro	10.8	July 11, 2001
00252	Palmer Hydroelectric Generating Facility	New York	US	Hydro	48	April 30, 2004
00253	Curtis Hydroelectric Generating Facility	New York	US	Hydro	10.8	April 30, 2004
00254	Moore Hydroelectric Facility	New Hampshire	US	Hydro	192	April 30, 2005
00255	Comerford Hydroelectric Station	New Hampshire	US	Hydro	164	April 30, 2005
00256	Bellows Falls Hydroelectric Station	Vermont	US	Hydro	49	April 30, 2005
00257	Wilder Hydroelectric Station	Vermont	US	Hydro	42	April 30, 2005
00258	Harriman Hydroelectric Station	Vermont	US	Hydro	39	April 30, 2005
00259	Vernon Hydroelectric Station	Vermont	US	Hydro	22	April 30, 2005
00260	Deerfield No. 5 Hydroelectric Station	Massachusetts	US	Hydro	14	April 30, 2005
00261	McIndoes Hydroelectric Station	Vermont	US	Hydro	13	April 30, 2005
00262	Deerfield No. 3 Hydroelectric Station	Massachusetts	US	Hydro	7	April 30, 2005
00263	Sherman Hydroelectric Station	Massachusetts	US	Hydro	7	April 30, 2005
00264	Deerfield No. 2 Hydroelectric Station	Massachusetts	US	Hydro	6	April 30, 2005
00265	Deerfield No. 4 Hydroelectric Station	Massachusetts	US	Hydro	6	April 30, 2005
00266	Searsburg Hydroelectric Station	Vermont	US	Hydro	5	April 30, 2005
00267	Moore Hydroelectric Facility	New Hampshire	US	Hydro	192	April 1, 2006
00268	Comerford Hydroelectric Station	New Hampshire	US	Hydro	164	April 1, 2006
00269	Bellows Falls Hydroelectric Station	Vermont	US	Hydro	49	April 1, 2006
00270	Wilder Hydroelectric Station	Vermont	US	Hydro	42	April 1, 2006
00271	Harriman Hydroelectric Station	Vermont	US	Hydro	39	April 1, 2006
00272	Vernon Hydroelectric Station	Vermont	US	Hydro	22	April 1, 2006
00273	Deerfield No. 5 Hydroelectric Station	Vermont	US	Hydro	22	April 1, 2006
00274	McIndoes Hydroelectric Station	Massachusetts	US	Hydro	14	April 1, 2006
00275	Deerfield No. 3 Hydroelectric Station	Vermont	US	Hydro	13	April 1, 2006
00276	Sherman Hydroelectric Station	Massachusetts	US	Hydro	7	April 1, 2006
00277	Deerfield No. 2 Hydroelectric Station	Massachusetts	US	Hydro	7	April 1, 2006
00278	Deerfield No. 4 Hydroelectric Station	Massachusetts	US	Hydro	6	April 1, 2006
00279	Searsburg Hydroelectric Station	Vermont	US	Hydro	6	April 1, 2006
00280	Moore Hydroelectric Facility	New Hampshire	US	Hydro	5	April 1, 2006
					192	January 1, 2007

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		State	Country			
00281	Comerford Hydroelectric Station	New Hampshire	US	Hydro	164	January 1, 2007
00282	Bellows Falls Hydroelectric Station	Vermont	US	Hydro	49	January 1, 2007
00283	Wilder Hydroelectric Station	Vermont	US	Hydro	42	January 1, 2007
00284	Harriman Hydroelectric Station	Vermont	US	Hydro	39	January 1, 2007
00285	Vernon Hydroelectric Station	Vermont	US	Hydro	22	January 1, 2007
00286	Deerfield No. 5 Hydroelectric Station	Massachusetts	US	Hydro	14	January 1, 2007
00287	McIndoes Hydroelectric Station	Vermont	US	Hydro	13	January 1, 2007
00288	Deerfield No. 3 Hydroelectric Station	Massachusetts	US	Hydro	7	January 1, 2007
00289	Sherman Hydroelectric Station	Massachusetts	US	Hydro	7	January 1, 2007
00290	Deerfield No. 2 Hydroelectric Station	Massachusetts	US	Hydro	6	January 1, 2007
00291	Deerfield No. 4 Hydroelectric Station	Massachusetts	US	Hydro	6	January 1, 2007
00292	Searsburg Hydroelectric Station	Vermont	US	Hydro	5	January 1, 2007
00293	Moore Hydroelectric Facility	New Hampshire	US	Hydro	192	January 1, 2008
00294	Comerford Hydroelectric Station	New Hampshire	US	Hydro	164	January 1, 2008
00295	Bellows Falls Hydroelectric Station	Vermont	US	Hydro	49	January 1, 2008
00296	Wilder Hydroelectric Station	Vermont	US	Hydro	42	January 1, 2008
00297	Harriman Hydroelectric Station	Vermont	US	Hydro	39	January 1, 2008
00298	Vernon Hydroelectric Station	Vermont	US	Hydro	22	January 1, 2008
00299	Deerfield No. 5 Hydroelectric Station	Vermont	US	Hydro	14	January 1, 2008
00300	McIndoes Hydroelectric Station	Massachusetts	US	Hydro	13	January 1, 2008
00301	Deerfield No. 3 Hydroelectric Station	Vermont	US	Hydro	7	January 1, 2008
00302	Sherman Hydroelectric Station	Massachusetts	US	Hydro	7	January 1, 2008
00303	Deerfield No. 2 Hydroelectric Station	Massachusetts	US	Hydro	6	January 1, 2008
00304	Deerfield No. 4 Hydroelectric Station	Massachusetts	US	Hydro	6	January 1, 2008
00305	Searsburg Hydroelectric Station	Vermont	US	Hydro	5	January 1, 2008
00306	Moore Hydroelectric Facility	New Hampshire	US	Hydro	192	April 1, 2006
00307	Moore Hydroelectric Facility	New Hampshire	US	Hydro	192	January 1, 2009
00308	Comerford Hydroelectric Station	New Hampshire	US	Hydro	164	January 1, 2009
00309	McIndoes Hydroelectric Station	Vermont	US	Hydro	13	January 1, 2009
00310	Wilder Hydroelectric Station	Vermont	US	Hydro	42	January 1, 2009
00311	Bellows Falls Hydroelectric Station	Vermont	US	Hydro	49	January 1, 2009
00312	Vernon Hydroelectric Station	Vermont	US	Hydro	22	January 1, 2009
00313	Somerset Reservoir	Vermont	US	Hydro	N/A	January 1, 2009
00314	Searsburg Hydroelectric Station	Vermont	US	Hydro	5	January 1, 2009
00315	Harriman Hydroelectric Station	Vermont	US	Hydro	39	January 1, 2009

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Number of Facilities	Facility	Location		Fuel Type	Capacity (MW)	Appraisal Date
		State	Country			
00316	Sherman Hydroelectric Station	Massachusetts	US	Hydro	7	January 1, 2009
00317	Deerfield No. 5 Hydroelectric Station	Massachusetts	US	Hydro	14	January 1, 2009
00318	Deerfield No. 4 Hydroelectric Station	Massachusetts	US	Hydro	6	January 1, 2009
00319	Deerfield No. 3 Hydroelectric Station	Massachusetts	US	Hydro	7	January 1, 2009
00320	Deerfield No. 2 Hydroelectric Station	Massachusetts	US	Hydro	6	January 1, 2009
00321	Fife Brook Generating Station	Massachusetts	US	Hydro	10	1999
00322	Bear Swamp Pumped Storage Generating Station	Massachusetts	US	Hydro Pumped Storage	600	June 17, 2002
00323	Northfield Pumped Storage Hydroelectric Station	Massachusetts	US	Hydro Pumped Storage	1,080	July 2, 2002
00324	Rocky River Pumped Storage Hydroelectric Station	Connecticut	US	Hydro Pumped Storage	29.9	July 2, 2002
00325	Ludington Pumped Storage Facility	Michigan	US	Hydro Pumped Storage	1,872	July 23, 2002
00326	Bear Swamp Pumped Storage Generating Station	Massachusetts	US	Hydro Pumped Storage	600	April 28, 2004
00327	Northfield Pumped Storage Hydroelectric Station	Massachusetts	US	Hydro Pumped Storage	1,080	January 1, 2002
00328	Bear Swamp Pumped Storage Generating Station	Massachusetts	US	Hydro Pumped Storage	600	1999
00329	Hunters Point Power Plant	California	US	Natural Gas	427	April 4, 2001
00330	Big Cajun I Power	Louisiana	US	Natural Gas	220	November 5, 2002
00331	Tenaska Georgia Generating Station	Georgia	US	Natural Gas	944	2002
00332	Dow Cogeneration Facility	Louisiana	US	Natural Gas	200	June 30, 2010
00333	Morris Cogeneration Facility	Illinois	US	Natural Gas	177	October 31, 2008
00334	TBG Cogeneration Facility	New York	US	Natural Gas	57	January 1, 2001 - 2003
00335	Fulton Cogeneration Facility	New York	US	Natural Gas	47.4	July 2, 2004
00336	Twin City Power - Certain Assets	Utah	US	Natural Gas	46.4	April 26, 2006
00337	Rock Springs Generation Facility	Maryland	US	Natural Gas	352	May 8, 2008
00338	Ocean Peaking Power	New Jersey	US	Natural Gas	351	May 8, 2008
00339	CEEMI Expansion	Massachusetts	US	Natural Gas	96	May 8, 2008
00340	CEEMI - Doreen Station	Massachusetts	US	Natural Gas	17	May 8, 2008
00341	CEEMI - West Springfield Station Unit 10	Massachusetts	US	Natural Gas	17	May 8, 2008
00342	CEEMI - Woodland Station	Massachusetts	US	Natural Gas	17	May 8, 2008
00343	Astoria Gas Turbines	New York	US	Natural Gas	600	2000
00344	Killingholme Power Station	England	United Kingdom	Natural Gas	680	March 29, 2000
00345	Astoria Gas Turbines	New York	US	Natural Gas	600	June 25, 1999
00346	Rockford I Energy Center	Illinois	US	Natural Gas	342	August 15, 2001
00347	Rockford II Energy Center	Illinois	US	Natural Gas	171	August 15, 2001
00348	Sithe Independence Station	New York	US	Natural Gas	1,042	December 18, 2002
00349	Sithe Independence Station	New York	US	Natural Gas	1,042	1995
00350	Sithe Independence Station	New York	US	Natural Gas	1,042	March 2, 2004

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Number of Facilities	Facility	Location		Fuel Type	Capacity (MW)	Appraisal Date
		State	Country			
00351	Goreway Station Project	Ontario	Canada	Natural Gas	875	October 3, 2005
00352	Southdown Station Project	Ontario	Canada	Natural Gas	800	October 3, 2005
00353	Ma'arib Project	Sanaa	Yemen	Natural Gas	400	October 3, 2005
00354	Blossburg Generating Station	Pennsylvania	US	Natural Gas	23	2000
00355	Goreway Station Project	Ontario	Canada	Natural Gas	875	May 13, 2009
00356	Ripon Cogeneration Facility	San Francisco	US	Natural Gas	51	October 1, 1996
00357	Roseton Generating Station	New York	US	Natural Gas/Oil	1,200	2002
00358	Clark Generating Station	Nevada	US	Natural Gas/Oil	815	2002
00359	Ft. Churchill Generating Station	Nevada	US	Natural Gas/Oil	266	2002
00360	Sunrise Generating Station	Nevada	US	Natural Gas/Oil	149	2002
00361	Harry Allen Generating Station	Nevada	US	Natural Gas/Oil	76	2002
00362	Karn Generating Complex - DE Kam Unit 3 & 4	Michigan	US	Natural Gas/Oil	1,276	July 23, 2002
00363	Roseton Generating Station	New York	US	Natural Gas/Oil	1,200	December 31, 2000
00364	Freeport Power Plant No. 2	New York	US	Natural Gas/Oil	47	January 1, 2002
00365	E. F. Barrett Power Station	New York	US	Natural Gas/Oil	525	January 2, 2006
00366	Glenwood Power Station	New York	US	Natural Gas/Oil	200	January 2, 2006
00367	New Haven Harbor Generating Station	Connecticut	US	Natural Gas/Oil	455	October 1, 2005
00368	Arthur Kill Generating Station	New York	US	Natural Gas/Oil	842	2000
00369	Oswego Station	New York	US	Natural Gas/Oil	1,700	2000
00370	Middletown Station	Connecticut	US	Natural Gas/Oil	786	2000
00371	Montville Station	Connecticut	US	Natural Gas/Oil	498	2000
00372	Devon Station	Connecticut	US	Natural Gas/Oil	401	2000
00373	Norwalk Harbor Station	Connecticut	US	Natural Gas/Oil	353	2000
00374	Arthur Kill Generating Station	New York	US	Natural Gas/Oil	842	June 25, 1999
00375	Ilion Energy Center	New York	US	Natural Gas/Oil	56	August 15, 2001
00376	Mystic Station	Massachusetts	US	Natural Gas/Oil	1,000	May 15, 1998
00377	New Boston Station	Massachusetts	US	Natural Gas/Oil	778	May 15, 1998
00378	West Medway Station	Massachusetts	US	Natural Gas/Oil	126	May 15, 1998
00379	Gilbert & Hellertown Tank Farm	New Jersey	US	Natural Gas/Oil	615	May 15, 1998
00380	Glen Gardner Generating Station	New Jersey	US	Natural Gas/Oil	184	2000
00381	Mountain Generating Station	Pennsylvania	US	Natural Gas/Oil	47	2000
00382	Syracuse Generating Station	New York	US	Natural Gas/Oil	109	May 31, 2002
00383	Beaver Falls Generating Station	New York	US	Natural Gas/Oil	95	May 31, 2002
00384	Palisades Nuclear Generating Station	Michigan	US	Nuclear	767	July 23, 2002
00385	Callaway Nuclear Plant Unit 2	Missouri	US	Nuclear	1,600	January 1, 2012

List of MRV Consulting Power Plants Experience

Number of Facilities	Facility	Location		Fuel Type	Capacity (MW)	Appraisal Date
		State	Country			
00386	Zion Nuclear Station	Illinois	US	Nuclear	1,083	January 1, 2008
00387	Millstone Nuclear Power Station	Connecticut	US	Nuclear	2,020	October 1, 2002
00388	Millstone Nuclear Power Station	Connecticut	US	Nuclear	2,020	October 1, 2007
00389	Millstone Nuclear Power Station	Iowa	US	Nuclear	598	December 30, 2005
00390	Duane Arnold Energy Center	Pennsylvania	US	Nuclear	1,652	January 1, 2002 - 2003
00391	Beaver Valley Nuclear Power Station	Pennsylvania	US	Nuclear	1,652	January 1, 2004
00392	Beaver Valley Nuclear Power Station	Pennsylvania	US	Nuclear	2,353	January 1, 2003
00393	Byron Generating Station	Illinois	US	Nuclear	2,353	January 1, 2005
00394	Byron Generating Station	Illinois	US	Nuclear	1,656	January 1, 2001 & 2003
00395	Quad Cities Nuclear Power Station	Illinois	US	Nuclear	2,362	January 1, 2006
00396	Braidwood Generating Station	Illinois	US	Nuclear	1,700	January 1, 2006
00397	Dresden Generating Station	Illinois	US	Nuclear	2,362	January 1, 2007
00398	Braidwood Generating Station	Illinois	US	Nuclear	1,700	January 1, 2007
00399	Dresden Generating Station	Illinois	US	Nuclear	2,288	January 1, 2009
00400	LaSalle Nuclear Generating Station Unit 1 & 2	Illinois	US	Nuclear	1,033	September 28, 2007
00401	Point Beach Nuclear Generating Station	Wisconsin	US	Nuclear	2,353	January 1, 2006
00402	Byron Generating Station	Illinois	US	Nuclear	2,353	January 1, 2007
00403	Byron Generating Station	Illinois	US	Nuclear	1,200	2000
00404	Bowline Power Plant Units 1 & 2	New York	US	Oil	170	May 31, 2001
00405	Vienna Generating Station	Maryland	US	Oil	209	1997
00406	Kalaeloa Cogeneration Plant	Hawaii	US	Oil	33	May 15, 1998
00407	Framingham Station	Massachusetts	US	Oil	24	May 15, 1998
00408	Edgar Electric Generating Station	Massachusetts	US	Oil	252	2000
00409	Werner Generating Station	New Jersey	US	Oil	66	2000
00410	Forked River Generating Station	New Jersey	US	Oil	66	2000
00411	Wayne Generating Station	Pennsylvania	US	Oil	47	2000
00412	Tolna Generating Station	Pennsylvania	US	Oil	23	2000
00413	Hamilton Generating Station	Pennsylvania	US	Oil	23	2000
00414	Ortanna Generating Station	Pennsylvania	US	Oil	23	2000
00415	Shawnee Generating Station	Pennsylvania	US	Oil	23	2000
00416	Termoeléctrica del Golfo - TEG	San Luis Potosi	Mexico	Pet Coke	230	February 9, 2007
00417	Termoeléctrica Peñoles - TEP	San Luis Potosi	Mexico	Pet Coke	230	February 9, 2007
00418	Termoeléctrica del Golfo - TEG	San Luis Potosi	Mexico	Pet Coke	230	October 3, 2005
00419	Termoeléctrica Peñoles - TEP	San Luis Potosi	Mexico	Pet Coke	230	October 3, 2005
00420	Cos Cob Station	Connecticut	US	Remote Turbine	69	2000
	Branford Station	Connecticut	US	Remote Turbine	19	2000

List of MRV Consulting Power Plants Experience

Number of Facilities	Facility	Location		Fuel Type	Capacity (MW)	Appraisal Date
		State	Country			
00421	Franklin Drive Station	Connecticut	US	Remote Turbine	18	2000
00422	I-95 Energy Resource Recovery Facility	Virginia	US	Solid Waste	79	1998
00423	Alexandria/Arlington Resource Recovery Facility	Virginia	US	Solid Waste	23	1998
00424	Convanta Onondanga Recovery Facility	New York	US	Solid Waste	39.5	
00425	Salina Industrial Powerpark	New York	US	Steam	10	April 26, 2002
00426	Harrisburg Steam Works	Pennsylvania	US	Steam	12.6	July 24, 2000
00427	Shady Oaks Wind Project	Illinois	US	Wind	120	2009
00428	Green River Wind Project	Illinois	US	Wind	467	2009
00429	Boone County Wind Project	Illinois	US	Wind	200	2009
00430	Maple Ridge Wind Farm	New York	US	Wind	321	March 1, 2008
00431	Mill Run Wind Power Facility	Pennsylvania	US	Wind	15	April 25, 2003
00432	Somerset Wind Power Facility	Pennsylvania	US	Wind	9	April 25, 2003
00433	New Mexico Wind Energy Center	New Mexico	US	Wind	204	December 31, 2013
00434	Lyonsdale Biomass Cogeneration Facility	New York	US	Wood-Fired	19	July 22, 2004
00435	Big Valley Power LLC Power Plant	California	US	Wood-Fired	7.5	October 1, 2006
00436	Lake Road Generating Plant	Connecticut	US	CCGT	812	June 1, 2010
00437	Masspower Power Plant	Massachusetts	US	CCGT	264	June 1, 2010
00438	Dighton Power Plant	Massachusetts	US	CCGT	168	June 1, 2010

438

154,761

Number of Facilities:	438
Number of Power Plants Transactions:	135
Total Capacity Valued (MW):	154,761

B3: Burns and Roe Experience



R E S U M E

ROBERT GASPERCIC, P.E.
Senior Lead Mechanical Engineer

As the Principal Mechanical Engineer, Mr. Gaspercic is responsible for the day-to-day supervision and coordination of the detail engineering and design work. He is responsible for monitoring schedules, budgets, and overall technical planning among the engineering disciplines. In addition, Mr. Gaspercic has considerable experience in performing manpower loading requirements, task budgeting, performance evaluation and training of junior level engineers in the fundamentals of industry and corporate procedures and practices. Major project and study assignments have included:

Jamaica Bay Energy Center, Far Rockaway, Queens – Served as lead mechanical engineer for this 54 MW dual fuel simple cycle peaking unit (Pratt & Whitney FT8-1 Swift Pac) to supply electricity to the Long Island Power Authority (LIPA) for the Rockaway Peninsula in Queens County, New York City.

Calpine Corporation – 760 MW Deer Park Cogeneration Project, Texas. Functioned as Lead Mechanical Engineer for this project which included four (4) Westinghouse 501F CTG's and four (4) triple pressure NE HRSGs' with one condensing steam turbine. Work included detail engineering and design.

Florida Power & Light - 400 MW Sanford Plant. Conversion from oil to Orimulsion fuel capability and miscellaneous plant upgrades.

Stony Brook Cogeneration Facility - Provided detail engineering/design for facility which included one (1) 40 MW LM6000 machine, a heat recovery steam generator and an 8000 foot piping thermal distribution system consisting of steam, hot temperature hot water and condensate run in a shallow concrete trench and walk-in tunnel.

Calpine Corporation – 650 MW Channel Cogeneration Project, Texas. Providing detailed engineering, design, and field engineering support services. The project included three (3) Westinghouse 501F combustion turbines, three (3) Nooter Eriksen natural circulation, triple pressure, non-reheat, duct fired HRSG units, one (1) condensing turbine, and three (3) 250,000 lb/hr package boilers.

Bristol-Myers Squibb Company, Design/Build Central Utility Complex. Lead Mechanical Engineer for this (Engineer, Procure, Construct) Central Utility Complex consisting of a boiler plant, chiller plant and steam/chilled water distribution system. The plant is designed to deliver 100,000 pph of saturated steam and

Education

BS in Mechanical Engineering, Polytechnic Institute of Brooklyn; Graduate Courses, New Jersey Institute of Technology; Heating, Ventilating and Air Conditioning Course, Trane Corporation; Nuclear and Fossil Power Plant Technology Courses, Burns and Roe.

Registration

Registered Professional Engineer in the States of NY, PA, and TX.

Publications:

Co-Author, "Cooling Spent Fuel Pool Areas on Existing BWR Generating Stations" (presented at the ANS 29th Annual Meeting, June, 1983)

R E S U M E

Robert Gaspercic, P.E.

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2000 tons of chilled water to the site users. Significant value engineering issues were developed and incorporated into the design including future phased buildout/expansion of the complex and immediate cost saving issues. The plant has a twelve month schedule from design start to commercial operation.

Merck & Co., Inc. – West Point, PA. Lead Mechanical Engineer for the engineering and design of the Building 2 Boiler/Cogeneration Project. The project consists of adding a 40 MW, General Electric, Frame 6, Gas Turbine/ Generator which exhausts to a 210,000 #/hr Heat Recovery Steam Generator. A 210,000 #/hr gas/oil fired package boiler is also included in the plant design along with all necessary mechanical and electrical ties to the utility and the existing plant, and the design of a new building to house the equipment.

Reliance Jammagar Project 4x300 MW Petcoke fired units. Preliminary design of power plant which included preparation of major equipment specifications, bid evaluations, P&ID's, general arrangement drawings and site plan.

Bangchak Refinery Cogeneration Project, 96 MW Combined Cycle Power Plant, Bangkok, Thailand. Feasibility Study, preparation of EPC turnkey specification, technical bid evaluations and Owner's engineering and construction support services.

Werner Station and Sayreville Station Repowering Study for Jersey Central Power & Light Co. Study included heat balance optimization, preparation of site plans, general arrangements, and system flow diagrams for both simple cycle and combined cycle mode of operations. CT's in the 150 MW size range were the basis of design.

Kaeng Khoi Combined Cycle Cogeneration Plant. Prepared Independent Engineer's Report for the Kaeng Khoi Combined Cycle Cogeneration Plant located in Saraburi, Thailand.

Paiton, 2 - 660 MW Coal-Fired Units, Paiton Thermal Generating Units 7 and 8, Indonesia. Provided preliminary engineering/design for plant equipment and systems.

Ao Phai, 2-700 MW coal fired units, Ao Phai Thermal Generating Station, Thailand. Preparation of Design-Construct Technical Specifications which included detailed system design criteria, general equipment and construction specifications and preliminary P&ID's.

R E S U M E

GEORGE Y. KELLER, PE
Senior Consulting Engineer I&C

Burns and Roe

1993-Present

Mr. Keller has over 35 years experience in the area of instrumentation and controls. He offers a unique combination of technical knowledge and hands-on experience. He successfully implemented over thirty distributed control systems, including those from such vendors as Bailey, Leeds & Northrop, Moore Products, Westinghouse and Yokogawa. He has employed clear, robust control strategies, tested and optimized on line. Mr. Keller has extensive experience in conceptual design, execution and startup/tuning of boiler control projects, implementation of burner management and instrument modernization projects. He designed and tuned generation controls for four generating units and fine tuned existing analog/solid state generation controls for six generating units. He has designed and fine tuned DCS-based generation controls for over 10 generating units, and fine tuned one existing load dispatch computer. He has conducted field investigations (including boiler explosions), implosion protection studies, feasibility studies and prepared design recommendations for a wide range of control systems. He performed various reliability improvement and plant betterment studies. Mr. Keller also has extensive experience in control system assessment studies. Major projects have included

Topaz Power Group-Combined Cycle Repowering Projects

Mr. Keller was Lead I&C Engineer for Owner's engineering services to Topaz Power Group for two Combined Cycle Repowering Projects located in Texas.

Gulf Electric-Kaeng Khoi 2 Power Plant

Mr. Keller was lead I&C engineer for Owner's engineering services to the Kaeng Khoi 2 Power Plant located in Thailand.

Motiva Crude Expansion Project (CEP)

Mr. Keller was I&C Consultant for Burns and Roe's Owner's engineering services for a combined cycle/export steam power plant. He developed control strategies and logic description for all critical control loops. He also developed specification and performed bid evaluation for critical service control valves and flow meters.

Eurosib, Irkutskenergo Coal Fired Plants

Mr. Keller performed assessment of existing coal-fired generating plants in Irkutskenergo System.

Education

M.S., in Engineering Krasnodar
Polytechnic, Russia, (1968)

Registration

Professional Engineer -NY, TX

Affiliations

NFPA 85, Principal Member of the
Technical Committee on Multiple
Burner Boiler

NFPA 85, Principal Member of the
Technical Committee on Heat
Recovery Steam Generators

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Vernon Power Project

Mr. Keller was Lead I&C Engineer for Burns and Roe's Owner's Engineering services to the City of Vernon for 900 MW Combined Cycle Power Plant.

Kentucky Utilities-Green River & Tyrone Stations

Mr. Keller designed and implemented a new Boiler Master for a 75 MW coal fired unit, using an innovative boiler control strategy. He connected the new logic residing in the Foxboro Data Acquisition System to the existing analog boiler control, tuned the combustion and feedwater controls, and achieved satisfactory improvement in stability and ramp rate response.

Kentucky Utilities-EW Brown Station Units 2&3 Control Improvements

Mr. Keller designed and implemented a new Boiler Master for a 440 MW & 200 MW coal fired unit, using an innovative boiler control strategy. He connected the new logic residing in the Foxboro Data Acquisition System to the existing analog boiler control, tuned the combustion and feedwater controls, and achieved satisfactory improvement in stability and ramp rate response for Brown Units 2 & Units 3 respectively.

Paiton Private Power

Mr. Keller provided field engineering support to construction and start up activities on this coal fired power plant project.

Fuyang Power Plant

Mr. Keller developed a basis of design document for an advanced supercritical coal-fired thermal power plant.

Croatian Thermal Power Plant

Mr. Keller participated in the feasibility study and prepared the basis of design document for the I&C portion of the project. His responsibilities included preparation of tender documents and bid evaluation for the plant instrumentation and control system.

Central Hudson Gas & Electric Co-Roseton Units 1&2

Mr. Keller's responsibilities included development of replacement criteria for the instrument and control system, preparation of technical specifications and data sheets, bid evaluations, expediting, construction monitoring and start up and tuning for replacement of approximately 600 instruments. He wrote specifications and implemented upgrade of the control system and actuators. Mr. Keller participated in the implosion protection testing and tuned the implosion protection "kicker" and other implosion protection devices.

Big Rivers Electric Cooperative, Inc.

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George Y. Keller, P.E.

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Orange and Rockland Utilities-Lovett Unit No. 4

Mr. Keller developed both conceptual and detail design for the Unit 4 pulverizer controls retrofit. His responsibilities included preparation of the installation specification, supervision of construction and commissioning of the new control system.

Delmarva Power Company-Indian River Unit 4

Mr. Keller developed the control philosophy for turbine control, load dispatch as well as boiler and mill controls. He also provided technical support during construction and start up activities.

TETS Plant 3

Mr. Keller prepared technical specifications for new control systems to replace the existing turbine and boiler control systems, as well as the vibration monitoring systems.

Texas Utilities Generating Company Sandow Units 1-3

Mr. Keller provided field engineering support to a successful controls modernization project.

GPU International, PASCO Cogen plant

Mr. Keller provided consulting services and tuning assistance to resolve feedwater and other control problems. He re-tuned numerous loops of the existing plant control system. He developed an improved start up procedure to control IP drum swell.

Orange and Rockland Utilities, Bowline Units 1 & 2

Mr. Keller developed an original design for the new gas yard resulting in 60% savings while providing good reliability, low maintenance, and capability for economic gas dispatch. He also tuned a gas pressure control loop for Unit 1.

Azerigaz-Gas Pipeline Garadagh-Severnaya

Mr. Keller provided startup assistance and warranty support for Karadag compressor station and the pipeline SCADA system.

Ecogen-Newport Power Station

Mr. Keller performed a safety review of gas firing for a 500 MW unit, encompassing the new burner management system and the new boiler automatic controls. He prepared a detailed report outlining his findings and recommendations. He reworked control strategies on line and successfully tuned most of the new boiler control system (temperature control and runbacks excepted). He achieved reliable and stable unit performance at 5% MCR ramp rates.

R E S U M E

George Y. Keller, P.E.

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Ecogen-Newport Power Station

Mr. Keller provided consulting services to improve control strategies and tuning. Clear and robust control strategies were tested and optimized on line. He provided tuning assistance for 95% of the new plant control system (Yokogawa). He also achieved automatic boiler control from 2% fuel flow and 200 psi drum pressure, automatic temperature control and temperature ramp using tilt control from 2% fuel flow, automatic turbine bypass valve operation and turbine loading, automatic feedwater control from cold start (reduces the need for a second startup operator), reliable ramp rates of 43 to 50 MW/min achieved without excessive over firing and without exceeding allowable stresses.

South Australian Generation Corp-Torrens Island Station

Mr. Keller performed an NFPA audit/hazard identification review encompassing the new burner management system, the modified boiler front, and the new boiler automatic controls for Units A1 and A2.

Coastal Power-Eagle Point Cogeneration Plant

Mr. Keller performed a reliability improvement study of the Eagle Point Cogeneration plant. He provided consulting services and tuning assistance to implement some of the Priority 1 recommendations. In addition, he investigated 900 psig export steam system's reliability problems. Mr. Keller developed measures to prevent spurious high-high drum level trips and prepared a detailed specification for replacement of the existing 900 psi steam turbine bypass valve. He also developed a control strategy for sharing export steam load between the 900 psig turbine extraction and the main steam (via the by-pass valve) during peak export steam demand.

Azerenerji Power Generation and Transmission Study

Mr. Keller prepared conceptual design and cost estimate for Azerbaijan's Electrical Energy System SCADA and Central Dispatch Center.

Taiwan Power Company Taichung 1-4 FGD Project

Mr. Keller's responsibilities were to review and rework the control logics prepared by BICHOFF. Mr. Keller developed control logics for scrubbing efficiency control, limestone density control and coordinated control of the two new Booster ID fans with the existing ID fans.

R E S U M E

George Y. Keller, P.E.

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Green Power-Texas City CHP Reliability & Control Stability Improvements

Mr. Keller modeled and developed custom controls for export steam transient response. He implemented innovative firing by drum pressure to improve HRSG stability. He developed hardware and DCS logic requirements for upgraded STG bypass valves, STG control system, logic for MW control and other critical systems, and other relevant manipulated variables.

CMS Energy-Dearborn BFG Boilers

Mr. Keller performed consulting services to improve operation of 3 blast furnace gas boilers.

Merck-Rahway Plant Groundwater Reuse

Mr. Keller performed an instrumentation and controls study for the site.

Bristol Myers Squibb

Mr. Keller supervised boiler commissioning and emissions testing program.

Merck-Rahway Plant Boiler House Modernization

Mr. Keller provided consulting services and tuning assistance to resolve control problems.

SANDIA National Labs-AREA III I&C Upgrade Study

Mr. Keller performed a detailed instrumentation and controls upgrade study for a weapons test site.

NYC School Construction Authority Furnace Safety Review of Oil Firing

Mr. Keller performed furnace safety review of oil firing for NYC school boilers and recommended solutions that will facilitate the "zero puffs" policy of the NYC School Construction Authority.

University at Stony Brook Cogeneration Plant

Mr. Keller provided assistance in troubleshooting of flow measurements and tuning of the Westinghouse DCS system.

Zelenograd, Vladimir, Murmansk & Tver Control Improvements for District Heating Systems

Mr. Keller provided consulting services to demonstrate control improvements for district heating systems of the above cities in accordance with the United States Agency for International Development (USAID) objectives.

R E S U M E

George Y. Keller, P.E.

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Cogen Technologies-Bayonne Cogeneration Plant

Mr. Keller performed a detailed engineering study for the Bayonne controls upgrade.

Generation Victoria-Newport Power Station

Mr. Keller reviewed plant operation, investigated applicability of local and USA codes and Standards, assisted in obtaining project approval from a local safety authority, and made recommendations regarding the Burner Management System for a 500 MW oil-and gas fired CE Unit.

Republic of Georgia-Tbilisi TES Units

Mr. Keller reviewed plant operation and prepared a specification for a "state-of-the-art" fiscal gas flow metering for the supercritical gas-fired power plant. He also performed a Boiler Control System Study in accordance with the United States Agency for International Development (USAID) objectives.

Ukrainian Power Plants Combustion Efficiency Audit and Report

Mr. Keller reviewed plant operation and prepared an audit report for four Ukrainian Power Plants.

TETS Plant 3

Mr. Keller prepared technical specifications for new control systems to replace the existing turbine and boiler control systems, as well as the vibration monitoring systems.

**Stone and Webster
Boiler Control Specialist**

1980-1993

Cogen Technologies-Linden Cogeneration Plant

Mr. Keller assessed the as-built architecture of the Linden Cogeneration Plant DCS for the purposes of achieving acceptable steam production reliability for 600 MW cogeneration plant.

Ansaldo-Industria of American, Inc

Mr. Keller prepared a control philosophy document for the two 50 MW combined cycle cogeneration plants. He also prepared the specification for the distributed control system.

SH Spray Betterment & Fuel Oil System Study

Mr. Keller developed the design, prepared specifications and provided field assistance in implementing an improved superheat spray system for two 600 MW CE units. He also conducted an in-depth study for improving the existing fuel oil system for the plant.

R E S U M E

RAM K. SAINI, P.E.
Assistant Chief Electrical Engineer

BURNS AND ROE **1972–Present**

Mr. Saini has over 49 years of experience in the Transmission and Distribution industry. He supervises the engineering and design of electrical systems in new and retrofit plants, high voltage switchyards, utility substations, and transmission lines up to 500 KV. This includes performance of feasibility studies, on-site inspections, and value engineering of new systems and technical audits of existing systems. It also includes the development of plant design criteria, selection of facility systems and equipment; preparation of single line diagrams, calculations, technical specifications and system descriptions; review of vendor proposals and contract drawings. He has conducted field engineering support during construction and operation of all electrical equipment and systems. Mr. Saini has been is responsible for Feasibility Studies performance, System Impact Studies, and Facility Studies for interconnection of new power plants to High Voltage transmission systems. He reviewed and evaluated studies and provided input and system interconnection interface support to clients and local electrical utilities. He managed the development and approval of conceptual and detail electrical engineering and design documents that include: plant design basis criteria document, single line diagrams, calculations, technical specifications and system descriptions. He is also responsible for providing engineering support during construction and operation in the field. Major projects have included:

Coal-Fired Power Plant Projects:

Koh Kong Super Critical Coal-Fired Power Project

Mr. Saini served as Owner's Engineer and conducted site feasibility studies, conceptual engineering and design including single line diagrams, 500 kV DC transmission lines, AC-DC-AC Converter Stations, and budgetary cost estimates for this 5x800 MW Coal fired plant.

Vung Ang Coal-Fired Power Project

Mr. Saini served as Owner's Engineer and conducted site feasibility studies including single line diagrams and general arrangements for a 500 kV switchyard on this 2x600 MW Coal fired plant.

Paiton Energy-Paiton Unit III Coal-Fired Power Project

Mr. Saini developed conceptual designs including electrical engineering design criteria, single line diagrams, and Engineering Procurement, and Construction specifications.

Education

M.S., in Electrical Engineering, New Jersey Institute of Technology, Newark, NJ

B.S., in Electrical Engineering, Birla Institute of Technology & Science, India

Registration

Professional Engineer-NY, NJ, ME, CT, KY

Affiliations

Institute of Electrical and Electronics Engineers; Power Engineering Society

Publications

"Practical Guidelines for Electrical Area Classification in Combustion Turbine Generator Power Plant", Power Engineering, March 2007

R E S U M E

Ram K. Saini, P.E.

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He also provided technical support during contract negotiations with the contractor and Purchase Agreement (PPA) document with PLN for this 1x800 MW coal fired plant.

Wolverine-Coal-Fired Power Project

Mr. Saini developed machine technical data for a 2x300 MW coal-fired power plant for MISO. This included the performance of system feasibility and system impact studies. He also reviewed and assessed study results.

Mission Energy-Paiton Coal-Fired Power Plant Units 7 & 8

Mr. Saini served as Owner's Engineer and performed design reviews and approvals of electrical engineering design documents for this 2 x 660 MW power plant and 500 kV GIS substation.

Ulaanbaatar-Coal-Fired Cogeneration Power Plant Unit 3

Mr. Saini performed on-site condition assessment for the rehabilitation of electrical systems of the 300 MW coal fired unit. He also developed conceptual designs of the plant retrofit and upgrade of boiler-island and turbine-island electrical and control systems supplying district heating to the city of Ulaanbaatar.

Lugansk-Coal-Fired Power Plant

Mr. Saini performed on-site condition assessments for the rehabilitation of electrical systems of two 200 MW coal fired units with alternative fuels. He also conducted assessments for the replacement of the existing 100 MW unit with a new 125 MW CFB boiler unit.

Gardabani-Coal-Fired Power Plant

Mr. Saini performed on-site condition assessments for rehabilitation of electrical systems for this 300 MW Coal fired plant.

CFE-Coahuila Coal-Fired Power Plant

Mr. Saini performed due diligence investigations of a 2 x 600 MW coal-fired power plant. This included construction progress and quality assessments.

Latvenergo-Liepaja Coal-Fired Cogeneration Power Plant

Mr. Saini conducted a feasibility study for the Liepaja thermal power plant and prepared the conceptual design of the plant to supply district heating to the city of Liepaja. He also prepared budgetary cost estimates.

R E S U M E

Ram K. Saini, P.E.

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Liu-Lin-Coal-Fired Power Plant

Mr. Saini conducted site visits and reviewed the electrical design criteria, bidding documents, specifications and design reviews for this 2 x 100 MW coal fired power plant.

Yuzhou-Coal-Fired Power Plant

Mr. Saini conducted site visits and reviewed conceptual designs and bidding specifications for this 2x350 MW coal fired plant. He also developed bidder's list for the turbine-island and boiler-island contracts, performed bid evaluations, and provided support during contract negotiations.

Basin Electric-Leland Olds Lignite Fired Power Plant

Mr. Saini performed design reviews for the 420 MW plant electrical systems including the 230 and 345 kV Switchyards.

HIGH VOLTAGE TRANSMISSION LINE PROJECTS:

Goldman Sachs-Linden Cogeneration Power Plant

Mr. Saini performed an Independent Engineering Due Diligence for the proposed VFT and the 345 kV cable Forced Cooling Project. This included an independent evaluation of the technical and construction impacts of the proposed VFT and 345 kV cable Forced Cooling Projects on the existing 345 kV Goethals substation units 1-5.

Consolidated Edison-Goethals Substation Upgrade

Mr. Saini prepared a study report for the New York ISO that determined the system upgrade requirements as a result of the power feed by the GE VFT project. The report included conceptual design of the upgraded substation, Engineering Procurement, and Construction specifications and budgetary cost estimates for project implementation.

Vernon Combined Cycle Power Plant

Mr. Saini reviewed CAISO Interconnection Requirements and Preliminary System Impact Reports, prepared Single Line Diagrams and technical specifications for the 230 kV GIS switchyard of this 3-on-1 combined cycle power plant.

Consolidated Edison- GIS Substation Upgrade

Mr. Saini prepared a study report for the New York ISO that determined the system upgrade requirements as a result of the power feed by the 345 kV underground Self Contained Fluid Filled (SCFF) cable from the In-City I, LLC project. The report included conceptual design of the upgraded substation, Engineering Procurement, and Construction specification and budgetary cost estimates for project implementation.

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C: Listing of References

Big Rivers Electric Cooperative, Inc.
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Project Name	Client Name, Address & Contact Person	Project Description
Gas Transmission and Distribution System: Unitil Corporation Gas Facilities	Mr. Laurence M. Brook Unitil Corporation Controller and Chief Accounting Officer 6 Liberty Lane West, Hampton, NH 03842 (603) 773-6510	Unitil Corporation purchase of Northern Utilities, Inc., Granite State Trans, Inc.
Hydroelectric Facility: Niagara Mohawk Hydroelectric Facility	David Hillery Niagara Mohawk Power Corporation Manager 300 Erie Boulevard West, Syracuse, NY 13202 (315) 428-5222	Ad Valorem Tax Expert Witness
Hydroelectric and Gas-Fired Generation Facilities: Curtis & Palmer Hydroelectric Facilities Ravenswood Generating Facility Connecticut and Deerfield Hydroelectric Stations	George Chan TransCanada Power, LTD Director, Corporate Taxation 450 1 st Street S.W. Calgary, Alberta Canada T2P5H1 (403) 920-2824	Consulting, Valuation Advisory Services, and Expert Witness Testimony with regard to these major, multibillion dollar infrastructure related assets
5 Nuclear Generating Facilities: Byron Nuclear Station La Salle Station Dresden Station Quad Cities Station Braidwood Station	Joshua Whit, Esquire Whitt Law 70 South Constitution Drive Aurora, Illinois 60506-7335 (630) 897-8875	Consulting Valuation Advisory Services, and Expert Witness testimony with regard to these major, multibillion dollar infrastructure related assets
2 Nuclear Generating Stations: Point Beach Generating Station Duane Arnold Energy Center	Garth Henderson FPL Energy, LLC Manager of Mergers and Acquisitions (561) 694-4916	Consulting, Valuation Advisory Services, and Expert Witness Testimony with regard to these major multibillion dollar infrastructure related assets

D: Description of Work Plan and Methodology

Outline of Procedures

The purpose of our analysis will be to perform a comprehensive depreciation study for the Big Rivers Facilities, in accordance with the Rural Utility Service (“RUS”) Bulletin 1767B-1, Uniform System of Accounts. The completion of this analysis will require the following procedures:

- Discussion with key personnel regarding design and equipment supply of each of the Facilities
- Review of existing Big Rivers depreciation rates and procedures
- Review of Big Rivers retirement records and history
- Analysis of current operating and maintenance programs, as well as the current operating conditions of each of the Facilities
- An estimate of the remaining economic useful life of each of the Facilities
- A final opinion on what changes, if any, should be made to Big Rivers’ depreciation rates, methods, and procedures

Uniform System of Accounts

MRV / B&R will conclude upon effective age, remaining economic useful life, and appropriate depreciation rate for each of the Facilities and for each applicable account under the RUS Uniform System of Accounts.

Depreciation

As stated by the American Society of Appraisers in “Valuing Machinery and Equipment,” depreciation is defined as:

“the actual loss in value or worth of a property from all causes including those resulting from physical deterioration, functional obsolescence, and economic obsolescence.”

Effective Age

The American Society of Appraisers defines Effective Age as:

“the apparent age of a property in comparison with a new property of like kind; that is, the age indicated by the actual condition of a property.”

MRV / B&R will determine the effective age of each asset on the basis of its historical placed-in-service date and the dates of subsequent overhauls, upgrades, and replacements of components. We anticipate basing effective age on the cost-weighted placed-in-service date of each asset and subsequent life-extending expenditures. Other methods may be employed, as are deemed appropriate, based on the actual conditions and service histories of the assets.

Remaining Economic Useful Life

The American Society of Appraisers defines Economic Useful Life as:
MR Valuation Consulting, LLC

“the estimated period of time that a new property may be profitably used for the purpose for which it was intended... Functional or economic factors may limit a property’s economic life. An asset’s economic life will often be less than its *normal useful life*.”

Further, Remaining Useful Life is defined as:

“the estimated period during which a property of a certain effective age is expected to actually be used before it is retired from service.”

MRV / B&R will determine the remaining economic useful life for each account of assets, for each Facility, and will apply these remaining useful lives in the calculation of overall depreciation rates.

Depreciation Rates

MRV / B&R will determine the overall depreciation rates according to the following formula:

$$\text{Depreciation} = \text{Effective Age} / (\text{Effective Age} + \text{Remaining Economic Useful Life})$$

MRV / B&R will work together using their combined valuation and engineering experience to determine the appropriate effective ages, remaining useful lives, and depreciation rates for the Facilities.

Deliverables

The deliverables of this engagement will be a written report summarizing our depreciation analysis; our review of existing rates, records, and procedures; and our opinions and final conclusions.

***E: Availability to Support Study results and
Expert Testimony before KPSC or the RUS***

Big Rivers Electric Cooperative, Inc.
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MRV Consulting and Burns and Roe will be available to testify and support the depreciation study provided to Big Rivers before the Kentucky Public Service Commission (“KPSC”) and Rural Utilities Service (“RUS”).

If MRV Consulting and Burns and Roe are required to testify on behalf of Big Rivers to the KPSC and RUS a blended discounted hourly rate of USD **\$250.00** per hour would be charged as well as any additional expenses strictly associated with preparation and testifying before KPSC and RUS.

F: Fee Schedule

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Professional Fees and Expenses:

Our professional fees are based on an estimate of the amount of time that will be required to complete the proposed engagement as outlined above. Based on our experience with similar engagements, the professional fees to complete depreciation study of the subject Facilities and Assets are listed in the table below.

Name	Mark Rodriguez	Justin Bain	Fernando Sosa	B&R Electrical Engineer	B&R Mechanical Engineer
Standard Hourly Rates	\$375	\$250	\$250	\$250	\$250
Discounted Hourly Rates	\$225	\$150	\$150	\$150	\$150
Number of Hours					
Robert A. Read Facility (130MW)	16	60	40	12	12
Kenneth C. Coleman Facility (443MW)	20	80	40	16	16
Robert D. Green (454MW)	20	80	40	16	16
D.B. Wilson (417MW)	20	80	40	16	16
Henderson Municipal Power & Light (212MW)	14	80	40	12	12
1,259 Mile Transmission System	8	40	20	16	0
	98	420	220	88	72
SUBTOTAL	\$ 22,050	\$ 63,000	\$ 33,000	\$ 13,200	\$ 10,800
TOTAL PROFESSIONAL FEE ESTIMATE	\$ 140,000 Plus Expenses (Expenses Capped at 13% of Professional Fees)				

Our total professional fee will be **USD \$140,000**. Expenses associated with this engagement will be capped at 13 percent of our professional fee.

The fee proposed does not include reimbursable expenses, for which you agree to remain responsible for their payment. Reimbursable expenses shall include, but not be limited to, travel, lodging, research data and administrative overhead expenses incurred by MRV Consulting on your behalf. Our fees are not contingent or dependent upon the results of our analyses or conclusions we may reach.

This proposal and the Terms and Conditions attached hereto may be terminated by you at any time upon written notice to us of such termination, which will be effective on the date we receive such notice. Upon such termination, we would bill for any unpaid fees and reasonable expenses incurred by us to the date of termination.

Client Furnished Data:

In order to complete our analysis in a timely manner, Big Rivers must provide us with certain basic information. This information should include but will not be limited to the following:

- Contact person to coordinate and schedule site inspections of the Facilities, including: name, address, telephone number, and e-mail address
- Listing of the Facilities with their physical address
- Electronic copies of Continuing Property Records

Big Rivers Electric Cooperative, Inc.
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- Copies of certain site plans and as built drawings
- An electronic fixed asset listing by FERC Accounts and Subaccounts including the following fields:
 - Account Number, Uniform System of Accounts
 - Subaccount Number, Uniform System of Accounts
 - Description
 - Placed in Service Date
 - Original or Historical Cost
- Identification of recent acquisitions
- A listing of retirements

We understand the above information may not be available in its entirety and we will work with Big Rivers to obtain this information in its most complete state. Throughout the project, we reserve the right to request any other available data we may deem as appropriate to complete our analysis.

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Work Plan:

Once MRV Consulting receives the notice to proceed, we will coordinate with Burns and Roe, and the contacts for the Facilities as provided by Big Rivers in scheduling site inspections of the Facilities and inspections of the Assets to be included in the depreciation study and begin to review the information requested by MRV / B&R, supplied by Big Rivers.

MRV / B&R will conduct interviews with Big Rivers Personnel to ascertain important factors which can affect the historical age, effective age, physical condition, and remaining economic useful life.

Once these tasks are completed, MRV / B&R will issue a draft report pertaining to the depreciation study for review by Big Rivers, if the draft is acceptable then MRV / B&R shall issue the final report to Big Rivers for the depreciation study of the owned Facilities and Assets as provided by Big Rivers.

Project Schedule / Timing:

MRV Consulting will complete the depreciation study of the Facilities and Assets before the October 15, 2010 deadline requested by Big Rivers, provided that the requested information needed to complete the analysis is provided within our requested time frame.

	1	2	3	4	5	6	7	8	9	10	11	12	13
Week:	28-Jun	5-Jul	12-Jul	19-Jul	26-Jul	2-Aug	9-Aug	16-Aug	23-Aug	30-Aug	6-Sep	13-Sep	20-Sep
<i>Activity</i>													
Kick off meeting													
Data collection & review													
Interviews & field work													
Review CPR's / FERC Accounts													
Service Life Analysis By FERC Account													
Set-Up Spreadsheet Analysis By Plant													
Determine Weighted Effective Age of Assets													
Calculate Depreciation Percentages By FERC Acct													
Prepare Draft Report / Analysis													
Review Draft Report With Big Rivers													
Final Report													
<i>Milestone Dates</i>													
Draft Report (8/31/2010)										*			
Final Report (9/24/2010)													*

G: Conflicts of Interest

Big Rivers Electric Cooperative, Inc.
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MRV Consulting & Burns and Roe currently have no conflicts of interest with Big Rivers Electric Corporation regarding the requested depreciation study. There are **NO** situations or circumstances which would create a biased environment.

Our professional fees are **NOT** based on or in any way associated with the outcome of this study.

Big Rivers Electric Cooperative, Inc.
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**Attachment A: Certification Regarding
Debarment (Form 1048)**

U.S. DEPARTMENT OF AGRICULTURE

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY
AND VOLUNTARY EXCLUSION - LOWER TIER COVERED TRANSACTIONS**

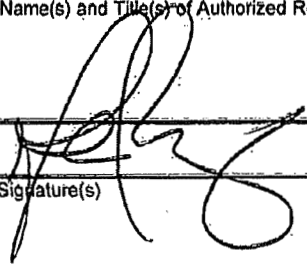
This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR Part 3017, Section 3017.510, Participants' responsibilities. The regulations were published as Part IV of the January 30, 1989, Federal Register (pages 4722-4733). Copies of the regulations may be obtained by contacting the Department of Agriculture agency with which this transaction originated.

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

MR Valuation Consulting, LLC	Big Rivers Electric Corporation Depreciation Study
Organization Name	PR/Award Number or Project Name

Mark Rodriguez, Managing Member
Name(s) and Title(s) of Authorized Representative(s)

	June 4, 2010
Signature(s)	Date

Form AD-1048 (1/92)

Big Rivers Electric Cooperative, Inc.
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June 07, 2010

Attachment B: Equal Opportunity
Addendum

Big Rivers Electric Cooperative, Inc.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0059. The time required to complete this information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Depreciation Study in Accordance with RUS Bulletin 1767B-1

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**EQUAL OPPORTUNITY ADDENDUM
To Be Inserted in Construction Contracts and
Subcontracts, and Materials Contracts and Purchase Orders**

PART I

The Contractor represents that:

It has does not have , 100 or more employees, and if it has, that

It has has not , furnished the Equal Employment Opportunity -- Employers Information Report EEO-1 Standard Form 100, required of employers with 100 or more employees pursuant to Executive Order 11246 and Title VII of the Civil Rights Act of 1964.

The Contractor agrees that it will obtain, prior to the award of any subcontract for more than \$10,000 hereunder to a subcontractor with 100 or more employees, a statement, signed by the proposed subcontractor, that the proposed subcontractor has filed a current report on Standard Form 100.

The Contractor agrees that if -it has 100 or more employees and has not submitted a report on Standard Form 100 for the current reporting year and that if this contract will amount to more than \$10,000, the Contractor will file such report, as required by law, and notify the Owner in writing of such filing prior to the Owner's acceptance of this Proposal.

PART II

CERTIFICATION OF NONSEGREGATED FACILITIES

The Contractor certifies that it does not maintain or provide for its employees any segregated facilities at any of its -establishments, and that it does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest-rooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The Contractor agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that it will retain such certifications in its files.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

PART III

EQUAL OPPORTUNITY CLAUSE

During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race,

Big Rivers Electric Cooperative, Inc.
Depreciation Study in Accordance with RUS Bulletin 1767B-1
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color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(3) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.

(5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965- and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

(6) In the event of the Contractor's noncompliance with- the nondiscrimination clauses of this contract or with any of the said rules regulations or orders, this contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11,246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in the said Executive Order or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.

(7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The term "Contractor" shall also mean "Bidder" or " Seller" in case of materials and equipment contracts and purchase orders. and "Subcontractor" in the case of subcontracts.

The provisions of this addendum are not applicable to any. contract or subcontract not exceeding \$10,000.

This addendum supersedes the similar representations and provisions which may be contained in the contract form to which this addendum is attached. The Contractor may disregard the superseded representations and provisions.

MR Valuation Consulting, LLC

CONTRACTOR

By Mark Rodriguez 

Managing Member

TITLE

June 04, 2010

DATE

Big Rivers Electric Cooperative, Inc.
Depreciation Study in Accordance with RUS Bulletin 1767B-1
June 07, 2010

Attachment C: Form Regarding Lobbying

UNITED STATES DEPARTMENT OF AGRICULTURE

NOTICE TO APPLICANTS - CERTIFICATION/DISCLOSURE REQUIREMENTS RELATED TO LOBBYING

Section 319 of Public Law 101-121 (31 U.S.C.), signed into law on October 23, 1989, imposes new prohibitions and requirements for disclosure and certification related to lobbying on recipients of Federal contracts, grants, cooperative agreements, and loans. Certain provisions of the law also apply to Federal commitments for loan guarantees and insurance; however, it provides exemptions for Indian tribes and tribal organizations.

Effective December 23, 1989, current and prospective recipients (and their subtier contractors and/or subgrantees) will be prohibited from using Federal funds, other than profits from a Federal contract, for lobbying Congress or any Federal agency in connection with the award of a particular contract, grant, cooperative agreement or loan. In addition, for each award action in excess of \$100,000 (or \$150,000 for loans) on or after December 23, 1989, the law requires recipients and their subtier contractors and/or subgrantees to: (1) certify that they have neither used nor will use any appropriated funds for payment to lobbyists; (2) disclose the name, address, payment details, and purpose of any agreements with lobbyists whom recipients or their subtier contractors or subgrantees will pay with profits or **nonappropriated** funds on or after December 23, 1989; and (3) file quarterly updates about the use of lobbyists if materials changes occur in their use. The law establishes civil penalties for noncompliance.

If you are a current recipient of funding or have an application, proposal, or bid pending as of December 23, 1989, the law will have the following immediate consequences for you:

- You are prohibited from using appropriated funds (other than profits from Federal contracts) on or after December 23, 1989, for lobbying Congress or any Federal agency in connection with a particular contract, grant, cooperative agreement, or loan;
- you are required to execute the attached certification at the time of submission of an application or before any action in excess of \$100,000 is awarded; and
- you will be required to complete the lobbying disclosure form if the disclosure requirements apply to you.

Regulations implementing Section 319 of Public Law 101-121 have been published as an Interim Final Rule by the Office of Management and Budget as Part III of the February 26, 1990, **Federal Register** (pages 6736-6746).

UNITED STATES DEPARTMENT OF AGRICULTURE

**CERTIFICATION REGARDING LOBBYING - CONTRACTS, GRANTS, LOANS
AND COOPERATIVE AGREEMENTS**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement;

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this

Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions;

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

MR Valuation Consulting, LLC
Organization Name

Big Rivers Electric Corporation Depreciation Study
Award Number or Project Name

Mark Rodriguez, Managing Member
Name and Title of Authorized Representative


Signature

June 04, 2010
Date

Big Rivers Electric Cooperative, Inc.
Depreciation Study in Accordance with RUS Bulletin 1767B-1
June 07, 2010

**Attachment D: New Jersey Minority
Business Enterprise Certificate**

Big Rivers Electric Cooperative, Inc.

Appreciation Study in Accordance with RUS Bulletin 1767B-1

CHRIS CHRISTIE
Governor

KIM GAUDAGNO
Lt. Governor



ANDREW P. SIDAMON-ERISTOFF
Acting State Treasurer

State of New Jersey

DEPARTMENT OF THE TREASURY
DIVISION OF MINORITY AND WOMEN BUSINESS DEVELOPMENT
P.O. BOX 026
TRENTON, NJ 08625-034
PHONE: 609-292-2146 FAX: 609-292-8764

CERTIFIED

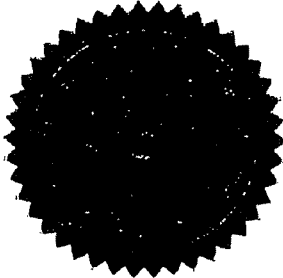
under the

Small Business Set-Aside Act and Minority and Women Certification Program

This certificate acknowledges **MR VALUATION CONSULTING LLC** is a MBE owned and controlled company, which has met the criteria established by N.J.A.C. 17:46.

This certification will remain in effect for three years. Annually the business must submit, not more than 20 days prior to the anniversary of the certification approval, an annual verification statement in which it shall attest that there is no change in the ownership, control or any other factor of the business affecting eligibility for certification as a minority or women-owned business.

If the business fails to submit the annual verification statement by the anniversary date, the certification will lapse and the business will be removed from the SAVI that lists certified minority and women-owned business. If the business seeks to be certified again, it will have to reapply and pay the \$100 application fee. In this case, a new application must be submitted prior the expiration date of this certification.




Francis E. Blanco
Director

Certificate Number: 51672-22

Issued: February 4 2010

Expiration: February 3, 2013

Big Rivers Electric Cooperative, Inc.
Depreciation Study in Accordance with RUS Bulletin 1767B-1
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**Attachment E: New Vendor / Vendor
Information Change Form**

New Vendor/Vendor Information Change Form

All fields highlighted in GRAY indicate areas where information is REQUIRED.

1. Vendor Information

Vendor Name – Please enter company name. This field is limited to 35 characters.
 MR VALUATION CONSULTING, LLC

A) Corporate Headquarters:

Street: 5 Professional Circle # 208 35 Characters or less

Town or City: Colts Neck 35 Characters or less

Zip/Postal Code: 07722

State/Prov.: New Jersey

Country: USA

Telephone: 732-780-6000

Facsimile: 732-780-6020

Email address: MRodriguez@MRValuation.com

Website: www.MRVALUATION.COM

B) Ordering Address (where to send purchase orders)

Street: 5 Professional Circle # 208 35 Characters or less

Town or City: Colts Neck 35 Characters or less

Zip/Postal Code: 07722

State/Prov.: New Jersey

Country: USA

Telephone: 732-780-6000

Email address: 732-780-6020

Sales Contact: Mark Rodriguez 732-780-6010

[Empty box for additional information]

C) Remit-To Address (where to send invoice payments)

Street: 5 Professional Circle # 208 35 Characters or less

Town or City: Colts Neck 35 Characters or less

Zip/Postal Code: 07722

State/Prov.: New Jersey

Country: USA

Accounts Receivable Contact : Ninive Gomes

Telephone: 732-780-6002

DUNS Numbering (Data Universal Numbering System)
 1 | 0 | 3 | 1 | 1 | 7 | 8 | 2 | 1

Apply for a D-U-N-S Number, the industry standard for business listings

Do you accept Credit Cards? Yes _____ No X

Definitions:
Corporate Headquarters – Most active office for your company that does business with Big Rivers Electric Corporation (BREC).
Ordering Address – Location(s) to which you wish BREC to SEND purchase orders. Use attachments as necessary.
Remit-to Address – Location to which you wish BREC to SEND invoice payments. Please attach copy of invoice for reference.

D) Payment Terms (If different then Net 30)

[Empty box for payment terms]

Big Rivers Electric Cooperative, Inc.

Depreciation Study in Accordance with RUS Bulletin 1767B-1

E) Supplier Type (Select one of the following)

<p>June 07, 2010</p> <p>Attorney/Legal Services <input type="checkbox"/></p> <p>Charity/Contribution <input type="checkbox"/></p> <p>Coal/Natural Gas <input checked="" type="checkbox"/></p> <p>Contractor (Services Only) <input type="checkbox"/></p> <p>Professional Fees/Dues <input checked="" type="checkbox"/></p> <p>Retailer (Materials only) <input type="checkbox"/></p> <p>Other <input type="checkbox"/></p> <p>Specify Products and Services _____</p> <p>If you are a United States-based company, are you qualified as a Small Business concern? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Is your Company union affiliated? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If Yes, which union affiliated organization _____</p>	<p>Is your business one of the following (If yes, please include copy of certification) Check all the applicable categories:</p> <p>MBE <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>WBE <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Small Disadvantaged Business (SDB)? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Veteran <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Service Disabled Veteran <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Hub Zone <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
---	--

Under 15 U.S.C. 645(d), any person who misrepresents its size status shall (1) be punished by a fine, imprisonment, or both; (2) be subject to administrative remedies; and (3) be ineligible for participation in programs conducted under the authority of the Small Business Act.

	Managing Member	June 07, 2010
Signature of person providing information	Title	Date

Indicate the following special classifications:

- Standard Industry Code (SIC Code): 8748, 7389
- North American Industry Code Standard (NAICS Code): 541990, 541690, 541618, 531320
- European Classification Code (eClass Code): _____

F) Contact Information

Who can we contact if we have questions concerning your qualifications and/or this submission?

Name: Mark Rodríguez

Telephone: 732-780-6010

E-mail: MRodriguez@MRValuation.com

Who can we contact "AFTER HOURS" for EMERGENCY SERVICE requirements?

Name: Fernando Sosa

Telephone: Manager

E-mail: FSosa@MRValuation.com

The following section is to be completed by BREC personnel only.

Date of Input:	Input By:
Date of Certification:	Type of Certification: <input type="checkbox"/> GSA <input type="checkbox"/> PSA <input type="checkbox"/> Qualified
Is this Vendor Request for One Time use only? * Yes _____ No _____ *If yes, this vendor will have a future inactive date inserted at time of creation based on the Payment Terms.	

G) If you are a Foreign-based company, indicate your TAX/VAT Registration: _____

H) If you are a United States-based company, complete Form W-9 as indicated. We are required by law to obtain a tax identification number when making a reportable payment to you. Failure to provide this information could result in a tax withholding of 31% and you may be subject to a \$50 penalty imposed by the I.R.S. In completing Form W-9, be sure that you CHECK APPROPRIATE BOX FOR CORPORATION/SOLE PROPRIETORSHIP / PARTNERSHIP OR OTHER. If individual or sole proprietorship, please list individual's name (please print) and Social Security Number. Make sure that YOUR TAX ID NUMBER IS 9 DIGITS.

The Business Name listed here will appear on purchase orders and checks.

Big Rivers Electric Cooperative, Inc.
 Depreciation Study in Accordance with RUS Bulletin 1767B-1
 June 07, 2010

Form **W-9**
 (Rev. October 2007)
 Department of the Treasury
 Internal Revenue Service

**Request for Taxpayer
 Identification Number and Certification**

Give form to the
 requester. Do not
 send to the IRS.

Print or type
 See Specific Instructions on page 2.

Name (as shown on your income tax return)

MR Valuation Consulting, LLC

Business name, if different from above

Check appropriate box: Individual/Sole proprietor Corporation Partnership
 Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶
 Other (see instructions) ▶

Exempt
 payee

Address (number, street, and apt. or suite no.)

5 Professional Circle Suite 208

City, state, and ZIP code

Colts Neck, NJ 07722

List account number(s) here (optional)

Requester's name and address (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
OR
Employer identification number
22 3702437

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here

Signature of U.S. person ▶

Date ▶ 05/07/2009

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

Big Rivers Electric Cooperative, Inc.
Depreciation Study in Accordance with RUS Bulletin 1767B-1
June 07, 2010

Attachment F: Terms and Conditions

TERMS AND CONDITIONS

Client: BIG RIVERS (the "Client")
Proposal No. BIG-001
Proposal Date: June 7, 2010

- 1. COMPLETE AGREEMENT.** It is understood and agreed that the proposal and these Terms and Conditions embody the complete understanding of the parties and that all oral or written negotiations or provisions not included in the proposal and Terms and Conditions are hereby nullified. Neither the proposal, scope of work, nor Terms and Conditions can be modified except by the written agreement of both parties. Any purchase order or similar document issued by Client is not accepted by MRV Consulting, LLC ("MRV Consulting") and is null and void. In the event of any conflict or inconsistency between the provisions set forth in the Proposal and these Terms and Conditions, the provisions of these Terms and Conditions shall govern.
- 2. ACCEPTANCE OF WORK PRODUCTS.** If a written report is submitted to the Client to partially or completely satisfy the requirements of the scope of the proposal, the draft report shall be deemed acceptable, unless Client responds to MRV Consulting within 60 working days from receipt of the report. A final report shall be considered acceptable to the Client unless the Client responds to MRV Consulting within 20 working days.
- 3. AUDIT SUPPORT.** It is understood and agreed that any additional effort expended by MRV Consulting on behalf of the Client to respond to questions by any third party or tax authority, provide testimony, attend meetings or furnish additional information is beyond the scope of this engagement. The Client will reimburse MRV Consulting at the then-standard hourly rate, plus all expenses, for efforts related to such additional services.
- 4. INDEMNIFICATION.** The Client shall indemnify and hold harmless MRV Consulting and its principals and employees, agents and their representatives, and their respective successors and assigns, from and against any and all claims, liabilities, losses, damages, costs and expenses including, without limitation, reasonable legal fees and cost of litigation relating to the use made by the Client of MRV Consulting's services, regardless of form, whether in contract, statute, strict liability, tort (including, without limitation, negligence), or otherwise, except to the extent that it is finally judicially determined that such claims, liabilities, losses, damages, costs or expenses were caused by bad faith or willful misconduct on the part of an indemnified party.
- 5. CLIENT INFORMATION.** MRV Consulting shall be entitled to assume, without independent verification that the accuracy of all information and data that the Client and its representatives provide to MRV Consulting. All information and data to be supplied by the Client and its representatives will be complete and accurate to the best of the Client's knowledge. MRV Consulting may use the information and data furnished by others if MRV Consulting in good faith believes such information and data to be reliable; however, MRV Consulting shall not be responsible for, and MRV Consulting shall provide no assurance regarding, the accuracy of any such information or data.
- 6. LIMITATION ON DAMAGES.** The liability of MRV Consulting for any reason whatsoever relating to its Services, regardless of form, whether in contract, statute, strict liability, tort (including, without limitation, negligence), or otherwise, shall not exceed in the aggregate the amounts actually received by MRV Consulting for its services. MRV Consulting will not be liable for any claim against the Client, its officers, directors, employees, agents or representatives by any third party, regardless of form, whether in contract, statute, strict liability, tort (including, without limitation, negligence), or otherwise, nor for any amounts representing loss of profit, loss of business or special, indirect, incidental, consequential or punitive damages, even if advised of the possibility thereof.

■ The Prime Group ■

Priority Marketing, Planning and Regulatory Support

October 12, 2010

Ms. Dana Clevidence
Procurement Agent
Big Rivers Electric Corporation
P.O. Box 24
Henderson, Kentucky 42419-0024

Dear Ms. Clevidence:

Thank you for giving us the opportunity to submit a proposal to assist Big Rivers Electric Corporation in performing a wholesale cost of service and rate design study. As you know from our previous engagement, we have extensive experience in supporting utilities of all sizes with performing fully allocated class cost of service studies and developing rates. While we have performed rate studies for over 100 utilities across the country, our business is located right here in Kentucky. Our close proximity to your offices provides you real value by increasing accessibility at low cost. More importantly, we have had extensive, recent, and proven success with several utility rate case proceedings before the Kentucky Public Service Commission.

Our cost of service model provides all of the information that you will need to analyze and modify your rates. To make the cost of service study more useful for you, we would provide you with the cost of service model in electronic form as well as a written report. The cost of service study will contain a section that unbundles your current rates into their components based on the major cost drivers and will provide a clear view for your management and your Board about how much your current rate design might vary from one that reflects straight cost causation.

We have enclosed four (4) bound and one (1) unbound hard copies of the proposal, along with an electronic copy in PDF format on CD, as specified in the RFP.

Again, thank you for giving us the opportunity to submit a proposal on this project. We are excited about working with you again. If this proposal is not responsive to your needs, please let me know and we can discuss what modifications are necessary to make it more acceptable.

Sincerely,



Steve Seelye
Principal

■ The Prime Group ■

Priority Marketing, Planning and Regulatory Support

**A Proposal For
CONSULTING SERVICES**

Prepared For

**BIG RIVERS ELECTRIC CORPORATION
("Big Rivers")**

Henderson, Kentucky

By

THE PRIME GROUP, LLC

**6001 Claymont Village Drive
Suite 8
Crestwood, KY 40014**

Synopsis

Develop a wholesale cost of service study, propose a wholesale rate structure and rate adjustments, prepare an OATT Rate in accordance with MISO Attachment O, prepare Ancillary Service rates & MISO Cost Allocations, provide a written report and optional presentation(s).

The Prime Group, LLC
P.O. Box 837
Crestwood, KY 40014-0837

Contact:	Martin Blake
Phone	(502) 425-7882
FAX	(502) 326-9894

October 12, 2010

■ The Prime Group ■

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The Prime Group, LLC
P.O. Box 837
Crestwood, KY 40014-0837

Contact: Martin Blake
Phone (502) 425-7882
FAX (502) 326-9894

October 12, 2010

EXECUTIVE SUMMARY

This proposal provides a quote for consulting services to assist Big Rivers Electric Corporation ("Big Rivers") by developing an unbundled pro forma test year cost of service study, developing a proposed wholesale rate structure for Big Rivers' Rural and Large Industrial rate classifications, developing a rate design that appropriately considers load factor, load size, energy efficiency and demand-side management programs. The aim is to provide these analyses and to support them throughout the ratemaking process in a manner that meets the objectives of the management team, the Board of Directors ("Board") and the Member-Systems.

We have a wide range of experience working for G&Ts, investor-owned utilities, municipal utilities and distribution cooperatives. We frequently make presentations to Boards of Directors. We also testify before the Federal Energy Regulatory Commission ("FERC") and state commissions. The breadth of our experience working with a wide range of utilities will allow us to bring new perspectives to your organization.

More importantly, we have had the pleasure of working with Big Rivers in the recent past. We fully understand the history of your company as well as the regulatory / business climate in which Big Rivers currently operates. Our body of work for utilities before the Kentucky Public Service Commission is without compare. We have worked with Columbia Gas Company, Delta Natural Gas Company, East Kentucky Power Cooperative, Kentucky Utilities Company, and Louisville Gas & Electric Company on a wide array of matters adjudicated before the Kentucky Public Service Commission. We have also performed analyses here in Kentucky for Warren Rural Electric Cooperative and the Cities of Berea, Livermore, Pikeville and Prestonsburg.

One of the keys to our value is our deliverables. To make the cost of service study more useful for you, we will provide Big Rivers with all financial planning models, forecasting models, cost of service models, consumption analyses, and rate design models in electronic form in a Microsoft Excel® spreadsheet at the end of the study. Having all models and spreadsheets available in electronic format will enable you to revise it at a later date, as well as to use them to run various "what-ifs" in analyzing business alternatives. The electronic spreadsheets also make the revenue requirement, cost of service and rate design models easier to use in designing new rates and looking at various rate options.

Furthermore, the models will allow for the analysis of all major cost drivers and provide a clear view for Big Rivers about how much your current rate design might vary from one that reflects straight cost causation. Our models meet the standards that regulated utilities must follow and provide all of the information that you will need in modifying your rates.

When we design rates, we prefer to work closely with the utility management and Board in the rate design process. We make sure that they understand the underlying cost structure as summarized in the revenue requirement models and discuss a number of rate design alternatives with them. The key to this process is the presentation to your management team and (if desired) the Board regarding the cost of service and rate studies.

The presentation provides the Board members with an opportunity to better understand cost of service and rates and to ask questions. It also gives the Board a good understanding of the utility's cost structure and helps them to understand the various rate design alternatives that are available to them. We have found that most boards have acted proactively in changing their rates after they fully understand the cost of service results and the rate options that are available. Without such a presentation, the revenue requirement and cost of service results are less understood by the Board and little or no action is taken even though the existing rate design may differ substantially from cost-based rates.

By participating in the rate design process, both the management team and the Board have a good understanding of how the different rate components generate the utility's revenues and the impact of the rate design on Member-Systems. In helping Big Rivers to design new rates, we would prepare a spreadsheet for each Member that shows the billing determinants for each rate component and the revenue derived from each component and show the same billing units applied to the new rate design. This comparison shows the revenue that will be generated from the new rate design versus the old rate design, for each individual Member-System. This spreadsheet helps to show how the utility's revenue is derived from the various rate components. It makes it easy to determine the impact of any rate increases. It also makes it easy to analyze any changes in the rate design that Big Rivers may want to make and provides the opportunity to quickly analyze different rate design scenarios. We provide these rate design spreadsheets on an Excel® spreadsheet just as we provide the financial planning and revenue requirement model.

COMPANY AND STAFF QUALIFICATIONS

Information about The Prime Group LLC follows:

The Prime Group, LLC
Martin J. Blake, Principal
6001 Claymont Village Drive
Suite 8
Crestwood, Kentucky 40014
Phone (502) 425-7882
FAX1 (502) 326-9894
FAX2 (502) 241-4392

COMPANY BACKGROUND

The Prime Group, LLC is a utility consulting firm that was formed by Dr. Martin Blake and Steve Seelye in 1996. When they started The Prime Group, they recognized that there was a strong market for professional rate and regulatory services for investor-owned, cooperative and municipal utilities. Since forming the company, The Prime Group has provided cost of service, rate and regulatory support for over 100 utilities around the country.

The Prime Group takes great pride in being easy to work with while providing consulting support that is unsurpassed in the industry. We tailor our models to meet your needs rather than force your needs to meet the requirements of a standard, off-the-shelf model. We don't try to be everything to everybody. We stick closely to what we are good at – performing cost of service studies, preparing economic evaluations, performing depreciation studies, and addressing complex regulatory issues.

We have helped utilities all over the United States and Canada achieve their financial and regulatory objectives. Our experts have testified before the FERC and numerous state regulatory commissions. We have presented to numerous City Councils and Boards of Directors. We have submitted expert testimony regarding rate design, cost of service studies, revenue requirements, return on equity, depreciation studies, prudence investigations, territory disputes, affiliate transactions, market power studies, and open access transmission tariffs.

We offer personalized service. The Prime Group expert working on your project will have years of experience and will be a recognized expert in the industry. We will not turn your project over to a junior associate. Additionally, it is our policy to provide our clients with the software that we use to perform the studies. Providing the software to clients allows them to get maximum benefit out of the work product and gives them the ability to perform their own scenario analysis.

The Principal areas of professional services offered by the Prime Group include:

Regulatory Support and Innovative Rate Development

- ◆ Regulatory strategy development
- ◆ State and federal regulatory filing preparation
- ◆ Rate case management and support
- ◆ Expert testimony and support
- ◆ Cost of service development and support
- ◆ Developing innovative rates to achieve strategic objectives
- ◆ Unbundling rates and preparing menus of rate options for customers
- ◆ Performance-based rate and incentive rate development
- ◆ Affiliate transactions issues and codes of conduct
- ◆ Open access transmission tariffs

Strategic Planning and Analysis

- ◆ Strategic planning facilitation
- ◆ Relationships between regulated and unregulated affiliates
- ◆ Strategic financial modeling
- ◆ Cash flow and revenue requirement analysis
- ◆ Financial pro-formas
- ◆ Economic evaluations of investment alternatives
- ◆ Depreciation studies

Education and Training

- ◆ Utility marketing processes
- ◆ Account executive training in sales and customer negotiation
- ◆ Industry issues and trends
- ◆ Risk management seminars
- ◆ Ratemaking, pricing and utility finance seminars

PROJECT TEAM

The Prime Group project team will consist of Dr. Martin Blake, Steve Seelye, John Wolfram, Paul Garcia, and Jeff Wernert. Dr. Blake, a former state utility regulator and expert in forecasting and econometrics, will be project manager for the engagement. Dr. Blake has given numerous presentations to utility boards concerning revenue requirements, cost of service and rate design. Steve Seelye has over 30 years of cost of service and ratemaking experience with gas, water, sewer and electric utilities. Steve Seelye has testified on numerous occasions before state and federal regulators on behalf of municipal and investor-owned utilities. John Wolfram has 20 years of broad experience in the utility business, including rates, operations, planning, regulatory affairs, and customer service. Paul Garcia has worked in the cost of service and rate design areas for approximately 25 years and has developed municipal cost of service studies and rates for numerous utilities. Jeff Wernert has performed cost of service studies, developed unit cost analyses, developed retail and wholesale rates for electric utility clients since joining The Prime Group in 2009.

Dr. Martin Blake is a Principal of The Prime Group. He has assisted utility clients in developing strategic plans, conducting individual customer profitability analyses, developing marketing programs, and designing new rates that provide customers with choice and an opportunity to reduce their energy bills by moving usage to time periods that are less costly to serve. Dr. Blake has testified before numerous state regulatory commissions regarding rate, return on equity and regulatory issues.

Prior to joining The Prime Group, he worked for Louisville Gas and Electric Company ("LG&E") where he was responsible for all utility marketing programs for electricity and natural gas, utility strategic planning, and all matters regarding state and federal regulation, including the development of rates and tariffs. In this capacity, he frequently testified in both state and federal regulatory proceedings. He was a member of the off-system sales team that formulated and implemented the utility's off-system sales strategy and met monthly to assess target markets and establish wholesale pricing guidelines. He has served on the Interregional Transmission Coordination Forum, the General Agreement on Parallel Paths, and currently serves as the representative of Southern Illinois Power Cooperative on the Midwest ISO Transmission Owners and tariff Committees. He is a nationally known speaker on utility industry competition and regulatory issues.

He served a four-year term as Commissioner and Chairman of the New Mexico Public Service Commission. In this capacity he made policy and adjudicatory decisions regarding rates, terms of service, financing, certificates of public convenience and necessity and complaints for electric, gas, water, and sewer utilities. He served as Chairman of the Western Conference of Public Service Commissioners Electric Committee and as Chairman of the Committee on Regional Electric Power Cooperation. He was a Professor in the Department of Agricultural Economics at New Mexico State University and is an Adjunct Professor in the Department of Economics at the University of Louisville.

Steve Seelye is a Senior Consultant and a Principal of The Prime Group. He has more than 31 years of gas, electric and water utility experience in the pricing, planning, regulatory and marketing areas. He previously led the Market Management and Rate department at LG&E (a gas and electric utility and energy holding company) where he was responsible for rate and regulatory filings for the gas and electric businesses at LG&E. He has managed gas and electric rate cases for LG&E including strategy development, witness selection, timeline development, filing development, witness preparation, cost of service study development, financial pro forma development, rate and tariff development and responding to data requests. He has extensive experience with utility regulatory filings at both the federal and state levels. Mr. Seelye has testified on numerous occasions regarding revenue requirement determination, cost of service and rate design.

Since leaving LG&E, Steve Seelye has assisted gas, electric and water utility clients in developing new rate schedules, preparing cost of service studies, developing strategic plans, developing marketing programs and in developing menus of pricing options for customers to better prepare utilities for a more competitive environment.

His accomplishments include developing performance based, environmental cost recovery and fuel supply cost recovery rate mechanisms, as well as negotiating numerous special contracts with large industrial and commercial customers. He also has experience in negotiating sales of generating assets and in negotiating unit power sales. Steve has designed load research programs, prepared electric and gas demand forecasts, prepared system planning studies, and performed cost of service studies.

His technical background includes developing pricing structures for utility products and services, developing cost studies for complex rate filings, preparing financial pro-formas and business cases for new product development, managing the rate case preparation and filing process and preparing financial support for rate case filings. He has a B.S. degree in Mathematics and extensive graduate training in engineering and physics from the University of Louisville.

John Wolfram is a Senior Consultant with The Prime Group. He has 20 years of broad experience in electric and gas utility ratemaking and regulatory affairs, marketing, planning and operations. He began his career with PJM, where he implemented energy management systems and data modeling for reliable operation of the multi-state transmission grid. He worked with Cincinnati Gas & Electric Company on similar matters before returning to PJM during the deregulation of the electric wholesale market. Mr. Wolfram was responsible for the

implementation of new practices and web-based tools for the PJM power pool in conjunction with FERC Order's 888 and 889. In 1997 Mr. Wolfram joined LG&E, first in the Energy Trading group and then in the Generation Planning department, where he produced least-cost planning assessments, engineering evaluations & written testimony for state regulatory approval for new power plants. As Manager of Regulatory Affairs, he directed strategic regulatory initiatives with FERC and with state regulators in Kentucky and Virginia, including rate cases, certificates of public convenience and necessity and transmission siting proceedings, compliance & management audits, Midwest ISO membership, and hydroelectric relicensing. He has testified before the Kentucky PSC and at FERC. Immediately prior to joining The Prime Group, Mr. Wolfram served as Director of Customer Service & Marketing for LG&E and KU, where he was responsible for all facets of customer interaction, including marketing, major accounts, walk-in offices, call centers, customer inquiries, negotiation of special contracts and franchise agreements, economic development, and energy efficiency program design & implementation. He has a B.S. degree in Electrical Engineering from the University of Notre Dame and an M.S. degree from Drexel University with a focus in power system modeling and engineering management.

Paul G. Garcia is a Senior Consultant with The Prime Group. He has more than 14 years experience in all aspects of the procurement of natural gas. His accomplishments include identifying and capturing opportunities in the intensely competitive natural gas commodity market, devising and implementing operating and trading strategies to maximize utility assets, performing technical analysis of natural gas futures and options as traded on the New York Mercantile Exchange ("NYMEX"). He developed operational forecasts used to meet daily, monthly and seasonal natural gas supply requirements. He was responsible for planning and implementing operational strategies during the deregulation of the natural gas market under FERC Order 636. During the deregulation of electric wholesale market, Mr. Garcia was responsible for the development of policies and procedures relating to sales and transmission in the conjunction with FERC Order's 888 and 889.

Since joining the Prime Group in 2000, Mr. Garcia has assisted gas and electric utility clients in developing unbundled rates, products and services, developing new rate schedules, conducting individual customer profitability analyses and preparing cost of service studies. He has a B.S. degree in Economics and Accounting.

Jeffrey Wernert is a Consultant with the Prime Group. He graduated from the University of Louisville with a Bachelor of Science and a Master of Science degree in Electrical Engineering. Since joining The Prime Group, he has performed cost of service studies, developed unit cost analyses, developed retail and wholesale rates for electric utility clients.

CLIENT REFERENCES & RECENT STUDIES

The Prime Group has worked with over 100 utilities in performing cost of service, rate and individual customer profitability studies. A selected list of our experience is provided below. Additional references can be provided upon request.

Regulated Utilities

The Prime Group has testified on behalf of a number of investor-owned utilities throughout the U.S. We have submitted expert testimony regarding rate design, cost of service studies, revenue requirements, return on equity, depreciation studies, prudence investigations, territory disputes, affiliate transactions, market power studies, and open access transmission tariffs.

- A. Kentucky Utilities and Louisville Gas and Electric Company – Testified in two recent rate cases concerning revenue requirements, cost of service studies, and rate design. Contact: Robert Conroy 502-627-3324.
- B. Delta Natural Gas Company – Testified in two recent rate cases regarding cost of service studies, rate design, depreciation study, pro-forma adjustments, cost of capital, and an alternative regulatory plan. Contact: John Brown 859-744-6171.
- C. Nevada Power and Sierra Pacific Power – developed testimony and provided regulatory support in last two rate cases and deferred fuel cost cases. Testified regarding rate base adjustments, cash working capital and cash investments. Extensive involvement in the development of regulatory strategy and witness development and support. Contact: Duane Nelson 775-834-5820.

G&T Cooperatives

- A. Hoosier Energy – Performed a cost/benefit analysis of Hoosier Energy joining the Midwest ISO as a transmission owning member. Performed a seven factor test for Hoosier that is required in the Midwest ISO Transmission Owners Agreement. Currently serving as Hoosier representative on Midwest ISO Transmission Owners Committee and Tariff Committee. Currently serving as Chair of Midwest ISO Finance Subcommittee. Worked with the Hoosier Energy Rate Committee to develop wholesale rate alternatives. One of the alternatives was selected and adopted as an optional wholesale rate that members could select. Developed retail rate templates that member systems could use to take advantage of Hoosier's wholesale rates. Developed open access transmission tariff including cost support to comply with reciprocity provisions of FERC Order No. 888. Provide advice on network transmission service issues regarding Cinergy. Developed wholesale Economic Development Rate tariff for Hoosier and corresponding retail Economic Development Rate tariffs for the members. Developed course to train distribution cooperative personnel and Board members regarding utility rates and presented this course at all of Hoosier's member systems. Also performed two functional

unbundling studies for Hoosier based on our fully allocated cost of service model. Represented Hoosier in various proceedings before the Federal Energy Regulatory Commission. Contact: Mike Mooney 812-876-0316

- B. Southern Illinois Power Cooperative - Performed a cost/benefit analysis of SIPC joining the Midwest ISO as a transmission owning member. Performed a seven factor test for SIPC that is required in the Midwest ISO Transmission Owners Agreement. Developed open access transmission tariff including cost support to comply with reciprocity provisions of FERC Order No. 888. Assist SIPC in obtaining network transmission service from Illinois Power Company. Currently serving as SIPC representative on Midwest ISO Transmission Owners Committee and Tariff Committee. Currently serving as Chair of Midwest ISO Finance Subcommittee. Represented SIPC in various proceedings before the Federal Energy Regulatory Commission. Contact: Bill Hutchison 618-964-1448 x 207.
- C. South Mississippi Electric Power Association - Developed wholesale cost of service and wholesale rates and made presentations to member systems about how to develop various retail rate alternatives from SMEPA's new wholesale rates. Contact: Nathan Brown 601-261-2303
- D. Wabash Valley Power Association - Performed high level cost of service study, performed individual customer profitability analysis, and suggested targeted pricing options for 19 member systems. This was done through the Marketing partnership at WVPA. Made cost of service and rate presentations to various Wabash Board and Manager groups. Contact: Kathy Joyce 317-481-2832
- E. Dairyland and EnPower - Performed cost/benefit analyses in four subsequent years of Dairyland joining the Midwest ISO as a transmission owning member. Provided assistance in developing a pricing mechanism for EnPower marketing services to members, performed individual customer profitability analysis and suggested targeted pricing options for member systems, developed marketing material for EnPower. Contact: Jon Wendling 319-382-5337

Distribution Cooperatives

The Prime Group has performed cost of service studies, individual customer profitability analysis and rate design for numerous distribution cooperatives around the country. We have assisted cooperatives in developing marketing programs and in training key account representatives. We have also facilitated strategic planning sessions and presented numerous training courses to cooperative Board members, personnel and customers. A sample of our work with distribution cooperatives is outlined below. Please contact Marty Blake at 502-425-7882 if you need additional distribution cooperative references.

- A. Intermountain Rural Electric Association (Colorado) - Performed cost of service study and developed retail rate options that accounted for urban and rural differences. Contact: John Pope 303-688-3100
- B. Choctawhatchee Electric Coop (Florida) - Performed cost of service study, developed cost based, unbundled rates, a line extension policy and a purchased power cost adjustment clause. Contact: Wayne Thompson 800-342-0990
- C. Citizens Electric Cooperative (Missouri) - Performed cost of service study, developed cost based, unbundled rates, a line extension policy and a purchased power cost adjustment clause. Contact: Van Robinson 573-883-5339
- D. Riverland Energy (Wisconsin) - Performed cost of service study, developed cost based, unbundled rates, a line extension policy and a purchased power cost adjustment clause. Contact: Dave Oelkers 608-323-3381
- E. Adams-Columbia Electric Cooperative (Wisconsin) - Performed cost of service study, developed cost based, unbundled rates, a line extension policy and a purchased power cost adjustment clause. Contact: Marty Hillert 608-339-7756
- F. Kandiyohi Electric Cooperative (Minnesota) - Performed cost of service study, developed cost based, unbundled rates, a line extension policy and a purchased power cost adjustment clause. Contact: Dave George 320-796-1155
- G. Daviess-Martin REMC (Indiana) - Performed cost of service study, developed cost based, unbundled rates, a line extension policy and a purchased power cost adjustment clause. Contact Ken Frye 812-295-4200
- H. MidSouth Synergy (Texas) - Performed cost of service study, developed cost based, unbundled rates, a line extension policy and a purchased power cost adjustment clause. Contact Kerry Kelton 936-825-5136
- I. Coast EPA (Mississippi) - Performed cost of service study, developed cost based, unbundled rates, a line extension policy and a purchased power cost adjustment clause. Contact Bob Occhi 228-467-6535
- J. Pioneer REC (Ohio) - - Performed cost of service study, developed cost based; unbundled rates, a line extension policy and a purchased power cost adjustment clause. Contact Aaron Stallings 937-773-2523

Municipal Utilities

The Prime Group team has worked for numerous municipal utilities on cost of service studies, revenue requirements and cash needs analysis, and rate design. Clients include the following:

- A. City of Columbus (Columbus, Ohio) - Prepared electric rate study including revenue requirements, cost of service study, and rate design. Contact: Joyce Bushman 614-207-4520
- B. Richmond Power and Light (Richmond, Indiana) – Prepared electric rate study and testified in recent rate case regarding cost of capital, revenue requirements, cost of service study, and rate design. Contact: Steve Saum 765-973-7200.
- C. Crawfordsville Electric Light & Power (Crawfordsville, Indiana) -- Prepared electric rate study and testified in recent rate case regarding revenue requirements, cost of service study, and rate design. Contact: Phil Goode 765-362-1900
- D. Olive Branch Utilities (Olive Branch, Mississippi) – Prepared gas, water, and sewer rate studies. Contact: Paula May 662-892-9207
- E. Fountain Utilities (Fountain, Colorado) – Prepared electric cost of service and rate studies. Contact: Larry Patterson 719-322-2000

WORKPLAN

The Prime Group has performed cost of service, revenue requirements, and rate design studies for utility clients all over the U.S. and Canada. Our approach is proven and our models have been refined over many years of providing these customized ratemaking services. An outline of the overall approach and a specific Scope of Work follows.

APPROACH

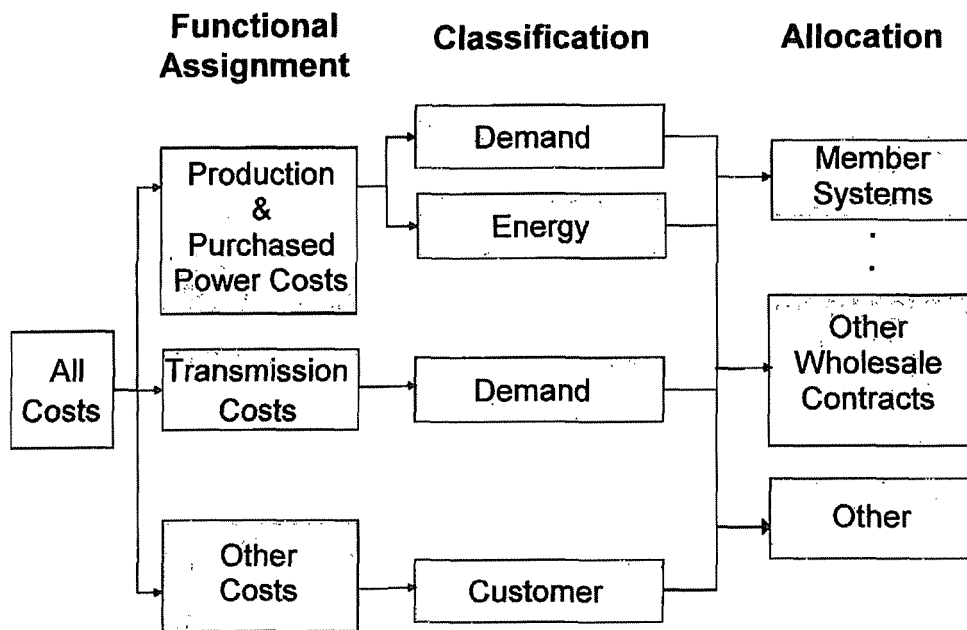
The primary objectives of this analysis are to:

- Develop an unbundled (e.g. power supply and transmission) pro forma test year cost of service;
- Develop a proposed wholesale rate structure (e.g. demand and energy) for Big Rivers' Rural and Large Industrial rate classifications that reflects Big Rivers' cost of providing service and results in a fair and equitable distribution of Big Rivers' revenue requirement to its Member-Systems (Jackson Purchase Energy Corporation, Kenergy Corp. and Meade County Rural Electric Cooperative);
- Develop a proposed rate structure that appropriately considers load factor, load size, energy efficiency and demand-side management programs, consistent with Big Rivers' corporate objectives and 2010 Integrated Resource Plan;
- Design rates that permit Big Rivers to earn a sufficient return.

A. Cost of Service Study

- 1) The Prime Group will prepare fully-allocated embedded cost of service studies for Big Rivers' electric operations. The cost of service study will utilize a standardized Excel® spreadsheet model that functionally assigns, classifies and allocates all of the utility's historical accounting costs for the test year. The first step will be to functionally assign all of the utility's costs into major functional groups (e.g., generation, purchased power, transmission, etc.) The second step will be to classify all functionally-assigned costs as energy-related, demand-related, customer-related, or specifically assigned. The third step will be to allocate the functionally assigned and classified costs to the wholesale rates identified by Big Rivers and its Member-Systems. The following diagram illustrates the three major steps for performing the cost of service study.

Table 1. Cost of Service Study Approach



The NARUC Cost Allocation Manual will be used as a guide in functionally assigning, classifying and allocating costs. The methodologies used to functionally assign costs will be based on standard cost breakdowns contained in Big Rivers' accounting records. The procedures used to classify costs correspond to standard methodologies used within the industry. Costs will be allocated to the wholesale rate classes using methodologies that either allocate or directly assign the

functionalized and classified costs on the basis of cost causation factors on the G&T system.

- 2) In order to prepare the cost of service study, The Prime Group will conduct an interview and data discovery session with Big Rivers. The purpose of the interview and data discovery session is to (i) develop an understanding of the utility's rate and marketing strategy, (ii) gather the necessary data to perform the cost of service study, and (iii) discuss alternative methodologies for functionally assigning, classifying and allocating costs.
- 3) The Prime Group will perform pro forma adjustments to reflect any known and measurable changes in cost, such as capital investment or labor cost increases. We will collaborate closely with Big Rivers management to ensure that all anticipated changes in costs or revenues are considered.

B. Rate Analysis and Development

- 1) The Prime Group will develop rate design spreadsheets for each existing Member-System served by Big Rivers that shows the billing determinants for each rate component and the revenue derived from each component and show the same billing units applied to the new proposed rate design. This shows the revenue that will be generated from the new rate design versus the old rate design and helps to ensure that the utility will receive the revenue that it needs from the new rates. It also helps demonstrate how the utility's revenue is derived from the various rate components. These spreadsheets make it easy to analyze any changes in the rate design that Big Rivers may want to make and provides the opportunity to quickly analyze different rate design scenarios. The Prime Group will provide these rate design spreadsheets to Big Rivers on an Excel® spreadsheet just as we provide the finished cost of service model.
- 2) The Prime Group will evaluate Big Rivers' existing rates and recommend changes that would better reflect cost causation. Using a cost based rate design would result in the utility earning approximately the target rate of return on all Member-Systems, would stabilize the utility's margins and would help to avoid the wide swings in margins that many utilities experience due to weather variability.
- 3) The Prime Group will develop various rate alternatives that reflect the cost of providing service to Member-Systems. Cost of service can be reflected in a number of ways. Some rates can be combined with products and services that take advantage of the various rate options to create bundled offerings that better meet customers' energy needs. For example, some rate designs not only provide a more accurate reflection of what it costs to serve a customer, but also provide an economic incentive for Member-Systems to modify their usage in a way that makes them less costly to serve. Any Demand-Side Management programs described in

the upcoming Integrated Resource Plan may be incorporated here.

- 4) The Prime Group will explore other rate alternatives as directed by Big Rivers' management and/or Board of Trustees.

SCOPE OF WORK

1. Data Gathering and Review

- a) The Prime Group shall provide Big Rivers with a list of data required to conduct the Study. (See section herein entitled "Data Request" for initial listing; additional items may follow after further review.)
- b) The Prime Group shall review the provided data to become more familiar with Big Rivers' operations in general and financial requirements and wholesale rate structure in particular.

2. Cost of Service, Revenue Requirement and Rate Design

- a) The Prime Group shall develop an average embedded, unbundled cost of service model that will allocate Big Rivers' historical test year costs into its components.
- b) The Prime Group shall identify the revenue requirement associated with each functional (unbundled) category. The revenue requirement will be expressed both dollars and on a per unit cost basis.
- c) The Prime Group shall allocate Big Rivers' functionalized revenue requirement to the Rural and Large Industrial rate classes as appropriate.
- d) The Prime Group shall incorporate into its analyses the following special considerations:
 - 1) Because Big Rivers and its Member-Systems serve several customers under special contracts (most notably the two large aluminum smelters served by Kenergy Corp.), the Prime Group will review and give special consideration to these arrangements.
 - 2) The Prime Group shall analyze and discuss the merits of reasonable alternative customer class cost allocation approaches (e.g. method of classifying and allocating production and transmission plant investment) and provide variations to the cost of service study and rate design using such alternative approaches for consideration by Big Rivers and its Member-Systems.
 - 3) The Prime Group shall take into consideration the Big Rivers wholesale tariff

riders and/or automatic cost recovery mechanisms, including the environmental surcharge, the fuel adjustment clause, the Unwind Surcredit, the Member Rate Stability Mechanism, the Rebate Adjustment, and the Non-FAC PPA. In addition, the Surcharge and TIER Adjustment Charge pursuant to the Smelter contracts will be appropriately considered.

- 4) The Prime Group's COS analysis will include development of an OATT rate in accordance with MISO's Attachment O, as well as the development of Ancillary Service rates, including allocation of MISO annual membership costs, MISO transmission expansion planning costs, Ancillary Service No. 2, Reactive Power and Voltage Support from Generation, and others as appropriate, pursuant to Big Rivers' initiative to join MISO.

The Prime Group recognizes that definitive numbers for rate case purposes (the historical test period) will not be known until a date following the completion of this Study. The Prime Group confirms that the methodology employed and templates developed per this Study will be appropriately updated by the Prime Group at such time as the definitive historical test period for rate case purposes becomes known.

3. Rate Design

- a) In consultation with Big Rivers and its Member-Systems, Prime Group shall develop an appropriate set of rate design criteria and objectives. This should include, among other things:
 - 1) Developing the targeted revenue requirement;
 - 2) Reflecting the cost of providing service;
 - 3) Providing proper price signals to the Member-Systems; and
 - 4) Being generally acceptable to the Member-Systems.
- b) The Prime Group shall evaluate the appropriate basis for setting each of the unbundled wholesale rate components.
- c) The Prime Group shall develop a recommended bundled and unbundled wholesale rate structure applicable to the Member-Systems, considering, among other things;
 - 1) Coincident versus Non-Coincident demand;
 - 2) Time-Of-Day and/or seasonal rates;
 - 3) Critical Peak Pricing and/or Real-Time Pricing;
 - 5) Other, as appropriate.

- d) The Prime Group shall compare the revenue Big Rivers realizes from each Member-System on the basis of:
 - 1) The present wholesale rates;
 - 2) The proposed wholesale rates; and
 - 3) Any reasonable alternative wholesale rates that are considered.
- e) The Prime Group shall recommend, if appropriate, a phase-in approach designed to mitigate potential “rate shock” in adherence to the principle of "gradualism."

4. Process

- a) The Prime Group shall solicit and carefully consider input from Big Rivers’ management, staff and the Member-Systems.
- b) The Prime Group will be available for a minimum of 3 face-to-face meetings with Big Rivers’ management/staff and/or the Member-Systems.

5. Deliverables

- a) The Prime Group shall document the results of its Study, including analysis, in a written report that will include narrative, tables, exhibits and graphs, as appropriate.
- b) The Prime Group shall provide a fully functioning Excel® spreadsheet model of the COS analysis.
- c) (*Optional*) The Prime Group can make a presentation to communicate the results of the cost of service and rate study to the Board (if desired by Big Rivers management). We find that almost all clients select this option as it provides an opportunity for management and Board members to thoroughly understand the results of these studies.

The Prime Group recognizes that the Study and the deliverables noted herein shall form the basis of a regulatory filing by Big Rivers with the Kentucky Public Service Commission. While not included in the base fee proposal, The Prime Group is prepared to participate in such a proceeding to the fullest extent, including providing written testimony as expert witness(es), responding to data requests, reviewing the testimony of other experts, drafting data requests, testifying at hearing, reviewing briefs, assisting in settlement discussions if applicable, and/or any other facet of the regulatory process, all as requested by management. Fees for these services are noted separately in the Pricing and Fee Schedule section herein.

SCOPE EXCLUSIONS/ADDENDA

None.

POTENTIAL CONFLICTS OF INTEREST

None.

STUDY SCHEDULE

The Prime Group will complete this study within the timeframe outlined in the RFP, subject to extension based on mutual agreement. An overview of the task timeline is provided in Table 2.

Table 2. Schedule Outline

Timeframe	Task
October 2010	Initiate data gathering meeting(s)
	Review financial, contractual, and other data
November 2010	Initiate Rate Design Consultations with Big Rivers staff and Member-Systems
	Complete Preliminary Cost of Service Study
December 2010	Complete Rate Design Criteria and Objectives with Big Rivers staff and Member-Systems
	Complete Cost of Service Study
	Develop OATT Rate via MISO Attachment O
January 2011	Complete Rate Design & Member-System Revenue Comparison
	Provide Deliverables and Presentations
February 2011*	Update analysis with final test period values for preparation of rate case filing

* Pursuant to timing of Big Rivers' determination of test period for rate case.

The Prime Group will need to interact frequently with members of the Big Rivers staff during this project, especially with employees from the finance and accounting area. While we are conveniently located in close proximity to the Big Rivers headquarters right here in Kentucky, we also perform many studies of this sort for utilities in other states through telephone and e-mail communication, and we have refined the process to a significant degree. Close communication is essential for success.

DATA REQUEST

Accounting & System Data:

Please provide the following accounting and system data. Several of these items ask for data by FERC or RUS Uniform System of Accounts. The System of Accounts is described in RUS Bulletin 1767B-1.

1. RUS Form 12 for the test year to be used in the cost of service study if available.
2. Trial Balance – showing operating revenues, expenses and plant balances by RUS account primary account number for the 12 month period to be used as the test year for the cost of service study (frequently a calendar year, although any 12 month period can be used for the test year.)
3. Year-End Accumulated Depreciation (depreciation reserve) broken down by primary RUS Plant Account Number. Our preference is to obtain the data by primary RUS Plant Account Number; however, if this format is not available then please provide accumulated depreciation balances by major functional group (i.e., transmission, distribution, general plant, production, etc, as applicable).
4. Annual Depreciation Expenses (annual depreciation accruals) broken down by primary RUS Plant Account Number. Our preference is to obtain the data by primary RUS Plant Account Number; however, if this format is not available then please provide annual depreciation expenses by major functional group (i.e., transmission, distribution, general plant, production, etc, as applicable).
5. Labor expenses (payroll expenses) broken down by primary RUS O&M expenses (i.e., labor dollars that have been expensed)
6. CPR (Continuing Property Records) – plant detail, especially for the following accounts (including number of units and investment by type of equipment):
 - a. Account 365 – Overhead Conductors and Devices
 - b. Account 367 – Underground Conductors
 - c. Account 368 – Line Transformers (if account includes station transformers then differentiate between line transformers and station transformers)

- d. Account 369 – Services (including both feet of conductor and number of services)
 - e. Account 370 – Meters (denote system monitoring and/or substation meters)
 - f. Account 371 – Installations on Customer Premises (please describe what is included in this account and if multiple subaccounts are utilized then provide detail)
7. Current unit cost for each conductor and transformer size shown in the utility’s CPR records.
 8. Monthly Purchase Power Detail for the 12-month test year (detail should show demand, energy, and other charges; invoices.) This includes invoices for wholesale power supply purchases, transmission costs billed to Big Rivers, any ISO charges, or other billed amounts & invoices related to monthly purchased power expenses.
 9. Any load data that the utility might have.
 10. List of pro-forma adjustments that will significantly affect Big Rivers' cost of providing power to its Member-Systems after the end of the test period (that meet the "known and measurable" standard utilized in Kentucky for ratemaking purposes).
 11. Most recent Integrated Resource Plan (when complete).

Billing Determinants

The requirement for this data is to permit the recalculation of test year revenue for each of the utilities’ rate schedules in order to verify that we have valid billing units for the test year. *It is important to keep in mind that rate schedules are not the same as the revenue classes that may be reported on Form 12.*

12. Monthly Billing Determinants (“billing units”) for the test year by rate schedule. Billing determinants include the follow:
 - a. Number of delivery points,
 - b. KWh sales,
 - c. KW billing demand,
 - d. Revenue for each rate schedule.
13. Monthly unit charges billed under the rate mechanisms including the Environmental Surcharge, the Fuel Adjustment Clause, the Unwind Surcredit, the Member Rate Stability Mechanism, the Rebate Adjustment, and the Non-FAC PPA or other tracking mechanism if any. Also please include monthly unit charges that are billed in the monthly revenue.
14. Copy of all wholesale rate schedules (if different than RFP Exhibit)
15. Copy of all special contracts (if different than RFP Exhibits).

Please feel free to contact us with any questions regarding these data requirements. Additional information may be required after our review of the data or policies requested above.

PRICING & FEE SCHEDULES

The Prime Group's standard hourly rates listed below:

<u>Prime Group Resource</u>	<u>Billing Rate per Hour</u>
Principal – Steve Seelye	\$200
Senior Consultant – Paul Garcia	\$175
Senior Consultant – John Wolfram	\$175
Consultant – Jeff Wernert	\$150

These rates include all salaries and fringe benefits as well as expenses for secretarial services, phones, FAX, overnight delivery, etc. In addition to these charges, The Prime Group would bill for the actual costs of travel and accommodations reasonably incurred in conjunction with providing these services. We estimate that the cost of the work described in the scope of work will be \$58,000, excluding the presentation to the management team and to the Board of Trustees. The cost of each optional presentation would be \$2,500.

The estimate of particular tasks in the scope of work is tabulated in Table 3.

Rate Case Proceeding / Other

For the activities noted herein that are not expressly provided for in the Scope of Work, including but not limited to the development of and/or participation in a rate case proceeding before the Kentucky Public Service Commission, The Prime Group will bill for its services on a time and materials basis at the hourly rates specified above. In addition to these charges, The Prime Group would bill for the actual costs of travel and accommodations reasonably incurred in conjunction with providing these services. Due to the variable nature of the regulatory process, it is difficult to estimate the total cost of these services.

Table 3. Work Plan Estimates

Task	Personnel	Estimated Time (Hrs)	Estimated Cost
Data Gathering & Review	Steve Seelye John Wolfram Jeff Wernert	N/A	Included
Cost of Service Study	Steve Seelye John Wolfram Jeff Wernert	70 30 30	\$23,500
Revenue Requirements	Steve Seelye John Wolfram	40 20	\$12,000
Rate Design	Steve Seelye John Wolfram Jeff Wernert	50 25 15	\$16,500
OATT / MISO Attachment O, Ancillary Service Rates, and Allocation of MISO Costs	Steve Seelye Paul Garcia	3 8	\$2,000
Report	Steve Seelye John Wolfram	N/A	Included
Update for Rate Case Filing	Steve Seelye John Wolfram Jeff Wernert	10 6 6	\$4,000
Subtotal			\$58,000
Board Presentation (<i>Optional</i>)	Steve Seelye John Wolfram	N/A	\$2,500
Total			\$60,500

FORMS

■ The Prime Group ■

6001 Claymont Village Drive
Suite 8
Crestwood, Kentucky 40014

UNITED STATES DEPARTMENT OF AGRICULTURE

NOTICE TO APPLICANTS - CERTIFICATION/DISCLOSURE REQUIREMENTS RELATED TO LOBBYING

Section 319 of Public Law 101-121 (31 U.S.C.), signed into law on October 23, 1989, imposes new prohibitions and requirements for disclosure and certification related to lobbying on recipients of Federal contracts, grants, cooperative agreements, and loans. Certain provisions of the law also apply to Federal commitments for loan guarantees and insurance; however, it provides exemptions for Indian tribes and tribal organizations.

Effective December 23, 1989, current and prospective recipients (and their subtier contractors and/or subgrantees) will be prohibited from using Federal funds, other than profits from a Federal contract, for lobbying Congress or any Federal agency in connection with the award of a particular contract, grant, cooperative agreement or loan. In addition, for each award action in excess of \$100,000 (or \$150,000 for loans) on or after December 23, 1989, the law requires recipients and their subtier contractors and/or subgrantees to: (1) certify that they have neither used nor will use any appropriated funds for payment to lobbyists; (2) disclose the name, address, payment details, and purpose of any agreements with lobbyists whom recipients or their subtier contractors or subgrantees will pay with profits or nonappropriated funds on or after December 23, 1989; and (3) file quarterly updates about the use of lobbyists if materials changes occur in their use. The law establishes civil penalties for noncompliance.

If you are a current recipient of funding or have an application, proposal, or bid pending as of December 23, 1989, the law will have the following immediate consequences for you:

- You are prohibited from using appropriated funds (other than profits from Federal contracts) on or after December 23, 1989, for lobbying Congress or any Federal agency in connection with a particular contract, grant, cooperative agreement, or loan;
- you are required to execute the attached certification at the time of submission of an application or before any action in excess of \$100,000 is awarded; and
- you will be required to complete the lobbying disclosure form if the disclosure requirements apply to you.

Regulations implementing Section 319 of Public Law 101-121 have been published as an Interim Final Rule by the Office of Management and Budget as Part III of the February 26, 1990, *Federal Register* (pages 6736-6746).

UNITED STATES DEPARTMENT OF AGRICULTURE

CERTIFICATION REGARDING LOBBYING - CONTRACTS, GRANTS, LOANS AND COOPERATIVE AGREEMENTS

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement;

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this

Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions;

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Prime Group, LLC
Organization Name

Award Number or Project Name

MARTIN J. BLAKE + W. STEVEN SEELYE, MEMBERS
Name and Title of Authorized Representative

W. Steven Seelye, Jr.
Signature

10/12/10
Date

U.S. DEPARTMENT OF AGRICULTURE

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY
AND VOLUNTARY EXCLUSION - LOWER TIER COVERED TRANSACTIONS**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR Part 3017, Section 3017.510, Participants' responsibilities. The regulations were published as Part IV of the January 30, 1989, Federal Register (pages 4722-4733). Copies of the regulations may be obtained by contacting the Department of Agriculture agency with which this transaction originated.

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The Prime Group, LLC

Organization Name

PR/Award Number or Project Name

MARTIN J. BLAKE & W. STEVEN SEELYE, MEMBERS

Name(s) and Title(s) of Authorized Representative(s)

W. Steven Seelye / SW

Signature(s)

Date

10/12/10

Instructions for Certification

1. By signing and submitting this form, the prospective lower tier participant is providing the certification set out on the reverse side in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transactions," "debarred," "suspended," "ineligible," "lower tier covered transactions," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0059. The time required to complete this information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

EQUAL OPPORTUNITY ADDENDUM
To Be Inserted in Construction Contracts and
Subcontracts, and Materials Contracts and Purchase Orders

PART I

The Contractor represents that:

It has does not have 100 or more employees, and if it has, that

It has has no furnished the Equal Employment Opportunity -- Employers Information Report EEO-1. Standard Form 100, required of employers with 100 or more employees pursuant to Executive Order 11246 and Title VII of the Civil Rights Act of 1964.

The Contractor agrees that it will obtain, prior to the award of any subcontract for more than \$10,000 hereunder to a subcontractor with 100 or more employees, a statement, signed by the proposed subcontractor, that the proposed subcontractor has filed a current report on Standard Form 100.

The Contractor agrees that if -it has 100 or more employees and has not submitted a report on Standard Form 100 for the current reporting year and that if this contract will amount to more than \$10,000, the Contractor will file such report, as required by law, and notify the Owner in writing of such filing prior to the Owner's acceptance of this Proposal.

PART II

CERTIFICATION OF NONSEGREGATED FACILITIES

The Contractor certifies that it does not maintain or provide for its employees any segregated facilities at any of its -establishments, and that it does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest-rooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The Contractor agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that it will retain such certifications in its files.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

PART III

EQUAL OPPORTUNITY CLAUSE

During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race,

color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(3) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.

(5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965- and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

(6) In the event of the Contractor's noncompliance with- the nondiscrimination clauses of this contract or with any of the said rules regulations or orders, this contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11,246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in the said Executive Order or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.

(7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The term "Contractor" shall also mean "Bidder" or " Seller" in case of materials and equipment contracts and purchase orders. and "Subcontractor" in the case of subcontracts.

The provisions of this addendum are not applicable to any. contract or subcontract not exceeding \$10,000.

This addendum supersedes the similar representations and provisions which may be contained in the contract form to which this addendum is attached. The Contractor may disregard the superseded representations and provisions.

The Prime Group, LLC
CONTRACTOR
By W. Stan Seab
MEMBER (PRINCIPAL)
TITLE
10/12/2010
DATE

Big Rivers Electric Corporation
GENERAL SERVICES AGREEMENT

This General Services Agreement (this "General Services Agreement") is made this ___ day of October, 2000 by and between Big Rivers Electric Corporation ("Company") and The Prime Group LLC ("Contractor"), a Kentucky LLC (list state of entity's organization and entity type, such as "Kentucky corporation" or "Kentucky limited liability company", etc.).

WHEREAS, Contractor desires the opportunity to provide goods and/or services to Big Rivers Electric Corporation from time to time, and Big Rivers Electric Corporation desire the opportunity to engage Contractor to provide such goods and/or services; and

WHEREAS, the parties intend that this General Services Agreement sets forth the exclusive set of terms and conditions which shall govern the performance of the "Work" (as defined below) by Contractor for the Company should the Company engage Contractor to provide Work.

NOW THEREFORE, in consideration of the premises, the mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties do agree as follows:

ARTICLE 1 DEFINITIONS

- 1.01 Agreement:** "Agreement" shall mean this General Services Agreement, along with any "Specifications, (as defined below) and/or Purchase Order (as defined below) issued by Company and/or ", etc any other documentation as may be executed by the parties in accordance with Article 2, and/or other agreed collateral document pursuant to which the Work is to be performed.
- 1.02 Applicable Laws:** "Applicable Laws" shall mean any and all applicable federal, state, or local laws, regulations, codes, ordinances, administrative rules, court orders, permits or executive orders.
- 1.03 Contract Price:** "Contract Price" shall mean the aggregate of the particular consideration set forth in one or more Purchase Orders or other Statements of Work or as otherwise agreed upon. Unless otherwise agreed in writing, the Contract Price includes all applicable taxes, duties, fees, and assessments of any nature, including without limitation all sales and use taxes, due to any governmental authority with respect to the Work.
- 1.04 Contractor:** "Contractor" shall mean the entity designated as the "Contractor" in the opening paragraph of this Agreement.
- 1.05 Company:** "Company" shall mean Big Rivers Electric Corporation
- 1.06 Purchase Order:** Company may, at its discretion, issue its own "Purchase Order Standard Terms and Conditions" (collectively referred to as a "Purchase Order") that may supplement, but in no way or manner ever supersede, this Agreement with respect to any conflicting terms and conditions.
- 1.07 Specifications:** "Specifications" shall mean any specifications, instructions, drawings, schedules, a Purchase Order, contracts, scopes of work, and/or statements of work.
- 1.08 Work:** "Work" shall include those services and/or goods set forth in this Agreement.
- 1.09 Tools and Equipment:** "Tools and Equipment" shall mean any tools, equipment, rigging and other general supplies on the Company's premises where the Work is being performed that is either owned and/or leased by Company or by any of its Affiliates.

ARTICLE 2 SCOPE; BINDING EFFECT

Unless otherwise agreed in a writing executed by each of the parties which evidences a clear intention to supersede this Agreement, the parties intend that this Agreement apply to all transactions which may occur between the Company on one hand and Contractor on the other hand during the term of this Agreement and which are related to the provision of goods and/or services by Contractor for the benefit of the Company. Neither the Company makes any commitment to Contractor as to the exclusiveness of this relationship or as to the volume, if any, of business the Company will do with Contractor. The parties do, however, anticipate that the parties will agree from time to time for the performance of Work by Contractor. Such agreement for the provision of Work shall be reflected by (a) each of the parties executing a mutually acceptable Statement of Work under this Agreement or (b) Company providing a Purchase Order or other Statement of Work to Contractor and Contractor accepting such Purchase Order or other Statement of Work (including by commencing performance pursuant to such Purchase Order or other Statement of Work). In the event Company provides a Purchase Order or other Statement of Work to Contractor and Contractor commences performance, unless such Purchase Order or other Statement of Work expressly provides otherwise, Contractor hereby agrees to the formation of a binding agreement as described in the Purchase Order or other Statement of Work upon Contractor's commencement of performance, waives any argument that it might otherwise have under Applicable Laws that the Purchase Order should have been executed by each of the parties to be enforceable and further agrees to not contest the enforceability of such Purchase Order or other Statement of Work on those grounds, and agrees to not contest the admissibility of Company's records related to such Purchase Order or other Statement of Work that are kept in the ordinary course by Company. In addition, in no event shall the terms and conditions of any proposal, Purchase Order or other Statement of Work, acknowledgement, invoice, or other document unilaterally issued by Contractor be binding upon Company without Company's explicit written acceptance thereof. Any Work performed by Contractor without Company's binding commitment for such Work either via a duly executed or accepted Purchase Order or other Statement of Work under this Agreement shall be at Contractor's sole risk and expense, and Company shall have no obligation to pay for any such Work.

ARTICLE 3 CONDITIONS AND RISKS OF WORK; LABOR HARMONY

Unless the applicable Statement of Work expressly provides otherwise, Contractor agrees that before beginning any Work Contractor shall carefully examine all conditions relevant to such Work and its surroundings, and, unless Contractor notifies Company in writing that it will not perform the Work under such conditions, Contractor shall assume the risk of such conditions and shall, regardless of such conditions, the expense, or difficulty of performing the Work, fully complete the Work for the stated Contract Price applicable to such Work without further recourse to Company. Without limiting the foregoing, Contractor specifically recognizes that Company and other parties may be working concurrently at the site. Information on the site of the Work and local conditions at such site furnished by Company in specifications, drawings, or otherwise is made without representation or warranty of any nature by Company, is not guaranteed by Company, and is furnished solely for the convenience of Contractor. All drawings and other documents, if any, required to be submitted to Company for review shall be submitted in accordance with the mutually agreed to schedule, and, if no schedule applies, such drawings or other documents shall be submitted by Contractor without unreasonable delay. No Work affected by such drawings and other documents shall be started until Contractor is authorized to do so by Company. In case of a conflict between or within instructions, specifications, drawings, schedules, Purchase Order(s) and/or other Statements of Work, Company shall resolve such conflict; and Company's resolution shall be binding on Contractor. Contractor agrees that all labor employed by Contractor, its agents, or subcontractors for Work on the premises of Company shall be in harmony with all other labor being used by Company or other contractors working on Company's premises. Contractor agrees to give Company immediate notice of any threatened or actual labor dispute and will provide assistance as determined necessary by Company to resolve any such dispute. Contractor, its agents, or subcontractors shall remove from Company's premises any person objected to by Company in association with the Work.

ARTICLE 4 COMPANY CHANGES IN WORK

The scope of and conditions applicable to the Work shall be subject to changes by Company from time to time. Such changes shall only be enforceable if documented in a writing executed by Company. Except as

otherwise specifically set forth in this Agreement, changes in the scope of or conditions applicable to the Work may result in adjustments in the Contract Price and/or the Work schedule in accordance with this Article 4. If Contractor believes that adjustment of the Contract Price or the Work schedule is justified, whether as a result of a change made pursuant to this Article or as a result of any other circumstance, then Contractor shall (a) give Company written notice of its claim within five (5) business days after receipt of notice of such change or the occurrence of such circumstances and (b) shall supply a written statement supporting Contractor's claim within ten (10) business days after receipt of notice of such change or occurrence of such circumstances, which statement shall include Contractor's detailed estimate of the effect on the Contract Price and/or the Work schedule. Contractor agrees to continue performance of the Work during the time any claim hereunder is pending. Company shall not be bound to any adjustments in the Contract Price or the Work schedule unless expressly agreed to by Company in writing. Company will not be liable for, and Contractor waives, any claims of Contractor that Contractor knew or should have known and that were not reported by Contractor in accordance with the provisions of this Article.

ARTICLE 5 FORCE MAJEURE

Neither party shall be liable to the other for any damages for any failure to perform or for any delays or interruptions beyond that party's reasonable control in performing any of its obligations under this Agreement due to acts of God, fires, floods, earthquakes, riots, war, acts of terrorism, civil insurrection, acts of the public enemy, or acts or failures to act of civil or military authority, unless the time to perform is expressly guaranteed. Contractor shall advise Company immediately of any anticipated and actual failure, delay, or interruption and the cause and estimated duration of such event. Any such failure, delay, or interruption, even though existing on the date of this Agreement or on the date of the start of the Work, shall require Contractor to within five (5) days submit a recovery plan detailing the manner in which the failure, delay, or interruption shall be remedied and the revised schedule. Contractor shall diligently proceed with the Work notwithstanding the occurrence thereof. This Article shall apply only to the part of the Work directly affected by the particular failure, delay, or interruption, and shall not apply to the Work as a whole or any other unaffected part thereof.

ARTICLE 6 CONTRACTOR DELAYS

Time is an important and material consideration in the performance of this Agreement by Contractor. Contractor agrees to cooperate with Company in scheduling the Work so that the project and other activities at Company's site will progress with a minimum of delays. Company shall not be responsible for compensating Contractor for any costs of overtime or other premium time work unless Company has provided separate prior written authorization for additional compensation to Contractor, and, if Company provides such written authorization, such additional compensation shall be limited to Contractor's actual cost of the premium portion of wages, craft fringe benefits, and payroll burdens. Contractor shall be liable for all failures, delays, and interruptions in performing any of its obligations under this Agreement which are not (a) caused by Company and reported in accordance with Article 4, (b) excused by Article 5, or (c) directed by Company pursuant to Article 7. Contractor shall, without adjustment to completion date or Contract Price, be obligated to make up time lost by such failures, delays, or interruptions. Company may suspend payments under this Agreement during the period of any such failure, delay, or interruption.

ARTICLE 7 COMPANY EXTENSIONS

Company shall have the right to extend schedules or suspend the Work, in whole or in part, at any time upon written notice to Contractor (except that in an emergency or in the event that Company identifies any safety concerns, Company may require an immediate suspension upon oral or written notice to Contractor). Contractor shall, upon receipt of such notice, immediately suspend or delay the Work. Contractor shall resume any suspended Work when directed by Company. If Contractor follows the requirements of Article 4, a mutually agreed equitable adjustment to the Contract Price or to the schedules for payments and performance of the remaining Work may be made to reflect Company's extension of schedules or suspension of the Work. Contractor shall provide Company all information Company shall request in connection with determining the amount of such equitable adjustment.

ARTICLE 8 INSPECTING, TESTING, AUDITING, AND USE OF TOOLS AND EQUIPMENT:

8.01 Right of Inspecting and Testing: Company reserves the right, but shall not be obligated, to appoint representatives to follow the progress of the Work with authority to suspend any Work not in compliance with this Agreement. The appointment or absence of an appointment, of such representatives by Company shall not have any effect on warranties. Acceptance or approval by Company's representative shall not be deemed to constitute final acceptance by Company, nor shall Company's inspection relieve Contractor of responsibility for proper performance of the Work. Inspection by Company's representative shall not be deemed to be supervision or direction by Company of Contractor, its agents, servants, or employees, but shall be only for the purpose of attempting to ensure that the Work complies with this Agreement. In the event Contractor fails to provide Company with reasonable facilities and access for inspection when advised, and if in the opinion of Company it becomes necessary to dismantle the Work for such inspection, then Contractor shall bear the expenses of such dismantling and reassembly.

8.02 Right of Auditing: Contractor shall maintain complete records relating to any cost-based (i.e., Work not covered by firm prices) components of the Work billed under this Agreement or relating to the quantity of units billed under any unit price provisions of this Agreement (all the foregoing hereinafter referred to as "Records") for a minimum of five years following the latest of performance of, delivery to Company of, or payment by Company for, such Work or units. All such Records shall be open to inspection and subject to audit and reproduction during normal working hours, by Company or its authorized representatives to the extent necessary to adequately permit evaluation and verification of any invoices, payments, time sheets, or claims based on Contractor's actual costs incurred in the performance or delivery of Work under this Agreement. For the purpose of evaluating or verifying such actual or claimed costs, Company or its authorized representative shall have access to said Records at any time, including any time after final payment by Company to Contractor pursuant to this Agreement. All non-public information obtained in the course of such audits shall be held in confidence except pursuant to judicial and administrative order. Company or its authorized representative shall have access, during normal working hours, to all necessary Contractor facilities and shall be provided adequate and appropriate work space to conduct audits in compliance with the provisions of this Article. Company shall give Contractor reasonable notice of intended audits. The rights of Company set forth in this paragraph shall survive the termination or expiration of this Agreement.

8.03 Use of Tools and Equipment: Company, in its sole discretion, may allow Contractor to use Company's Tools and Equipment for the Work and related activities at designated Company locations. Contractor shall indemnify and hold harmless Company and its Affiliates, including their respective officers, directors, shareholders, agents, members and employees (each an "Indemnified Party"), from and against any and all claims, damages, losses or liabilities arising out of, relating to, or in connection with, the use of Company's Tools and Equipment by Contractor, its agents, servants, employees or subcontractors, and will reimburse each Indemnified Party for all expenses (including attorney's fees and expenses) as they are incurred in connection with investigating, preparing or pursuing or defending any action, claim, suit or investigation or proceeding related to, arising out of, or in connection with, the use of Company's Tools and Equipment by Contractor, its agents, servants, employees or subcontractors, whether or not threatened or pending and whether or not any Indemnified Party is a party. Contractor, on behalf of itself or its agents, affiliates, officers and directors, and all of their predecessors, successors, assigns, heirs, executors and administrators, hereby irrevocably release, discharge, waive, relinquish and covenant not to sue, directly, derivatively or otherwise, Company and/or its Affiliates and each of their respective directors, officers, shareholders, members, partners (general or limited), employees and agents (including, without limitation, its financial advisors, counsel, proxy solicitors, information agents, depositories, consultants and public relations representatives) and all of their predecessors, successors, assigns, heirs, executors or administrators, and all persons acting in concert with any such person, with respect to any and all matters, actions causes of action (whether actually asserted or not), suits, damages, claims, or liabilities whatsoever, at law, equity or otherwise, arising out of, relating to, or in connection with the use of Company's Tools and Equipment by Contractor, its agents, servants, employees or subcontractors. Company shall in no event be liable for any claim whatsoever by or through Contractor, its employees, agents and/or subcontractors or by any third

party, for any inoperability or failure of the Tools and Equipment to perform as designed or intended, whether such claim is based in warranty, contract, tort (including negligence), strict liability or otherwise and whether for direct, incidental, consequential, special, exemplary or other damages. Contractor shall ensure that its employees, agents, subcontractors or servants shall inspect, exercise the appropriate level of care in the use, maintenance and repair of the Tools and Equipment, so as to minimize the incidence of casualties and injuries occurring in connection therewith.

ARTICLE 9 COMPLIANCE WITH APPLICABLE LAWS; SAFETY; DRUG AND ALCOHOL TESTING

9.01 Applicable Laws and Safety: Contractor agrees to protect its own and its subcontractors' employees and be responsible for their Work until Company's acceptance of the entire project and to protect Company's facilities, property, employees, and third parties from damage or injury. Contractor shall at all times be solely responsible for complying with all Applicable Laws and facility rules, including without limitation those relating to health and safety, in connection with the Work and for obtaining (but only as approved by Company) all permits and approvals necessary to perform the Work. Without limiting the foregoing, Contractor agrees to strictly abide by and observe all standards of the Occupational Safety & Health Administration (OSHA) which are applicable to the Work being performed now or in the future, as well as Company's Contractor Code of Business Conduct and Company's Contractor/Subcontractor Safety Policy which are both hereby incorporated by reference (Contractor hereby acknowledges receipt of a copy of such Company's Contractor Code of Business Conduct and Company's Contractor/Subcontractor Safety Policy) and any other rules and regulations of the Company, all of which are incorporated herein by reference. Contractor also agrees to be bound to any amendments and/or modifications that may be issued in the future by Company from time to time, with respect to Company's Contractor Code of Business Conduct and/or any of its related policies which are the subject of this Article 9. Contractor shall maintain the Work site in a safe and orderly condition at all times. Company shall have the right but not the obligation to review Contractor's compliance with safety and cleanup measures. In the event Contractor fails to keep the work area clean, Company shall have the right to perform such cleanup on behalf of, at the risk of and at the expense of Contractor. In the event Contractor subcontracts any of the Work, Contractor shall notify Company in writing of the identity of the subcontractor before utilizing the subcontractor. Contractor shall require all of its subcontractors to complete the safety and health questionnaire and checklists provided by Company and shall provide a copy of such documents to Company upon request. Contractor shall conduct, and require its subcontractors to conduct, safety audits and job briefings during performance of the Work. In the event a subcontractor has no procedure for conducting safety audits and job briefings, Contractor shall include the subcontractor in its safety audits and job briefings. All safety audits shall be documented in writing by the Contractor and its subcontractors. Contractor shall provide documentation of any and all audits identifying safety deficiencies and concerns and corrective action taken as a result of such audits to Company semi-monthly.

9.02 Hazards and Training: Contractor shall furnish adequate numbers of trained, qualified, and experienced personnel and appropriate safety and other equipment in first-class condition, suitable for performance of the Work. Such personnel shall be skilled and properly trained to perform the Work and recognize all hazards associated with the Work. Without limiting the foregoing, Contractor shall participate in any safety orientation or other of Company's familiarization initiatives related to safety and shall strictly comply with any monitoring initiatives as determined by Company. Contractor shall accept all equipment, structures, and property of Company as found and acknowledges it has inspected the property, has determined the hazards incident to working thereon or thereabouts, and has adopted suitable precautions and methods for the protection and safety of its employees and the property.

9.03 Drug and Alcohol: No person will perform any of the Work while under the influence of drugs or alcohol. No alcohol may be consumed within four (4) hours of the start of any person's performance of the Work or anytime during the workday. A person will be deemed under the influence of alcohol if a level of .02 percent blood alcohol or greater is found. In addition to the requirements of the drug testing program, as set forth in Company's rules and regulations, all persons who will perform any of the Work will be subject to drug and alcohol testing under either of the following circumstances: (i) where the person's performance either contributed to an accident or cannot be completely discounted as a contributing factor to an accident

which involves off-site medical treatment of any person; and (ii) where Company determines in its sole discretion that there is reasonable cause to believe such person is using drugs or alcohol or may otherwise be unfit for duty. Such persons will not be permitted to perform any Work until the test results are established. Contractor shall be solely responsible for administering and conducting drug and alcohol testing, as set forth herein, at Contractor's sole expense. As applicable and in addition to any other requirements under this Agreement, Contractor shall develop and strictly comply with any and all drug testing requirements as required by Applicable Laws.

9.04 Office of Compliance: The Company has an Office of Compliance. Should Contractor have actual knowledge of violations of any of the herein stated policies of conduct in this Article 9, or have a reasonable basis to believe that such violations will occur in the future, whether by its own employees, agents, representatives or subcontractors, or by another vendor and/or supplier of the Company and its employees, agents, representatives or subcontractors, or by any employee, agent and/or representative of Company, Contractor has an affirmative obligation to immediately report any such known, perceived and/or anticipated violations to the Company's Office.

ARTICLE 10 STATUS OF CONTRACTOR

Company does not reserve any right to control the methods or manner of performance of the Work by Contractor. Contractor, in performing the Work, shall not act as an agent or employee of Company, but shall be and act as an independent contractor and shall be free to perform the Work by such methods and in such manner as Contractor may choose, doing everything necessary to perform such Work properly and safely and having supervision over and responsibility for the safety and actions of its employees and the suitability of its equipment. Contractor's employees and subcontractors shall not be deemed to be employees of Company. Contractor agrees that if any portion of Contractor's Work is subcontracted, all such subcontractors shall be bound by and observe the conditions of this Agreement to the same extent as required of Contractor. In such event, Company strongly encourages the use of Minority Business Enterprises, Women Business Enterprises, and Disadvantaged Business Enterprises, as defined under federal law and as certified by a certifying agency that Company recognizes as proper.

ARTICLE 11 EQUAL EMPLOYMENT OPPORTUNITY

To the extent applicable, Contractor shall comply with all of the following provisions, which are incorporated herein by reference: (i) Equal Opportunity regulations set forth in 41 CFR § 60-1.4(a) and (c), prohibiting employment discrimination against any employee or applicant because of race, color, religion, sex, or national origin; (ii) Vietnam Era Veterans Readjustment Assistance Act regulations set forth in 41 CFR § 60-250.4 relating to the employment and advancement of disabled veterans and Vietnam era veterans; (iii) Rehabilitation Act regulations set forth in 41 CFR § 60-741.4 relating to the employment and advancement of qualified disabled employees and applicants for employment; (iv) the clause known as "Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals" set forth in 15 USC § 637(d)(3); and (v) the subcontracting plan requirement set forth in 15 USC § 637(d).

ARTICLE 12 INDEMNITY BY CONTRACTOR

12.01 Indemnity: Contractor shall be responsible for and shall defend, indemnify, and save harmless Big Rivers Electric Corporation from any and all damage, loss, claim, demand, suit, liability, fine, penalty, or forfeiture of every kind and nature, including, but not limited to, costs and expenses, including professional fees and court costs of defending against the same and payment of any settlement or judgment therefor, by reason of:

- (1) injuries or deaths to persons,
- (2) damages to or destruction of real, personal, or intangible properties,
- (3) violations of any other rights asserted against Big Rivers Electric Corporation, including patents, trademarks, trade names, copyrights, contract rights, and easements, or
- (4) violations of governmental laws, regulations or orders whether suffered directly by Big Rivers Electric Corporation itself, or indirectly by reason of claims, demands or suits against it, resulting or alleged to have resulted from acts or omissions of Contractor, its employees,

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agents, business invitees, or other representatives or from their presence on the premises of Big Rivers Electric Corporation, either solely or in occurrence with any alleged joint negligence of Big Rivers Electric Corporation.

Big Rivers Electric Corporation shall be liable for its sole negligence and to the extent of its concurrent negligence. Indemnification of Big Rivers Electric Corporation includes its officers, employees, and agents.

ARTICLE 13 ENVIRONMENTAL

13.01 Control: As required under the OSHA Hazard Communication Standard (29 CFR 1910.1200) and certain other Applicable Laws, Contractor or its subcontractors shall provide Material Safety Data Sheets ("MSDS") covering any hazardous substances and materials furnished under or otherwise associated with the Work under this Agreement. Contractor and its subcontractors shall provide Company with either copies of the applicable MSDS or copies of a document certifying that no MSDS are required under any Applicable Laws in effect at the worksite. **No asbestos or lead containing materials shall be incorporated into any Work performed by Contractor or otherwise left on the Work site without the prior written approval of Company.** Contractor and its subcontractors shall be solely responsible for determining if any chemical or material furnished, used, applied, or stored or Work performed under this Agreement is subject to any Applicable Laws.

13.02 Labeling: Contractor and its subcontractors shall label hazardous substances and materials and train their employees in the safe usage and handling of such substances and materials as required under any Applicable Laws.

13.03 Releases: Contractor and its subcontractors shall be solely responsible for the management of any petroleum or hazardous substances and materials brought onto the Work site and shall prevent the release of petroleum or hazardous substances and materials into the environment. All petroleum or hazardous substances and materials shall be handled and stored according to Contractor's written Spill Prevention Control and Countermeasures Plan or Best Management Practices Plan as defined under the provisions of the Clean Water Act, as amended, if either such Plan must be maintained pursuant to Applicable Laws. Contractor shall provide secondary containment for the storage of petroleum or hazardous substances and materials. The prompt and proper clean-up of any spills, leaks, or other releases of petroleum or hazardous substances and materials resulting from the performance of the Work under this Agreement and the proper disposal of any residues shall be Contractor's sole responsibility, but Contractor shall give Company immediate notice of any such spills, leaks, or other releases. Contractor shall be solely responsible for the storage, removal, and disposal of any excess or unused quantities of chemicals and materials which Contractor causes to be brought to the Work site.

13.04 Generated Wastes: Unless Company and Contractor expressly agree otherwise in writing, Contractor and its subcontractors shall be solely responsible for any wastes generated in the course of the Work, and Contractor shall handle, store, and dispose of such wastes in accordance with any Applicable Laws.

13.05 Survival: The obligations set forth in this Article shall survive termination or expiration of this Agreement.

ARTICLE 14 INSURANCE

14.01 Contractor's Insurance Obligation: Contractor shall provide and maintain, and shall require any subcontractor to provide and maintain the following insurance (and, except with regard to Workers' Compensation), naming Company as additional insured and waiving rights of subrogation against Company and Company's insurance carrier(s)), and shall submit evidence of such coverage to Company prior to the start of the Work. Seller's liability shall not be limited to its insurance coverage.

14.02 Insurance: Seller shall furnish certificates of insurance, in the name of the Big Rivers Electric Corporation, evidencing insurance coverage of the following types of minimum amounts:

- a. Workman's compensation and employers liability insurance covering all employees who perform any of the obligations under the contract or Purchase Order, in the amounts required by law. If any employer or employee is not subject to the workers compensation laws of the

governing state, then insurance shall be obtained voluntarily to provide coverage to the same extent as though the employer or employee were subject to such laws.

- b. Comprehensive general liability insurance covering all operation under the contract or Purchase Order: bodily injury - \$1,000,000 each occurrence and aggregate; property damage - \$1,000,000 each occurrence and aggregate. A combined single limit of \$1,000,000 for bodily injury and property damage liability is acceptable. The insurance may be in a policy or policies of insurance. A primary policy and an excess policy including the umbrella or catastrophe form is acceptable. Coverage should include contractual liability, broad form property damage liability, owner's and contractor's protective (independent contractor's) liability, products and completed operations hazard, explosion, collapse, and underground property damage hazard.
- c. Automotive liability insurance on all motor vehicles used in conjunction with the contract or Purchase Order, whether owned, nonowned, or hired; bodily injury - \$1,000,000 each person and \$1,000,000 each occurrence; property damage \$1,000,000 each occurrence. A combined single limit of \$1,000,000 for bodily injury and property damage liability is acceptable. The insurance may be in a policy or policies of insurance. A primary policy and an excess policy including the umbrella or catastrophe form is acceptable.

Certificates evidencing the insurance coverage's must be furnished before the commencement of work. If any work to be performed under this contract or Purchase Order is sublet, the contractor will be required to furnish proof of insurance from all subcontractors evidencing equal to or better coverage.

14.03 Quality of Insurance Coverage: The above policies to be provided by Contractor shall be written by insurance companies which are both licensed to do business in the state where the Work will be performed and either satisfactory to Company or having a Best Rating of not less than A-. These policies shall not be materially changed or canceled except with thirty (30) days written notice to Company from Contractor and the insurance carrier. Evidence of coverage, notification of cancellation or other changes shall be mailed to: Attn: Manager, Supply Chain, Big Rivers Electric Corp., P.O. Box 24, Henderson, KY 42419.

14.04 Implication of Insurance: Company reserves the right to request and receive a summary of coverage of any of the above policies or endorsements; however, Company shall not be obligated to review any of Contractor's certificates of insurance, insurance policies, or endorsements, or to advise Contractor of any deficiencies in such documents. Any receipt of such documents or their review by Company shall not relieve Contractor from or be deemed a waiver of Company's rights to insist on strict fulfillment of Contractor's obligations under this Agreement.

14.05 Other Notices: Contractor shall provide notice of any accidents or claims at the Work site to Company's Manager, Risk Management at Big Rivers Electric Corporation., P.O. Box 24, Henderson, KY 42419 and Company's site authorized representative.

ARTICLE 15 WARRANTIES

Contractor warrants that:

- (a) the Work will conform to any applicable Specification / Statement of Work; and any materials supplied in connection therewith shall be new, unused, and free from defect;
- (b) the Work will be suitable for the purposes specified by Company and will conform to each statement, representation, and description made by Contractor to Company;
- (c) the Work is not and shall not be subject to any encumbrance, lien, security interest, patent, copyright or trademark claims, infringements, or other defects in title; and
- (d) any labor or services performed pursuant to this Agreement shall be performed in a competent, diligent, and timely manner in accordance with the highest professionally accepted standards.

Contractor shall respond in writing to any warranty claim by Company within five (5) business days of the delivery of notice of such claim to Contractor.

ARTICLE 16 OWNERSHIP OF INTELLECTUAL PROPERTY; PATENTS

16.01 Ownership: All inventions, discoveries, processes, methods, designs, drawings, blueprints, information, software, works of authorship and know-how, or the like, whether or not patentable or copyrightable (collectively, "Intellectual Property"), which Contractor conceives, develops, or begins to develop, either alone or in conjunction with Company or others, in connection with the Work, shall be "work made for hire" and the sole and exclusive property of Company. Upon request, Contractor shall promptly execute all applications, assignments, and other documents that Company shall deem necessary to apply for and obtain letters patent of the United States and/or copyright registration for the Intellectual Property and in order to evidence Company's sole ownership thereof.

16.02 Royalties and License Fees: Contractor shall pay all royalties and license fees which may be payable on account of the Work or any part thereof. In case any part of the Work is held in any suit to constitute infringement and its use is enjoined, Contractor within a reasonable time shall, at the election of Company and in addition to Contractor's obligations under Article 12, either (a) secure for Company the perpetual right to continue the use of such part of the Work by procuring for Company a royalty-free license or such other permission as will enable Contractor to secure the suspension of any injunction, or (b) replace at Contractor's own expense such part of the Work with a non-infringing part or modify it so that it becomes non-infringing (in either case with changes in functionality that are acceptable to Company).

ARTICLE 17 RELEASE OF LIENS

Contractor hereby releases for itself and its successors in interest, and for all subcontractors and their successors in interest, any and all claim or right of mechanics or any other type lien upon Company's or any other party's property, the Work, or any part thereof as a result of performing the Work. Contractor shall execute and deliver to Company such documents as may be required by Applicable Laws to make this release effective and shall give all required notices to subcontractors with respect to ensuring the effectiveness of the foregoing release against those parties. Contractor shall secure the removal of any lien that Contractor has agreed to release in this Article within five (5) working days of receipt of written notice from Company to remove such lien. If not timely removed, Company may remove the lien and charge all costs and expenses to Contractor, including without limitation costs of bonding off such lien.

ARTICLE 18 ASSIGNMENT OF AGREEMENT; SUBCONTRACTING

Upon prior written notice given to Company, Contractor shall not, by operation of law or otherwise, assign and/or subcontract any part of the Work or this Agreement without Company's prior written approval. Such approval, if given by Company, shall not relieve Contractor from full responsibility for the fulfillment of any and all obligations under this Agreement. Under any and all circumstances, any permitted assignee of Contractor, whether or not such assignee shall be a division, subsidiary and/or affiliate entity of Contractor, shall also be fully bound by the terms of this Agreement and, furthermore, upon request by Company, each of Contractor and its permitted assignee shall provide sufficient financial information, as determined by Company in its sole discretion, necessary to validate such assignee's credit worthiness and ability to perform under this Agreement.

ARTICLE 19 INVOICES AND EFFECT OF PAYMENTS

19.01 Invoices: Within a reasonable period of time following the end of each calendar month or other agreed period, Contractor shall submit an invoice to Company that complies with this Article. Payments shall be made within thirty (30) days of Company's receipt of Contractor's proper invoice, and, in the event that Company's payment is overdue, Contractor shall promptly provide Company with a notice that such payment is overdue. Contractor's invoices shall designate the Company location which is the responsible party. Such invoices shall reference the contract / Purchase Order number and shall also show labor, material, taxes paid (including without limitation sales and use taxes, duties, fees, and other assessments imposed by governmental authorities), freight, and all other charges (including without limitation equipment rental) as separate items. All invoices shall be submitted with supporting documentation and in acceptable form and quality to Company's authorized representative. Should Company dispute any invoice for any reason, payment on such invoice shall be made within thirty (30) days of the dispute resolution. Payment of the invoice shall not release Contractor from any of its obligations hereunder, including but not limited to its warranty and indemnity obligations. Invoices shall not be delivered with goods, unless

expressly authorized by the Company, but all correspondence and packages related to this Agreement shall reference the Purchase Order / contract number assigned by Company.

19.02 Surcharges: All charges must be pre-approved and referenced within the purchase order or contract. Unapproved charges will not be accepted and will cause the invoice to be rejected and returned. This includes, but is not limited to, surcharges, packing charges, core charges, deposits, and/or any other added costs.

19.03 Taxes (Projects): If Company provides Contractor with an exemption certificate demonstrating an exemption from sales or use taxes in Kentucky, then Contractor shall not withhold or pay Kentucky sales or use taxes to the extent such exemption certificate applies to the Work (such exemption does not and shall not apply to any materials consumed by Contractor in performing the Work). **Contractor agrees that it shall not rely upon Company's direct pay authorization in not withholding or paying Kentucky sales or use taxes.** If Company does not provide Contractor with an exemption certificate demonstrating an exemption from sales or use taxes in Kentucky, Contractor shall be solely responsible for paying all appropriate sales, use, and other taxes and duties (including without limitation sales or use tax with respect to materials purchased and consumed in connection with the Work) to, as well as filing appropriate returns with, the appropriate authorities. To the extent specifically included in the Contract Price, Contractor shall bill Company for and Company shall pay Contractor all such taxes and duties, but Company shall in no event be obligated for taxes and duties not specifically included in the Contract Price or for interest or penalties arising out of Contractor's failure to comply with its obligations under this Section.

Taxes (Goods): Do not bill Kentucky Sales Tax: Blanket Direct Pay Authorization maintained under 103 KAR 31:030, Permit # 108814.

19.04 Billing of Additional Work: All claims for payments of additions to the Purchase Order / Contract Price shall be shown on separate Contractor's invoices and must refer to the specific change order or written authorization issued by Company as a condition to being considered for payment.

19.05 Effect of Payments/Offset: No payments shall be considered as evidence of the performance of or acceptance of the Work, either in whole or in part, and all payments are subject to deduction for loss, damage, costs, or expenses for which Contractor may be liable under any Purchase Order or set-off hereunder. Company, without waiver or limitation of any rights or remedies of Company, shall be entitled from time to time to deduct from any and all amounts owing by Company to Contractor in connection with this Agreement or any other contract with Company any and all amounts owed by Contractor to Company in connection with this Agreement or any other contract with Company.

19.06 Evidence of Payment to Subcontractors: Contractor shall, if requested by Company, furnish Company with a certificate showing names of Contractor's suppliers and subcontractors hereunder, and certifying to Company that said suppliers and subcontractors have been paid in full.

ARTICLE 20 ROUTING OF SHIPMENTS

Company shall have the option of specifying the routing of shipments. If freight is included in the Contract Price, and such specified routing increases Contractor's shipping costs, Contractor shall immediately so notify Company, and should Company still specify the more expensive routing, then Company shall reimburse Contractor for the increase actually incurred thereby.

ARTICLE 21 TERM AND TERMINATION

21.01 Term: This Agreement shall commence on the date set forth above and shall survive in full force and effect until terminated as set forth below. A termination under this Article 21 based on certain Work shall only apply to the Statement of Work that covers such Work. Any Statements of Work that do not relate to such Work shall not be affected by such a termination.

21.02 Termination for Contractor's Breach: If the Work to be done under this Agreement shall be abandoned by Contractor, if this Agreement or any portion thereof shall be assigned by operation of law or otherwise, if the Work or any portion thereof is sublet by Contractor without the permission of Company, if Contractor is placed in bankruptcy, or if a receiver be appointed for its properties, if Contractor shall make an assignment for the benefit of creditors, if at any time the necessary progress of Work is not being maintained, or if Contractor is violating any of the conditions or agreements of this Agreement, or has

WSS/ew

executed this Agreement in bad faith, Company may, without prejudice to any other rights or remedies it may have as a result thereof, notify Contractor to discontinue any or all of the Work and terminate this Agreement in whole or part. In the event that Section 365(a) of the Bankruptcy Code or some successor law gives Contractor as debtor-in-possession the right to either accept or reject this Agreement, then Contractor agrees to file an appropriate motion with the Bankruptcy Court to either accept or reject this Agreement within twenty (20) days of the entry of the Order for Relief in the bankruptcy proceeding. Contractor and Company acknowledge and agree that said twenty (20) day period is reasonable under the circumstances. Contractor and Company also agree that if Company has not received notice that Contractor has filed a motion with the Bankruptcy Court to accept or reject this Agreement within said twenty (20) day period, then Company may file a motion with the Bankruptcy Court asking that this Agreement be accepted or rejected, and Contractor shall not oppose such motion.

21.03 Effect of Termination for Contractor's Breach: From the effective date of such termination notice, Contractor shall vacate the site, whereupon Company shall have the right but not the obligation to take possession of the Work wherever located, and Contractor shall cooperate with Company and cause Contractor's subcontractors to cooperate with Company so that Company can effect such possession. In obtaining replacement services, Company shall not be required to request multiple bids or obtain the lowest figures for completing the Work and may make such expenditures as shall best accomplish such completion and are reasonable given the circumstances. The expenses of completing the Work in excess of the unpaid portion of the Contract Price, together with any damages suffered by Company, shall be paid by Contractor, and Company shall have the right to set off such amounts from amounts due to Contractor.

21.04 Termination for Company's Convenience: Company may terminate this Agreement or one or more Statements of Work in whole or in part for its own convenience by thirty (30) days' written notice at any time. In such event, Company shall pay Contractor all direct labor and material costs incurred on the Work that is subject to such Termination prior to such notice, plus any reasonable unavoidable cancellation costs which Contractor may incur as a result of such termination, plus indirect costs or overhead on the portion of the Work completed, computed in accordance with generally accepted accounting principles less salvage value. As an alternative to salvage value reduction, Company shall have the right in its sole discretion to take possession of all or part of the Work.

ARTICLE 22 PUBLICITY

Contractor shall not issue news releases, publicize or issue advertising pertaining to the Work or this Agreement without first obtaining the written approval of Company.

ARTICLE 23 CONFIDENTIAL INFORMATION

All information relating to the Work or the business of Company, including, but not limited to, drawings and specifications relating to the Work, and customer information, shall be held in confidence by Contractor and shall not be used by Contractor for any purpose other than for the performance of the Work or as authorized in writing by Company. In the event that the Contractor assigns the work to one or more subcontractors, a signed confidentiality agreement between the Contractor and each subcontractor(s) will be provided to the Company prior to the provision of any information described in the immediately preceding sentence or the performance of any Work by the subcontractor. All drawings, specifications, or documents furnished by Company to Contractor or developed in connection with the Work shall either be destroyed or returned to Company (including any copies thereof) upon request at any time.

ARTICLE 24 MISCELLANEOUS

24.01 Waiver: No waiver by Company of any provision herein or of a breach of any provision shall constitute a waiver of any other breach or of any other provision.

24.02 Headings: The headings of Articles, Sections, paragraphs, and other parts of this Agreement are for convenience only and do not define, limit, or construe the contents thereof.

24.03 Severability: If any provision of this Agreement shall be held invalid under law, such invalidity shall not affect any other provision or provisions hereof which are otherwise valid.

24.04 State Law Governing Agreement: This Agreement shall be governed by, and construed in accordance with, the laws of the Commonwealth of Kentucky, without regard to its principles of conflicts of laws.

24.05 Enforcement of Rights: Company shall have the right to recover from Contractor all expenses, including but not limited to fees for and expenses of inside or outside counsel hired by Company, arising out of Contractor's breach of this Agreement or any other action by Company to enforce or defend Company's rights hereunder.

24.06 No Third Party Beneficiaries: Except for Contractor and Company, there are no intended third party beneficiaries of this Agreement and none may rely on this Agreement in making a claim against Company.

24.07 Notices: All notices and communications respecting this Agreement shall be in writing, shall be identified by the contract number, and shall be addressed as follows (which address either party may change upon five (5) days prior notice to the other party).

To Company:
Big Rivers Electric Corp.
Attn: Manager, Supply Chain
P.O. Box 24
Henderson, Kentucky 42419

To Contractor:
The Prime Group, LLC
6001 Claymont Village Dr.
Suite 8
Crestwood Ky 40014
Fax No. 502.241.4392

IN WITNESS WHEREOF, the parties have entered into this Agreement on the date set forth in the introductory paragraph of this Agreement.

COMPANY:

Big Rivers Electric Corp.

Signature

Name (Please Print)

Title

Date

CONTRACTOR:

The Prime Group LLC (Insert)

Signature



Name (Please Print)

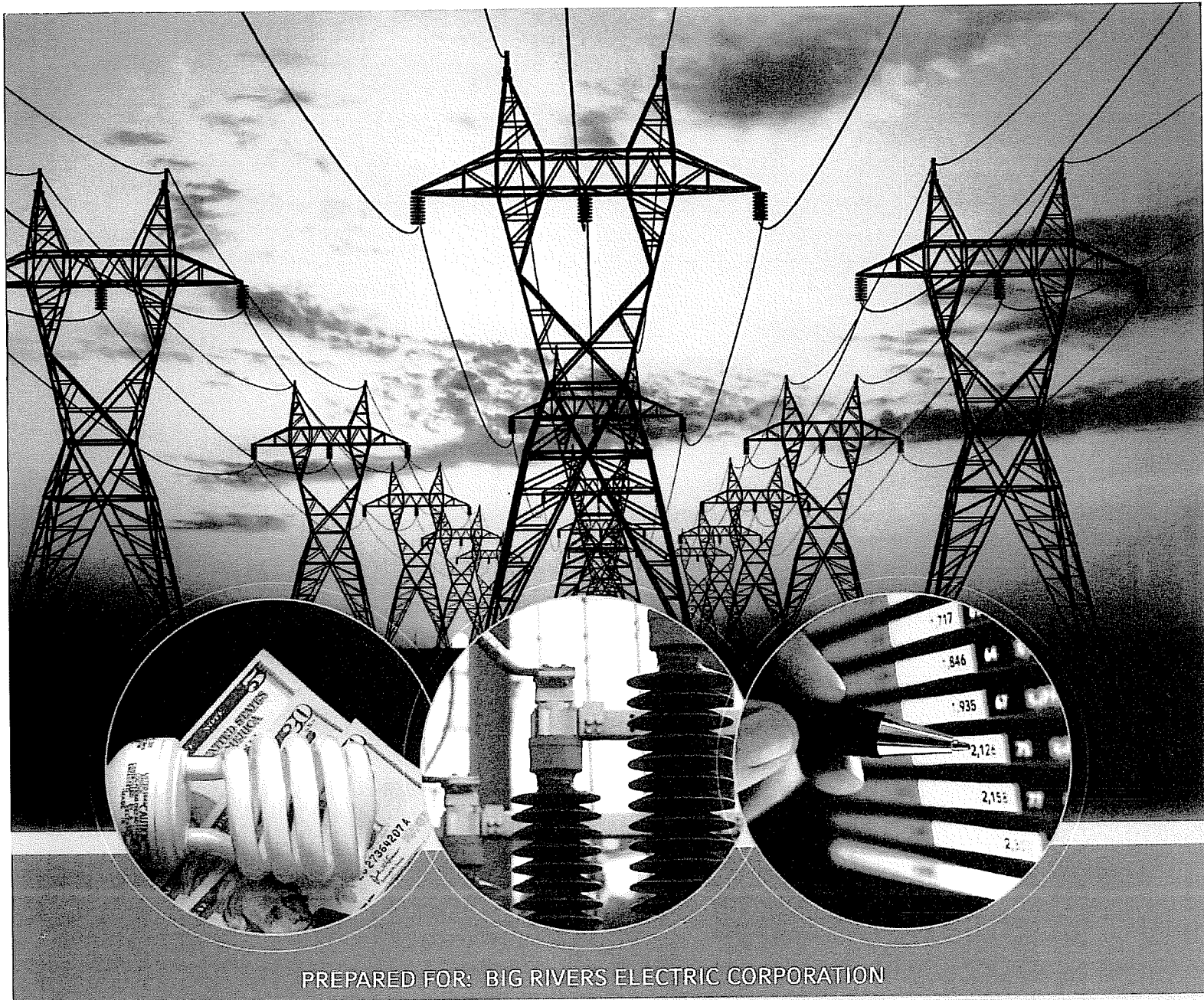
W. Steven Seelye

Title

Member / Principal

Date

10/12/2010



PREPARED FOR: BIG RIVERS ELECTRIC CORPORATION

Cost-of-Service and Rate Design Study

PROPOSAL | OCTOBER 2010

R·W·BECK

An SAIC Company

October 15, 2010



An SAIC Company

Dana Clevidence
Purchasing Agent
Big Rivers Electric Corporation
201 Third Street
Henderson, KY 42420

Subject: Proposal to Perform a Wholesale Cost-of-Service and Rate Design Study

Dear Ms. Clevidence:

Having served consumer-owned utilities since our inception more than 67 years ago, R. W. Beck, an SAIC company, has earned the trust of electric cooperative utilities of all sizes and locations. We share an acute appreciation of the unique relationship between cooperative boards, management, and the membership, especially an understanding of how these relationships have become increasingly complex in the face of the economic, operational, and environmental changes within the electric utility industry over the last decade.

Big Rivers Electric Corporation (Big Rivers) faces several significant challenges as the utility is planning to use the results of this study in an upcoming application for general adjustments in its existing wholesale rates to its three Member Systems to the Kentucky Public Service Commission (KPSC). Pricing signals need to reflect and promote the desired demand response and customer behavior, while still maintaining the long-term financial strength of the cooperative. Such changes may necessarily have a significant impact on the Member Systems and their members. To successfully design and implement successful rate changes in this environment, new ratemaking solutions may need to be developed that are reasonable, equitable, and understandable by all stakeholders. Finding such a solution will require technical ratemaking expertise, industry insight, successful board education and communication, and the trusted advisor reputation that we can bring to Big Rivers.

R. W. Beck brings several unique capabilities to Big Rivers which are detailed below.

First and foremost, R. W. Beck views this assignment as strategic in nature. Rate cases are complex assignments that involve numerous and complex calculations. Cost of service studies and supporting work papers can be voluminous and complex. Issues in a rate case can be numerous. Without a clear strategic view of the underlying business objectives important to the process, it is easy to “lose one’s way” as the rate case unfolds. R. W. Beck understands the linkage between business strategy and the technical methodologies used in these studies. We understand how to anticipate study results and mitigate issues beforehand that may undermine Big Rivers’ efforts to achieve important goals associated with the rate case.

We understand the unique nature of electric cooperatives. R. W. Beck has provided utility ratemaking services since our inception, and we have provided these services to cooperatives across the country. We know that rates for cooperatives are different than other types of utilities and that member(s) issues associated with changing rates are different than for other utilities. We have developed a broad base of experience in providing a variety of financial and ratemaking services for cooperatives that include rate studies, equity management plans, and detailed load research analyses. Most recently, we have provided customized ratemaking services to Homer Electric Association, Kaua’i Island Utility Cooperative, and Golden Valley Electric Association and we encourage you to contact the references for these cooperatives to hear about how these services effectively met their needs.

Dana Clevidence
October 15, 2010
Page 2

We understand the importance of successful communications. In rate studies, successful education and communication with boards and members are critical to a successful rate setting process. We regularly include board workshops and membership meetings as part of our ratemaking services to help ensure the successful implementation of rate changes. As a multifaceted organization, R. W. Beck provides the resources of a large interdisciplinary group possessing financial, public involvement, and utility operations expertise in the ratemaking process.

We are familiar with Rural Utilities Service financial and reporting requirements. We possess an in-depth understanding of the current financial and regulatory approval process facing electric cooperatives and make certain the rate proposal we develop are consistent with these requirements. R. W. Beck works closely with cooperative senior management in the development of rates and makes certain the policies and goals of the utility are met and also are in compliance with industry and/or regulatory standards.

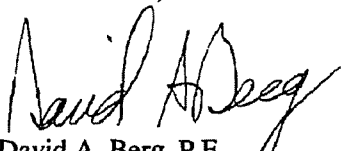
We have conducted a review of the General Services Agreement (GSA) included with the request for proposal (RFP). If selected to perform professional services, we will want to discuss contract provisions that are more appropriate for consultant services versus contractor services, such as standard of care, indemnity, limitation of liability, use of work product, and intellectual property. We see no reason why we cannot reach a mutually acceptable agreement commensurate with the services to be provided.

At R. W. Beck, we pride ourselves on providing customized and client-tailored, ratemaking services that meet the specific and unique needs of our clients. We encourage you to contact the references provided in this proposal that can provide examples of how this approach has led to cost effective and innovative ratemaking proposals that have met the various needs of cooperatives.

We look forward to the opportunity to discuss Big Rivers' ratemaking needs and working with you on this important study. If you have questions concerning this proposal or would like additional information, please contact me at (651) 289-2513 or dberg@rwbeck.com, or Richard Cuthbert at (206) 695-4434 or rcuthbert@rwbeck.com. We hope to hear from you soon.

Sincerely,

R. W. BECK, AN SAIC COMPANY


David A. Berg, P.E.
Senior Director and Project Manager



Richard W. Cuthbert
Technical/Senior Consultant

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SECTION 1
Firm Overview



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Firm Overview

Overview of R. W. Beck

R. W. Beck is a group of technically based business consultants serving public and private infrastructure organizations and financiers worldwide. For more than 67 years, we have delivered our services with a level of integrity, commitment, and independence that has earned the trust of those we serve and the admiration of the industry. We develop sustainable solutions specific to our clients' engineering, economic, financial, planning, operational, and organizational challenges. Our clients look to us as their trusted advisor based on our depth and breadth of experience and strategic insight into the energy, water, wastewater, and solid waste industries.

What differentiates R. W. Beck is our proven ability to integrate business and financial acumen with technical expertise to drive success for our clients and their stakeholders.

We facilitate improved business performance by leveraging the talents of approximately 500 engineers, analysts, economists, consultants, and other professionals with demonstrated capability for developing prudent and often innovative world-class solutions. This approach is not only what keeps clients turning to R. W. Beck for trusted advice, but allows us to achieve a unique work environment fueled by dedicated and creative individuals.

As a multifaceted organization, we provide the resources of a large interdisciplinary group of engineering, economic, management consulting, and environmental talent, and still retain personal relationships with our clients. We have earned this position because our technically based business consultants and engineers consistently bring the best talent to bear on every engagement and deliver solutions that have lasting impact to our clients and the communities they serve.

Our People

Commitment to objectivity, first-class problem solving, and relationship building with our clients are core values of R. W. Beck. We are accustomed to working in tight-knit teams that perform shoulder-to-shoulder with our clients. Likewise, we have worked diligently to attract and maintain a

Firm Name:	R. W. Beck, Inc., An SAIC Company
Parent Company:	SAIC (Science Applications International Corporation)
Main Office Address and Phone:	1001 Fourth Avenue, Suite 2500 Seattle, WA 98154-1004 (206) 695-4700
Office Locations:	23 Offices Nationwide and an Office in Singapore
Year Firm Established:	Founded in 1942 in Seattle, Washington; Acquired by SAIC in August 2009
Geographic Service Area:	Project experience in more than 70 countries and territories across six continents

staff of talented professionals who enjoy the challenges of solving complex problems in this manner. The result of this model is a staff whose flexibility and cross-disciplinary nature is an added benefit that we pass along to our clients, and one of the reasons clients keep turning to R. W. Beck.

When building project teams, our professional consultants, engineers, scientists, and analysts are selected for the distinct contributions that only they can make. In addition to the requisite skills to complete the project on time and on budget, we pay close attention to build teams from individuals who possess tangible first-hand experience and the ability to provide strategic insight to solve issues.

Subconsultants

R. W. Beck will not be utilizing any subconsultants for this project. We have the skills and experience to perform this cost-of-service and rate study with in-house resources.

Cost-of-Service and Rate Design Services

R. W. Beck has been in the utility rate consulting business since its inception over 67 years ago. Throughout the years, we have developed a broad base of experience in providing financial consulting services for electric, gas, and other utilities, including conducting rate studies; providing expert testimony in rate, utility, and finance matters; preparing periodic reports on utility systems and operations; analyzing and reporting on project feasibility; and issuing required certificates under revenue bond resolutions.

We work closely with utility management in the development and design of rates in order to meet the policy directives and goals of the utility and comply with industry and/or regulatory standards. Our related work with public service commissions, industry, and several branches of state and federal government gives us a perspective that is invaluable in our work with our utility clients.

Our primary objective in providing these rate consulting services is to make recommendations that maintain or enhance the financial stability of utility operations. This allows clients to continue to provide reliable service at equitable rates. We recognize that properly designed rates must provide funds which cover all annual expense obligations, as well as provide incentives for conservation and efficient use of the utility's resources. We have developed sophisticated computer models used to forecast future fixed and variable costs of utility operations, which allow a detailed examination of future utility revenue requirements, and resulting rate levels.

Our approach includes both traditional analysis, including short-range financial planning, and up-to-date pricing methods, in order to respond to the needs of both the utilities and their customers. We have developed cost-benefit analysis and business case evaluations for energy efficiency initiatives and demand response programs. We have provided fundamental analysis and development of strategies pertaining to real-time pricing, time-of-use pricing, and other wholesale/retail pricing signals to support renewable energy and conservation. We have also prepared a review of the potential cost/rate impact associated with proposed climate change legislation, including potential carbon tax and cap-and-trade options.

Through our partnership with the utilities, we are able to help facilitate the acceptance of new rate designs by customers, regulatory bodies, and other interested parties.

Our rates and regulatory team possesses core competencies in accounting, economics, and engineering. We have comprehensive expertise in the following key areas:

- Rate case strategy, including:
 - Stakeholder engagement strategy
 - Facilitation services
 - Rate design and customer impacts and demand response
- Cost-of-service, including:
 - Financial planning
 - Load forecasting and demand response
 - Power supply planning and market price forecasting
 - Fuels forecasting
 - Transmission and distribution planning
 - Revenue requirement and test year determination on both an embedded and marginal cost basis
 - Power supply procurement
 - Fuels procurement
 - Operation and maintenance practices, including benchmarking and best practices assessment
 - Advanced Metering Infrastructure and smart grid (AMI-SG) deployment
 - Depreciation
 - Return (times interest earned ratio/debt service coverage/weighted average cost of capital)
 - Cost allocation (unbundled, embedded, and marginal)
- Rate design, including:
 - Traditional One Part (Energy), Two Part (Customer/Energy) and Three Part (Customer/Demand/Energy)
 - Unbundled
 - De-coupled
 - Time-of-use
 - Net metering
 - Feed-in and renewable tariffs
 - Conservation
 - Economic development
 - Rate riders and risk management mechanisms
 - Customer impacts

Our approach is based on following accepted methods of analysis for these studies, including the regulations of the Federal Energy Regulatory Commission (FERC), the financial recordkeeping guidelines of the National Rural Electric Cooperative Association (NRECA), and the regulations of the National Association of Regulatory Utility Commissioners (NARUC). In addition to the core services we provide in a cost of service and rate study, we have also provided many rate related services including:

- Developed integrated resource plans;
- Performed competitive assessments;
- Determined price elasticity;
- Testified before the FERC and state Public Utility Commissions (PSC);
- Performed financial restructuring analyses;
- Led strategy and training programs to develop business plans; and
- Unbundled utility services into power supply, transmission wheeling, ancillary services, distribution and customer services, as appropriate, and performed a cost of service analysis on the unbundled services, including an appropriate margin for each service.

Expert Testimony Experience

R. W. Beck has been an active and visible player nationwide regarding cost-based, just, and reasonable energy rate-setting at both wholesale and retail levels, largely through our considerable regulatory and litigation activities. Many of the precedents established in complex rate proceedings can trace their history back to a position developed and supported by a R. W. Beck expert in cost-of-service and rate design matters.

R. W. Beck's cost-of-service and rate design experts have provided expert testimony on a wide range of costing and allocation methodologies, prudent cost and investment levels, appropriate rates of return and depreciation, and other issues affecting price levels. In providing these services, R. W. Beck experts actually helped shape FERC's policies and precedents regarding items such as tax normalization procedures, allocation methods, fair measurement of transmission system usage, and other matters at issue in such proceedings.

In the past few decades, we have participated in hundreds of electric and natural gas rate proceedings concerning excessive costs or inappropriate rate working methodologies or procedures, saving our clients, and other wholesale customers, millions of dollars. R. W. Beck's experts have participated at the state and local level, through regulatory proceedings in 47 of the 50 states. Our activities have ranged from challenging rate levels proposed by utilities on behalf of customers or customer groups to developing, submitting, and defending entire rate case applications for utilities.

Conflicts of Interest

R. W. Beck does not have any known conflicts of interest that would impede on its ability to objectively perform this work for Big Rivers. R. W. Beck does perform services for the Kentucky Municipal Power Agency (KMPA) and its members. In order to ensure that there are no perceived conflicts arising from our work with KMPA and its members, no member of the R. W. Beck team performing work for KMPA will be assigned to work on the proposed Cost-of-Service and Rate Design Study for Big Rivers.

Forms Required for Proposal

R. W. Beck has completed the required forms which are to be submitted with this proposal. The forms are within Appendix A of this proposal.

SECTION 2

Proposed Work Plan - Scope of Services



An SAIC Company

Proposed Work Plan - Scope of Services

Introduction

Big Rivers is a generation and transmission (G&T) cooperative serving three distribution cooperative members across 22 counties in western Kentucky. Big Rivers also has long-term contracts to serve two large aluminum smelters. It has system generating capability of 1,444-MW consisting of ten units at four stations. Big Rivers also contracts for an additional 207-MW of generating capacity from Henderson Municipal Power & Light and 178-MW from the Southeastern Power Administration. It also owns and operates 1,259-miles of transmission system and has not had a base tariff rate increase since 1997. Big Rivers has requested assistance in performing a Wholesale Cost-of-Service and Rate Design Study (the Study). It plans to utilize the results of the Study in its upcoming application for general adjustments within its existing wholesale rates to its three member systems. The rate application will be made to the Kentucky Public Service Commission (KPSC). As provided for in Kentucky statutes, the application shall be supported by a cost-of-service study based on methodology generally accepted within the industry and based on current and reliable data.

As included in Big Rivers' RFP, the primary objectives of the Study are:

- Develop an unbundled pro forma test year cost-of-service analysis
- Develop a proposed wholesale rate structure that reflects Big Rivers' cost of providing service
- Develop a rate design structure that appropriately considers load factor, load size, energy efficiency, and demand-side management (DSM) programs
- Provide a sufficient return to Big Rivers

In anticipation of a rate filing before the KPSC, we believe that the following considerations would enhance Big Rivers' chances for an enhanced rate hearing experience:

- Close partnership between Big Rivers' staff and R. W. Beck project team
- Discussions during the Study process with member and customer stakeholders (member systems and smelters)
- Consideration of methodologies utilized in Big Rivers' filed Open Access Transmission Tariff (OATT)
- Informal meetings with KPSC staff leading up to the rate filing

We envision the tasks involved in this Study will include the following Scope of Services.

Scope of Services

Phase 1

Task 1: Project Initiation and Data Request

Following a notice to proceed, we will schedule a project initiation conference call with Big Rivers' staff and identify initial tasks and confirm dates for the first phase of the study. Following the call, R. W. Beck will provide a written data request detailing the information needed to perform the tasks in this Study and will work with Big Rivers to obtain the needed information.

Task 2: Project Kick-Off Meeting, Initial Data Review, and Final Project Definition (Meeting #1)

Following the initial information review, R. W. Beck will meet with Big Rivers' staff to review and refine the objectives of the Study and to review the data collected by Big Rivers. During this meeting, R. W. Beck will obtain information on Big Rivers' operations and clarification of possible issues of concern. Specific topics that will be discussed at this meeting include:

- Understanding of terms of service to special contract customers
- Understanding of "unwind" issues that impact the development of wholesale rates
- Cost allocation and rate design strategies
- Long-range financial plan and soon to be completed integrated resource plan, including plans for renewable resources, energy efficiency, conservation, and smart grid technology
- Recent depreciation study
- Utilization of rate riders
- Development of the OATT rate
- Strategies for interaction with member system and contract customer stakeholders
- Strategies for pre-rate case discussion with KPSC staff
- Big Rivers' core business cost model and wholesale rates model
- Impact of wholesale energy markets on Big Rivers' financial performance
- Other policies, goals, and objectives affecting rates

Following completion of the project kick-off meeting, R. W. Beck would plan, if appropriate, to meet with representatives of Big Rivers' member systems to discuss the objectives of the Study.

Task 3: Initial Review of Rate Options and Rate Design Criteria

R. W. Beck will conduct a high-level review of the following information from Big Rivers regarding their existing rates:

- Existing wholesale rate schedules, rate riders, and contracts
- Demand billing procedures
- Current price signals to members/customers
- Impacts of wholesale pricing on member retail rates

From a high-level, strategic perspective, possible types of rate implications for the following issues will likely be reviewed and considered on a qualitative basis:

- Coincident versus non-coincident demand billing
- Fixed charges for dedicated investment in power delivery facilities
- Time varying rates (i.e., time-of-day and seasonal)
- Demand response rates (i.e., critical peak and real time)
- Connection between cost-of-service and rate design
- Preliminary rate design options and the potential impact to members

The specific ratemaking policies and objectives of Big Rivers and its members/customers will be reviewed and evaluated. Issues related to fixed cost recovery versus variable cost recovery, promotion of end-user energy practices, and general rate making principals will be addressed.

Based on the results of the above tasks, R. W. Beck will work with Big Rivers' staff to identify preferred rate options and implications for further review. At the conclusion of this task, the needs and Scope of Services for the second phase of the project would be reviewed by the project team. Any adjustments to the schedule and the budget will be provided to Big Rivers for approval.

Phase 2

Task 4: Develop Test-Year Revenue Requirement

R. W. Beck will develop revenue requirements for a test-year based on a recent historical fiscal year. Proforma adjustments will be made as necessary to historical data based on known and measurable changes in Big Rivers' operating and cost information, including Big Rivers' potential Midwest Independent Transmission System Operator (MISO) membership. Considering significant operational changes as a result of the Western Kentucky Energy Corporation (WKE) "unwind" process, R. W. Beck will work closely with Big Rivers' staff to adequately identify, document, and reflect test-year adjustments.

Task 5: Perform Cost-of-Service Analysis (Meeting #2)

R. W. Beck will develop a Microsoft Excel[®] spreadsheet based on a cost-of-service model to perform an average embedded cost-of-service analysis of Big Rivers' unbundled cost components. The cost-of-service analysis will be performed utilizing industry accepted methods as determined appropriate by R. W. Beck and Big Rivers' staff. The analysis will be prepared in anticipation of Big Rivers' pending KPSC rate filing. Special considerations as applicable to Big Rivers and its members/customers will be incorporated into the cost-of-service analysis. R. W. Beck will meet with Big Rivers' staff at the conclusion of the cost-of-service analysis to refine strategies for moving into the rate design portion of the study.

Task 6: Rate Design

R. W. Beck will design unbundled wholesale rates based on:

- Results of unbundled cost-of-service analysis
- Big Rivers' revenue needs
- Desired price signals

- Member acceptability
- Billing alternatives

Following design of new wholesale rates, the revenue from each of Big Rivers' member systems will be determined based on:

- Big Rivers' existing wholesale rates
- Proposed new wholesale rates
- New wholesale alternatives to be considered

If the revenue impact of the new wholesale rates results in unacceptable 'rate shock' for Big Rivers' members, a recommended phase-in plan will be developed to mitigate the 'rate shock' while preserving an acceptable return for Big Rivers.

Task 7: Prepare Draft Report and Presentation of Draft Results (Meeting #3)

R. W. Beck will prepare a written report describing the analysis undertaken in the Study and the results of the previous tasks. R. W. Beck will present preliminary findings and the preliminary report to Big Rivers' staff for review and comment. Comments will be incorporated and a final draft of the report will be distributed to Big Rivers. R. W. Beck will participate in a meeting with Big Rivers' staff and, if appropriate, representatives of Big Rivers' members to discuss the final draft report.

Task 8: Submit Final Report

Based on comments received from Big Rivers, R. W. Beck will finalize the report and submit an electronic copy plus five hard copies to Big Rivers. A working copy of the spreadsheet-based cost-of-service model will also be provided to Big Rivers.

Task 9: Present Final Results (Meeting #4)

R. W. Beck will meet with Big Rivers' staff, the Board, and member systems to present the report and answer any questions regarding the Study.

Task 10: Meetings with Stakeholders

Based on goals and objectives set in Task 2, R. W. Beck will meet with member (or members' consultant) and contract customer (if appropriate) representatives and KPSC staff to discuss the rate study and supporting methodology. With Big Rivers' staff and member participation, R. W. Beck will facilitate the development of a wholesale rate plan fully endorsed by Big Rivers and its members. Through our history of working with G&T cooperatives and other member-owned power agencies, we have developed a successful track record for collaboratively developing sound solutions to complex client issues. Big Rivers' wholesale rate study is no different – stakeholder participation and endorsement will be critical to success. We believe that these meetings are a critical component of preparing for a successful rate case. We anticipate having two R. W. Beck team members attend each meeting.

It is anticipated that stakeholder meetings would be held in conjunction with the meetings listed in Tasks 2, 5, 7, and 9.

Task 11: Update Cost-of-Service Model

R. W. Beck will update the cost-of-service model with available new test-year revenue requirements prior to the filing of Big Rivers' rate case in the spring of 2011.

SECTION 3
Proposed Project Team



An SAIC Company

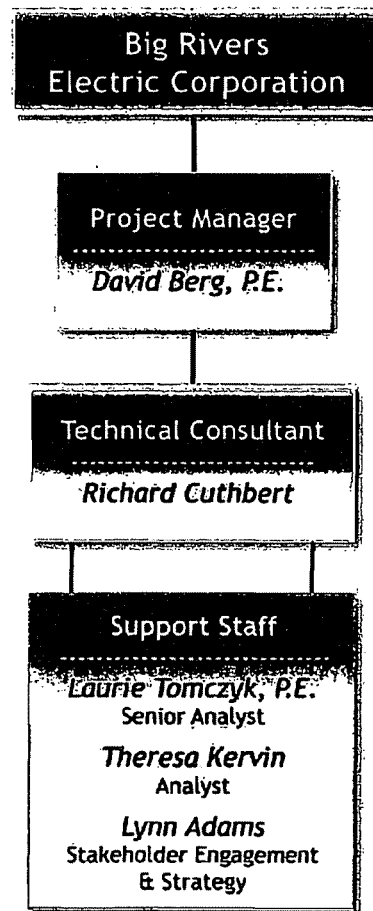
Proposed Project Team

Experience of the Project Team

We are committed to the belief that our clients and R. W. Beck should work as a team to undertake the studies they require, closely collaborating to provide valuable input throughout the entire study. Our team encourages a participatory approach with communication both between Big Rivers and the project team and among the individual members. During the course of our rate studies, we strive to increase the utility staff members' level of understanding regarding the principles and methodologies used in performing these studies.

Our team brings direct experience in cost-of-service analysis, rate design, and unbundling studies. In addition to conducting numerous studies in these areas, team members have authored educational materials and presented at state and national utility conferences. Furthermore, studies will be conducted by professionals intimately familiar with the regulatory requirements related to cost-of-service and rate design.

The organizational chart to the right shows our project team. We anticipate a concise project team, and the personnel proposed are available to complete the study in the timeframe requested by Big Rivers. Primary contact with Big Rivers and overall responsibility for making sure the project is executed in accordance with your requirements will be assigned to David Berg who will serve as Project Manager. Mr. Berg is a nationally recognized cost-of-service and rate design expert. For the last six years, he has been the lead instructor for twice annual cost-of-service and rate design courses conducted through Electric Utility Consultants, Inc. He also has extensive experience analyzing wholesale costs and negotiating wholesale power sale agreements. He will bring his more than 25 years of cost-of-service and wholesale experience to bear for Big Rivers in this study. Mr. Berg most recently assisted the Indiana Municipal Power Agency in the conduct of their wholesale cost-of-service study. In addition, Richard Cuthbert will be the Technical Consultant. Most recently, Mr. Cuthbert served as project manager on the Okanogan Public Utility District rate study, the Homer Electric Association rate study, the Kaua'i Island Utility Cooperative rate study, and the Golden Valley Electric Association rate study. Laurie Tomczyk will be the Senior Analyst. Ms. Tomczyk serves as lead technical analyst on the Golden Valley Electric Association rate



study and has also prepared Equity Management Plans (EMP) for Homer Electric Association, Kaua'i Island Utility Cooperative, and Golden Valley Electric Association during the last two years. In addition, Theresa Kervin will be able to support this effort, as needed. Lynn Adams is a professional facilitator and strategic business planner. Ms. Adams has extensive experience assisting in managing communications with various stakeholders involved in discussions of important issues of a technical and financial nature.

Brief biographies and information on each team members' tasks and time commitment are described in the table below. Resumes of our proposed project team members are found in Appendix B.

Team Member/Role/ Experience/Location	Summary of Qualifications
<p>David Berg, P.E. <i>Title: Project Manager</i> <i>25 years industry experience</i></p> <p><i>Location:</i> <i>St. Paul, Minnesota</i></p>	<p>Primary Assignment: Mr. Berg will be the project manager and will lead the analysis and study effort. He will also be the primary point-of-contact with the Big Rivers' team and will participate in all project meetings and presentations.</p> <p>Biography:</p> <p>Mr. Berg has managed retail and wholesale cost-of-service and rate studies for more than 50 utilities, ranging from traditional cost-of-service and cost-based rates to unbundled services and contract rates for large customers. He has extensive experience analyzing wholesale costs and negotiating wholesale sale agreements. He has completed rate analyses for electric, water, wastewater, natural gas, and other utilities and, has an in-depth understanding of how to design prices based on revenue requirements, cost-of-service, and competition from alternative service providers. Mr. Berg utilizes a unique blend of technical and financial expertise, and he effectively guides his clients through a wide variety of regulatory, operational, and technical challenges.</p>
<p>Richard Cuthbert <i>Title: Technical Consultant</i> <i>25 years industry experience</i></p> <p><i>Location:</i> <i>Seattle, Washington</i></p>	<p>Primary Assignment: Mr. Cuthbert will assist with the determination of revenue requirements and the cost-of-service analyses.</p> <p>Biography: Mr. Cuthbert brings a background in resource economics and statistics to the analysis of economic and financial issues for public utilities. For more than 25 years, he has worked on a range of projects involving financial analysis, econometric forecasting, and rate studies for electric, water, gas, and solid waste utilities. Mr. Cuthbert is primary involved with utility financial analyses, rates, and forecasting. He has been responsible for numerous studies concerning utility cost-of-service, future supply requirements, and resource utilization, including identification of detailed unbundled cost-of-service information for utilities. He has served as an expert witness before public utility commissions and other regulatory bodies at the federal, state, and municipal levels.</p>

Team Member/Role/ Experience/Location	Summary of Qualifications
<p>Laurie Tomczyk, P.E. Title: Senior Analyst 24 years industry experience</p> <p>Location: Lapeer, Michigan</p>	<p>Primary Assignment: Ms. Tomczyk will provide financial modeling services for the cost-of-service and rate design study.</p> <p>Biography: Ms. Tomczyk has participated in several retail revenue requirement, cost-of-service, and rate design studies for municipal utility clients. Her projects have included studies to develop retail electric and water rates, wheeling and ancillary services rates, and electric standby rates. Ms. Tomczyk has been involved in multiple projects involving financial analyses for clients. These analyses have supported bond financings for electric utilities and also utility planning efforts. She has developed and reviewed pro forma financial models for technical and economic feasibility.</p>
<p>Theresa Kervin Title: Analyst 30 years industry expertise</p> <p>Location: St. Paul, Minnesota</p>	<p>Primary Assignment: Ms. Kervin will provide financial modeling services for the cost-of-service rate design study.</p> <p>Biography: Ms. Kervin performs research and analysis for utilities related to electric, water, wastewater, gas, telecommunications, and solid waste. She analyzes utility financial records and operating statistics, and develops pro forma operating results. Ms. Kervin has performed numerous cost-of-service and rate studies for electric, water, wastewater, and other utilities. Prior to joining R. W. Beck, she was employed at a large California electric and gas utility, involved in the preparation of electric load research programs, cost-of-service studies, rate design studies, rate case testimony, and budget development</p>
<p>Lynn Adams Title: Stakeholder Engagement & Strategy 25 years industry experience</p> <p>Location: Denver, Colorado</p>	<p>Primary Assignment: Ms. Adams will assist with managing member and stakeholder feedback.</p> <p>Biography: Ms. Adams provides an array of business management consulting services to clients as they integrate business strategy with operational demands. She has more than 25 years of experience in the consulting/utility industry in both business and consumer sectors. Her work encompasses strategic and business planning and leadership development for various clients, as well as marketing and strategy consulting. She calls upon tailored techniques and resources to develop the right approach to meet defined needs that result in high impact organizational change. As a master facilitator, Ms. Adams leads groups through defining clear direction and making effective decisions in an uncertain environment.</p>

SECTION 4
Proposed Project Schedule



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Proposed Project Schedule

Schedule

Tasks	Completion Date
Phase 1	
Task 1: Project Initiation and Data Request	10/29/10
Task 2: Project Kick-off Meeting, Initial Data Review, and Final Project Definition	11/05/10
Task 3: Initial Review of Rate Options and Rate Design Criteria	11/12/10
Phase 2	
Task 4: Develop Test-Year Revenue Requirement	12/10/10
Task 5: Perform Cost-of-Service Analysis	12/23/10
Task 6: Rate Design	01/07/11
Task 7: Prepare Draft Report and Presentation of Draft Results	01/14/11
Task 8: Submit Final Report	02/04/11
Task 9: Present Final Results	02/18/11
Task 10: Meetings with Stakeholders	As needed
Task 11: Update Cost-of-Service Model	As needed

SECTION 5

Qualifications and Experience



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Qualifications and Experience

Relevant Experience

The following examples represent relevant and direct experience of the project team and R. W. Beck with respect to cost-of-service and rate design studies for utilities similar to Big Rivers.

Electric System Rate Study and Equity Management Plan Services, 2010

Homer Electric Association, Inc.

R. W. Beck prepared a comprehensive review and evaluation of Homer Electric Association's (HEA) electric rates as required for submittal to the Regulatory Commission of Alaska (RCA). Key issues included providing adequate funding for HEA's anticipated large capital requirements, assessing the cost-of-service changes for customer classes served by HEA, and evaluating the rates for all of HEA's customer classes. Work was conducted in conjunction with the HEA staff and meetings with HEA's Board of Directors. The final cost-of-service analysis was approved by the Board and submitted to the RCA.

In early 2010, R. W. Beck prepared a draft EMP for HEA that is being used to evaluate the long-term rate impacts of several operational and financial changes to the cooperative's electric system. The District faced several challenging rate issues as it becomes independent of its current power provider (Chugach Electric Association) and provides all of its own generation by 2014. The EMP results provide a 10-year projection of rate increases facing HEA and also serve as the test year revenue requirements used in the cost-of-service analysis, rate study, and rate design options for the 2010 to 2019 time period.

R. W. Beck is in the process of preparing a new cost-of-service and rate design study for HEA. In this rate study, R. W. Beck is developing several rate design options which more closely reflect cost-of-service levels and will provide greater financial predictability for HEA in the future. A critical element of the study is the recognized challenge to communicate the rate changes to the HEA's staff, Board, and customers. A series of Board workshops and public meetings are being conducted to assist in explaining and evaluating several rate options. The final rates will be adopted by the HEA's Board and then to the RCA for final approval later in 2010.

Electric System Rate Study and Supporting Expert Testimony, 2010

Kaua'i Island Utility Cooperative, Hawai'i

R. W. Beck prepared a comprehensive review and evaluation of Kaua'i Island Utility Cooperative's (KIUC) electric rates necessary for submittal to the Hawai'i Public Utilities Commission (HPUC). Key issues included: (i) reviewing various ratemaking issues such as standby service rates, net-energy metering rates, wheeling rates, feed-in tariffs, cost-of-service levels, and renewable portfolio standards; (ii) using a projected test year analysis to assess KIUC's revenue requirements; (iii) developing load

research information for each of KIUC's customer classes; (iv) assessing the cost-of-service changes for the customer classes served; and (v) developing new rates for all of KIUC's customer classes based on a 10.5 percent rate increase. The project was conducted jointly with KIUC staff and included several meetings and workshops with KIUC's Board of Directors. New rates sufficient to support's KIUC's long-term financial needs were developed, approved by the KIUC Board, and presented in expert testimony to the HPUC for required regulatory approval.

General Rate Study and Filing before the State Regulatory Commission, 2009

Golden Valley Electric Association, Alaska

R. W. Beck prepared a rate study as part of a Section 275 (3 Alaska Administrative Code 48.275) general rate filing for submission to the RCA. Tasks included revenue requirement development, unbundled cost-of-service analysis, and retail rate design for residential, small commercial, and large commercial customer classes, and included development of wholesale wheeling rates. R. W. Beck principals also provided pre-filed direct testimony on behalf of the client filed with the RCA. Separately, R. W. Beck prepared an updated load forecast, load research analysis, and equity management plan that were all utilized in the rate study process. The results of the study were reviewed by the Alaska ratepayer advocates office and the rates were adopted as filed without modification by the RCA.

In conjunction with the rate study, R. W. Beck oversaw the preparation of a 10-year EMP to assess long-term rate implications of various capital expansion options. Key issues included providing adequate funding for anticipated large capital requirements and maintaining adequate debt service coverage and Times Interest Earned Ratio levels. Among the tasks performed were:

- Review of projected customers and energy sales
- Evaluation of Golden Valley Electric Association's (GVEA's) future capital improvement program
- Identification of financial goals and policies for GVEA
- Development of the EMP model

The effects on future financial performance and revenue requirements of alternative funding options and various implementation strategies for future capital improvements were also evaluated. The final EMP results were used to help develop a rate proposal that included revenue neutral rate changes which were adopted by the GVEA Board of Directors and presented to the RCA for regulatory approval.

Electric System Rate Study and Equity Management Plan, 2010

Public Utility District No. 1 of Okanogan County, Washington

R. W. Beck prepared both an EMP and electric system rate study for the PUD in the first half of 2010. The PUD's last rate change was an across-the-board increase made in 2001 to meet a revenue shortfall at that time without reference to a cost-of-service study. In 2009, R. W. Beck was retained to prepare both a 10-year equity management plan and an electric rate study for the PUD in order to understand its long-term rate increase needs and customer class cost-of-service information.

The EMP was used to evaluate the long-term rate impacts of several operational and financial changes to the PUD's electric system. The PUD faced several challenging rate issues: declining wholesale revenues; increased wholesale electricity rates from Bonneville Power Administration; and the possible development of Enloe Dam in northern Washington State. The EMP results provided 10-year

projections of rate increases facing the PUD and also served as the test year revenue requirements used in the cost-of-service analysis, rate study, and rate design options for the 2010 to 2012 time period.

In the electric rate study, R. W. Beck developed several rate design options which more closely reflected cost-of-service levels and were simplified and easier for customers to understand. A critical element of the study was the recognized challenge to communicate the rate changes to the PUD's staff, Board, and customers. A series of Board workshops and public meetings were conducted to assist in explaining and evaluating several rate options. The final rates adopted by the PUD's Board provide more stable revenue recovery, more closely reflect cost-of-service levels, and help promote energy efficiency and conservation efforts with an inverted block rate structure. The study was completed in May 2010 and provided PUD staff and the Board of Commissioners with the information necessary to adjust their rates according to their long-term financial needs and policy goals.

Embedded Cost-of-Service Study, 2007

Seattle City Light, Washington

R. W. Beck prepared an embedded cost-of-service study based on a historical test year revenue requirements analysis that was prepared by City of Seattle's (City) staff. We directed the development of an embedded cost-of-service model that was designed for utility and included functionalization, classification, and allocation of the Seattle City Light (SCL) revenue requirement at a five-digit Federal Energy Regulatory Commission level. Key issues encountered during the study included:

- The appropriate classification of a production plant that was nearly 100 percent hydroelectric based
- The determination of costs for a minimum size system analysis with a significant underground plant
- An equitable allocation of costs between an underground downtown network service area and the remaining service area

A survey of hydroelectric production plant classification methodologies in the Pacific Northwest was conducted as part of the study. Members of our team attended numerous review work sessions which were conducted with SCL staff throughout the project.

Draft results of the embedded cost-of-service study were compared to the results of a marginal cost-of-service study prepared by SCL staff. Final draft results of the study were presented to the SCL Superintendent as well as the City of Seattle Mayor's Office and the City Council Seattle.

Wholesale Electric Rate Study, 2005

Alaska Electric Energy Cooperative, Alaska

R. W. Beck prepared a rate study for a new G&T cooperative, Alaska Electric Energy Cooperative, which was formed to sell power to Homer Electric Association and potentially other parties. The project involved developing separate but connected revenue requirements analyses for the G&T and distribution utilities, developing the cost-of-service analysis, and reviewing rate structure options. Key issues included determining the impacts of several large contract customers on the other customer classes and accounting for a change in corporate structure in the analysis. The project included providing expert testimony before the RCA regarding the revenue requirement analysis as well as a proposed new wholesale rate design proposal.

Electric Service and Rate/Cost Analysis

Deseret Generation & Transmission Cooperative, Utah

The Deseret Generation and Transmission (Deseret G&T) Cooperative is located in a suburb of Salt Lake City, Utah. Deseret G&T serves a large retail industrial load through one of its distribution members, Moon Lake Electric Coop. Chevron Oil Company presented Deseret G&T and its members with requests for electric price reductions. Chevron's position was that electric service cost savings could be achieved if it built its own electric generation facility. Deseret G&T hired R. W. Beck to provide a reality check to its claim.

The object of this engagement was to conceptualize a 50-MW generation facility located in the middle of Ranglely Oil Field in western Colorado. Costs of the conceptualized facility included investment and operating costs as well as back-up power costs. The work entailed analyzing the Ranglely oil production process as it related to electric service requirements and translating those requirements into a conceptualized, on-site electric generation facility. Financing, fuel, and ownership and operating costs were calculated for the facility.

Our concept design work included investigation of several options Chevron might consider if it were to self-generate electric power. These included a gas turbine combined-cycle project with and without the purchase of stand-by electric service, a simple-cycle project with and without the purchase of stand-by electric service, and a self-generation project that included generation redundancy for the purpose of reliability. Project operating costs were compared to existing electric service rates to quantify existing electric price sensitivity to Chevron's claim of cost savings.

The results indicated a combined-cycle self-generation project was slightly higher than Chevron's existing electric service costs. Stand-by power rates and costs were found to be a prominent factor. However, the essential level of reliability coupled with the inherently high load factor dictated the need for some form of stand-by power. The analysis indicated that existing rates were equal to or better than a properly equipped self-generation facility that included stand-by service costs. The analysis also quantified operating cost reductions that corresponded to assumptions of both reduced reliability and production facilitates with reduced design criteria such as a simple-cycle facility.

This project provided a range of options and associated costs that Chevron could logically consider when comparing self generation power rate to those electric rates it paid at the time. This contrast provided a quantitative measurement to Chevron's claim that self generation is a worthwhile investment.

Electric Unbundled Cost-of-Service and Rate Design Studies

Eugene Water and Electric Board, Oregon

Eugene Water and Electric Board (EWEB) is Oregon's largest customer-owned utility. Chartered by the City of Eugene (City), a five-member Board of Commissioners is elected by the citizens of the City and governs the utility. EWEB provides electricity, water, and steam to more than 86,000 homes, business, schools, and other customers in Eugene, Oregon. EWEB hired R. W. Beck over a decade ago to help with their cost-of-service and rate design projects.

R. W. Beck helped with the development of the initial cost-of-service model. Since then, R. W. Beck has played a supervisory role for EWEB's embedded cost-of-service study and associated rate design. Annually, EWEB prepares a rate case for their Board of Commissioners to support rate levels for

residential, commercial, and large industrial rate classes. R. W. Beck works closely with EWEB staff to provide oversight regarding the allocation factors and reasonableness of the cost-of-service results.

In support of the EWEB's rate design efforts, R. W. Beck regularly downloads EWEB monthly customer information system data into Microsoft Excel® and Microsoft Access® to examine customer rate impacts. During one of the reviews, customer billing data was used to split the general service rate class into three new rate classes: general service-small; general service-medium; and general service-large. The database analyses provided statistical support for splitting the general service class at two points based on different monthly demand levels. Specific customers that were adversely impacted by the change in rate classes were identified, so the EWEB could contact these customers directly. Additionally, rate design for the three new general service classes included an evaluation of transition impacts between the newly formed classes as customers may move up or down in classes given changes to monthly demand over time. Customer billing data and related analyses are provided to EWEB in tabular and graphic formats.

Electric System Cost-of-Service and Rate Design Study

Farmington Electric Utility System, New Mexico

The City of Farmington retained R. W. Beck to assist the Farmington Electric Utility System (FEUS) with a review of its retail electricity rate structure. This included a review of the FEUS revenue requirements, costs of service, customer classes, construction cost allocations, and customer line extension refunds. FEUS serves a large service territory with a small compact municipal utility system surrounded by a large sparsely populated rural electric system. FEUS had not conducted an in-depth review of its costs and retail rates in more than 20 years. During that time, FEUS faced tremendous growth in residential, commercial, and industrial load, including significant increases in oil and gas field development. In response to this increased demand, FEUS added generation capacity and increased its market power purchases. R. W. Beck developed a cost-of-service electronic model to track FEUS' operating expenses, allocate them to utility functions, and assign them to customer classes. Operating expenses were determined for the test year and, with the assistance of FEUS' staff, included adjustments for "known and measurable" changes, including additional generation resources. Utility functions included the four primary business areas of production, transmission, distribution, and customer service.

Various cost drivers for these functions were developed and utilized to assign these costs to customer classes. R. W. Beck's cost-of-service analysis resulted in recommended rate adjustments for each rate class. The adjustments determined from the cost-of-service analysis were utilized to develop an updated rate design for FEUS. This rate design included development of kVA-based billing methods and green power rates, in addition to traditional billing determinants. In addition to developing the retail rate design, R. W. Beck reviewed and developed a wholesale transmission service tariff for FEUS. A marginal cost analysis was performed to review connection charges and other special fees charged by FEUS. This process culminated in presentations to the City's Public Utility Commission and City Council that included a review of our methodology and implications of suggested rate changes.

Unbundling Study

Navajo Tribal Utility Authority, New Mexico

R. W. Beck assisted the Navajo Tribal Utility Authority (NTUA) in cost-of-service, unbundling, and rate design studies for the electric, gas, water, and wastewater systems. With respect to the electric

system, NTUA essentially operated as a cooperative and received funding from Rural Utilities Service and Cooperative Finance Corporation for capital projects. The focus of the study was to unbundle utility costs into production, transmission, distribution, and customer service business units. Each business unit was further unbundled to identify specific services and products NTUA provided to its customers. Allocation factors were developed for costs classified as being demand-related, energy-related, and customer-related. Demand-related costs were allocated to NTUA's various customer classes using coincident peak and non-coincident peak methodologies; energy-related costs were allocated to consider class, energy usage, and related losses; and customer-related costs were allocated using a variety of weighted allocation factors developed with NTUA staff.

These factors reflected varying levels of effort to serve different types of NTUA customers. NTUA was faced with the loss of a large industrial load, and R. W. Beck evaluated the impact of this load loss on overall system rate levels. The study was designed to involve NTUA staff in the project and give staff on-the-job training with respect to unbundling and rate design.

Unbundled Rate Analysis and Rate Policy Advisory Services

Plains Electric Generation and Transmission Cooperative, New Mexico

Plains Electric Generation and Transmission Cooperative (Plains G&T) served 13 members in New Mexico and Nevada. Plains G&T hired R. W. Beck to perform an unbundling study of its costs in order to provide unbundling service to the member cooperatives and several large industrial customers on the system. These large industrial customers pressured Plains G&T to buy power on the competitive market. In order to better serve its members and respond to the requests of members' industrial customers, Plains G&T decided to offer its member cooperatives a choice of alternative power suppliers, thereby changing from its historical role of providing full requirements to its members. R. W. Beck assisted Plains G&T in developing a menu of unbundled services, including power supply, transmission wheeling, dispatching, scheduling, line loss compensation, load following, and additional ancillary services. Certain retail loads were offered the ability to have Plains G&T obtain alternative power supply at the market price and purchase unbundled services from Plains G&T. R. W. Beck used the results of an unbundled cost-of-service study, as well as marginal cost concepts, to determine the costs for each of the unbundled services offered. An appropriate margin for each service was also determined. In addition, R. W. Beck assisted Plains G&T during the review of its experimental tariff filed before the New Mexico Public Utility Commission and in the development of additional unbundled service tariffs.

SECTION 6
References



An SAIC Company

References

Relevant Client Reference List

R. W. Beck has provided services to numerous clients for projects similar to what is being requested by Big Rivers. We encourage you to contact our listed references who can provide a testament to the quality work product and tailored client-focused services provided by R. W. Beck.

Homer Electric Association	
Client Reference:	Carrie Buckley, Director of Finance
Client Contact Information:	3977 Lake Street Homer, AK 99603 Phone: 907-235-3380
Kaua'i Island Utility Cooperative	
Client Reference:	David Bissell, Chief Financial Officer
Client Contact Information:	4463 Pahee Street, Suite 1 Lihue, HI 96766-2032 Phone: 808-246-8213
Golden Valley Electric Association	
Client Reference:	Thomas Hartnell, Vice President of Administrative Services
Client Contact Information:	758 Illinois Street Fairbanks, AK 99701 Phone: 907-451-5663
Indiana Municipal Power Agency	
Client Reference:	Raj Rao, CEO
Client Contact Information:	11610 North College Avenue Carmel, Indiana 46032 Phone: 317-573-9955

Okanogan County Public Utility District No. 1	
Client Reference:	John Grubich, General Manager
Client Contact Information:	P.O. Box 912 1331 2 nd Avenue North Okanogan, WA 98840 Phone: 509-422-8485

SECTION 7
Proposed Compensation



An SAIC Company

Proposed Compensation

Fees

R. W. Beck proposes to perform the proposed Work Plan specified in this proposal under a Professional Services Agreement between Big Rivers and R. W. Beck. We will bill Big Rivers monthly, on a time-and-materials basis. Based on our estimate of the level of effort needed to complete this scope of services, we propose to bill Big Rivers a not-to-exceed labor cost maximum of \$160,000 plus direct travel and other expenses. We have estimated direct expenses to be \$8,500. The labor maximum amount will not be exceeded without advance written approval of Big Rivers. The estimated project labor hours by task is shown below, as well as estimated expenses.

Tasks	Estimated Labor Hours
Phase 1	
Task 1: Project Initiation and Data Request	20
Task 2: Project Kick-off Meeting, Initial Data Review, and Final Project Definition	50
Task 3: Initial Review of Rate Options and Rate Design Criteria	40
Phase 2	
Task 4: Develop Test-Year Revenue Requirement	140
Task 5: Perform Cost-of-Service Analysis	140
Task 6: Rate Design	70
Task 7: Prepare Draft Report and Presentation of Draft Results	50
Task 8: Submit Final Report	20
Task 9: Present Final Results	30
Task 10: Meetings with Stakeholders	60
Task 11: Update Cost-of-Service Model	80
Total Estimated Labor Hours	700

Tasks	Estimated Expenses
Estimated Expenses:	
Office:	
Reproduction	\$200
Communication	200
Postage/Delivery	300
Travel:	
Air Fare	4,000
Hotel	2,000
Meals	800
Transportation	1,000
Total Estimated Expenses	\$8,500

As requested in Big Rivers' RFP, attached is a schedule of hourly rates that would be in effect for assisting Big Rivers with services associated with its rate case before the KPSC. Likely billing rates would be as follows:

Personnel	Billing Class	Hourly Rates (US\$)
Expert Witnesses	20-23	\$288 - \$331
Analytical Support	12-16	\$173 - \$230
Other Support	4-8	\$58 - \$115

Exceptions to the GSA

Pricing is subject to mutually agreeable terms commensurate with the services.

R. W. Beck - Billing Rates

Billing Class	Hourly Rate (US\$)	Typical Project Roles
1	14.00	Clerical, Administration, Junior Engineers and Technicians
2	29.00	
3	43.00	
4	58.00	
5	72.00	
6	86.00	
7	101.00	Staff Engineers, Consultants and Technicians
8	115.00	
9	130.00	
10	144.00	
11	158.00	Senior Engineers, Consultants and Technicians, and Project Managers
12	173.00	
13	187.00	
14	202.00	
15	216.00	Executive Engineers and Consultants, Senior Project Managers, and Principals
16	230.00	
17	245.00	
18	259.00	
19	274.00	
20	288.00	
21	302.00	Executive Engineers and Consultants, Senior Project Managers, and Senior Principals
22	317.00	
23	331.00	
24	346.00	
25	360.00	

*Salaries of personnel are subject to change in accordance with Beck's annual salary adjustment program.

APPENDIX A
Required Forms



An SAIC Company

UNITED STATES DEPARTMENT OF AGRICULTURE

**CERTIFICATION REGARDING LOBBYING - CONTRACTS, GRANTS, LOANS
AND COOPERATIVE AGREEMENTS**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement;

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this

Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions;

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

R. W. Beck, Inc.

Cost-of-Service and Rate Design Study

Organization Name

Award Number or Project Name

David Bledsoe, Vice President & Secretary

Name and Title of Authorized Representative

Signature

October 8, 2010

Date

U.S. DEPARTMENT OF AGRICULTURE

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY
AND VOLUNTARY EXCLUSION - LOWER TIER COVERED TRANSACTIONS**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR Part 3017, Section 3017.510, Participants' responsibilities. The regulations were published as Part IV of the January 30, 1989, Federal Register (pages 4722-4733). Copies of the regulations may be obtained by contacting the Department of Agriculture agency with which this transaction originated.

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

R. W. Beck, Inc.

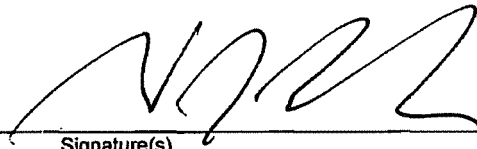
Organization Name

Cost-of-Service and Rate Design Study

PR/Award Number or Project Name

David Bledsoe, Vice President & Secretary

Name(s) and Title(s) of Authorized Representative(s)



Signature(s)

Date

October 8, 2010

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0059. The time required to complete this information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

EQUAL OPPORTUNITY ADDENDUM
To Be Inserted in Construction Contracts and
Subcontracts, and Materials Contracts and Purchase Orders

PART I

The Contractor represents that:

It has does not have 100 or more employees, and if it has, that

It has has not furnished the Equal Employment Opportunity -- Employers Information Report EEO-1, Standard Form 100, required of employers with 100 or more employees pursuant to Executive Order 11246 and Title VII of the Civil Rights Act of 1964.

The Contractor agrees that it will obtain, prior to the award of any subcontract for more than \$10,000 hereunder to a subcontractor with 100 or more employees, a statement, signed by the proposed subcontractor, that the proposed subcontractor has filed a current report on Standard Form 100.

The Contractor agrees that if it has 100 or more employees and has not submitted a report on Standard Form 100 for the current reporting year and that if this contract will amount to more than \$10,000, the Contractor will file such report, as required by law, and notify the Owner in writing of such filing prior to the Owner's acceptance of this Proposal.

PART II

CERTIFICATION OF NONSEGREGATED FACILITIES

The Contractor certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest-rooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The Contractor agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that it will retain such certifications in its files.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

PART III

EQUAL OPPORTUNITY CLAUSE

During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race,

color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(3) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.

(5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965- and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

(6) In the event of the Contractor's noncompliance with- the nondiscrimination clauses of this contract or with any of the said rules regulations or orders, this contract may be canceled, terminated or suspended in whole- or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11,246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in the said Executive Order or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.

(7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The term "Contractor" shall also mean "Bidder" or " Seller" in case of materials and equipment contracts and purchase orders. and "Subcontractor" in the case of subcontracts.

The provisions of this addendum are not applicable to any. contract or subcontract not exceeding \$10,000.

This addendum supersedes the similar representations and provisions which may be contained in the contract form to which this addendum is attached. The Contractor may disregard the superseded representations and provisions.

R.W. Beck Inc.
CONTRACTOR
By Dana Keeler
HR Director [Signature]
TITLE
10/11/10
DATE

APPENDIX B

Proposed Project Team Resumes



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RESUME

David A. Berg, P.E.

Mr. Berg offers more than 25 years of extensive industry experience within the public utility sector. Utilizing a unique blend of technical and financial expertise, he effectively guides his clients through a wide variety of regulatory, operational, and technical challenges. In his role as Senior Director in the Rates Practice, Mr. Berg focuses on delivering targeted, streamlined solutions to his clients. He also makes sure that stringent standards of practice are maintained, and provides training and mentoring to staff members.

Mr. Berg assists utilities in stabilizing their customer and revenue base in an increasingly complicated competitive environment. He educates his clients on regulatory and industry changes that could significantly affect their operations. Serving as a trusted advisor on feasibility, financing, and system acquisition projects, he provides sound technical and financial advice to clients who are considering the purchase, sale, or modification of facilities.

Not only does Mr. Berg understand the special issues confronting small-size and medium-size municipal utilities, but he has a broad industry perspective gained by his work with numerous joint action agencies serving these utilities.

Project Experience

Cost-of-Service and Unbundled Pricing Studies

Mr. Berg has managed cost-of-service and pricing studies for more than 50 utilities, ranging from traditional cost-of-service and cost-based rates to unbundled services and contract rates for large clients. Having completed these analyses for electric, natural gas, water, wastewater, steam, and communications utilities, he has an in-depth understanding of how to design prices based on revenue requirements, cost-of-service, and competition from alternative service providers.

Mr. Berg wrote an American Public Power Association guide to help small public power system stakeholders

North Dakota State University
M.S. in Electrical Engineering
B.S. in Electrical Engineering



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understand the ratemaking process. The guide is regularly used by policymakers to influence rate decisions.

He is an instructor in a cost-of-service and rate design class taught throughout the United States by R. W. Beck rate experts. Class attendees are from the U.S. and many foreign countries and include regulators, attorneys, and independent power producers, as well as management and staff from all types and sizes of utilities.

Mr. Berg provides numerous additional services to help utility management better deal with the increasingly competitive environment of the electric industry, including analysis of competitors' rates, development of special rates, staff training, wholesale power contract analysis, and long-term planning discussions.

Power Supply Planning and Contract Reviews

Mr. Berg has provided services to numerous municipal and cooperative utility clients to assist them in forecasting future power supply requirements and costs. He also develops recommendations for cost-effective and reliable power supply strategies. Mr. Berg also assesses transmission and distribution systems to ensure compatibility with the recommended plan and identifies needed system additions. These customized studies are based on an integrated planning approach, incorporating both supply side and demand side strategies when appropriate. They range from analysis of alternative wholesale purchase arrangements for utilities purchasing most or all of their power needs, to studies for utilities that own generating facilities and produce the majority of their power requirements.

In conjunction with many of these studies, Mr. Berg has subsequently assisted in the negotiation of wholesale power contracts, as well as in the development of power sales contracts and capacity purchase agreements. Specific assistance to his clients in the area of contract negotiations ranges from providing general technical support, to issuing Requests for Proposals and evaluating proposal submittals, to acting as the spokesperson leading negotiations on behalf of his client. Mr. Berg has initiated new supply contracts with selected suppliers, pursued modifications to existing power supply arrangements, and resolved disputes regarding billings by generation providers under power supply contracts. To the extent negotiations result in modified arrangements or settlement of disputes, Mr. Berg also provides valuable input into the development of contract language and provisions to implement the agreed-upon concepts.

Expert Testimony and Utility Acquisitions

Mr. Berg has prepared analyses of municipal acquisitions and operations of electric utility systems. His work has included the establishment of a new municipal utility in a community that was not previously served by a municipally owned utility. It has also involved the expansion of an existing municipal utility service territory to include areas currently served by another utility. To facilitate this work, he has developed an estimated acquisition cost for utility systems based on state and federal regulations. He has also participated in mediation sessions between incumbent and acquiring utilities to negotiate a settlement prior to undertaking litigation. Mr. Berg has prepared and presented both written and oral testimony in support of municipal acquisition activities as well as appeared at public meetings to explain municipal acquisition proposals prior to general elections related to these issues.

RESUME

Richard W. Cuthbert

Mr. Cuthbert brings a background in resource economics and statistics to the analysis of economic and financial issues for public utilities. For more than 25 years, he has worked on a range of projects involving financial analysis, econometric forecasting, and rate studies for electric and water utilities. Mr. Cuthbert has worked closely with the management and boards at utilities nationwide and is familiar with a wide range of issues affecting the demand for utility services, appropriate financial planning levels, rates, and the general economic concerns of utilities of all types.

Project Experience

Revenue Requirement, Cost-of-Service, and Rate Analyses

Mr. Cuthbert has over 25 years experience assisting utilities with assessments of revenue requirements, cost-of-service analyses, and rate design options. These studies have been prepared for both electric cooperatives and municipal utility clients, with a particular emphasis in assisting utilities regulated by public utility commissions. His experience includes retail and wholesale rates, transmission and ancillary service charges rates, and alternative rates and charges (including standby rates, net energy metering rates, feed-in tariffs, and green power rates). Examples of project experience include:

- Electric revenue requirement, unbundled cost-of-service analysis, and rate design:
 - Golden Valley Electric Cooperative (GVEC), Alaska
 - Kaua'i Island Utility Cooperative (KIUC), Hawai'i
 - Seattle City Light, Washington
 - Southern Minnesota Municipal Power Agency (SMMPA), Minnesota
 - Homer Electric Association (HEA), Alaska

Oregon State University

M.S. in Resource Economics

Reed College

B.A. in Social Sciences



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- Central Arizona Project, Arizona
- Eugene Water and Electric Board (EWEB), Oregon
- Anchorage Municipal Light and Power, Alaska
- Plains Electric Generation and Transmission Cooperative (Plains G&T), New Mexico
- Guam Power Authority (GPA), Guam
- Wholesale rates, transmission rates, wheeling and ancillary service charges:
 - Chugach Electric Association, Alaska
 - Golden Valley Electric Cooperative, Alaska
 - Sacramento Municipal Utilities District, California
 - Niagara Mohawk Power Corporation, New York
 - Boston Edison Company, Massachusetts
 - Tri-State Generation and Transmission Cooperative, Colorado
- Financial assurance levels, load research, power requirements, and other statistical analyses:
 - Golden Valley Electric Cooperative, Alaska
 - Kaua'i Island Utility Cooperative, Hawai'i
 - Nebraska Public Power District, Nebraska
 - Turlock Irrigation District, California
 - Grant County Public Utility District, Washington
 - Guam Power Authority, Guam
 - Plains Electric Generation and Transmission Cooperative, New Mexico
- Standby service rates for distributed generators, green power rates, feed-in tariffs:
 - Kaua'i Island Utility Cooperative, Hawai'i
 - Arizona Public Service Corporation, Arizona
 - Southern California Edison, California

Public Involvement, Regulatory Review, and Litigation Support

Mr. Cuthbert has provided advice to numerous utility boards and commissions, supported public involvement efforts, and provided expert testimony and litigation support in numerous rate and regulatory matters. Examples of project experience include:

- Kaua'i Island Utility Cooperative – Hawai'i: Support to the KIUC Board in the evaluation of its rates, cost-of-service and rate design options; regulatory support including written testimony to the Hawai'i Public Utilities Commission related to the appropriate return for not-for-profit utility, appropriate rate design, standby service rates, and long-term equity management and development.
- Golden Valley Electric Association – Alaska: Lead project manager for investigation of revenue requirements, cost-of-service analysis, and rate design. Services included workshops with the GVEA Board of Directors to develop the rate proposal and filing expert testimony before the Regulatory Commission of Alaska on necessary financial performance levels, equity accumulation, rate design for both retail and wholesale services, and wheeling and ancillary charges.
- New Hampshire Electric Cooperative — New Hampshire: In a bankruptcy proceeding related to NHEC, provided expert testimony on the appropriate financial requirements of the reorganized cooperative, including revenue requirements, equity levels, and appropriate interest coverage levels.

A complete listing of Mr. Cuthbert's participation in various regulatory proceedings is attached.

Utility Financial Impact and Feasibility Analyses

Mr. Cuthbert has been lead economist on numerous financial and economic evaluations for both public and private utilities. These analyses have been presented to the utilities and regulatory commissions in support of proposed renewable energy programs, debt equivalency, and project feasibility. Included in these efforts has been supervision of the preparation of complex pro forma financial models to assess both technical and economic feasibility. Examples of project experience include:

- Equity management plans and long-term financial impact analyses:
 - Golden Valley Electric Association, Alaska
 - Homer Electric Association, Alaska
 - Kaua'i Island Utility Cooperative, Hawai'i
 - Plains Electric Generation and Transmission Cooperative, New Mexico
 - New Hampshire Electric Cooperative, New Hampshire
 - Tri-State Plains Electric Generation and Transmission Cooperative, New Mexico
- Analysis of the economic impacts of solar energy and other resource options:
 - Arizona Public Service Company, Arizona
 - Golden Valley Electric Association, Alaska
 - Avista Power Corporation, Washington
 - Georgia Power Company, Georgia

Example Project Descriptions:

Electric System Rate Study and Supporting Expert Testimony

Kaua'i Island Utility Cooperative, Hawai'i

Project Manager. Mr. Cuthbert prepared a comprehensive review and evaluation of KIUC's electric rates necessary for submittal to the Hawai'i Public Utilities Commission (HPUC). Key issues included (i) review of various ratemaking issues such as standby service rates, net-energy metering (NEM) rates, wheeling rates, feed-in tariffs, cost-of-service levels, and renewable portfolio standards, (ii) using a projected test year analysis to assess KIUC's revenue requirements, (iii) developing load research information for each of KIUC's customer classes, (iii) assessing the cost-of-service changes for the customer classes served, and (iv) developing new rates for all of KIUC's customer classes based on a 10.5 percent rate increase. Work was conducted in jointly with KIUC staff and included several meetings and workshops with KIUC's Board of Directors. New rates sufficient to support's KIUC's long-term financial needs were developed, approved by the KIUC Board, and presented in expert testimony to the HPUC for required regulatory approval.

Investigation of Appropriate Ratemaking Practices for a Wholesale Joint Action Agency

Southern Minnesota Municipal Power Agency, Rochester, Minnesota

Expert Testimony. SMMPA's rate making process and wholesale rates were contested in court by one of the agency's member utilities. Mr. Cuthbert reviewed the rate making practices of the agency for

more than a 20-year period. He also completed a survey of the rate making practices of joint action agencies. The result of this review and evaluation were presented in a report that was filed with the court. Following the review of the report, the member utility dropped its protest of the ratemaking practices and resultant rates of the agency.

Wholesale Electric Rate Study

Homer Electric Association, Alaska

Project Manager and Expert Witness. HEA needed a rate study that reflected its new corporate structure that included a G&T cooperative selling power to the distribution utility. The project involved developing separate but connected revenue requirements analyses for the G&T and distribution utilities, developing the cost-of-service analysis, and reviewing rate structure options. Key issues included determining the impacts of several large contract customers on the other customer classes and accounting for a change in corporate structure in the analysis. Mr. Cuthbert provided expert testimony before the Regulatory Commission of Alaska regarding the revenue requirement analysis as well as a proposed new rate design proposal.

Investigation of Appropriate Ratemaking Practices for a Wholesale Joint Action Agency

Indiana Municipal Power Agency, Carmel, Indiana

Expert Testimony. IMPA's rate making process and wholesale rates were contested in court by one of the agency's member utilities, particularly rates to delivery voltage charges. Mr. Cuthbert reviewed the rate making practices of the agency for more than a decade and also completed a survey of the rate making practices of joint action agencies. The result of this review and evaluation were presented in a report that was filed with the court.

Electric System Rate Studies

Golden Valley Electric Association, Inc., Fairbanks, Alaska

Project Manager. Mr. Cuthbert has been responsible for multiple comprehensive reviews and evaluations of GVEA's electric rates as required for submittal to the Regulatory Commission of Alaska for more than 10 years. Key issues included (i) providing adequate funding for GVEA's anticipated large capital requirements, (ii) assessing the cost-of-service changes for several customer classes served by GVEA, (iii) developing new rates for all of GVEA's customer classes, and (iv) addressing potential competition and rate unbundling issues confronting the utility. Work was conducted in conjunction with the GVEA staff and several meetings with GVEA's Board of Directors. The final rate proposals included substantial rate changes for GVEA's various customer classes. The rate proposals were adopted by the GVEA Board of Directors, were supported with expert testimony and were adopted as proposed by the RCA.

Equity Management Plan

Golden Valley Electric Association, Inc., Fairbanks, Alaska

Project Manager. In conjunction with various electric rate studies conducted for GVEA, Mr. Cuthbert oversaw the preparation of 10-year equity management plans to assess long-term rate implications of

various capital expansion options. Key issues included providing adequate funding for anticipated large capital requirements, and maintaining adequate debt service coverage and Times Interest Earned Ratio (TIER) levels. Among the tasks performed were (i) review of projected customers and energy sales, (ii) evaluation of GVEA's proposed capital improvement program, (iii) identification of financial goals and policies for GVEA, and (iv) development of the EMP model. The effects on future financial performance and revenue requirements of alternative funding options and various implementation strategies for future capital improvements were also evaluated. The final EMP results were used to help develop rate proposals that included revenue neutral rate changes which were adopted by the GVEA Board of Directors and presented to the Regulatory Commission of Alaska for regulatory approval.

Embedded Cost-of-Service Study

Seattle City Light, Washington

Project Manager and Technical Lead. R. W. Beck was retained to prepare an embedded cost-of-service study based on a historical 2004 revenue requirements analysis that was prepared by the city's staff. Mr. Cuthbert directed the development of an embedded cost-of-service model that was designed for utility and included functionalization, classification, and allocation of the SCL revenue requirement at a 5-digit FERC level. Mr. Cuthbert attended numerous review work sessions were conducted with SCL staff throughout the project. Final draft results of the study were presented to the SCL Superintendent as well as the City of Seattle Mayor's Office and the Seattle City Council. In part, due to findings of the study, implementation of rate changes was delayed for several years.

Electric System Rate Study

Homer Electric Association, Alaska

Project Manager. Mr. Cuthbert has prepared comprehensive reviews and evaluations of HEA's electric rates as required for submittal to the Regulatory Commission of Alaska. Key issues included (i) review of the wholesale power costs of HEA provided by its new generation and transmission cooperative, Alaska Electric and Energy Cooperative, (ii) using an updated historical test year to assess HEA's revenue requirements, (iii) assessing the cost-of-service changes for several customer classes served by HEA, and (iv) developing new rates for all of HEA's customer classes including several large special contract customers. Work was conducted in conjunction with the HEA staff and several meetings with HEA's Board of Directors. A revenue neutral rate proposal was presented to the HEA Board of Directors and presented along with expert testimony to the RCA for required regulatory approval. Services to HEA have been provided for more than 20 years on a variety of issues and projects.

Electric System Rate Studies

Golden Valley Electric Association, Inc., Fairbanks, Alaska

Project Manager. Mr. Cuthbert has been responsible for multiple comprehensive reviews and evaluations of GVEA's electric rates as required for submittal to the Regulatory Commission of Alaska for more than 10 years. Key issues included (i) providing adequate funding for GVEA's anticipated large capital requirements, (ii) assessing the cost-of-service changes for several customer classes served by GVEA, (iii) developing new rates for all of GVEA's customer classes, and (iv) addressing potential competition and rate unbundling issues confronting the utility. Work was conducted in conjunction with the GVEA staff and several meetings with GVEA's Board of Directors. The final rate proposals included substantial rate changes for GVEA's various customer classes. The rate proposals were adopted by the

GVEA Board of Directors, were supported with expert testimony and were adopted as proposed by the RCA.

Wholesale Purchase Power Agreement Review and Testimony

Golden Valley Electric Association, Inc., Fairbanks, Alaska

Project Manager and Expert Witness. GVEA had a long-term wholesale purchase power agreement at a set price from an independent power producer, Aurora Energy. Aurora Energy filed with the Regulatory Commission of Alaska for a significant increase in its wholesale power rates. GVEA retained R. W. Beck to evaluate Aurora's proposed revenue requirement analysis and provide expert testimony regarding the appropriateness of Aurora's proposed rate increase. One complexity of the case was determining the appropriate cost of coal to include in Aurora's revenue requirement analysis, given the affiliated interest relationship between Aurora Energy and the coal mine from which it purchases coal. Mr. Cuthbert evaluated Aurora's proposed revenue requirements and provided expert testimony before the RCA on behalf of GVEA indicated that the proposed rate increase was not justified. The RCA rejected Aurora's request for any increase in wholesale power rates. This decision will result in savings of more than \$1 million per year to GVEA.

Financial Surveys of G&T and Regulated Cooperatives

Clients in Alaska and Hawai'i

Project Manager. Mr. Cuthbert supervised the surveying of several telephone and internet surveys addressing the financial goals and operations of 52 generation and transmission cooperatives nationwide and the regulation of cooperatives by state public utility commissions. As part of these studies, he determined which G&T cooperatives had made open market financings, what sources of external financing was preferred by the utilities, and the different standards used in regulating cooperatives compared with investor owned utilities.

RESUME

Laurie Tomczyk, P.E.

Ms. Tomczyk is a Senior Analyst for R. W. Beck. Her primary responsibilities include cost-of-service and rate-design studies. She also has experience in performing economic analyses pertaining to the regulated and deregulating power market. In addition, Ms. Tomczyk has experience with feasibility and implementation studies, procurement, Independent Engineering reviews, operation and maintenance reviews, and planning studies for electric cooperatives; municipal electric, water, and solid waste utilities; planning and regulatory agencies; and private sector clients. She has successfully managed over 35 projects for municipalities and planning/regulatory agencies.

Project Experience

Revenue Requirement, Cost-of-Service, and Rate Design Analyses

Ms. Tomczyk has participated in several retail revenue requirement, cost-of-service, and rate design studies for utilities. She has performed these studies for electric cooperatives and municipal utility clients. Projects have included studies to develop retail electric and water rates, wheeling and ancillary services rates, and electric standby rates.

- Electric revenue requirement, unbundled cost-of-service analysis, and rate design:
 - Golden Valley Electric Cooperative, Alaska
 - Kaua'i Island Utility Cooperative, Hawai'i
 - Homer Electric Association, Alaska
 - Bryan Texas Utilities, Texas
 - Eugene Water and Electric Board, Oregon
 - Public Utilities Board of Brownsville, Texas
 - Garland Power and Light, Texas
- Electric standby rates for distributed generators:
 - Kaua'i Island Utility Cooperative, Hawai'i

University of Nebraska
B.S. in Mechanical Engineering
(with High Distinction)



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- Wheeling and ancillary service rates:
 - Golden Valley Electric Cooperative, Alaska
 - Public Utilities Board of Brownsville, Texas

Cost-of-Service and Rate Design Litigation Support

Ms. Tomczyk has provided litigation support in rate-related projects.

- Kaua'i Island Utility Cooperative – Hawai'i; Application for Approval of Rate Changes and Increases, Revised Rate Schedules and Rules, and Other Ratemaking Matters; HPUC Docket No. 2009-0050; litigation support including written testimony for Kaua'i Island Utility Cooperative pertaining to cost-of-service study, equity management plan, and standby rate methodology
- Golden Valley Electric Association – Alaska; Proceeding for Investigation of Revenue Requirement and Cost-of-Service Studies TA190-13; RCA Docket U-08-139; litigation support including written testimony for Golden Valley Electric Association pertaining to equity management plan, cost-of-service study, and rate design
- Kaua'i Island Utility Cooperative – Hawai'i; Proceeding to Investigate Standby Rate Tariff; Docket No. 2006-0498; analysis in support of developing standby rate methodology
- Golden Valley Electric Association – Alaska; Public Notice of Utility Tariff Filing Related to Wheeling and Ancillary Service Rates TA-175-13; Docket No. U-07-108; analysis and support in developing wheeling and ancillary service rates and negotiations with potential intervenors
- Brownsville Public Utilities Board – Texas; Analysis in support of the Application of the Public Utilities Board of the City of Brownsville to Change Rates for Wholesale Transmission Service; PUCT Docket No. 32905
- Lamar Light & Power vs. Colorado Aquaculture – Colorado; analysis on behalf of Lamar Light and Power in a dispute over the economic benefits and impact on rates of mothballing a gas-steam generation station
- Nevada Resorts Association – Nevada; PUCN Docket No. 06-05007; development of comments provided on behalf of the Nevada Resorts Association to the Public Utilities Commission of Nevada (PUCN) regarding the PUCN's investigation to analyze the strengths and weaknesses of marginal cost-of-service studies, embedded cost-of-service studies, the reconciliation process, and how they impact rate classes
- Nevada Resorts Association – Nevada; Docket No. 05-10003; analysis in support of testimony provided by R. W. Beck on behalf of the Nevada Resort Association in support of reductions to the Sierra Pacific revenue requirement and modifications to the Sierra Pacific marginal cost-of-service study; application of Sierra Pacific Power Company with respect to retail rates

Financial Analysis and Pro Forma Modeling

Ms. Tomczyk has been involved in multiple projects involving financial analyses for clients. These analyses have supported bond financings for electric and solid waste utilities and also utility planning efforts. She has developed and reviewed pro forma financial models for technical and economic feasibility.

- Pro forma analysis of electric, water, wastewater, and fiber utilities for communications system revenue bond financing – Lafayette Utilities System; Lafayette, Louisiana
- Equity management plan/financial projection development and review:
 - Golden Valley Electric Association; Fairbanks, Alaska

- Homer Electric Association; Homer, Alaska
- Kaua'i Island Utility Cooperative, Hawai'i
- Georgetown Municipal Water and Sewer Service; Georgetown, Kentucky
- Financial analyses for litigation support

RESUME

Theresa Kervin

Ms. Kervin is a senior analyst with R. W. Beck who performs research and analysis for utility systems and solid waste management districts. In her work with electric, gas, water, telecommunications, and solid waste utilities, she analyzes utility financial records and operating statistics and develops pro forma operating results. She has performed numerous pricing studies and has co-authored a rate design guide for small public power systems. She has also helped develop several solid waste management plans, including sections on household hazardous waste programs, special wastes, and public education.

Prior to joining R. W. Beck, Ms. Kervin was employed at a large California electric and gas utility, where she was involved in the preparation of load research programs, cost-of-service studies, rate design studies, rate case testimony, and budget development.

Project Experience

Cost-of-Service and Unbundled Pricing Studies

Ms. Kervin has performed electric, gas, water, wastewater, telecommunications, and district heating cost-of-service, and pricing studies for numerous municipal utilities. Her work includes developing historical operating results, projecting power supplies and power supply costs based on customer sales projections, full cost-of-service analysis based on embedded costs, development of projected operating results, and design of new unbundled prices. Ms. Kervin also analyzes and redesigns utilities' energy cost adjustment clauses and provides an assessment of the utility's relative competitiveness through development of price and customer bill comparisons between the client utility and other utilities in the region. She has spoken

Loyola University

B.S. in Mathematics

University of California, Berkeley

B.S. in Natural Resources

San Francisco State University

B.S. in Natural Resources



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before state utility organizations on cost-of-service and pricing issues. Ms. Kervin also co-authored a guide for the American Public Power Association to help small public power systems understand the pricing process from developing revenue requirements to cost-of-service analysis and design of new prices.

Cost Comparison of Gas Pipeline Service

Ms. Kervin performed a cost comparison of gas transportation service via a proposed new gas pipeline versus continued service from Northern Natural Gas (NNG). The analysis modeled the capacity and related costs under continued service by NNG and compared the present value (PV) of these estimated costs to the forecasted costs under the new gas pipeline. She developed a pro forma that showed the total capacity-related costs for 15-years under NNG service for a base case and various scenarios that assumed different levels of increased capacity needs. The costs for each organization's participation in a share of the proposed new gas pipeline for 15-years were also determined using different scenarios. The analysis provided total costs per year and a PV for the 15-year study period that allowed each organization to see the overall difference in the costs of service from the two different pipelines. When the pipeline owner revised its proposed costs and services in November 2006, Ms. Kervin updated the cost comparison at Owatonna's request to reflect both the changes in the proposed new pipeline as well as projected NNG rate increases.

Solid Waste Volume Based Rate Study

Ms. Kervin developed revenue estimates and pro forma operating results for the solid waste departments to evaluate the impact of implementing a volume based fee program for solid waste collection services. The analyses considered various assumptions regarding the weight and compaction of the trash, participation levels, changes in waste generation and recycling rates over time, and the amount of the base fee and the fee for additional bags. The analyses were used to develop recommendations on fees to charge in order to cover the solid waste departments' waste management programs.

Utility Acquisition

Ms. Kervin prepared a series of cost estimates for acquiring new service territory by the municipal utility. The cost estimates were based on projected sales revenues, and differing assumptions on both the cost to serve customers in the affected area and the facilities belonging to the utility system which were to be purchased.

RESUME

Lynn L. Adams

Ms. Adams provides an array of business management consulting services to clients as they integrate business strategy with operational demands. She has more than 25 years of experience in the consulting/utility industry in both business and consumer sectors. Her work encompasses strategic and business planning and leadership development for various clients, as well as marketing and strategy consulting.

She solves client challenges through understanding core issues and defining a clear path forward, then applying a variety of best-in-class approaches. She calls upon tailored techniques and resources to develop the right approach to meet defined needs that result in high impact organizational change. As a master facilitator, Ms. Adams leads groups through defining clear direction and making effective decisions in an uncertain environment.

Ms. Adams' book *The Art of Strategic Leadership* provides a practical guide and methodology to address the most challenging aspects of leadership. This is typically not the technical content of what an organization does or produces; rather, the focus is confidently leading the organizations through ever-changing challenges and opportunities with the strategy and leadership clarity necessary to do so.

Project Experience

Business Consulting

Ms. Adams has performed many business consulting and leadership efforts—often anchored by strategic, business, and marketing planning—for infrastructure organizations, utilities, and other clients across the country. She became focused on those activities during the initial deregulation of the energy industry and has leveraged that perspective into the water industry as well. This includes helping clients develop the external customer focus essential for success.

- Capital Program Optimization – Colorado Springs Utilities, Colorado; project lead for organizational change and implementation phase of comprehensive effort focused

Cornell University
B.S. in Communications



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on optimizing dollars spent on capital projects; scope includes a long-term systemic change effort that creates a business based project management approach across the organization

- Strategic and Business Plan Development – El Paso Environmental Services Department, Texas; served as planning manager/lead facilitator for a progressive department that seeks to align its various functional areas with the market needs
- Market Research and Marketing Plan Development – Fort Collins Utilities, Colorado; conducts bi-annual customer satisfaction research; designed and facilitated focus groups and set up Internet-based survey panel in order to maintain world class performance levels; defined need for emphasis on sustainability to align with market needs and utility mission; and regularly contributed to marketing communications strategy and messaging
- Development of Strategic and Business Direction – Lampasas Electric Utility, Texas; served as planning process lead facilitator for the Utility as it seeks to redefine its direction in a challenging marketplace with an overall objective of moving toward an increased customer focus; project included team building, organizational effectiveness work, and integration of various stakeholder groups including the governing body
- Organization-Wide Strategic Initiative – Fort Collins Utilities, Colorado; served as project manager and planning process lead facilitator for key strategic planning effort that has guided this organization for over a decade; based on customer research, also conducted by R. W. Beck, this planning project focused on aligning the Utilities with customer needs while implementing internal organizational changes to accommodate that refined direction

Sustainability

Ms. Adams currently focuses on the development of an integrated Sustainability/Corporate Social Responsibility approach that focuses on moving a utility organization from fragmentation to integration. This leading work in Enterprise Sustainability Management includes the management and facilitation of a focused process that results in new ways of improving a utility's Triple Bottom Line—defined as economic, environmental, and social impact—with the necessary stakeholder involvement for successful execution. Other features of the approach include implementation of a baseline audit using a tool tailored for the utility industry, and a Subject Matter Expert review where Ms. Adams garners the breadth of R. W. Beck technical and financial resources to analyze specific options and identify the next best dollar spent. The inputs are then incorporated into a decision model that allows weighing options and provides a platform for confident decision making going forward.

A Utility for the 21st Century/Integrated Sustainability Leadership – Fort Collins Utilities, Colorado; served as project manager for comprehensive sustainability program development that features facilitation of internal and external stakeholder groups, expert analysis of options defined, decision modeling, and integrated communications; the effort is a result of market research that indicated a “green gap” between public perception and utility performance; provided regular briefings of the utility governing body due to the high degree of visibility and broad interest in the project; identified key leadership metrics; R. W. Beck directed the development of Fort Collins' Sustainability Report which was the first municipal utility to file with the Global Reporting Initiative

Integrated Sustainability Direction – City of El Paso, Texas; served as project manager for sustainability program development that features identifying City focus areas, assembling optimal staff teams, and working with them to develop fundamental direction; evaluated potential programmatic responses to achieve defined goals and the framework for an implementation plan; effort built on the strategic direction defined by one of the City's key departments, in alignment with City direction

Integrated Environmental Sustainability Plan Development – City of Longmont, Colorado; project manager for comprehensive sustainability program development that features facilitation of internal and external stakeholder groups, expert analysis of options defined, decision modeling, and integrated communications; effort also features strategy development in support of the City’s American Recovery and Reinvestment Act (ARRA) Energy Efficiency and Community Block Grant application and strategy definition; specific ARRA-related output includes required program activity worksheets with budgets

Proposal to Perform a

Wholesale Cost of Service and Rate Design Study

Submitted to

Big Rivers Electric Corporation



October 15, 2010



Shaw[®] Shaw Consultants International, Inc.

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October 15, 2010

Dana Clevidence

Purchasing Department
Big Rivers Electric Corporation
P.O. Box 24
Henderson, KY 42419-0024

Proposal to Perform a Wholesale Cost of Service and Rate Design Study

Dear Dana Clevidence,

Shaw Consultants International, Inc., formerly Stone & Webster Management Consultants, is pleased to provide this proposal to perform a wholesale cost of service and rate design study to the Big Rivers Electric Corporation. Our proposed team has extensive regulatory expertise, including cost of service studies, rate design methodologies, management of regulatory relationships, and expert witness services.

Our Team

Our team is very interested in working with you as you move towards a potential rate filing in early 2011. Through our discussions and correspondence with Big Rivers we believe that our team can provide actionable analysis and facilitate meaningful decision-making to ensure that our timeline meets the needs and schedule of this anticipated filing.

- We have a team of experienced professionals with extensive rate and regulatory expertise that are capable of quickly and thoughtfully integrating with your strategy assessment team, identifying potential implications of alternative rate designs, defending cost allocation methodologies, and developing supporting regulatory testimony. Our recent rate and regulatory strategy engagements include work with Vermont Electric Cooperative, Northern Indiana Public Service Company, Newfoundland Labrador Hydro, Southwest Louisiana Electric Membership Corp. and the Iowa Association of Electric Cooperatives.
- We have in-depth expertise in performing the diversity of special studies that cost of service and rate design typically encompasses, including load research, billing analyses, loss calculations, fixed-variable allocations for production-related O&M expenses, power factor analysis, development of OATT rates, application of the FERC Seven Factor Test, incorporation of marginal cost principals in rate design, and many others. We know how to deal with missing or incomplete data in a supportable fashion using our industry knowledge.

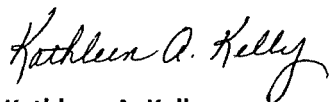
- We have a diversity of analytical modeling tools based on industry accepted methodologies and principles, including a fully unbundled cost of service model, a bill analysis tool used to monitor member and customer impacts, and a revenue proof platform that quantitatively measures utility revenue implications; these tools have been used with and by clients such as Con Edison, Southwestern Louisiana Electric Member Corporation, and Newfoundland Labrador Hydro, to name a few.
- The Shaw Consultants team takes on your project on a personal level. We are always available and work as required to produce the best product to serve your goals.

Our Proposal

Shaw Consultants is proposing to execute the requested scope of services in a two-phased approach – the preliminary phase – expected to be completed before the Thanksgiving holiday – includes developing and delivering an initial cost of service and rate design plan including results from our modeling tools, based on initially available data. The second phase, to begin during the final week of November and conclude in order to meet the report timeline of February 18, 2011, will include extensive interaction with Big Rivers discussing initial modeling results and their implications, identifying appropriate alternative rate designs and evaluating their implications on Big Rivers, and on its Member-Systems, and discussing the fine tuning necessary, prior to finalization of both the cost of service study and the rate design approach to support the anticipated rate case. Our draft and final written reports will be provided on February 4 and 18, 2011, respectively, in addition to final modeling tools and supporting documentation. We expect that the final cost of service and rate design may extend beyond February 18th and we will work with Big Rivers to update the models and documents as needed in preparation of the filing.

We believe the Shaw Consultants Team offers the right combination of practical knowledge and expertise to provide Big Rivers with a quality, cost of service, rate design proposal, and filing support for its regulators. If you have any questions or require clarification, please contact me at 617.589.5215, or by email at kathy.kelly@shawgrp.com. We would be happy to meet with you personally or by teleconference to further discuss our qualifications or approach.

Sincerely,



Kathleen A. Kelly
Vice President and Practice Leader
Shaw Consultants International, Inc.
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Cambridge MA 02142
617.589.5215
kathy.kelly@shawgrp.com

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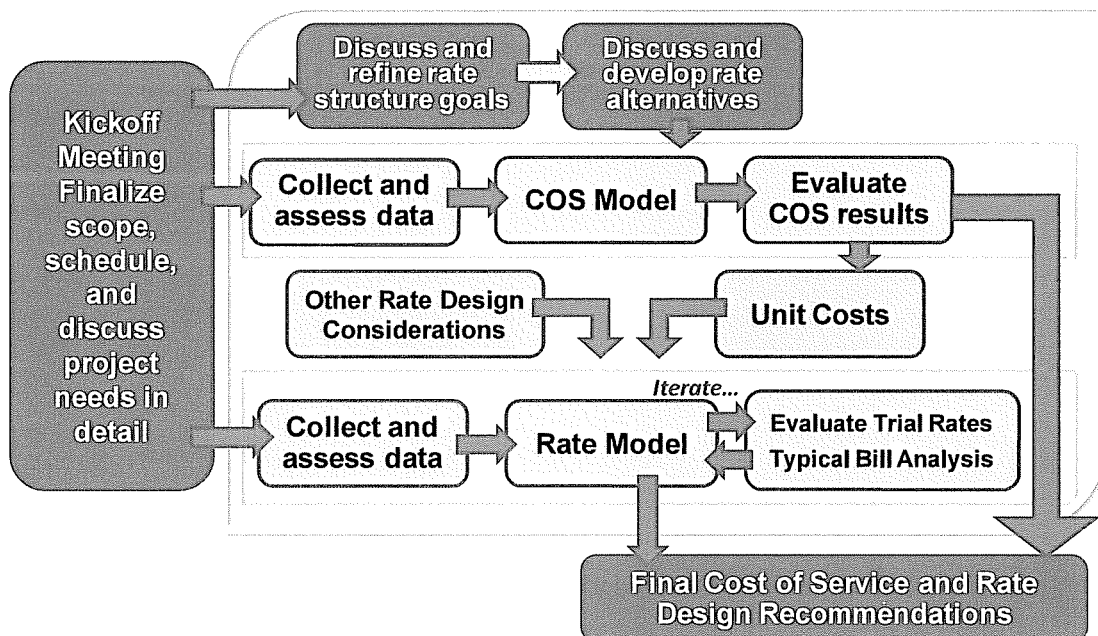
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1 Proposed Work Plan

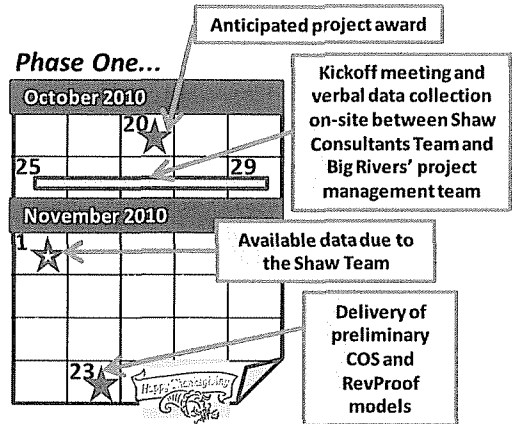
Our proposed work plan, and associated commercial proposal, is organized in two distinct phases such that our team can provide Big Rivers Electric Corporation (Big Rivers) with actionable analysis and facilitate meaningful decision-making to ensure a timeline that meets the needs and schedule of Big Rivers' anticipated rate case filing. In summary, the Shaw Consultants team proposes to first develop and deliver an initial cost of service and rate design analysis including modeling results based on initial data collection before the Thanksgiving holiday.

This preliminary analysis will be followed by extensive interaction with Big Rivers discussing the initial results and their implications, identifying appropriate alternative rate designs and evaluating their implications on Big Rivers, and on its members and customers, and discussing the fine tuning necessary, prior to finalization of the rate case. During January, and beyond, our team will work with Big Rivers to move towards finalizing the cost of service study and rate design methodology, with our draft report targeted for February 4, 2011, and our final report and final modeling tools being made available by February 18, 2011. We anticipate that changes are likely to continue beyond the report date and we commit to working with Big Rivers to update the modeling tools and filing documents as necessary to prepare the filing.

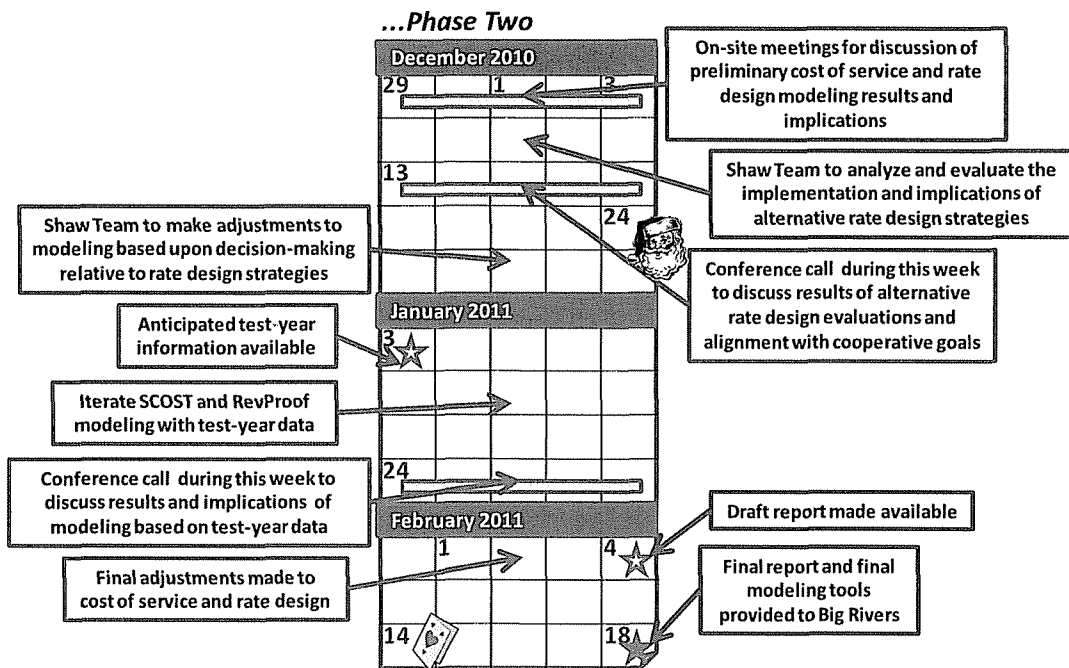
We recognize that this process will be an iterative one, requiring numerous updates to data and evaluating the impact such changes have on the revenue requirements and allocation to members and customers. Below is a summary illustration of our cost of service and rate design process, showing the sequence and timing of necessary steps, and the interaction of results and evaluations of information.



Phase one will include initial data gathering, interpretation, and discussion of modeling inputs, and assumes that all available data is delivered to our team by November 1, 2010. It will also include an on-site kickoff meeting to understand Big Rivers' situation, timeline and internal case processes, followed by strategic discussions and further data collection in order for our team to gain an understanding of the key drivers behind the current rate structure as well as the direction preferred by Big Rivers and its Member-Systems as this effort takes shape. Our team will then prepare a preliminary cost of service study and preliminary proposed rates, based on an initial rate design methodology, and deliver these models including a revenue proof model and supporting summaries to Big Rivers by November 23, 2010. During this phase we will continue to interact with Big Rivers' staff to support the data development and rate strategy discussion.



Phase two of our proposed work scope will include further analysis of alternative rate design approaches, more refined modeling with respect to cost of service allocation, rate design implications for Big Rivers' revenues, and qualitative impacts for Member-Systems' revenues. The Phase 2 timeline is fully dependent on the selection of final test year and development of necessary test year data for incorporation into the filing development process. Our staff has developed rate case filings and are prepared to advise and support Big Rivers throughout the process. Our timeline as presented here is illustrative and will change as needed to meet Big Rivers' objectives. The draft and final reports will be delivered per the proposed schedule and will rely on data available at that time. This phase is an iterative process that will require numerous changes and updates to information and approaches and our team members and modeling tools are capable of quick turn-around analysis and implications, right up through the filing deadlines if required.



Within this second phase, we propose to have a meeting with the Big Rivers team during the week of November 29, 2010, where we will provide the results of the initial modeling completed in the first phase, and facilitate discussion of the effort going forward, including further data refinement and collection, assessing rate design alternatives, implications of alternative allocation strategies, and analyses that may be of interest to Big Rivers as we move toward a filing. Initial data and modeling provided in phase one will be used to model preliminary rate design alternatives, the results of which will be vetted with Big Rivers' staff in a conference call during the week of December 13, 2010. Decision-making and insights developed in this review will be incorporated into our proprietary modeling tools prior to the Christmas holiday, in preparation for finalized test-year data, which we assume will begin to be made available after January 3, 2011.

As test-year data is prepared for a targeted March 1, 2011 filing, our team will update the cost of service and re-assess the updated rate design modeling, keeping in mind the cooperative's strategic goals and interim decision-making. Shaw Consultants will re-evaluate the resulting model outputs, comparing updated results and implications against previous modeling information. Analysis, results, and comparisons will be shared and discussed with the Big Rivers team during the week of January 24, 2011 (pending data updates). Final adjustments will be made to the modeling pursuant to these discussions while, in parallel, we are finalizing the draft written report, for delivery to Big Rivers on February 4, 2011. Our final report will incorporate feedback from Big Rivers where appropriate, and will be provided, with final modeling tools, by February 18, 2011. This process will continue until final rates are complete in order to serve your filing needs.

This summarized scope is provided with more detail in the following sections.

1.1 Detailed Work Plan

Project Scope – Shaw Consultants' scope of services is organized according to the two phases presented above, in addition to four optional services that could be value-added complements to the base scope. Our proposed scope is designed to address all of the services requested in Big Rivers' RFP, as well as to suggest alternatives for further consideration, as we've seen them add insights and value to past efforts with clients. This section demonstrates the process and key efforts necessary to complete the assignment. We have provided technical cost of service and rate design considerations that will be utilized throughout this effort in Attachment C, to assure Big Rivers that we understand the theoretical underpinnings of this effort.

Phase 1 includes two stages of effort:

- **Stage 1 – "Immersion & Strategy"** – where our team will collect, organize, and interpret preliminary data for use in the cost of service and rate design studies, as well as where we will facilitate a kickoff meeting on-site with Big River' project management. Through on-site data collection, the Shaw Team will participated in Big Rivers' discussions of rate strategy moving forward, and the elements of rate design that will support those strategies.
- **Stage 2 – "Analysis"** –will include the first iteration of modeling using Shaw Consultants' proprietary cost of service (SCOST) model, and rate implication modeling tools (revenue proof and typical bill analysis).

Phase two includes three stages of effort:

- **Stage 3 – "Evaluation"** – where preliminary modeling outputs will be presented and evaluated for alignment with the cooperative's strategic goals, mitigation of customer implications, and achievement of utility revenue requirements.

- **Stage 4 – “Iteration”** – including the incorporation of test-year data and updated load and revenue adjustments, followed by additional evaluation of the resulting implications.
- **Stage 5 – “Presentation”** – will conclude the effort, providing Big Rivers and its Member-Systems with draft and final written reports, and excel-based modeling tools.

Additional options that our team believes may be of interest to Big Rivers include:

- **Workshop education efforts** that could be used to ground staff members in the analysis and evaluation that are traditionally included in these studies;
- **Regulatory support services** as requested for inclusion in Big Rivers’ RFP for this effort; and
- **Member-System rate implications**, including the impacts that proposed rate design changes could have on Member-System customers according to their existing load profiles and service tariffs.

Project Management – In order to keep progress moving throughout this effort and complete these studies in relatively short order, we propose to have weekly conference calls with the Big Rivers management team. Meetings via conference call, estimated to be between 30 and 45 minutes, will provide our team, as well as Big Rivers, with an opportunity to raise questions, present interim findings, and solicit necessary information as the studies move forward. Our team understands the availability limitations of the Big Rivers staff and we are therefore providing the following scope of services that we believe will make the best use of collaborative time and Big Rivers’ resources. Our streamlined approach to Big Rivers’ involvement is illustrated in the summary tables that introduce each of the five stages of the scope.

1.1.1 Stage 1 – “Immersion & Strategy”

The foundational stage of our proposed approach will initiate our team’s execution of data gathering and review. We find that a combined approach of documentation review and facilitated meetings is the most efficient and thorough method of gathering and interpreting applicable data, assumptions, and analytical inputs. In kicking this effort off, our team will provide Big Rivers with a detailed data request, which will include documentation such as billing determinants, existing tariffs, and current riders, charges, and fuel adjustment – a more complete list is provided in the description of Task 1. Our team will facilitate a formal kickoff meeting on-site with the Big Rivers and Member-Systems project management team where we will have an opportunity to introduce ourselves and the process ahead, as well as to begin collecting necessary information for the studies. During or immediately following the kickoff, our team will facilitate a meeting or series of meetings with project management staff from Big Rivers and its Member-Systems, to come up to speed quickly on pertinent issues.

Document management in this immersion phase will include an information index that organizes and cross-references modeling input information with its supporting documentation, allowing for:

- A fully documented process for sourcing data and inputs
- A reference guide for our project team, to ensure research is not duplicated; and
- A basis document for use in both the final report to Big Rivers, and in regulatory support efforts.

Tasks to be Completed	Necessary Involvement of Big Rivers and Member-Systems Teams	Shaw Consultants' Deliverables	Anticipated Timeline
<p>Task 1: Submit a detailed data request</p> <p>Task 2: Facilitate an on-site project kickoff meeting and necessary data collection</p> <p>Task 3: Objectives and goals of rate strategy for Big Rivers and Member-Systems</p> <p>Task 4: Collect and organize data on a shared storage site</p>	<ul style="list-style-type: none"> ▪ Providing necessary information included in data request ▪ Kick-off meeting and additional meetings for data collection 	<ul style="list-style-type: none"> ▪ Detailed data request ▪ Facilitation of kickoff and data collection meetings ▪ Document management index 	<p>October 20 to November 1 (1.5 weeks)</p>

Task 1: Submit a Detailed Data Request

Upon notification of award, our team will provide Big Rivers with a detailed data request, describing all necessary information for the cost of service and rate design studies. This initial data request will include information such as:

- Financial, operating, and statistical reports, including RUS Form 12 for the most current three years;
- System maps (geographic and one-line diagrams);
- Available cost (by account) and operating data for each generating unit;
- Purchased Power Contracts;
- Profile of market prices by season and time-of-day;
- MISO-related costs by type;
- Hourly load data for Big Rivers, each Member-System, and the two aluminum smelters (kW and kVA as available), by entity and contractual type;
- Loss data;
- Prior cost of service and rate studies and filings before the Kentucky Public Service Commission (KYPSC);
- Revenue requirement for the test-year, including annualization, normalization, and pro forma adjustments
- Review of Big Rivers' asset management system or continuing property records;
- Copy of Big Rivers' current rates;
- Discussion of energy conservation initiatives the cooperative has in effect; and
- Discussion of any special operating or customer circumstances or issues that is not evident from the other data submitted that is pertinent to cost of service or rate design.

Shaw Consultants will issue follow-up data requests as needed. We will carefully review all of the data collected and if any required data is not available or not sufficiently detailed, we will work closely with Big Rivers' staff to synthesize such data based on our industry experience. All of our calculations and methodologies will be supportable using methods that are consistent with standard industry practice and in accordance with past and current practices of your regulators.

Shaw Consultants will encourage Big Rivers and its Member-Systems to send information as it becomes available, rather than as one complete package. Our team will work expeditiously to review data as it is submitted, such that we can come up to speed quickly on the nuances of Big River's operational and financial issues, current rate structure, as well as corporate vision and strategy going forward. This data immersion will provide valuable insight in preparation for a formal on-site kickoff meeting, as well as serve as an introduction to Big Rivers' business model and corporate strategy – important elements that will drive both the cost of service and rate design studies.

Task 2: Facilitate an On-site Project Kickoff Meeting and Necessary Data Collection

As soon as our commercial contract is finalized, our team will schedule and begin preparations for an on-site kickoff meeting with the Big Rivers project management team. Insight we've gained from past efforts show that this initial kickoff meeting is best done in person, as it allows our team to introduce ourselves and our expertise to our clients, and it allows our clients to have an opportunity to share issues and concerns that will need to be addressed as we move forward in rate strategy efforts.

While on-site, we will work efficiently and effectively to facilitate any additional meetings that may be necessary to support our data collection. Issues such as rate design approaches should be discussed from the beginning of the process in parallel with cost of service methodology so that our joint teams can evaluate the implications of alternative structures with Big Rivers in advance of the mechanics of rate design. Our team's knowledge of the potential implications may streamline the process and advance discussion of how alternative rate designs align with the goals of the cooperative.

Task 3: Objectives and Goals of Rate Strategy for Big Rivers and Member-Systems

This topic will be the subject of initial discussion during the on-site kickoff meeting visit in order to understand the key drivers behind the current rate structure as well as to obtain an understanding of the direction preferred by Big Rivers and its Member-Systems as this effort takes shape. We will provide general rate design guidelines and implications for conceptual discussion during the kickoff sessions and will follow this up with more detailed discussion as the project moves forward.

Setting the objectives and the balance of these objectives will be something that is likely to be revisited throughout the cost of service and rate design process. Big Rivers' Rural and Large Industrial rate classifications are currently generally served under two-part bundled demand and energy rates. Since its last base tariff increase in 1997, adjustments have been overlaid to meet revenue requirement targets.

As one its first tasks, Shaw Consultants will perform an unbundled cost of service study that results in a fair and equitable distribution of Big Rivers' revenue requirement among its Member-Systems. We will then recommend changes to Big Rivers' wholesale rate structure that will more closely align individual rate structure elements with the diversity of cost drivers. For the Member-Systems, the new rate structure will provide increased awareness of the cost of providing service, present opportunities to help mitigate those costs, and at the same time promote conservation of capital and natural resources.

The implications of some of the recommend changes are outlined below.

Potential Recommended Changes	Potential Implications
Change from non-coincident billing to billing based on demand coincident with Big Rivers' system peak	<ul style="list-style-type: none"> ■ Greater emphasis and awareness of cost versus time-of-use ■ Opportunities for member co-ops to focus on demand side management programs
New rates will provide appropriate price signals that encourage efficient utilization of generation and transmission-related capacity costs.	<ul style="list-style-type: none"> ▪ Conveyance of appropriate price signals for the conservation of capital and natural resources ■ Opportunities for member co-ops to shift load to off-peak periods to increase load factor <ul style="list-style-type: none"> ○ With respect to non-coincident peak ○ With respect to time of coincident peak ■ Rate design to encourage improvement in load factor ■ Seasonal, time-of-day and Critical peak pricing initiatives ■ Impetus to explore demand-side management initiatives ▪ Other load shifting initiatives
Incorporation of Marginal Cost Considerations	<ul style="list-style-type: none"> ■ Short- and Long-run ■ Effective in providing guidance for appropriate price signals <ul style="list-style-type: none"> ○ Summer-Winter price differentials ○ On- and Off-peak pricing
Implementation of a power factor charge	<ul style="list-style-type: none"> ▪ For member co-ops, potential upgrades to their distribution system to minimize lagging power factor and/or to encourage end-use customers to install power factor correction equipment

Big Rivers' RFP has indicated that the rate design should support and encourage efficient use of electricity and that rate stability is of interest to the Members as well. Frequently, rate design objectives can conflict with one another and our discussion will focus on balancing the requirements of all parties in order to meet the objectives of Big Rivers and its Member-Systems.

We strongly believe that an important key to success in designing rates that are supportive of Big Rivers' objectives is to have a good understanding of the cooperative's vision, customer consumption patterns, customer composition and usage characteristics, and underlying market interactions, with the goal of initially structuring the cost of service study with forethought, so as to have available sufficient detail to enable flexibility for a range of appropriate rate structures.

Task 4: Collect and Organize Data on a Shared Storage Site

Our single-source approach to document management will ensure a cohesive, consistent organization of documentation versions and updates, and application of modeling inputs throughout the studies. Our team will initiate a secure SharePoint server that will act as our document management platform, with open access to appropriate Shaw Consultant staff, as well as Big Rivers' staff. Following the initial meetings, our team will begin to populate the secure SharePoint database with available data, as well as set up an organizational structure for any further uploads anticipated from the Big Rivers team. We have found this approach quite effective, especially when numerous large documents or data files need to be exchanged. All documentation will be indexed and summarized in order to quickly locate and utilize necessary input and sources files.

1.1.2 Stage 2 – “Analysis”

The second stage will provide the first iteration of cost of service and rate design analysis through modeling efforts, including use of Shaw Consultants’ proprietary SCOST model and accompanying rate models, which includes revenue proofs for Big Rivers and typical bills for each Member-System. Modeling will include development, documentation, and discussion of input assumptions as well as fixed, known and measurable adjustments to data. Our team will utilize the information index as a way that transparently organizes modeling inputs and supporting documentation – this index will also allow our team to quickly incorporate changes in assumptions or parameters, as we’ll be able to quickly locate values for update, as well as measure the resulting implications of changes.

Tasks to be Completed	Necessary Involvement of Big Rivers and Member-Systems Teams	Shaw Consultants’ Deliverables	Anticipated Timeline
<p>Task 5: Tailor cost of service and rate design models for Big Rivers’ studies</p> <p>Task 6: Execute preliminary cost of service and rate design modeling</p>	<ul style="list-style-type: none"> ▪ Weekly progress conference calls (3) 	<ul style="list-style-type: none"> ▪ Excel-based Cost of Service and Rate Design modeling tools ▪ Summaries of resulting implications 	<p>November 1 to November 23 (3 weeks)</p>

Task 5: Tailor Cost of Service and Rate Design Models for Big Rivers’ Studies

In terms of cost of service model structure, we utilize an input data section containing raw data that feeds in to the functionalization, classification and allocation sections of the cost of service. In addition, all pro forma adjustments to the test year are separately identified such that changes can be readily made and sensitivity analysis can be run. Our straight-forward and flexible model structure will enable easy updates in future years. The cost of service model will also include any MISO-related costs and incorporate the appropriate OATT rate calculations needed to serve as the basis for incorporation in MISO’s Attachment O. Other ancillary services, including reactive power and voltage support, will be developed, allocating any MISO-related costs like membership and transmission expansion. The model will be flexible in allowing or disallowing these costs based upon future decisions by Big Rivers, in whether or not to join MISO.

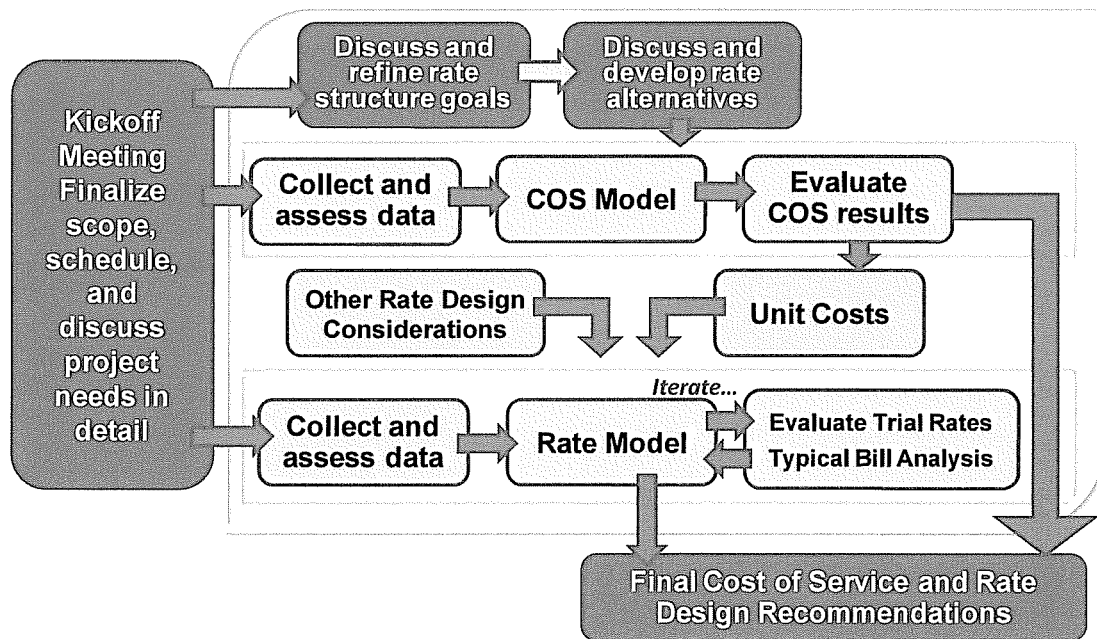
The output from the cost of service model will be incorporated into our rate design model, which integrates rate design using energy, demand, and customer data to ensure that the new rates will collect the required revenue. Adjustments to rates can be done in either the rate design or cost of service modeling tools.

Task 6: Execute Preliminary Cost of Service and Rate Design Modeling

Shaw Consultants will work with Big Rivers’ data and follow up with staff as needed to populate and modify our modeling tools in this task to produce an initial set of models for Big Rivers system. These will form the basis for discussion and review and will allow our joint teams to evaluate the changes necessary in phase two and the implications of changing from non-coincident demand to coincident demands, and allow us to have a common basis for discussion of strategy and practical concerns throughout the remainder of the process.

Our team will begin populating our analytical tools with prepared information as data becomes available, with the expectation that preliminary data will be available by November 1, 2010. These tools build from the SCOST cost of service model and allow our team, through our rate design tools, to analyze the implications of rate

design on revenue recovery and Member-Systems throughout the process. The entire process will be iterative -- as the cost of service is populated and capable of providing unit costs, which are then allocated to customers, we will populate the revenue proof and typical bill tools with preliminary data and an initial set of proposed rates as one example of a potential rate structure. All modeling tools will then be updated and re-evaluated based on finalized test-year information and adjustments. The complete iterative process is illustrated in the chart below.



Our team will provide Big Rivers with the preliminary modeling tools and a summary of the initial results and implications by November 23, 2010.

1.1.3 Stage 3 – “Evaluation”

The second phase of the effort will begin in late November where our team will present the results of our preliminary modeling efforts to the Big Rivers project management team. This will begin the evaluation stage, as our team will present a summary of the modeling results and facilitate an on-site discussion with Big Rivers relative to the implications of these results and the suggested rate design alternatives for further study.

Our integrated rate strategy tools will allow us to design and test the implications of alternative rate approaches by using the revenue proof and bill analysis to assess, (1) whether proposed rates, as crafted and applied to customer bill frequency statistics, will yield the appropriate revenue, and (2) the potential implications for Member-Systems or for customers by consumption level. Based upon our conversations with Big Rivers’ staff, our approach to rate development will incorporate the functions and flexibility that Big Rivers requires in order to craft the appropriate solutions. For each of the new rates developed, typical bills will be developed comparing current tariffs with the developed tariffs and their implications based upon usage patterns.

Tasks to be Completed	Necessary Involvement of Big Rivers and Member-Systems Teams	Shaw Consultants' Deliverables	Anticipated Timeline
<p>Task 7: Facilitate meeting with project team to review initial results</p> <p>Task 8: Refine cost of service and rate design modeling and execute alternative rate design modeling</p> <p>Task 9: Discuss implications of alternative rate designs with Big Rivers</p>	<ul style="list-style-type: none"> ▪ On site meetings ▪ Topical conference calls ▪ Review of documentation and model 	<ul style="list-style-type: none"> ▪ Summary of rate objectives ▪ Revenue implication model 	<p>November 29, 2010 to December 17, 2010 (3 weeks)</p>

Task 7: Facilitate Meeting with Project Team to Review Initial Results

In this task the Shaw Consultants team will meet with Big Rivers to review the preliminary cost of service and trial rate design. We will review the methodologies that were used, the initial implications to the Member-Systems and receive feedback from Big Rivers. During this session we expect to communicate the data sources, identify the data still required, evaluate the implications of the unit cost results and implications of a shift to CP for billing, and have extensive discussion with Big Rivers' staff as to their observations and expectations for this trial run. We expect a significant change to occur after the final test year is developed but this approach will begin to ground the team in the potential results and implications of a new cost of service study.

Task 8: Refine Cost of Service and Rate Design Modeling and Execute Alternative Rate Design Modeling

Based on our discussions with Big Rivers in Task 7, the Shaw Consultants Team will make necessary refinements to the cost of service study and to the rate design modeling tools. Our team will then develop alternative rate designs and the resulting implications for review by Big Rivers and its Member-Systems.

Task 9: Discuss Implications of Alternative Rate Designs with Big Rivers

Meeting with Big Rivers and the Member-Systems in mid to late December, prior to the Christmas holiday, will allow our joint team to review the updated results and implications of further cost of service and rate design modeling efforts, including the impacts of agreed upon alternate rate designs on Member-Systems, revenues for Big Rivers, risk mitigation potential, and other issues. Discussion at this stage will allow for cohesive understanding of the goals and objectives of Big Rivers' rate strategy, making tradeoff discussions easier to highlight and balance in applying the cost of services and rate design methodologies to finalized test-year information.

1.1.4 Stage 4 – "Iteration"

Rate strategy development requires iterative analysis and evaluation. In this stage, resulting calculations, relationships, and implications will be discussed using the quantified results obtained in the preliminary modeling. Our team envisions that both modeling efforts, Cost of Service and Rate Design, can be executed in parallel, with appropriate cross-communication of inputs, results, and implications.

Tasks to be Completed	Necessary Involvement of Big Rivers and Member-Systems Teams	Shaw Consultants' Deliverables	Anticipated Timeline
<p>Task 10: Update cost of service model</p> <p>Task 11: Update rate design model</p>	<ul style="list-style-type: none"> ▪ Provide finalized test-year data ▪ Discuss and agree to necessary adjustments ▪ Review of modeling tools ▪ Weekly progress conference calls (3) 	<ul style="list-style-type: none"> ▪ Updated cost of service model ▪ Updated rate design model ▪ Discussion of alternative rate design implications 	<p>January 3, 2011 to January 24, 2011 (3 weeks)</p>

Task 10: Update Cost of Service Model

The unit costs section of the cost of service study expresses costs in terms of \$/kW, \$/kWh, \$/customer – although these are not rates, per se, they serve as a valuable guide to designing rates. With finalized test-year data and adjustments, our team will work to update the inputs to the cost of service study, incorporating updated unit costs in the rate design model.

Task 11: Update Rate Design Model

Again, using finalized test-year information and adjustments, updated unit cost outputs of the cost of service model, and insights gained in discussions with the Big Rivers team in Task 9 relative to rate strategy and rate design goals, our team will craft updated rate designs for evaluation, comparison, and discussion. Resulting rates from multiple rate designs will be analyzed, compared, and vetted with the Big Rivers team, in preparation for finalizing a rate approach in preparation for Big River’s anticipated rate filing. The rate design modeling tools will assist the team in reviewing implications for Big Rivers and its Members and customers.

1.1.5 Stage 5 – “Presentation”

The final stage of our effort is where the entire process, documented incrementally throughout the effort, will be coordinated and presented to Big Rivers. Our team will prepare a draft report for review, which will include study assumptions, analysis, discussions, interim decision making, and reasoning supporting final study results. Upon review by Big Rivers and, if appropriate, its Member-Systems, our team will incorporate suggested changes, edits, and recommendations, and provide a final report for adoption by Big Rivers. Shaw Consultants will also provide our proprietary modeling tools to the Cooperative upon signature of our standard perpetual licensing agreement, a copy of which is included in Attachment E.

Tasks to be Completed	Necessary Involvement of Big Rivers and Member-Systems Teams	Shaw Consultants' Deliverables	Anticipated Timeline
<p>Task 12: Prepare draft report for review by Big Rivers’ project management</p> <p>Task 13: Solicit comments and discussion of draft report</p> <p>Task 14: Prepare and provide final report and modeling tools</p>	<ul style="list-style-type: none"> ▪ Review draft report ▪ Participate in facilitated meeting, via conference call, to collect comments and concerns on draft report ▪ Weekly progress conference calls (2) 	<ul style="list-style-type: none"> ▪ Draft written report in MS Word ▪ Final written report in PDF ▪ Excel-based COS and Rate Design modeling tools 	<p>February 4 to February 18 (2 weeks)</p>

Task 12: Prepare Draft Report for Review by Big Rivers' Project Management

Starting at project initiation in October, our team will be documenting the study process in anticipation for the final report. Once decision-making in the evaluation stage begins to stabilize, our team will begin assimilating a draft report of the study that will include supporting study assumptions, summarized iterative analysis, strategic discussions and resulting direction, interim decision making, and final study results, conclusions, and recommendations. The draft will include an executive summary, highlighting the paramount insights and results achieved during both the cost of service and rate design studies.

Task 13: Solicit Comments and Discussion of Draft Report

We envision a conference call, complemented by document-sharing meeting software, would be the most efficient and cost-effective method of collecting comments on the draft report from Big Rivers' project management team. Shaw Consultants will facilitate the discussion of document changes and updates, and consider each suggestion in finalizing the written report.

Task 14: Prepare and Provide Final Report and Modeling Tools

The Shaw Consultants Team will work to incorporate the comments and concerns on the draft report, such that the final written report is an actionable, defensible resource document that can support the efforts of future rate case filings. Our team will also provide Big Rivers with our proprietary modeling tools upon completion of signature of our perpetual license agreement. In completing the effort, and in preparation for Big River's anticipated rate proceeding with the KY PSC, Shaw Consultants will prepare the final cost of service that incorporates Big Rivers' proposed revenue requirement, along with the proposed rate design and supporting schedules for filing with the Commission.

1.2 Additional Options

The following four optional tasks include additional supporting functions that Shaw Consultants could offer to Big Rivers in association with this RFP. Our commercial proposal, provided in Section 5, includes cost estimates and professional rates for these options. Our team would be happy to discuss and adjust these options or additional options with the Big Rivers team.

1.2.1 Workshop

Given that it has been 13 years since Big Rivers filed its last independent comprehensive rate case with the Kentucky Public Service Commission, it may be beneficial for our team to provide a one-day workshop to re-familiarize the project management team and other interested parties in the processes, procedures, considerations, options, theoretical underpinnings, and implications that are addressed and included in rate proceedings. Our team has provided such facilitated workshops to many of our clients over the years, typically in efforts concerning cost of service and rate design, as well as strategic and resource planning. We find that not only are these workshops great introductions to the work ahead, but they are also tools to begin discussions of specific consideration to be addressed with our clients – considerations like organizational rate policy, Member-System relationships and history, and strategic goals and objectives moving forward for example.

1.2.2 Regulatory Support

As requested in the RFP, our team is providing a proposed option for regulatory support. Our team has extensive experience working with and for state utility commissions, and has provided our utility clients with regulatory support services that have improved utility/commission relationships; provided thorough filings and

supporting testimony; supported policy options; and set examples for future in-state proceedings. As an example, our work with the Vermont Electric Cooperative in re-drafting their filed request for a rate increase, was held up by the Vermont Department of Public Utilities as a model for other utilities to follow. For the first time in VEC's history the rate request was accepted as filed with no modification to the amount of the requested increase.

1.2.3 Member-System Rate Implications

As an additional option that we are prepared to offer Big Rivers as part of the proposal, we will provide a rate analysis to as many of your members as you like, which will include implications of the tariff changes proposed on their customer base. The analysis is open to all member cooperatives rates or wholesale rates. We will provide a side by side analysis of different scenarios illustrating the possible increases or decreases that may be experienced by Member-Systems' customers. The scenarios will include different monthly energy and demand consumptions, incorporating load factor scales for demand customers. The analysis will show a price and percentage differential by tariff or wholesale rate.

2 Proposed Project Team

Our proposed Shaw Consultants Team is presented in the following section in three ways – first, summary biographies are included for each of our five proposed team members; second, an organizational chart is provided, illustrating our teams reporting structure, which we envision will be the optimal organization needed to complete this effort for Big Rivers; and third, summary-level descriptions of our past efforts are presented, to demonstrate our experience in rate strategy, as well as our success in providing insights and actionable consulting services to our clients.

2.1 Team Biographies

Ms. Kathleen Kelly, *Vice President and Responsible Officer of Shaw Consultants International*, is a skilled manager with more than 30 years of leadership, policy development, cost of service, rate design, business planning, technical management, and project management experience working with and for utilities, regulatory commissions, end-use customers, suppliers, and project developers. Ms. Kelly has extensive utility strategic planning experience, including analysis of retail industry restructuring issues, developing a competitive industry market framework, business analysis and strategy, functional unbundling, market analysis, pricing, business infrastructure implementation planning, and training and education. She has provided strategy facilitation services and advised senior managers on strategic issues, strategy development, and implementation. Ms. Kelly is experienced in corporate planning, resource assessment and acquisition, forecasting, evaluation, market research, rate design and cost unbundling, utility operations and management, and Demand-Side Management planning, implementation and evaluation. Ms. Kelly has testified in several rate and regulatory proceedings.

Ms. Kelly has directed the rate case support services offered to Northern Indiana Public Service Company from 2007 through the present, Newfoundland Labrador Hydro since 2002 as needed, Vermont Electric Cooperative in 2008, and Southwestern Electric Member Cooperative since 2001. She directed the Rates and marketing Department of a major eastern IOU from 1992 through 1995 and directed the Company's regulatory strategy and relationships through 1997.

Ms. Kelly has directed cost of service, rate design and pricing projects for municipals and IOUs throughout the U.S. and Canada. She is working with the Long Island Power Authority in the development and documentation of their long-term electric resource plan. She has been active in regulatory policy, legislative development and implementation of market rules and policies. She was recently involved in managing cost of service and rate design assignment for a large Midwest utility. As part of the assignment, Ms. Kelly was a major contributor in the strategic decisions in redefining the utility's rate structure including options relating to decoupling.

During her career at Shaw Consultants International, Ms. Kelly has directed numerous strategy engagements that involved competitive positioning plans, rate structure and strategy, cost of service, restructuring of the industry, DSM planning and recovery, resource planning, energy and demand forecasting, financial unbundling, senior management discussions, business plans, and modeling efforts. Ms. Kelly has facilitated senior level and key managers as they develop strategic and tactical business/product/member plans.

Mr. Robert Greneman, *Associate Director*, is a licensed professional engineer with a broad range of industry experience in rate and regulatory matters spanning more than thirty years. He has prepared nearly 100 cost of service and rate design studies, including expert testimony for domestic and international energy companies, combination electric and gas vertically integrated North American investor owned utilities, electric cooperatives, municipal public power companies with multiple services including gas, electric, steam, water and wastewater, electric cooperatives – both distribution and generation and transmission owners, as well as Canadian crown

corporations. These clients have each required attention to a diverse variety of cost of service and rate design issues including equitable treatment for multi-state jurisdictions; allocation of shared services for companies that offer multiple services to differing customer bases; aligning costs for isolated island generation and distribution systems; developing costs and rate design for underdeveloped countries; and the development of rate structures that balance interests across the diversity of stakeholders, from low income residential consumers to rates that promote energy conservation, competitive rates for industrial customers, and rates that have decoupling features.

He developed a proprietary Excel-based SCOST model, which Shaw Consultants International utilizes and licenses to its clients for cost of service analysis. He has also developed DSM screening models and has evaluated electric and gas program measures for large Midwest utilities. Mr. Greneman has a BEE in Electrical Engineering with follow-up graduate work and has written articles and presented at several conferences related to rate design, cost of service, and industry restructuring.

Mr. Joseph Pino, *Executive Consultant*, is a management consultant with diverse experience in the electric utility industry including implementation planning for deregulation; demand-side planning, implementation and evaluation; cost of service & rate design; business process mapping; and customer information systems including billing and settlement. He joined Shaw Consultants International with over 20 years experience working for a major Northeast utility. He directed several efforts reviewing business processes to identify improvements requiring strong interviewing and data analysis skills. He has participated in and directed organization assessments focusing on IT, work order, and customer interactions. He has worked with clients to establish information systems requirements for: energy information, reporting, data management, and data issues investigation. He directed a team of professionals in developing software upgrades, standard reports, and new system interfaces to meet client needs. He led an investigation of customer information system capabilities and weaknesses during the merger of two utilities.

He created and negotiated pricing for several special contracts in competitive customer situations; set policy and pricing on non-regulated products, services and special contracts; supported a real time pricing pilot using day ahead pricing; and prepared unbundled rates after introduction of industry restructuring in Massachusetts. In a recent effort, he was involved in assisting in the cost of service, rate design and revenue proof for a large Midwest client. This effort also included reconciliation of test year information with FERC Form 1, developing bill frequency analysis, and analyzing load research data. Mr. Pino has contributed his management and information collection expertise to Northern Indiana Public Service Company (NIPSCO) Hoosier Energy Cooperative, Energie New Brunswick, and Public Service of New Hampshire projects. Mr. Pino was the project manager for both the Hoosier Energy Cooperative and the New Hampshire Electric Cooperative business process review and mapping. Mr. Pino worked in DSM program evaluation for five years at NSTAR and was the project manager of the NIPSCO Energy Efficiency Program Design effort.

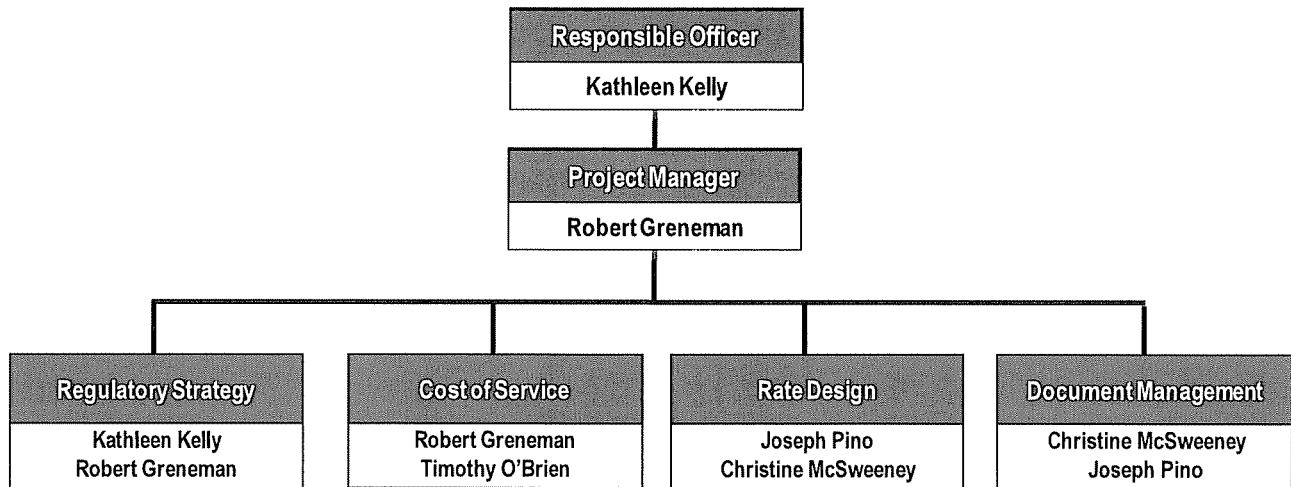
Ms. Christine McSweeney, *Consultant*, is a management consultant with experience in organizational improvement and operational efficiency enhancement efforts, market research, resource planning and forecasting documentation, and stakeholder facilitation services for electric utilities and interested parties. She has experience in the auditing of complex models and tools, including cost of service and demand side management planning models. She was a key contributor to the NIPSCO efforts, ensuring that our sources and calculations in the modeling were accurate and complete. Her work has included market research and forecasting, including developing presentations summarizing power markets in the U.S. by region, forecasting and tracking changes in regulatory and legislative initiatives and their potential impacts on the energy industry, and developing demand projections and associated research of power and process-industry-dependent products

and services. Ms. McSweeney’s organizational skills as well as her document review and document management approaches have contributed to efforts that involved multiple participants, contributors, and stakeholders. Ms. McSweeney has experience in electricity procurement, power supply contracting, and resource cost-evaluation for various clients, including utilities and aggregated municipal electric customers. Ms. McSweeney has contributed substantially to the resource plan development and documentation for a large electric utility in the northeastern U.S. Ms. McSweeney holds a BS in Mechanical Engineering from Villanova University.

Mr. Timothy O’Brien, *Senior Consultant*, is a management consultant who specializes in energy price forecasting, utilizing Prosym, the energy market simulation software licensed by Shaw Consultants International, formally Stone & Webster Management Consultants. He has completed more than twenty separate analyses in support of resource planning efforts, appraisal efforts, operational review efforts, investor reporting, and acquisition support. He also has a significant amount of experience in the areas of project controls, earned while working on the EPC side of Stone & Webster, including cost tracking, monitoring earned value, change orders, reporting, and budget forecasts, with a special focus on running ShawTrac, The Shaw Group’s proprietary earned progress software. Before joining Shaw Consultants International, Mr. O’Brien worked in the financial services industry, where he focused on sales and new business development. Mr. O’Brien is a valuable member of the team providing modeling services for review of existing modeling results to provide enhancements and critical analysis of the information.

2.2 Project Organization

Our team is proposing to follow the following team structure and reporting relationships in this effort with Big Rivers. Our responsible Officer, Kathleen Kelly, will be supported by Project Manager, Robert Greneman, as well as supporting functional area specialists. Additionally, our team will be supported, as necessary, by the extensive group of consultants and technical experts within Shaw Consultants International, as well as within the Shaw Group.



Below are descriptions of the project responsibilities that these roles entail.

Responsible Officer - Typically, the individual(s) we assign as our Responsible Officer(s) are authorized to act on behalf of Shaw Consultants International, Inc. and are empowered to make decisions regarding both contractual and project matters. He or she is typically directly responsible for inter-company communications, accountable

for ensuring the successful conclusion of the work on a timely and cost-effective basis, and assures satisfaction regarding the scope of work and overall product quality. This includes a professional quality report in full compliance with generally accepted standards and your requirements or guidelines. To do so, they are directly involved in all client presentations, executive interviews, and production of any draft and final reports. They are also heavily involved in leading specific activity areas including, but not limited to project planning, requirements definition, developing and conducting various sessions, reviewing and analyzing records, leading the preparation of draft and final recommendations and reports, and preparing and making any presentations.

Project Manager - Individuals assigned to this responsible position are more directly involved in the detailed planning of work. This includes overall project planning and task development as well as staff assignments to appropriate tasks. This role is also typically the lead in coordinating interviews, data requests, progress status briefings and reports. Ultimately the Project Manager is responsible for closing functions such as draft and final reports and final presentation preparation and delivery.

Lead and Functional Area Specialists - These consultants bring planning, engineering, construction, maintenance and operational experience to the team. They possess significant experience with similar assignments or related assessment work in specific functional areas. Regardless of consulting category, each of these individuals has strong analytical skills.

2.3 Firm Qualifications

Our team is capable and qualified to advise and support Big Rivers in this strategic effort:

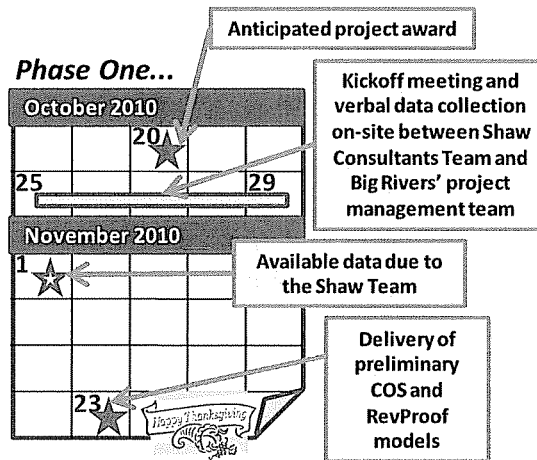
- Our proposed professional staff each has more than 25 years of hands-on experience with Cost of Service, Pricing and Rate Design, and Utility Management. This allows us to provide you with an effective and competitive project cost;
- We are experts in developing, obtaining, synthesizing, and estimating data that may be missing or incomplete based on our extensive industry experience;
- We have practical in-depth experience in all the supporting analysis and investigation that this project is likely to require based on our previous efforts with utilities, including:
 - DSM
 - Load Research
 - Distribution System Analysis
 - Power Factor Rates
 - O&M Adjustment Clauses
 - Weather Normalization
 - Revenue Requirement and Pro Forma Adjustments
 - Decoupling
 - Thermal Storage Rates
 - Interruptible Rates
 - Power Cost Analysis
- Our cost of service study produces fully-unbundled costs for all identified functions, a feature that will enhance flexibility and supportability in the rate design phase of this project;
- Our broad range of industry experience will allow us to explore alternate approaches with you on a variety of issues that may arise; and
- Our team members are readily available and we regularly utilize on-line meeting tools to facilitate communication.

3 Proposed Project Schedule and Timeline

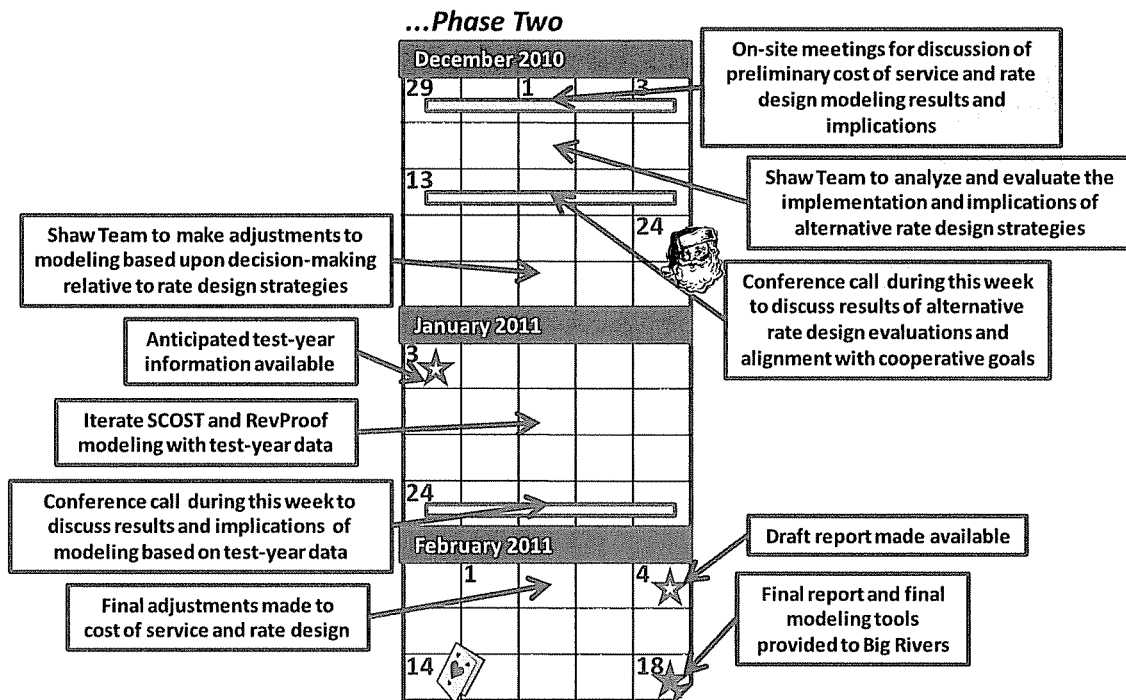
Our proposed project timeline is structured to meet Big Rivers' requested schedule, provided in the RFP, as well as to allow sufficient time to prepare for the anticipated rate case filing.

Proposed deliverables and a schedule of those deliverables are addressed in the proposed scope of work – exhibits illustrating the scheduled execution of Phases one and two are provided again here for completeness.

Proposed Project Schedule – Phase One



Proposed Project Schedule – Phase Two



A more detailed schedule is provided below.

Project Schedule by Weeks		Week Ending																					
		10/18	10/25	11/1	11/8	11/15	11/22	11/29	12/6	12/13	12/20	12/27	1/3	1/10	1/17	1/24	1/31	2/7	2/14	2/21	2/28		
Work Plan Tasks																							
Phase 1																							
Task 1	Submit a detailed data request	★																					
Task 2	Facilitate an on-site project kickoff meeting and necessary data collection		★																				
Task 3	Objectives and goals of rate strategy for Big Rivers and Member-Systems																						
Task 4	Collect and organize data on a shared storage site																						
Task 5	Tailor cost of service and rate design models for Big Rivers' studies				★																		
Task 6	Execute preliminary cost of service and rate design modeling						★																
Phase 2																							
Updated COS, Rate Design & Revenue Proof, Draft Report, and Final Reports																							
Task 7	Facilitate meeting with project team to review preliminary results							★															
Task 8	Execute alternative rate design modeling, summarizing resulting implications																						
Task 9	Discuss implications of alternative rate designs with Big Rivers																						
Task 10	Update cost of service model																						
Task 11	Update rate design model																						
Task 12	Prepare draft report for review by Big Rivers' project management																						
Task 13	Solicit comments and discussion of draft report																						
Task 14	Prepare and provide final report and modeling tools																						
Project Management																							
Rate Case filed with KPSC																							
Optional Additional Tasks Outside the Original Scope of Work																							
Workshop - one day workshop to provide Big Rivers' Staff a review of processes, considerations, options, and implications that are addressed and included in rate proceedings.																							
Regulatory Support - regulatory support services that have improved utility/commission relationships; provided thorough filings and supporting testimony; supported policy options; and set examples for future in-state proceedings																							
Member Rate Implications - provide a review of the implications for its' members of rate changes that Big Rivers implements																							

★ Indicates key deliverable, Conference call, monthly updates or meeting dates
 Additional changes if required until filing

4 References

Our previous work with clients is presented in this section with the objective of (1) providing your proposal evaluation team with the necessary references requested in the RFP, and (2) demonstrating our abilities through past examples and efforts.

4.1 Client References

Provided in the table below are client references that can attest to our work products, professionalism, and value-added services and insights.

Client	Contact	Project Description
Newfoundland Labrador Hydro St. John's, Newfoundland	Angela Dunphy Team Lead, Rates & Regulatory 709.737.1738	Energy efficiency program and policy advisory services; Cost of service review and rate design; Expert testimony
Vermont Electric Cooperative Johnson, Vermont	David Hallquist CEO 42 Wescom Road Johnson, VT 05656 802.730.1138	Management and business process review; Organizational design review and restructuring; Recommendations designed to improve capital investment and cooperative direction
Southwestern Louisiana Electric Membership Corp Louisiana	J.U. Gajan, CEO, 337-896-2527;	Cost of service and rate design analysis
Consolidated Edison Company of New York New York, New York	Maureen Nihill, Manager of Cost Service 212.460.4622	Cost of service and rate design analysis
Northern Indiana Public Service Company Merrillville, Indiana	Frank Shambo VP, Regulatory Affairs 801 E. 86 th Ave. Merrillville, IN 46410 317.684.4905	Rate Strategy, policy support services, engineering application for identification of FERC services, energy efficiency policy, and other services; Cost of services study for 2008 rate case filing with IRUC

4.2 Experience with Cooperatives & Rate Strategy Expertise

Provided in the remainder of this section are project summaries that will work to highlight the diversity of our experience, as well as the value-added insights and work products that have allowed our clients to make decisions, provide support for those decisions, and plan for the future of their organizations through strategic goals

Newfoundland & Labrador Hydro

Shaw Consultants International, Inc. provides overall rate policy, rate design, cost of service, and accounting treatment advisory services to this client. We have recommended the appropriate policy for utility customer wholesale rate design, recommending changes to the existing demand and energy rate structure. We tied the rate structure to the anticipated expansion requirements of the utility in order to send appropriate pricing signals that, in the longer term, would encourage efficient investment in new infrastructure. In addition, we completed an update to load research information for cost of service use and a loss study review and update. We are providing ongoing policy advice, including testimony and strategy for new rate design and efficiency opportunities.

Vermont Electric Cooperative (VEC)

At the completion of a business process review for VEC, executed by Shaw Consultants, VEC was expected to file a rate case to recover investments recommended for capital improvement. VEC filed its rate case in November 2008 and prior to filing Shaw Consultants provided a critique of its case. This critical review identified numerous areas that were deficient – areas in which VEC had been criticized publicly by the DPS for, in prior cases. Our team then worked with the senior management team of VEC to update its planned filing, including all testimony and exhibits, to provide a better basis for its rate relief request so that regulators would find their review more efficient. The DPS has since indicated that the filing was a good model for other utilities, and for the first time in VEC’s history, the rate relief requested was approved, as filed, with no modifications to the increase requested.

*“... VEC now enjoys **improved operations**, and an **improved regulatory relationship** and for the first time in its history has submitted a rate increase request that was **uncontested by our regulators**.”*

Mr. David Hallquist • CEO • Vermont Electric Cooperative

Southwest Louisiana Electric Membership Corporation

Shaw Consultants prepared an unbundled cost of service study and associated unbundled rates for filing before the Louisiana Public Service Commission for SLEMCO. We provided filing strategy advice and support for the case. We developed and supported testimony and exhibits to unbundle costs and rates into power supply and distribution components. Our team also developed a power adjustment clause mechanism, which the Commission recommended as a model for use by all cooperatives within Louisiana.

In a follow-on effort, Shaw Consultants International, Inc. prepared electric industry restructuring white papers and regulatory support documents for submission before the Commission in its investigation of industry restructuring. We worked with the client to evaluate the business impact on the cooperative in anticipation of adoption of the various restructuring policies proposed in the state.

ConEdison - Cost of Service Model Development, Fully-Unbundled Electric, Gas & Steam Model

Shaw Consultants International worked with the staff of ConEdison to develop fully unbundled, detailed cost of service models to support ratemaking for its gas, electric, and steam services and has advised as to the use of various costing methodologies. ConEdison operates in a restructured environment and uses our proprietary

model for all of their electric, gas, and steam filings and we have recently worked with their staff to license the cost of service model to its intervenors' for review as part of rate case applications.

Northern Indiana Public Service Company

Shaw Consultants International worked with a diverse team of Northern Indiana Public Service Company (NIPSCO) senior managers and staff to plan for and develop a rate case filing that was submitted to their regulators in August of 2008. This filing was the first major rate case filing for NIPSCO since the mid-1980's and incorporated a new customer segmentation strategy including a remapping of customers to new rates, an updated and unbundled cost of service study relying on new load research information, shifts in rate design from declining block energy rates to flat energy rates with customer charges that more accurately reflect full cost. Shaw Consultants worked with NIPSCO to assess the implications of new rate strategies, interact with stakeholders, and develop case strategy. Our team developed white papers for presentation to management, participated in weekly working and bimonthly management progress meetings over a year during development, managed information flow and action plans, and contributed to the formulation of policy and strategy with respect to the case. One member of our team was the lead witness supporting the cost of service study and rate design.

Iowa Association of Electric Cooperatives

Shaw Consultants International, Inc. assisted the cooperative association and its member task force by developing their understanding of restructuring issues and their impact on the cooperative's position in the industry. Educating the task force required developing a working document outlining the major issues, stakeholder opinions on the issues, and relevant impact on the operation of and financial condition of cooperatives as compared to other types of utilities. All work with the project team was accomplished using an interactive, facilitating role to assess the appropriate route for cooperatives.

The second phase of the engagement involved assisting a smaller team of cooperative representative with their development of negotiating strategy and legislative language designed to formulate restructuring legislation in the state. Our staff negotiated on behalf of the client with the other parties as needed. The last phase of the effort required the design, development and implementation of a restructuring education program for the member cooperative's directors, managers and employees with the objective of providing each of them the appropriate tools to prepare for a competitive market. This phase required the development of training materials including a copyrighted workbook, articles, identification of relevant resources (website, literature, and commission decisions), and the preparation of seminar tools (power point presentation materials, and case studies for interactive learning). Our staff was heavily involved in the training for the cooperatives. Over 400 attendees participated in each of the six topical training sessions; which were held twice to facilitate attendance since each required up to three days of training.

*"On behalf of the Iowa Association of Electric Cooperatives, I recommend the Shaw Consultants International Team as **an excellent resource and advisor** with respect to their technical energy knowledge, project management skills, educational services, and technical facilitation skills. The Iowa Association of Electric Cooperatives represents more than **forty generation and transmission and distribution cooperatives** and as such we regularly provide centralized access to strategic tactical, and technical consulting services."*

Mr. Brian Kading
Executive VP and General Manager
Iowa Association of Electric Cooperatives

Hoosier Energy Cooperative

Shaw Consultants International, Inc. conducted a management evaluation including both business process reviews and a condition assessment of the largest generation asset owned by Hoosier energy. This process involved a series of interviews with senior executives, senior manager and staff throughout the company, relevant document and information reviews, report reviews, several process review teams composed of Company staff and our team members, and an extensive analysis of trends to provide recommendations for changes and improvements to the organization, staffing, planning, business processes, and system applications.

“...all of our collective hard work five years ago is paying off in a big way...cultural change is the hardest, in my opinion, but we have turned the corner...no doubt about it. ...Don’t ever change your philosophy/approach, which is to tell the client what they need to hear v. what they want to hear. That is what distinguishes Shaw from other consultants. Fortunate for us, we listened and acted.”

Donna Snyder
Chief Financial Officer
Hoosier Energy Rural Electric Cooperative

Additional examples and demonstration of our qualifications in working with cooperatives is included in Attachment F.

4.3 Technical Experience in Cost of Service Studies & Rate Design

Our firm, including the individuals assigned to this effort with Big Rivers, have completed the following assignments with Cooperatives, Municipalities, and Investor-Owned Utilities in the U.S., Canada, and the Caribbean.

Shaw Consultants International	
Client	Project Description
Alpena Power Company	Cost of Service, Rate Design
Barbados Light & Power Company, Ltd.	Embedded & Marginal Cost of Service, Rate Design
Blackstone Valley Electric Company	Marginal Cost
Brockton Edison Company	Marginal Cost
Central Illinois Light Company	Cost of Service, Marginal Cost, Rate Design
China Light & Power Co., Ltd. (Hong Kong)	Review of Cost of Service & Tariff Structure
Citizens Utilities Company (VT, AZ)	Electric Cost of Service, Rate Design
Colorado Electric (West Plains Energy)	Marginal Cost
Commonwealth Edison Company	Fully-allocated and Functionally Unbundled Cost of Service Studies
Consolidated Edison Company of NY	Cost of Service Modeling, Specific Cost and Rate Issues
Consumers Energy Corp.	Electric Resource Plan with DSM Screening
Dayton Power & Light Company	Cost of Service
Delmarva Power & Light Company	Electric Cost of Service
Edison Sault Electric Company	Cost of Service, Rate Design, expert testimony
El Paso Electric Company	Marginal Cost
Fall River Electric Light Company	Marginal Cost

Shaw Consultants International	
Client	Project Description
Federal Energy Administration	Marginal Cost Pricing
Florida Public Utilities Corporation	Cost of Service (Electric, Gas)
Green Mountain Power Company	Cost of Service
Guyana Electricity Corporation	Marginal Cost, Rate Design
Halifax Regional Municipality	Nova Scotia Power Rate Case Intervention
Holyoke MA (Department of Gas & Electric)	Cost of Service
Iowa Association of Electric Cooperatives	Treatment of DSM and RPS and Legislative Policy
Jersey Central Power & Light	Regulatory Support
Lake Superior District Power Company	Cost of Service
Logansport Municipal Utilities Dept. (IN)	Regulatory Support
Louisville Gas and Electric Company	Electric Cost of Service
Merrimac Municipal Light Dept. (MA)	Regulatory Support
Metropolitan Edison Company (PA)	Regulatory Support
Midland Electric Power Cooperative (IA)	Support for Cogeneration Standby Rate
Montana-Dakota Utilities Company	Marginal Cost
Montaup Electric Company (MA)	FERC
New Jersey Board of Public Utilities	Rate Initiatives to Lower Summer Peak Demand
Newfoundland & Labrador Hydro	Cost of Service, Rate Design, Rate Case Support, Expert Testimony
Newport Electric Corporation	Cost of Service
Northern Indiana Public Service Company	Full Rate Case and DSM Case, including Expert Testimony
Roseville Electric (Roseville CA)	Fully-unbundled & Marginal Cost of Service
Southern Indiana Gas & Electric Co.	Electric/Gas Cost of Service, Rate Design
Southwest Louisiana Electric Membership	Fully-unbundled Cost of Service, Rate Design, Expert Testimony
Tampa Electric Company	Cost of Service
U.S. Dept. of Energy/PSE&G	District Heating Rates
Vermont Electric Cooperative	Rate Case Support
Vermont Public Service Board	Cost of Service & Rate Advisory
Wallingford Electric Department (CT)	Regulatory Support
Winnipeg Hydro	Cost of Service Review

4.4 Expert Witness Services Expertise

Shaw Consultants International, Inc. has provided expert testimony before regulatory commissions on subjects including revenue requirements, cost of service, rate design, restructuring matters, sales forecasting, resource planning, and DSM planning. Examples of these U.S. and Canadian jurisdictions include:

- Board of Commissioners of Public Utilities, Newfoundland & Labrador
- Delaware Public Service Commission
- Federal Energy Regulatory Commission
- Indiana Utility Regulatory Commission
- Iowa Utilities Board
- Kentucky Public Service Commission
- Louisiana Public Service Commission
- Massachusetts Department of Public Utilities
- Michigan Public Service Commission
- Montana Public Service Commission
- New Jersey Board of Public Utilities



Specific individual experience is provided in the table below.

Kathleen Kelly – Vice President

- Ms. Kelly directed and participated in efforts with Newfoundland Labrador Hydro to develop a revised cost of service and redesigned its retail and wholesale rates for its 2003 rate case. Ms. Kelly evaluated the potential for supporting regulatory capitalization of startup costs for a Canadian utility.
- Ms. Kelly participated in the application of the FERC Seven Factor Test to distribution and transmission assets for a major Midwestern utility and advised the client on strategic issues relative to application.
- She directed rate case analysis and preparation for numerous utilities including NIPSCO, Terasen (formerly Centra Gas British Columbia) a division of Kinder Morgan, Newfoundland Labrador Hydro, Boston Edison, Centra Gas Manitoba, SLEMCO, Fayetteville Public Works, and others.

Robert Greneman – Associate Director

Expert Testimony

Delaware Public Service Commission	Docket No. 829 (Cost of Service)
Federal Energy Regulatory Commission	Docket No. ER-81-557-000 (Cost of Service)
Indiana Utility Regulatory Commission	Cause No. 35780-S4 (PURPA Compliance)
Indiana Utility Regulatory Commission	Cause No. 39593 (Gas Cost of Service)
Indiana Utility Regulatory Commission	Cause No. 39671 (Electric Cost of Service)
Indiana Utility Regulatory Commission	Cause No. 40283 (Gas Cost of Service)
Indiana Utility Regulatory Commission	Cause No. 41746 (Electric Cost of Service)
Indiana Utility Regulatory Commission	Cause No. 42150 (Environmental Tracker Support)
Indiana Utility Regulatory Commission	Cause Nos. 42151 & 42658 (Purchased Power & Transmission)

Robert Greneman – Associate Director

Indiana Utility Regulatory Commission	Tracker) Cause No. 43526 (Cost of Service, Rate Design, FERC Seven Factor Test)
Iowa Utilities Board	Docket No. FCU-99-3 (C-99-76) (Standby Rates)
Kentucky Public Service Commission	Case No. 90-342 (Cost of Service)
Louisiana Public Service Commission	Docket No. U-17735 (Rate Design, Cost of Service)
Michigan Public Service Commission	Case Nos. U-6354 & U-6434 (Cost of Service)
Montana Department of Public Utilities	Docket No. 95.6.____ (Marginal Cost)
Newfoundland & Labrador Public Utilities Board	Newfoundland & Labrador Hydro 2003 & 2006 GRA (Rates & Cost of Service)
Nova Scotia Utility and Review Board	NSUARB-P-882, P-884 and P-886 (Cost of Service, Rate Design and DSM cost recovery on behalf of Halifax Regional Municipality)

5 Proposed Compensation

Our proposed budget is divided into three section – phase one, phase two, and additional options. Phase one will include the proposed kickoff meeting, collection and analysis of data, and the preliminary cost of service, rate design, and revenue proof. Shaw Consultants will perform Phase one for a fixed cost of \$35,000, plus expenses.

Phase two begins with a review of the results from Phase one, as well as a discussion of alternative rate design approach, updates to inputs with finalized data and test year information, multiple modeling runs of SCOST, REVPROOF, and TYPBILL (our three modeling tools), additional meetings to discuss results, final modeling runs after adjustments from discussions, and draft and final reports. Our proposal includes an estimated number of the hours that Phase two might require, based upon our understanding of the services needed for this engagement. Once we have finalized all the tasks with Big Rivers, our hours for Phase two will be adjusted accordingly.

Proposed Compensation

Phase One		
Tasks 1-6	\$35,000 – Fixed fee	
Phase Two		
Tasks	Estimated Hours	Estimated Fees
Task 7: Facilitate meeting with project team to review initial results	24	\$6,480
Task 8: Refine cost of service and rate design modeling and execute alternative rate design modeling	80	\$18,280
Task 9: Discuss implications of alternative rate designs with Big	32	\$7,680
Task 10: Update cost of service model	80	\$18,280
Task 11: Update rate design model	80	\$18,280
Task 12: Prepare draft report for review by Big Rivers’ project management	40	\$8,880
Task 13: Solicit comments and discussion of draft report	16	\$3,920
Task 14: Prepare and provide final report and modeling tools	24	\$5,120
Project Management	40	\$9,400
Subtotal, Phase 2	392	\$96,320

We have proposed several additional options outside of the original scope requested by Big Rivers, including training, regulatory support, and analysis of the implications rate changes would have on the customers of your Member-Systems. If Big Rivers is interested in any of these additional options, we will negotiate pricing separately from our proposal, at the same rates as are proposed for Phase two.

Our rates for this engagement have been discounted and do not include expenses, which we’ve estimated at \$15,000. Expenses will be billed at actual costs.

We are very interested in working on this effort and to this end our estimate reflects a discount to our standard hourly rates. We will invoice you monthly for the actual hours worked on this project by each consultant. We

are an efficient firm with well-qualified staff that can complete the work effort efficiently and effectively. We commit to initiating this assignment as soon as authorization is given by Big Rivers.

Our standard pricing policy is included in Attachment A, with our standard terms and conditions provided in Attachment B.

5.1 Disclosure of Potential Conflicts

Shaw Consultants was retained by Alcan Primary Products Corporation and Century Aluminum of Kentucky, LLC in the assessment of the plants' condition and projected O&M and capex in support of their entering into long term power purchase agreements with Big Rivers.

Attachment A

Shaw Consultants International, Inc. – Standard Pricing Policy

Shaw Consultants International, Inc. (“Shaw Consultants”) has a long-standing policy to provide each client an estimated price before the commencement of a consulting assignment, with an explanation of the associated scope of work and considerations used to prepare the estimate.

Contracts - Our work is performed on a time-and-materials basis, in accordance with the estimate set forth by agreement with the client. Shaw Consultants bills its consulting services according to standard hourly rates for assigned personnel, as set forth below. When work is performed at Shaw Consultants’ offices, billing will be based upon the actual hours worked calculated to the nearest quarter hour. When work is performed at the client’s site, a minimum of 8 hours is billed each day. On Hourly/Per Diem contracts, Shaw Consultants will use its best effort to complete the work within the specified estimate, but is under no obligation to expend a greater level of effort than can be covered by committed funds.

Where the service is to be performed away from assigned personnel’s home office, travel time is included in the services contract, which is distinct from travel and living costs. Billing for travel time will be based on the actual travel time incurred, up to a maximum of 8 hours in any 24 hour period.

Expert Testimony – A premium will be added to our standard hourly rates for preparation and delivery of expert testimony for litigation support.

Taxes – Our standard hourly rates include U.S. Federal and local income taxes, if applicable. Additional taxes due by Shaw Consultants, or withheld from Shaw Consultants’ payment, will be billed as an expense.

Travel and Living Costs - While away from individual consultants’ home offices, travel and living costs will be billed as incurred. These include, for example, transportation, hotel, and subsistence. Any other travel and living costs incurred or expenditures made on behalf of the client will be charged at cost. Air travel will be booked on a refundable basis. International air travel will be booked in business class or equivalent service.

Expenses – Standard communication, reproduction, and computer charges are billed to the client at our standard charge of \$5.50 per hour worked on the job. Any extra ordinary, other charges incurred, or expenditures made on behalf of the client will be charged at cost.

Modeling Costs – A fee of \$5,000.00 will be charged to each engagement requiring the use of wholesale electric market modeling software. This fee does not provide the client the right to the software utilized.

Reporting and Billing – As agreed with the client, Shaw Consultants will submit periodic written or oral reports to keep the client fully informed on the progress of the work.

Shaw Consultants will bill monthly for assignments that last two months or more. Payment is due 30 days after the date of the invoice.

Attachment B
Shaw Consultants International, Inc. – Standard Terms & Conditions

- 1. Scope** – Shaw Consultants International, Inc. (“Consultant”) will perform the services described in the letter agreement or proposal (“Services”) of which these Terms and Conditions (“Terms”) are a part, and together make up the “Agreement” between the Company(s) (“Company”) executing the letter agreement or proposal. The Services will be performed in accordance with the Terms set out below. In the case of conflict between any provision of the letter agreement or proposal and the Terms, the Terms shall prevail.
- 2. Fees and Expenses** – Services shall be billed at the rates in effect at the time Services are performed, unless agreed otherwise in writing by the parties. Expenses incurred, including but not limited to, printing, reproduction, telephone, and computer services will be billed at Consultant’s standard charges. Expenses of consultants while on assignment, or any other charge incurred or expenditure made on Company’s, behalf will be billed at Consultant’s cost.
- 3. Payment and Interest** – Consultant will submit monthly invoices for Services performed and expenses incurred unless otherwise agreed in writing by the parties. Payment shall be due thirty (30) days after the invoice date. All amounts and payments required hereunder shall be payable in U.S. Dollars, to the address provided in the invoice. Amounts past due shall bear interest at the lesser of the rate of one percent (1%) per month or the highest interest rate permitted by law for each day or portion thereof that such amount remains past due. Subsequent payments shall be applied first against accrued interest then against other amounts due.
- 4. Taxes** – Except for United States income or profits taxes imposed on Consultant, all payments due to Consultant hereunder shall be made free and clear of any present and future taxes, levies, imposts, deductions, charges, or withholdings of any nature whatsoever imposed, levied, collected, withheld or assessed by any governmental entity or authority (“Tax”). In the event any Tax is imposed on Consultant by the country in which Services are performed, the Tax shall be treated as an expense and Company shall reimburse Consultant for the amount of the Tax so as to ensure that after payment of the Tax, the amount remitted to Consultant is the full amount due hereunder.
- 5. Insurance** – Consultant will maintain comprehensive general and automobile liability insurance with a combined bodily injury and property damage limit of \$500,000 and worker’s compensation insurance as required by law.
- 6. Independent Contractor** – It is understood and agreed that Consultant shall for all purposes be an independent contractor, shall not hold itself out as representing or acting in any manner for Company, and shall have no authority to bind Company to any contracts or in any other manner.
- 7. Termination** – This Agreement may be terminated by either party at any time with no less than ten (10) days prior written notice. Upon any termination hereunder, Company shall pay the full amount due for Services rendered and expenses incurred and not paid through the date of termination, and the costs of returning Consultant personnel to home base and other reasonable costs and expenses incurred in effecting termination (including cancellation charges) and returning documents. In addition to all other available remedies, in the event any amount due hereunder is past due for more than thirty (30) days, Consultant may, at its option, stop work hereunder or terminate this Agreement and treat such termination as a cancellation by Company.
- 8. Warranty** – Consultant agrees that the Services provided for herein will be performed in accordance with recognized professional consulting standards for the same or similar services existing as of the date the Services are performed (“Warranty”). If within one (1) year of completion of Services (“Warranty Period”), Company provides prompt written notice to Consultant that the Services or any portion thereof fail to conform to the Warranty, Consultant agrees to re-perform the faulty or non-conforming Services to the extent necessary

to correct the failure or nonconformance, at no cost to Company, up to a maximum amount equivalent to the amount of fees received for the faulty or nonconforming Services. Consultant specifically disclaims any guarantee or warranty that is not specifically provided herein and does not in any way underwrite the economic viability or technical performance of any asset, project or business entity which is related to the Services.

9. LIMITATION OF LIABILITY – NOTWITHSTANDING ANY OTHER PROVISION TO THE CONTRARY IN THIS AGREEMENT, CONSULTANT’S TOTAL AGGREGATE LIABILITY FOR DAMAGES UNDER THIS AGREEMENT SHALL BE LIMITED TO ONE HUNDRED PERCENT (100%) OF THE AMOUNT OF FEES RECEIVED FOR SERVICES BY CONSULTANT UNDER THIS AGREEMENT.

10. CONSEQUENTIAL DAMAGES – IN NO EVENT SHALL CONSULTANT, ITS PARENT CORPORATION, OR THEIR AFFILIATES, AGENTS, OR EMPLOYEES BE LIABLE FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, EXEMPLARY OR PUNITIVE LOSS OR DAMAGE, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, BUSINESS INTERRUPTION LOSSES, OR CUSTOMER CLAIMS, WHETHER ARISING UNDER CONTRACT, WARRANTY, EXPRESS OR IMPLIED, TORT, INCLUDING NEGLIGENCE, OR STRICT LIABILITY, ARISING AT ANY TIME FROM ANY CAUSE WHATSOEVER IN CONNECTION WITH THIS AGREEMENT OR PERFORMANCE HEREUNDER, EVEN IF CAUSED BY THE SOLE OR CONCURRENT OR ACTIVE OR PASSIVE NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL FAULT OF CONSULTANT.

11. INDEMNIFICATION – EXCEPT FOR THE LIABILITIES ASSUMED HEREIN, COMPANY DOES RELEASE, INDEMNIFY, AND HOLD HARMLESS CONSULTANT, ITS PARENT CORPORATION AND THEIR AFFILIATES, AGENTS, AND EMPLOYEES FROM AND AGAINST ANY AND ALL LIABILITIES, CLAIMS, LOSSES, DAMAGES, COSTS, FEES AND EXPENSES, AS WELL AS COSTS OF DEFENSE, SETTLEMENT, AND REASONABLE ATTORNEY’S FEES, ARISING AT ANY TIME IN CONNECTION WITH i) CLAIMS BY COMPANY THAT EXCEED THE LIMITATION OF LIABILITY SET OUT IN SECTION 9 ABOVE, AND ii) ANY CLAIMS BY THIRD PARTIES ARISING IN CONNECTION WITH ANY WORK PRODUCT OR SERVICES PROVIDED HEREUNDER, EVEN IF CAUSED BY THE SOLE OR CONCURRENT OR ACTIVE OR PASSIVE NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL FAULT OF CONSULTANT. THIS PARAGRAPH SHALL SURVIVE EXPIRATION OR TERMINATION OF THIS AGREEMENT.

12. Confidential Information – Neither party shall disclose to any third party any Confidential Information as defined herein. “Confidential Information” shall include, but is not limited to, any information that is provided hereunder by one party (“Disclosing Party”) to the other party (“Receiving Party”) and which relates to a Disclosing Party’s research, development, trade secrets, proprietary products, or business affairs, or Consultant’s work product or reports issued hereunder, but does not include information that (i) is publicly known or becomes publicly known through no fault of the Receiving Party; (ii) was already known by the Receiving Party at the time of disclosure without obligation of confidentiality; (iii) is lawfully received from a third party who has a right to make such disclosure; or (iv) is disclosed under legal compulsion. In the event a Receiving Party is required by any court, legislative or administrative body to disclose any Confidential Information, the Receiving Party shall provide Disclosing Party with prompt notice of such requirement. If the Disclosing Party is unable to obtain or does not seek a protective order and the Receiving Party is, in the opinion of its counsel, compelled to disclose such Confidential Information, such disclosure shall not be deemed to be a violation of this Agreement. The obligations of confidentiality set out herein shall be in effect for a period of two (2) years from the date of disclosure which shall survive any termination of this Agreement.

13. Information from Company – Company agrees that Consultant may rely upon the completeness and accuracy of all information supplied by Company. If deficiencies are found by Consultant to be the result of using data supplied by Company, Consultant agrees to re-perform its Services to correct such deficiency at its then-prevailing unit rates. Consultant’s review of any information prepared by Company or others, shall in no way

serve to transfer to Consultant responsibility or liability for the accuracy, correctness, or timeliness of such information.

14. Work Product – Consultant’s Services and any work product provided to Company hereunder are provided for the sole purpose and use described in the letter agreement or proposal. Company may share, for the sole purposes set out in this Agreement, the work product with its agents, representatives and others who have signed a confidentiality agreement with Company with obligations of confidentiality substantially similar to those set out herein. Consultant’s use of its proprietary methodologies, procedures or proprietary information hereunder shall not give Company or any other party any rights with respect to such methodologies, procedures, or proprietary information except as otherwise specifically provided herein.

15. Disclaimer Notice – The following disclaimer notice shall be affixed to any report or other document furnished by Consultant hereunder and Company agrees to not delete or otherwise remove such notice:

DISCLAIMER NOTICE

This document was prepared by Shaw Consultants International, Inc. (“Consultant”) for the benefit of _____ (“Company”). With regard to any use or reliance on this document by any party other than Company and those parties intended by Company to use this document (“Additional Parties”), Consultant, its parent, and affiliates: (a) make no warranty, expressed or implied, with respect to the use of any information or methodology disclosed in this document; and (b) specifically disclaims any liability with respect to any reliance on or use of any information or methodology disclosed in this document.

Any recipient of this document, other than Company and the Additional Parties, by their acceptance or use of this document, releases Consultant, its parent, and affiliates from any liability for direct, indirect, consequential, or special loss or damage whether arising in contract, warranty, express or implied, tort or otherwise, and irrespective of fault, negligence, and strict liability of Consultant.

16. Force Majeure – Consultant shall not be deemed in default of any provision hereof or be liable for any delay, failure in performance, or interruption of Service resulting directly or indirectly from a force majeure event, including but not limited to acts of God, civil or military authority, civil disturbance, war, terrorist attacks, strikes or other labor disputes, fires, other catastrophes, or other force, event or condition beyond its reasonable control, whether or not such event may be deemed foreseeable, and Consultant’s time for performance hereunder shall be extended for a period of time reasonably necessary to overcome the effect of such delay. Consultant shall be reimbursed for any additional costs caused by or resulting from any such delays.

17. Export Regulations – The parties recognize that Consultant is subject to the Export Regulation of the United States of America regarding export of certain technical data from the United States. Company shall comply with, and obtain, all authorizations required by U.S. export control laws and all related regulations and shall not export, either directly or indirectly, any information or data received from Consultant hereunder to any country in contravention of said Export Regulations, or which, if done by Consultant, would violate the laws of the United States of America.

18. Notices – All notices and communications provided under this Agreement shall be in writing and sent by certified mail, telecopied or delivered to Shaw Consultants International, Inc. at 1430 Enclave Parkway, Houston, TX, 77077, Fax: 281-368-4491, Attention: V.P. Legal Dept., and if to Company at the address or telecopy number shown on the Contract, Letter, or Proposal or such other address or telecopy number as Company may designate by written notice to Consultant. All such notices and communications shall be effective: (a) if mailed,

when received, as evidenced by a Return Receipt; (b) if telecopied, when sent, as evidenced by receipt of a confirmation from the correct telecopier number; and (c) if delivered personally or by courier, when actually received as evidenced by a receipt.

19. Governing Law and Jurisdiction – This Agreement shall be construed and otherwise governed pursuant to the laws of the State of Texas excluding any conflict of laws principle. The parties agree to the jurisdiction of the courts of the State of Texas.

20. Dispute Resolution - The parties shall make a diligent, good faith attempt to resolve by negotiation all disputes arising out of or in connection with this Agreement. If such negotiation is unsuccessful within a period of forty-five (45) days, the parties shall make a diligent, good faith attempt to settle the dispute by mediation. If such mediation is unsuccessful within a reasonable period of time, either party shall submit any unresolved dispute to arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association. Any such arbitration shall be conducted in Houston, Texas, by the Regional Office of the American Arbitration Association by three (3) arbitrators. Any award shall be final and binding, and may be entered into a court of competent jurisdiction for enforcement. Each party shall be responsible for its own costs and expenses, including legal fees, incurred in the course of any arbitration or legal proceedings. The parties shall share the arbitrators' fees equally. The arbitrators shall be bound by the terms of this Agreement and shall not have the power or authority to award costs and expenses of arbitration, attorney's fees, punitive damages, or consequential damages.

21. Complete Agreement – This Agreement constitutes the complete understanding of the parties regarding the subject matter hereof and any and all prior provisions, negotiations, and representations not included herein are hereby abrogated. Any preprinted or written terms contained in any purchase order, memorandum, or other instrument issued by Company shall be void and of no effect. This Agreement cannot be changed, modified, or varied except by written instrument signed by both parties. No failure or delay in exercising any right, power, or privilege hereunder shall operate as a waiver thereof or preclude the exercise of any other or further right, power, or privilege hereunder.

Attachment C
Technical Appendix – Cost of Service & Rate Design

Cost of Service Study Modeling Summary

The Shaw Consultants proprietary SCOST model utilizes the three-step industry standard framework for costing, which are: Functionalization, Classification, and Allocation. Functionalization refers to the process of assigning all costs to each step involved in the process of producing, transmitting, distributing, and billing for electricity. The second step is classification, which is done simultaneously with functionalization. In this second step, each functionalized cost group is separated into demand-, energy- and customer-related components based upon the predominant factor for cost causation. It is this assignment, as the basis for cost causation, which provides a supportable basis for cost allocation. The third step, allocation, is the process of cost assignment whereby each class of service receives a proportionate cost responsibility for each of the functionalized and classified cost groups. This is accomplished by means of allocation factors, based on the ratio of the amount of demand, energy sold, or number of customers, for each customer class relative to the company total.

How Costs Flow in a COS Study

For Each Cost of Service Element...

Step 1: Functionalize Costs

Step 2: Classify Each Functional Cost Category

	Capacity/ Demand	Commodity	Customer	Revenue	TOTAL
Generation	\$ ww,www	\$ xx,xxx	\$ yy,yyy	\$ zz,zzz	\$ ttt,ttt
Transmission	\$ ww,www	\$ xx,xxx	\$ yy,yyy	\$ zz,zzz	\$ ttt,ttt
Distribution	\$ ww,www	\$ xx,xxx	\$ yy,yyy	\$ zz,zzz	\$ ttt,ttt
General	\$ ww,www	\$ xx,xxx	\$ yy,yyy	\$ zz,zzz	\$ ttt,ttt
Total	\$ WWW,WWW	\$ XX,XXX	\$ YY,YYY	\$ ZZ,ZZZ	\$ TTT,TTT

Step 3: Allocate Totals to Rate Classes

Class 1	\$ ww,www	\$ xx,xxx	\$ yy,yyy	\$ zz,zzz	\$ ttt,ttt
Class 2	\$ ww,www	\$ xx,xxx	\$ yy,yyy	\$ zz,zzz	\$ ttt,ttt
Class 3	\$ ww,www	\$ xx,xxx	\$ yy,yyy	\$ zz,zzz	\$ ttt,ttt
Class 4	\$ ww,www	\$ xx,xxx	\$ yy,yyy	\$ zz,zzz	\$ ttt,ttt
Total	\$ WWW,WWW	\$ XX,XXX	\$ YY,YYY	\$ ZZ,ZZZ	\$ TTT,TTT

All Totals Must Match!



In addition to providing the utility's level of margin (or earned TIER - Times Interest Earned Ratio, or, alternatively,, earned rate of return on rate base) by customer class, the model develops revenue requirement by customer class at target earnings levels, fully unbundled revenue requirement by customer class for each identified function at target earnings, and unit costs by customer by function at target earnings.

Rate Design Study Modeling Summary

Ratemaking addresses the fair allocation and collection of costs from customers for each of the services that a utility provides. A cost of service study allocates shared costs to customer classes based on cost causation principles. Rates that are reflective of these allocated costs are the most widely recognized measure of rates that are equitable and non-discriminatory. Unit costs from an embedded cost study, which are expressed in terms of either \$/kW, \$/kWh or \$/customer per month, are typically developed in a cost of service study. Although unit costs are not rates, per se, they serve as a valuable guide in the rate design process with respect

to rate level and structure. These derived unit costs are not necessarily used as actual rates because there are often many other considerations including cost implications that come into play, including concerns such as:

- Competition,
- Conservation and load management (energy and capital),
- Social welfare (lifeline rates),
- Incentives for economic development,
- Value of service,
- Historical rate structural relationships,
- Issues of rate shock versus gradualism, and
- Marginal or future costs to serve customers.

In designing rates, it is generally recognized that not all of a utility’s objectives can be met simultaneously and tradeoffs are often required. One common example of this is the need to sell to increase earnings versus the need to implement energy efficiency and conservation measures that manage wholesale purchase costs but also reduces sales. Thus, there is the requirement to balance corporate objectives with the interests of all stakeholders, and it is for this reason that rate design has been characterized as an art as well as a science.

A revenue proof is developed in conjunction with the cost of service study to prove that the resulting rates will meet the revenue requirements from the cost of service. The revenue proof is divided into classes based upon recommendations from our clients. With each update to the cost of service, the revenue proof will develop tariffs based upon those updated results. These tariffs are used to develop typical bills for each new rate with a comparison to the current tariffs in place. Various bill combinations are developed to best show the impacts to all customers. In the case of wholesale or special contracts, the same principals can be incorporated in the typical bill design to demonstrate potential rate implications based upon usage patterns.

Our Understanding of Big Rivers’ Current Rate Structure

Current Rates for Big Rivers’ Member-Systems	
Rate Components	Current Values & Notes:
Demand charge (based on non-coincident peak)	\$ 7.37 / kW
Energy charge	\$ 0.02040 / kWh
Transmission & ancillary service	Included in the above bundled rates
Power factor penalty	Rules and regulations indicate that BREC may charge member systems when power factor drops below 90% at time of maximum demand; unsure whether this is actually charged
Adjustment clauses & riders	<ul style="list-style-type: none"> ▪ Fuel Adjustment Clause ▪ Environmental Surcharge ▪ Rebate Adjustment ▪ Unwind Surcharge ▪ Member Rate Stability Mechanism

Large Industrial Customer Rate	
<ul style="list-style-type: none"> ■ Available to customers not treated as Expansion Demand or Expansion Energy. ■ Rate is closed as of 9/1/99 to new customers of 5 MW or greater, including existing customers with increases in load of 5 MW or greater. 	
Rate Components	Current Values & Notes:
Demand charge (based on non-coincident peak)	\$10.15 / kW
Energy charge	\$0.013715 / kWh
Transmission & ancillary service	included in the above bundled rates
Power factor penalty	Rules and regulations indicate that BREC may charge member systems when power factor drops below 90% at time of maximum demand, but not sure if it is actually charged.
Adjustment clauses & riders	<ul style="list-style-type: none"> ■ Fuel Adjustment Clause ■ Environmental Surcharge ■ Rebate Adjustment ■ Unwind Surcharge ■ Member Rate Stability Mechanism
Special Rates	
<ul style="list-style-type: none"> ■ Cable Television Attachment Rate ■ Cogeneration and Small Power Production Purchase Tariff -- Over 100 kW ■ Cogeneration and Small Power Production Sales Tariff – Over 100 kW 	
Large Industrial Customer Expansion Rate	
<p>New customers initiating service after 8/31/1999 with total load in excess of 5 MW or existing customers with expanded load in excess of 5 MW, including QF load.</p> <ul style="list-style-type: none"> ■ A base year is established for existing customers as a reference to measure load increases: 9/1998 through 8/1999 ■ Demand and energy is provided through third-party suppliers ■ BREC's OATT rates apply ■ Six ancillary service rates apply: (1) Scheduling system control & dispatch; (2) Reactive supply and voltage control from generation sources services; (3) Regulation & frequency response; (4) Energy imbalance service; (5) Operating reserve-spinning reserve service; and (6) Operating reserve-supplemental reserve service. ■ BREC adder: \$0.38/kW/month 	
Voluntary Price Curtailable Service Rider	
<ul style="list-style-type: none"> ■ Can be used in conjunction with any of BREC's standard tariffs or special contracts. ■ Applicable to individual customers able to curtail at least 1,000 kW of load upon request. ■ As short as one-hour advance notification. ■ Individual customers to submit a curtailment profile indicating: maximum number of hours per day that can be curtailed; maximum days and maximum consecutive days in month that load can be curtailed; minimum curtailment price customer is willing to accept; and minimum and maximum curtailable demand. ■ Curtailment credit to be determined by BREC on a case by case basis. 	
Renewable Resource Energy Service Tariff Rider	
<ul style="list-style-type: none"> ■ Contingent on BREC's ability to purchase a wholesale supply of renewable in the quantity and quality requested by a member co-op 	

- Sale of 100 kWh block per month to a retail member through the member co-op.
- Agreement is a take-or-pay obligation to BREC.
- The rate for renewable resource energy to the member co-op is the otherwise applicable rate including all applicable charges and surcharges, except that the energy portion of the rate is \$5.50 / 100 kWh block.
- Renewable resource energy is deemed to be first through the meter.

Service to Alcan and Century through Kenergy Corp.

- Term: 2023, unless the respective obligations of the parties are terminated pursuant to the terms of the agreement (Section 7 of the agreement). The service agreements do not appear to discuss reopeners.
- Kenergy may purchase energy from sources other than BREC to serve the smelters.

Components of the rate:	
<ul style="list-style-type: none"> ▪ Base Monthly Energy <ul style="list-style-type: none"> ○ Up to a level of Base Demand per Hour <ul style="list-style-type: none"> ▪ Base Fixed Energy (at Base Rate) ▪ Base Variable Energy (positive or negative) ▪ Supplemental Energy ▪ Interruptible Energy ▪ Backup Energy ▪ Transmission Service Charge ▪ Excess Reactive Demand Charge ▪ TIER Adjustment Charge 	<ul style="list-style-type: none"> ▪ FAC Charge ▪ Non-FAC Purchased Power Adjustment Charge ▪ Environmental Surcharge ▪ Monthly amortization of the Restructuring Amount (plus or minus) ▪ Rebate (per Section 4.9 of the Agreement) ▪ Equity Development Credit ▪ Surcharge (per Section 4.11) ▪ Credits (per Section 4.13) ▪ Other amounts (per Section 4.14) ▪ Taxes (per Section 4.15)

Implications of New Rate Structure

Changes to BREC's wholesale rate structure will more closely align individual rate structure elements with the diversity of cost drivers. For the member cooperatives, the new rate structure will provide increased awareness of the cost of providing service and present opportunities to help mitigate those costs.

Change from non-coincident billing to billing based on demand coincident with BREC's system peak

- Greater emphasis and awareness of cost versus time of use
- Opportunities for member co-ops to focus on demand side management programs

New rates will encourage efficient utilization of generation and transmission-related capacity costs

- Opportunities for member co-ops to shift load to off-peak periods to increase load factor
 - With respect to non-coincident peak
 - With respect to time of coincident peak
- Rate design
- Other load shifting initiatives

Implementation of a power factor charge

- For BREC, possible modifications to its CIS system
- For member co-ops, potential upgrades to their distribution to minimize lagging power factor and/or to encourage end-use customers to install power factor correction capacitors

Implementation of other rate features

- Conveyance of appropriate price signals for the conservation of capital and natural resources
- Time-of-day and/or seasonal rates
- Critical peak and/or real time pricing

Detailed Overview of the Cost of Service Process for a Typical Electric Utility

A cost of service is the industry-standard yardstick to assess the degree to which a utility’s revenue requirement is equitably distributed among customer classes and non-discriminatory.

Shaw Consultants utilizes its flexible and detailed Excel-based SCOST cost of service study model. This model, which is used in our regular client work, provides fully unbundled costs by function and has been successfully relied on by clients, commissions and interveners in regulatory proceedings. All of the procedures and methodologies used by Shaw Consultants are in accordance with standard industry practice and consistent with orders of applicable state commission and other regulators.

In terms of model structure, we typically have an input data section containing raw data, which builds up to the functional and class groupings that are used for cost of service. In this manner, changes can be readily made, sensitivity analysis run, and can provide for easy updates in future years.

The Shaw Consultants SCOST cost of service model utilizes the three-step industry standard framework for costing. These three steps are: Functionalization; Classification; and Allocation. In addition to providing earned TIER (or rate of return on rate base) by customer class, the model develops revenue requirement by customer class at target TIER or rate of return (ROR); fully unbundled cost revenue requirement by customer class for each identified function at target TIER or ROR; and unit costs by customer by function at target TIER or ROR.

The three basis steps, Functionalization, Classification and Allocation are described more fully below, along with selected model screen shots.

Technical Cost of Service Methodological Discussion

This section includes a detailed description of the technical approach and methodology to retail cost of service studies. The three basis steps, Functionalization, Classification and Allocation described more fully below.

Procedural Steps in a COS Study

Step 1: Functionalization...

“Functions” are defined buckets that costs are directly assigned or allocated to:

- | | |
|---|--|
| <p>TRADITIONAL</p> <ul style="list-style-type: none"> ✓ Production ✓ Transmission ✓ Distribution ✓ Billing | <p>NON-TRADITIONAL</p> <ul style="list-style-type: none"> ✓ Power Supply ✓ Meter Reading ✓ Billing & Collecting ✓ Information Systems |
|---|--|

Step 2: Classification...

“Classification” includes assigning each functional category, from Step 1, with a basis for its cost causation

- | | | |
|--|---|---|
| <p>Energy-Related</p> <p><i>Those costs associated with the amount of energy produced or sold</i></p> <ul style="list-style-type: none"> ✓ Fuel Handling ✓ Boiler Maintenance | <p>Demand-Related</p> <p><i>Those costs that vary with the rate at which energy is produced or sold</i></p> <ul style="list-style-type: none"> ✓ Transmission Lines ✓ Distribution Lines | <p>Customer-Related</p> <p><i>Those costs that are associated with ownership of a service and meter on customers’ premises, plus:</i></p> <ul style="list-style-type: none"> ✓ Meter Reading ✓ Billing ✓ Collecting |
|--|---|---|

Step 3: Allocation...

“Allocation” is when each cost component, from Step 2, is assigned to customer classes based on factors related to cost causation

Energy-Related: typically allocated based on metered data, adjusted for losses to the input to the system

Demand-Related: general treatment includes developing factors for each type of facility based on a measure of maximum load imposed on the facility, recognizing (1) load served at each voltage level, (2) type of upstream facilities, and (3) losses

Customer-Related: based on the relative number, or weighted customers, in each class



Functionalization

Functionalization refers to the process of assigning all costs to each step involved in the process of producing, transmitting, distributing and billing for electricity. Each function generally has its own allocation factor that is used in allocating costs to customer classes. The selection of appropriate functional categories is particularly important when performing a fully unbundled cost of service study, as functions may be thought of as buckets in which costs for that function are collected. The unbundled results serve as a valuable guide in the rate design process.

Functions for a vertically-integrated electric utility may typically include:

- Production-Fixed (capital cost of generation plant)
- By type of plant (e.g., peaking; base-load; renewable)
- Production-Variable (fuel)
- Production-Variable (purchased power, as applicable)
- Production-Variable (variable O&M)
- Transmission
- Bulk substations (transmission high side, primary distribution low side)
- Direct assignment to customer, as applicable
- Primary distribution
 - Demand
 - Customer (if minimum system)
- Line transformers
 - Demand
 - Customer (if minimum system)
- Secondary distribution
 - Demand
 - Customer (if minimum system)
- Services
- Meters
- Street & Traffic Lighting
- Dusk-to-Dawn Lighting
- Meter reading
- Billing & collecting
- Customer service & informational expenses
- Customer accounts – other
- Sales expenses
- Uncollectible accounts
- Revenue-related

In performing the functionalization step, a number of subsidiary studies are frequently required. One example may be to ensure that generation step-up transformers are assigned to the Production function rather than the Transmission function in accordance with FERC preferences. Others include an analysis of the cost of primary

versus secondary distribution lines. This is generally done because primary lines carry more diverse load than secondary and therefore allocated to customer using a different demand factor. It is also appropriate to split lines between primary and secondary when voltage level of service discounts are offered.

Classification

The second step in the costing process is classification. This is done simultaneously with the functionalization. In this step, each functionalized cost group is separated into demand-, energy- and customer-related components based on the predominant factor for cost causation. It is this assignment as the basis for cost causation that provides a supportable basis for cost allocation.

Some costs are related to the quantity of energy produced or sold. These are known as energy-related costs. Costs related to fuel, fuel handling and boiler maintenance are examples of energy-related costs.

Demand- or capacity-related costs are those associated with maximum rates of use of energy, or demand. Most capital costs are demand-related because the investment in facilities is related to the size of the facility and facilities are sized to provide service under peak demand conditions. Generating facilities, transmission and a portion of distribution lines and line transformers are examples of demand-related costs. However, the peak demand condition each component is designed to meet may be different for each type of facility.

Customer-related costs are those that are associated with serving customers regardless of either the amount of energy used or the maximum demand. For example, every customer has a meter and a service and the costs associated with metering and billing are not related to consumption. These costs are commonly considered to be allocable on factors that are related to the number of customers.

In performing the first two steps, all plant, operation & maintenance expense, depreciation expense, general & administrative expense, etc., are functionalized and classified. Although most of the costs associated with these cost of service components are readily identifiable with specific functions, some costs are associated with a number of functions and not easily determinable. Two such examples are general plant and general and administrative expenses. These are typically functionalized and classified on measures and practices commonly accepted in the industry. One such method is to functionalize general and administrative expenses on the basis of labor ratios associated with the other identifiable functions from generation down through billing & collecting. Also, uncollectible accounts may be considered to have the attributes of all functions. Shaw Consultants typically considers uncollectible accounts to be revenue-related and, as such, is functionalized and classified at a later stage in the cost study based on the sub-total of the functionalized and classified cost of service for each customer class, excluding these costs.

Earnings, expressed in terms of either TIER, or return on rate base, assume the functionalized and classified attributes of net plant. As appropriate, Shaw Consultants will frequently look within specific accounts in order to discern meaningful differences among functions and classifications.

Subsidiary studies may also be required in the classification step. For example, to develop non-fuel variable expenses associated with operation & maintenance of generating plant. This may include such things as fuel handling, boiler maintenance, lubricants, etc. This can be accomplished in a number of ways. For example there is the FERC predominance method and the NARUC method. Alternatively, Shaw Consultants often works with its clients to determine non-fuel variable costs specific to its own units.

If the cost of service study is to recognize a customer-related component of distribution lines, a zero-intercept or minimum system analysis should be done. Alternatively, if such estimates have already had been made by the utility, Shaw Consultants reviews the results and make recommendations accordingly.

Lastly, with respect to functionalization and classification, our SCOST cost of service model is structured in such a way that for each defined and classified function, one can readily observe all of the related components of cost. For example, for meter reading, detail is provided for direct meter reading costs, supervision, general and administrative, depreciation, interest, etc. Shaw Consultants is extremely versed in the theory and practice of functionalization and classification of costs. An example of O&M expense detail for several selected functions is shown in Table 1, below.

Table 1 – Illustrative Detail of Selected O&M Expense Functions

	Street & Traffic Lighting	Dusk-to-Dawn Lighting	Meter Reading	Billing & Collecting
CUSTOMER ACCOUNTS EXPENSES				
901 SUPERVISION	0	0	476,866	1,285,822
902 METER READING	0	0	3,043,387	0
ADMINISTRATIVE AND GENERAL EXPENSES				
920 A&G SALARIES	103,853	64,882	499,717	1,107,578
921 OFFICE SUPPLIES & EXPENSES	68,489	42,788	329,556	711,268
922 ADMIN. EXPENSE TRANSF. -CR.	-34,657	-21,652	-166,761	-359,914
923 OUTSIDE SERVICES EMPLOYED	338,218	150,380	916,602	2,104,040
924 PROPERTY INSURANCE	0	0	0	0
925 INJURIES & DAMAGES	39,060	24,402	187,947	405,639
926 EMPLOYEE PENSIONS & BENEFITS	306,747	191,639	1,476,002	3,185,601
928 REGULATORY COMMISSION EXPENSE	930	413	2,520	5,784
929 A&G OVERHEAD -SUBS.	-543	-339	-2,612	-5,638
930.1 GENERAL ADVERTISING EXPENSE	0	0	0	0
930.2 MISCELLANEOUS GENERAL EXPENSE	19,062	8,475	51,659	118,582
931 RENTS	6,569	2,921	17,803	40,867
935 MAINTENANCE OF GENERAL PLANT	298	186	1,432	3,091
TOTAL A&G EXPENSE	848,024	464,096	3,313,865	7,316,898

Allocation

The third step, allocation, is the process of cost assignment whereby each class of service receives a proportionate cost responsibility for each of the functionalized and classified cost groups. This is accomplished by means of allocation factors, which are based on the ratio of the amount of demand, energy sold, or number of customers for each customer class to the Company total.

Demand-related costs - The general treatment used to allocate demand-related costs is to develop factors for each type of facility based on a measure of the maximum load imposed on the facility, recognizing: (1) customer load served at each voltage level; (2) an increasing level of diversity associated with upstream facilities; and (3) losses.

Demand costs include the fixed costs associated with generating units and transmission lines, including, the corresponding costs of O&M, depreciation expense, etc. Demand costs also include bulk substations, the demand-related portions of primary and secondary distribution lines and line transformers. Generation costs are allocable to customer classes based some measure of coincident demand, which may be based on one or more months. Transmission costs are typically allocated based on the system's 12 monthly coincident peaks, which is also the principal basis for FERC's Open Access Transmission Tariff (OATT). Primary distribution costs are typically allocated to customer classes based on class demand, or the maximum demand of the class without

regard to the time of the system peak. Secondary lines, which exhibit the lowest level of diversity, are allocable based on the arithmetic sum of customer demands, or non-diversified demand.

Energy-related costs are based on metered data adjusted for losses to the input to the system, or the generator bus bar. Fuel costs may also be differentiated by season and allocated to the customer classes based on their usage in each season.

As mentioned earlier, in developing demand and energy allocation factors, Shaw Consultants recognizes not only the character of demand associated with a particular voltage level, but also the voltage level at which customers take service and losses from the voltage level of service up to the voltage level of the facility being allocated. Table 2, below, provides an example of the loss matrix that we use for our cost of service studies in the development of demand and energy allocation factors.

Table 2- Example of Loss/Load Matrix

	Total Company	Rate 511 Residential	Rate 521 GS Small	Rate 523 GS Medium	Rate 526 Off-Peak
<u>COINCIDENT KW FOR GENERATION</u>					
LOAD @ INPUT TO GENERATION	2,917,830	986,447	71,585	408,079	27,411
LOSS FACTOR		1.0000	1.0000	1.0000	1.0000
SALES @ GENERATION	-	0	0	0	0
LOAD @ INPUT TO TRANSMISSION	2,917,830	986,447	71,585	408,079	27,411
LOSS FACTOR		1.0228	1.0228	1.0228	1.0228
SALES @ TRANSMISSION	750,635	0	0	15	1,169
LOAD @ INPUT TO SUB-TRANSMISSION	2,102,290	964,504	69,993	398,986	25,631
LOSS FACTOR		1.0038	1.0038	1.0038	1.0038
SALES @ SUB-TRANSMISSION	107,267	0	0	808	4,437
LOAD @ INPUT TO PRIMARY	1,987,133	960,884	69,730	396,681	21,098
LOSS FACTOR		1.0109	1.0109	1.0109	1.0109
SALES @ PRIMARY	313,182	32	140	10,211	19,763
LOAD @ INPUT TO SECONDARY	1,652,562	950,510	68,840	382,201	1,108
LOSS FACTOR		1.1009	1.1009	1.1009	1.1009
SALES @ SECONDARY	1,501,069	863,375	62,529	347,164	1,006
TOTAL AT METER	2,672,153	863,407	62,669	358,197	26,376
	0	0	0	0	0

Customer-related costs are those costs that are not related to either energy consumed or demand, but rather on some measure of the relative number of customers in each class. They may include the customer-related component of primary and secondary lines and line transformers (if a minimum system is used), services, meters, meter reading, billing & collecting, customer service & informational expenses and sales expenses.

Minimum system costs (primary and secondary lines and line transformers) are allocated on the number of customers that utilize each of these facilities. The cost of meters by customer class are usually allocated based on weighted customers using a weighting factor related to the relative cost of meters in each class (residential, e.g., having a weighting factor of 1.0). If the utility does not already have reliable weighting factors, there are a number of ways they can be developed. These include: (1) associating CIS meter data with meter types in plant records; (2) development of current meter costs in current dollars based on a typical meter setup for each class; (3) Shaw Consultants experience in other utilities; (4) "cascade" method, where the smallest size meters are assigned to the smallest use customers and progressing to the next largest size, or starting with the largest size meters and highest-use customers. Plant records for service drops are usually the least informative and most

difficult to assign to customer classes. Differences in terrain aside for certain customers, Shaw Consultants has developed a method for allocating services that recognizes both, the number of customers in a class and the maximum load per customer. Meter reading and billing and collecting expenses by customer class are usually developed in consultation with the utility's meter reading staff. Billing & collecting often recognizes the costs of larger manually-billed customers.

The first results schedule of importance in a cost of service study is a rate of return, and/or TIER by customer class. A portion of illustrative output from one of our recent cost of service studies is shown below in Table 3.

Table 3 – Illustrative Rate of Return Summary

	Total Company	Rate 511 Residential	Rate 521 GS Small	Rate 523 GS Medium	Rate 526 Off-Peak
	(A)	(B)	(C)	(D)	(E)
<u>RATE OF RETURN SUMMARY</u>					
OPERATING REVENUES	960,173,218	317,104,022	48,965,572	161,865,330	8,358,449
OPERATING EXPENSES					
OPERATION & MAINTENANCE	342,820,016	130,512,166	12,143,371	46,814,305	3,505,016
DEPRECIATION	214,451,596	82,831,371	7,174,804	31,522,929	2,021,947
TAXES OTHER THAN INCOME	55,794,976	21,780,702	2,200,771	8,512,249	503,017
TOTAL OPERATING EXPENSES	613,066,588	235,124,238	21,518,947	86,849,483	6,029,980
INCOME TAXES	117,335,019	24,296,778	10,356,455	26,894,763	723,177
NET OPERATING INCOME	229,771,611	57,683,006	17,090,170	48,121,085	1,605,293
RATE BASE	2,639,190,606	1,009,385,680	86,680,198	396,684,245	24,947,122
RATE OF RETURN - %	8.71%	5.71%	19.72%	12.13%	6.43%

Table 4, below, contains an example showing the development of revenue requirement by customer class. In this example all classes are set to equal, or parity rate of return. However, the model can accommodate different rates of return or TIER by customer class.

Table 4 – Illustration of Determination of Revenue Requirement by Customer Class at Target ROR

	Total Company	Rate 511 Residential	Rate 521 GS Small	Rate 523 GS Medium	Rate 526 Off-Peak
	(A)	(B)	(C)	(D)	(E)
REVENUE REQUIREMENT AT TARGET ROR					
EARNED RATE OF RETURN	8.71%	5.71%	19.72%	12.13%	6.43%
RATE BASE	2,639,190,606	1,009,385,680	86,680,198	396,684,245	24,947,122
TARGET RATE OF RETURN	8.37%	8.37%	8.37%	8.37%	8.37%
REQUIRED RETURN ON RATE BASE	220,900,254	84,485,581	7,255,133	33,202,471	2,088,074
EARNED RETURN ON RATE BASE	229,771,611	57,683,006	17,090,170	48,121,085	1,605,293
REQUIRED INCREASE IN RETURN	-8,871,357	26,802,575	-9,835,037	-14,918,613	482,781
ASSOC INCR IN INCOME TAXES	-6,064,524	18,322,435	-6,723,303	-10,198,473	330,033
TOTAL INCR. IN RETURN & INC TAXES	-14,935,881	45,125,011	-16,558,340	-25,117,086	812,814
INCREASE IN REVENUE-RELATED	-265,568	802,348	-294,417	-446,596	14,452
OPERATING EXPENSES PER COSS	613,066,588	235,124,238	21,518,947	86,849,483	6,029,980
INCOME TAXES PER COSS	117,335,019	24,296,778	10,356,455	26,894,763	723,177
RETURN PER COSS	229,771,611	57,683,006	17,090,170	48,121,085	1,605,293
TOTAL REVENUE REQUIREMENT	944,971,768	363,031,381	32,112,815	136,301,648	9,185,715
LESS OTHER REVENUES	36,765,463	14,104,263	1,245,453	4,551,321	327,615
TOTAL REVENUE REQ'T FROM RATES	908,206,305	348,927,117	30,867,362	131,750,327	8,858,100

Table 5, below, contains an example of the total unbundled cost of service to be recovered from each rate class at target TIER or ROR after the subtraction of other revenues (e.g., forfeited discounts) and after the distribution of revenue-related costs such as uncollectible accounts.

Table 5 – Fully Unbundled Cost of Service Based Revenue Requirement at Target ROR

	Total Company	Rate 511 Residential	Rate 521 GS Small	Rate 523 GS Medium	Rate 526 Off-Peak
	(A)	(B)	(C)	(D)	(E)
TOTAL COST OF SERVICE <i>(Revenue-related distributed)</i>					
PRODUCTION					
FIXED	464,078,098	171,394,079	12,333,203	70,791,736	4,745,326
VARIABLE	70,654,318	15,713,998	1,818,448	9,034,745	999,700
TRANSMISSION SUBSTAS	82,256,224	24,310,758	2,070,107	11,019,743	845,992
TRANSMISSION LINES	32,948,521	9,747,042	829,737	4,415,437	338,736
SUB-TRANSMISSION	16,715,984	7,689,981	580,529	3,031,813	292,007
DISTRIB. SUBSTAS - GENERAL	29,831,572	14,461,600	1,091,300	5,688,647	453,643
DISTRIB. SUBSTAS - RAILROAD	650,430	0	0	0	0
DISTRIB LINES PRIMARY - DEMAND	76,688,292	37,170,589	2,806,355	14,626,091	1,166,313
DIST. LINES PRIMARY - CUSTOMER	0	0	0	0	0
DISTRIB. LINES SECONDARY - DEMAND	37,882,817	20,635,436	3,279,854	9,377,830	23,988
DIST. LINES SEC. - CUSTOMER	0	0	0	0	0
LINE TRANSFORMERS - DEMAND	22,249,181	12,748,895	959,925	4,883,073	21,217
LINE TRANSFORMERS - CUSTOMER	0	0	0	0	0
SERVICES	9,718,834	8,296,554	792,674	535,237	172
METERS	18,987,668	12,019,177	2,099,616	2,577,414	52,890
STREET LIGHTING	4,688,239	0	0	0	0
DUSK-TO-DAWN LIGHTING	2,294,702	0	0	0	0
METER READING	9,642,281	5,387,058	554,044	468,887	37,121
BILLING & COLLECTING	23,416,654	19,556,063	2,013,109	673,066	260,911
CUSTOMER ACCOUNTS OTHER	211,998	182,108	18,725	5,277	5
CUSTOMER INFORMATION	1,726,765	587,500	316,449	164,360	107
SALES EXPENSE	3,563,724	2,707,072	296,085	116,513	125
DIRECT TO RETAIL	0	0	0	0	0
REVENUE - OTHER (UNCOLL ACCTS)	0	0	0	0	0
REVENUE TAXES	0	0	0	0	0
TOTAL COST OF SERVICE FROM RATES	908,206,305	362,607,912	31,860,160	137,409,869	9,238,251

By dividing unbundled costs for each customer class for each function, by appropriate billing determinants, unit costs are developed. These unit costs, which are illustrated in Table 6, serve as an important guide in rate design.

Table 6 – Illustration of Unit Costs by Customer Class at Target ROR

	Total Company (A)	Rate 511 Residential (B)	Rate 521 GS Small (C)	Rate 523 GS Medium (D)	Rate 526 Off-Peak (E)
UNIT COSTS					
		\$/KWH		\$/KW/MO.	\$/KW/MO.
PRODUCTION FIXED		\$ 0.04862	\$ 0.02996	\$ 10.15	\$ 23.96
PRODUCTION VARIABLE		\$ 0.00446	\$ 0.00442	\$ 0.00444	\$ 0.00403
TRANSMISSION		\$ 0.00966	\$ 0.00705	\$ 2.21	\$ 5.98
SUB-TRANSMISSION		\$ 0.00218	\$ 0.00141	\$ 0.43469	\$ 1.54258
DISTRIBUTION					
PRIMARY		\$ 0.01465	\$ 0.00947	\$ 2.92	\$ 10.39
SECONDARY		\$ 0.00947	\$ 0.01030	\$ 2.11	\$ 5.98
DISTRIBUTION TOTAL		\$ 0.02630	\$ 0.02118	\$ 5.46356	\$ 17.91005
TOTAL \$/KWH		\$ 0.08903	\$ 0.06261	\$ 0.00444	\$ 0.00403
CUSTOMER (\$/CUSTOMER/MONTH)					
PRIMARY LINES CUSTOMER	\$	-	\$ -	\$ -	\$ -
SECONDARY LINES CUSTOMER		-	-	-	-
LINE TRANSFORMERS CUSTOMER		-	-	-	-
SERVICES		1.73	1.60	3.85	1.30
METERS		2.51	4.23	18.56	400.68
STREET LIGHTING		-	-	-	-
METER READING		1.13	1.12	3.38	281.22
BILLING & COLLECTING		4.09	4.06	4.85	1,976.60
CUSTOMER ACCOUNTS OTHER		0.04	0.04	0.04	0.04
CUSTOMER INFORMATION		0.12	0.64	1.18	0.81
SALES EXPENSE		0.57	0.60	0.84	0.94
CUSTOMER TOTAL	\$	10.18	\$ 12.27	\$ 32.70	\$ 2,661.59

Before leaving the topic of cost of service, Shaw Consultants notes one point regarding the role of cost of service in the design of rates. That is, in choosing certain methodologies for cost of service it is important to try to maintain objectivity with regard to cost causation without forethought as to the outcome for a preferred set of rates. The rate design process, on the other hand, seeks to reasonably align rates with cost, but allows for latitude in considering factors other than cost.

Detailed Overview of Rate Design Process for a Typical Electric Utility

Ratemaking addresses the fair allocation and collection of costs from customers for each of the services that a utility provides. A cost of service study allocates shared costs to customer classes based on cost causation principles. Rates that are reflective of these allocated costs are the most widely recognized measure of rates that are equitable and non-discriminatory.

Unit costs from an embedded cost study, which are expressed in terms of either \$/kW, \$/kWh or \$/customer per month, are typically developed in a cost of service study. Although unit costs are not rates, per se, they serve as a valuable guide in the rate design process with respect to rate level and structure. These derived unit costs are not necessarily used as actual rates because there are often many other considerations including cost implications that come into play, including concerns such as:

- Competition,
- Conservation and load management (energy and capital),
- Social welfare (lifeline rates),
- Incentives for economic development,
- Value of service,
- Historical rate structural relationships,
- Issues of rate shock versus gradualism, and
- Marginal or future costs to serve customers.

In designing rates, it is generally recognized that not all of a utility's objectives can be met simultaneously and tradeoffs are often required. One common example of this is the need to sell to increase earnings versus the need to conserve resources, which reduces sales. Thus, there is the requirement to balance corporate objectives with the interests of all stakeholders, and it is for this reason that rate design has been characterized as an art as well as a science.

The rate design phase of a project typically involves a significant involvement of parties in strategizing, iterating, balancing the interest of all of the parties, including the utility, customers, industrials and the consumer advocate. The Shaw Consultants team has the tools and resources to that enable a proper presentation of the methods, analysis and implications for review. We can readily demonstrate the implications of structural changes on how revenues are collected (by rate component) and how any change in structures impacts customer bills.

As previously noted, unit costs from the cost of service study are not rates per se, but serve as an important guide in the rate design process. Rate design often encompass other considerations other than cost, such as:

- Competitive concerns
- Conservation of natural and capital resources
- Economic development
- Social and political concerns
- Value of service; and
- Historical rate relationships and gradualism

Shaw Consultants has hands-on experience in developing a myriad of rate features and considerations such as:

- Seasonal rates;

- Time-of-Use rates;
- Real Time Pricing;
- Inclining blocks and flat rates;
- Selection of appropriate block ending levels;
- Residential water heater control rate;
- Air-conditioner cycling control rates
- Discounted rates for electric thermal storage
- Customer charge levels;
- Demand charges and ratchets for C&I customers;
- Percentage of demand costs to be recovered through the demand charge within each rate as well as among rates;
- Power factor incentive adjustment for C&I customers;
- Hours'-use and block extender provisions;
- Interruptible and demand-response rates;
- On-peak versus off-peak pricing relationships;
- Voltage level of service discounts; and
- Other special provisions such as discounts for the elderly, etc., as appropriate.
- Marginal cost considerations, including
 - As it is important to encourage demand-side management, we also consider the use of marginal cost principles that can serve as a guide in determining the level of the demand charge relative to the energy charge depending upon whether the objective is to provide a price signal to conserve capital (generating, transmission and distribution plant) or to conserve natural resources (oil and gas);
 - Setting on-peak and off-peak price differences (demand and/or energy) that are reflective of the marginal cost difference between on-peak and off-peak incremental or planned generation or purchases;
 - Setting of seasonal differences reflective of marginal costs; and
 - Rate decoupling features and mechanisms

In designing rates, Shaw Consultants measures trial rates against such measures as:

- The extent to which the rates minimize both inter-class and intra-class subsidies;
- The ability of the rates to retain customers and promote economic development;
- The impact on customer classes and individual customers, especially residential and small commercial;
- The ability of the rates to minimize unwanted customer migration; and
- The extent to which the proposed rates conform to the principles of a sound rate structure as set forth by James Bonbright in *Principles of Public Utility Rates*.

Bonbright's rate design principals are used widely by industry professionals in developing and assessing rate structures. These guidelines include: effectiveness in yielding the total revenue requirement; revenue and rate stability and predictability; ability of the rates to discourage wasteful use and promote justified use; recognition of social costs and benefits; fairness in the apportionment of costs; avoidance of undue discrimination in rate

relationships; dynamic efficiency in promoting innovation and responding to changing supply and demand patterns; simplicity; and freedom from controversy.

In preparing its deliverables for the rate recommendation phase, Shaw Consultants develops all reports and exhibits in formats consistent with accepted industry practice.

Load Data Development

Accurate load data is necessary to support the cost of service, as well as in the evaluation of rate structure with regards to potential customer implications. This is also key to designing rates that support demand and energy conservation as well as rates that provide on-peak and off-peak price signals. We work with the data available and complement it as necessary with available industry data.

In order to develop demand allocation factors, Shaw Consultants utilizes any load research data that the utility has. If such load research data is incomplete, we also rely on billing data, as well as from other sources, including load data from other utilities in the region for which we have a significant quantity of data. Load data that we develop by customer class is calibrated to the test-year system peaks. Three members of our team: Kathy Kelly, Robert Greneman and Joe Pino, all have load research experience.

Class Segmentation Analysis

Shaw Consultants has developed a technique to evaluate the appropriateness of a utility's existing customer class groupings and to recommend modification of the existing customer classes based on commonality of load profile and/or end-use. We have used our technique successfully on a number of occasions and one client had remarked that we had enabled him to see customers in a way that they could not before.

Implications of New Rates

To assess the implications of new rates, Shaw Consultants utilizes two additional tools that we use in our regular course of business: a Revenue Proof and a Typical Bill Analysis. These tools allow each coop to understand how revenues will be recovered as compared to today by both component and by rate classification.

Rate-Revenue Proof

The rate revenue proof provides assurance that the rates that are put into effect will yield the target revenue requirement. It also supports high level rate strategy and company decisions. This tool:

- Utilizes existing rates which are applied to actual billing determinants for each class to observe how close that calculation is to booked revenues;
- Billing determinants are then multiplied by the proposed rate elements for each class and the adjustment factor developed for the class is applied to the proposed calculated revenues;
- Since this calculation will typically not exactly match book revenues, an adjustment factor is developed;
- The revenues calculated in this fashion for each class are then summed and measured against the target revenue requirement; and
- If there is any over or under collection, rate structure components may be adjusted in certain classes such that the sum then yields the target revenue level.

This tool allows us to understand whether there are any shifts in revenues between rate classes and also identifies the at risk revenue from conservation activities.

Typical Bill Analysis

We also prepare a typical bill analysis for each rate class showing a range of consumption levels and average consumption for the class. For each level we report the amount and percent increase or decrease of new rate alternatives when compared, with respect to present rates. The typical bill analysis is also useful in that it serves as a guide to ensure that certain criteria are met. If, for example, one criterion is that no residential customer under 100 kWh of use per month shall receive a double-digit increase, the typical bill comparison will indicate the need to iterate the residential rate structure such that the typical bill for such customers is under the threshold. One important feature of our Excel based rate software is that it is integrated with the revenue proof model, such that any changes in rate structure flow through immediately. Using the typical bill analysis we can readily observe where unwanted customer migration can occur among rate schedules by observing unit costs at specific consumption levels and at equal load factors among demand-metered rates.

Other Tools

Shaw Consultants has other in-house rate development resources. These include our rates program, which features 26 synthetic ogive curves. In the absence of a bill frequency distribution for a customer class, this program enables the input number of customers, usage data and book revenues. It will then select the best-fit synthetic bill frequency distribution that produces the target revenues along with the corresponding adjustment factor. Additionally, Shaw Consultants can use its internally developed hyperbolic cost versus rate curves technique to graphically illustrate the relationship of costs with rates at varying consumption levels. This technique was first pioneered by Stone & Webster Consultants (our former name) and has since gained accepted industry use.

Ms. Kelly is an experienced manager with more than thirty years of leadership, supervisory, project management, and diverse utility experience. She is a management consultant with extensive strategic utility experience including management and operations, organizational design, process improvements, and change management. In addition her experience incorporates retail industry restructuring issues, developing a competitive industry framework, business analysis, market strategy, functional unbundling, market analysis, stranded costs, re-regulation, pricing, and business infrastructure implementation planning and education. Ms. Kelly facilitates discussion by and advises senior managers on strategic issues and strategy development and implementation. She is experienced in corporate planning, forecasting, management, valuation, market research, rate design and cost unbundling, utility management, and Demand-Side Management (DSM) planning, implementation and evaluation. Ms. Kelly is an expert witness and has provided expert testimony on retail restructuring, rate design, resource planning, forecasting and DSM.

PROFESSIONAL EXPERIENCE**1997 - Present Shaw Consultants International Inc.**

Vice President and Practice Leader

Ms. Kelly is responsible for marketing, revenues, profitability, client relationship management, commercial issues, and management of the Management and Strategy Practice. Ms. Kelly markets for the entire organization as well as for the Practice. She directs cross-functional teams in the marketing and technical execution of client engagements and management.

1977 - 1997 Boston Edison Company

Director of Industry Restructuring

Manager of Marketing and Rates

Manager of DSM Evaluation

Division Manager of Energy Efficiency Planning

Division Manager of Rate Design

Division Manager of Demand and Revenue Forecasting

CONSULTING EXPERIENCE***Strategy, Business and Energy Planning***

Ms. Kelly has directed the creation of an independent long term energy plan for several major utilities and customers including Long Island Power Authority, a Major Upper Midwest Investor Owned Utility, Massachusetts Institute of Technology, and Massachusetts Health and Education Facilities Authority's PowerOptions aggregated buying group. These plans incorporate new generation technology, demand response programs, energy efficiency and load reduction programs, new construction, repowering, and renewable resources. The methodology utilized traditional planning methods coupled with the incorporation of probabilistic risk on major drivers to more fully understand the impact of resource decisions and the risk of resource shortages. These approaches included an assessment of the implications for economic development and growth.

Ms. Kelly directed the development of a portfolio of electric energy efficiency and demand response strategies for Northern Indiana Public Service Company for inclusion in its 2007 Integrated Resource Plan (IRP) filed with the Indiana Utility Regulatory Commission (IURC) and sponsored and provided testimony in support of the plan. Ms. Kelly also provided a report and support to regulators and stakeholders of NIPSCO's gas efficiency programs during 2006.

For the Edison Electric Institute, Ms. Kelly directed the design of a survey of major electric utilities in the US relative to the implementation of Sarbanes Oxley Regulations in their organizations. She interviewed 15 CEO's and more than 75 C-Level officers to obtain their estimate of the costs, staffing impacts, concerns, and policy changes resulting from passage of the law. She prepared a report for CEO's and for the C-level staff and EEI to provide to its membership and presented the results to EEI.

Ms. Kelly facilitated strategy development for a major East Coast developer interested in expanding its renewable energy resource base. For an Association of Iowa Electric Cooperatives, Ms. Kelly provided technical facilitation and policy development services to a cross section of 20 representatives of the more than forty members – resulting in the creation of positions with respect to climate change requirements. The positions and strategies included development of a wide range of approaches to legislative and regulatory policy development on global warming solutions including, in particular, energy efficiency levels and standards, demand response, renewable portfolio standards, and net metering for community resources.

She directed the development of a ten-year forecast of North American copper demand resulting from electric industry expansion in generation, transmission and distribution segments for the Copper Development Association which is a business trade association.

Ms. Kelly directed and completed a three-phase project working with the *Iowa Association of Electric Cooperatives*. Phase one involved the facilitation of a restructuring task force comprised of member cooperatives working together to strategize and formulate their joint restructuring position. Phase two required both facilitation and technical knowledge and focused on negotiation strategy and implementation of that strategy, resulting in the cooperative association taking a leadership role in state restructuring legislation development. Phase three developed and implemented an education series for cooperative managers, directors and employees to prepare for industry restructuring.

She worked with *several municipal utilities and joint action power agencies* in separate projects to assess the impact of competition on their operations, develop strategies for the businesses to grow, and facilitate the development of implementation plans for successful growth. Ms. Kelly facilitated *strategic planning sessions* for several cooperative and municipal utilities boards to establish strategies for a competitive market framework. .

Organizational Design, Effectiveness, and Strategy

Ms. Kelly directed an assessment of the process and organizational effectiveness for a major Midwestern cooperative including corporate services and plant management and operations for a 1000 MW coal fired facility. This engagement resulted in recommendations for immediate and longer term process and organizational improvements, culture change requirements, and implementation and monitoring plans to achieve success. Ms. Kelly has provided these assessments for numerous private utilities, cooperatives and municipal utilities. Ms. Kelly directed a mapping of the new service business processes for New Hampshire Electric Cooperative and identified a wealth of process improvements.

Ms. Kelly directed a team of professionals to review and evaluate the efficiency and effectiveness of the management and business processes of the third largest utility in Vermont working with the utility Board of Directors, senior management, and regulators. Our team prepared a report providing a detailed discussion of our methodology, findings, conclusions and recommendations to improve efficiency, management, operations, communication, regulatory relationships, culture, and member relations.

She recently completed a review of the distribution planning and reliability of a major Northeastern IOU which evaluated the processes, procedures, and results on reliability. These efforts also assessed the philosophy of distribution planning and reliability as well as evaluating the procedures, processes, systems, and results for reporting to the regulators. Ms. Kelly directed audits of three major eastern utilities' distribution outage situations to determine the root cause of the failure and recommended technical, planning, and operational improvements. Ms. Kelly completed an evaluation of the

implementation progress relative to a prior Shaw Consultants International Inc. Management Consultants report on T&D improvements needed in the planning, construction, reporting, and IT areas of a Canadian Crown Corporation. Ms. Kelly directed the review and comparison to market of the salary structure of an East Coast Water Utility. She worked with a major west coast water utility to identify cost reduction opportunities and provided regulatory strategy on cost of service issues.

Acquisition Transactions and Contract Negotiations

Ms. Kelly worked with a client to assess alternative resource procurement strategies for an aggregated group of customers with more than 500MW of electricity consumption. Ms. Kelly evaluated the ability to offer green power solutions to its customer group as well as the opportunity to participate in equity ownership of green facilities.

Ms. Kelly completed efforts with several confidential clients to *value potential acquisition* of utility assets including auctions of assets.

- She provided decision tools including forecasts of pro forma income statements including assessment of potential risks. She directed the efforts of a team of experts reviewing data room materials to assess the forecast of revenue and cost impacts of the available information. She prepared forecasted market assessments for generation opportunities in various markets. Assets analyzed include electric generation, electric and gas transmission and distribution systems, steam systems, and competitive businesses such as product and service businesses or retail energy companies.
- Ms. Kelly advised clients in the assessment of opportunities, risks and financial alternatives in the consideration of an acquisition.
- Ms. Kelly completed a successful energy procurement process for the *Rhode Island League of Cities and Towns*.

Rate and Regulatory Strategy and Filings

Ms. Kelly directed and participated in efforts with Newfoundland Labrador Hydro to develop a revised cost of service and redesigned its retail and wholesale rates for its 2003 rate case. Ms. Kelly evaluated the potential for supporting regulatory capitalization of startup costs for a Canadian utility.

Ms. Kelly participated in the application of the FERC Seven Factor Test to distribution and transmission assets for a major Midwestern utility and advised the client on strategic issues relative to application.

She directed rate case analysis and preparation for numerous utilities including NIPSCO, Terasen (formerly Centra Gas British Columbia) a division of Kinder Morgan, Newfoundland Labrador Hydro, Boston Edison, Centra Gas Manitoba, SLEMCO, Fayetteville Public Works, and others.

Competitive Analysis and Positioning

Ms. Kelly directed the competitive positioning analysis of more than fifty generation units or portfolios using dispatch models to develop market prices for regions and for locational marginal pricing. For example, Ms. Kelly directed the development of a portfolio market analysis for a major investor that included more than 12 plants in eight different US markets that established competitive position of each unit, based on the forecasted market or PPA revenues, operating costs and market risks for ArcLight Capital Partners.

1977 - 1997 Boston Edison Company

Ms. Kelly held various responsible positions within the corporation managing groups of professionals in marketing, forecasting, analysis, rate design, regulatory issues, business strategy, and DSM planning and evaluation. A summary of key activities is provided below by topic area. Ms. Kelly's ability to design and develop new areas was tapped several times during her tenure at Boston Edison – in particular she

developed the first ever energy and load forecasting group, the first demand-side management planning and later evaluation areas, and she merged several areas to create the first marketing department for the company that including forecasting, energy management evaluation, cost of service, rate design, and marketing planning. In many ways, Ms. Kelly's role was that of an internal consultant to senior management.

Industry Restructuring Manager

Ms. Kelly was a primary author and developer of Boston Edison's electric industry restructuring plan, evaluating strategic financial, operational and customer impacts of the proposed plan and building consensus both within and outside the corporation. She participated in the team that negotiated solutions with regulators and third parties resulting in settlement of major issues. She identified the structure and resources necessary to meet the demands of the new competitive energy market. Ms. Kelly developed strategies for business infrastructure implementation and coordinated regulatory strategy and witness preparation. She was an expert witness on rate design, implementation issues and customer education requirements. Ms. Kelly was the company representative on industry working groups investigating and negotiating statewide restructuring issues and the public spokesperson with area trade associations, businesses and customers on industry restructuring.

Pricing and Marketing Manager

She directed the development of cost allocation methods, retail and wholesale tariffs and filing requirements for rate cases. Ms. Kelly successfully implemented the use of creative utility pricing tactics. She positioned the utility as the first in the region capable of regional real time pricing through negotiated model development and successful customer pilot of hourly day ahead pricing. She educated and trained corporate personnel on pricing strategy, positioning and tactics. Ms. Kelly developed and implemented successful responses to competitive retention challenges with several major customers.

Market & Competitive Analysis

Ms. Kelly developed a competitive marketing plan utilizing market research results in preparation for a transition to a competitive environment. She initiated competitive positioning analysis at a northeast utility by working with senior management to define strategic information and analysis requirements. She completed a first time assessment of competitive customer value of electricity and the utility's competitive position, while completing a competitive positioning analysis of bundled and unbundled electric pricing. She directed the development of in-depth competitor assessments covering market share, pricing strategy, and restructuring positioning and new market strategies.

Utility Regulation

Ms. Kelly has extensive regulation and regulatory interaction experience. She developed resource plan filings, DSM budgets, DSM evaluation and reconciliation for cost recovery purposes, forecasting filings, rate filings and restructuring filings. She has testified before regulatory commissions supporting energy sales and load forecasting and resource planning, DSM planning, rate structures and restructuring proposals.

EDUCATION

MBA, Finance, Northeastern University

BS, Mathematics and Economics, University of Massachusetts

AFFILIATIONS

Member of the Board of Directors (1996-2000) and current member, Association of Energy Services Professionals

Associate Member, National Association of Rural Electric Cooperatives

Associate Member, American Public Power Association

SPEECHES & PUBLICATIONS

Energy Efficiency – Providing Equivalent Incentives to Utilities, Presented to the RKS Research & Consulting Energy Efficiency Seminar, Dallas TX, March 2008

Organizational Improvement – Strategies and Tactics, Presented to the CEO Conference, National Rural Electric Cooperative Association, Phoenix, AZ, January, 2006

Cooperative Restructuring Issues, Paper presented at the 10th National Energy Services Conference, Tucson, AZ, December, 1999

Several *Industry Restructuring* speaking engagements.

Issues and Trends in Pricing, Professional Pricing Society, Annual Conference, Chicago, IL, October 1995.

Selling Evaluation, Sixth International Energy Program Evaluation Conference, August 1993. Published.

A Brief History of a Measurement and Evaluation Department: Boston Edison Company, Edison Times, IRP Quarterly, April 1993.

Competition in the Energy Markets and its Impact on IRP, National Association of Regulatory Utility Commissioners (NARUC), May 1993.

Managing Evaluations, ACEEE Summer Study Program 1992. Published.

Several *DSM* speaking invitations, 1985 - 1994.

Several *Forecasting* speaking invitations, 1980 - 1984.

Numerous publications on such subjects as *Demand Planning Process, Conservation and Load Management, DSM Monitoring, Evaluation, Forecasting, and Business Planning*.

Specializing in utility rate and regulatory matters, Mr. Greneman has prepared numerous cost of service and rate design studies for clients that range from international energy companies, combination gas and electric vertically integrated North American investor owned utilities, municipal public power companies with multiple services including gas, electric, steam, water and wastewater, electric cooperatives – both distribution and generation and transmission owners, and Canadian crown corporations. These clients have each required attention to a diverse variety of cost of service and rate design issues including equitable treatment for multi-state jurisdictions, allocating shared services for a company that offers multiple services to differing customer bases, aligning costs for isolated island generation and distribution systems, developing costs and rate design for underdeveloped countries, and competitive considerations.

PROFESSIONAL EXPERIENCE

1986 - Present	Shaw Consultants International, Inc.
1978 - 1982	Associate Director
1983 - 1986	The Brooklyn Union Gas Company Senior Rate Engineer
1973 - 1978	Alan J. Schultz, Consulting Engineer Associate Engineer
1971 - 1973	Ebner-Schmidt Associates, Consulting Engineers Electrical Design Engineer

CONSULTING ASSIGNMENTS*Cost of Service and Rate Design*

Alpena Power Company	<i>Cost of Service, Rate Design</i>
Artesian Water Company	<i>Cost of Service</i>
Barbados Light & Power Company, Ltd.	<i>Embedded & Marginal Cost, Rate Design</i>
Blackstone Valley Electric Company	<i>Marginal Cost</i>
Brockton Edison Company	<i>Marginal Cost</i>
Brooklyn Union Gas Company	<i>Cost of Service, Marginal Cost, Rate Design</i>
Centra Gas British Columbia	<i>Rate Design</i>
Central Illinois Light Company	<i>Cost of Service, Marginal Cost, Rate Design</i>
Chesapeake Utilities (Maryland Division)	<i>Gas Cost of Service</i>
China Light & Power Co., Ltd. (Hong Kong)	<i>Review of Cost of Service & Tariff Structure</i>
Citizens Utilities Company (VT, AZ)	<i>Electric Cost of Service, Rate Design</i>
Citizens Utilities - Illinois Water	<i>Water & Wastewater Cost of Service, Rate Design</i>
Colorado Electric (West Plains Energy)	<i>Marginal Cost</i>
Commonwealth Edison Company	<i>Electric Cost of Service</i>
Consolidated Edison Company of NY	<i>Fully-Unbundled Electric, Gas & Steam Models</i>
Consumers Energy Corp.	<i>DSM Screening</i>
Dayton Power & Light Company	<i>Gas Cost of Service</i>
Delmarva Power & Light Company	<i>Electric Cost of Service</i>
Delta Natural Gas Company	<i>Cost of Service, Rate Design</i>
Edison Sault Electric Company	<i>Cost of Service, Rate Design</i>
El Paso Electric Company	<i>Marginal Cost</i>

Energy North, Inc.	<i>Rate Design</i>
Equitable Gas Company (Pittsburgh PA)	<i>Cost of Service</i>
Fall River Electric Light Company	<i>Marginal Cost</i>
Federal Energy Administration	<i>Marginal Cost Pricing</i>
Florida Public Utilities Corporation	<i>Cost of Service (Electric, Gas)</i>
Gas Del Estado (Argentina)	<i>Cost of Service for Privatization Study</i>
Gaz Metropolitain, Inc. (Montreal)	<i>Cost of Service</i>
Green Mountain Power Company	<i>Cost of Service</i>
Guyana Electricity Corporation	<i>Marginal Cost, Rate Design</i>
Halifax Regional Municipality	<i>Nova Scotia Power Rate Case Intervention</i>
Holyoke MA (Department of Gas & Electric)	<i>Cost of Service</i>
Jamaica Water Supply Company	<i>Cost of Service</i>
Lake Superior District Power Company	<i>Cost of Service</i>
Louisville Gas and Electric Company	<i>Electric Cost of Service</i>
Midland Electric Power Cooperative (IA)	<i>Support for Cogeneration Standby Rate</i>
Montana-Dakota Utilities Company	<i>Marginal Cost</i>
New Jersey Board of Public Utilities	<i>Rate Initiatives to Lower Summer Peak Demand</i>
Newfoundland & Labrador Hydro	<i>Cost of Service & Rate Design Assistance</i>
Newport Electric Corporation	<i>Cost of Service</i>
Newtown Artisian Water Company	<i>Development of Continuing Property Records</i>
Northern Indiana Public Service Company	<i>Fully-Unbundled Electric Cost of Service; DSM</i>
Oklahoma Natural Gas Company	<i>Review of Main Extension Policy</i>
Philadelphia Gas Works	<i>Allocation of Costs to Marketing Initiative</i>
Riverbay Corporation (Co-op City)	<i>Rate Case Intervention</i>
Roseville Electric (Roseville CA)	<i>Fully-unbundled & Marginal Cost of Service</i>
South Jersey Gas Company	<i>Cost of Service</i>
Southern Indiana Gas & Electric Co.	<i>Electric/Gas Cost of Service, Rate Design</i>
Southwest Louisiana Electric Membership Corp.	<i>Fully-unbundled Cost of Service</i>
Suffolk County Water Authority	<i>Cost of Service, Rate Design</i>
Tampa Electric Company	<i>Cost of Service</i>
U.S. Dept. of Energy/PSE&G	<i>District Heating Rates</i>
Valley Gas Company	<i>Cost of Service, Rate Design</i>
Vermont Public Service Board	<i>Cost of Service & Rate Advisory</i>
Washington Natural Gas Company	<i>Cost of Service</i>
Westfield, MA (City of)	<i>Cost of Service, Rate Design</i>
Winnipeg Hydro	<i>Cost of Service Review</i>

Expert Testimony

Delaware Public Service Commission	Docket No. 829 (Cost of Service)
Federal Energy Regulatory Commission	Docket No. ER-81-557-000 (Cost of Service)
Indiana Utility Regulatory Commission	Cause No. 35780-S4 (PURPA Compliance)
Indiana Utility Regulatory Commission	Cause No. 39593 (Gas Cost of Service)
Indiana Utility Regulatory Commission	Cause No. 39671 (Electric Cost of Service)
Indiana Utility Regulatory Commission	Cause No. 40283 (Gas Cost of Service)
Indiana Utility Regulatory Commission	Cause No. 41746 (Electric Cost of Service)
Indiana Utility Regulatory Commission	Cause No. 42150 (Environmental Tracker Support)
Indiana Utility Regulatory Commission	Cause Nos. 42151 & 42658 (Purchased Power & Transmission Tracker)

Indiana Utility Regulatory Commission	Cause No. 43526 (Cost of Service, Rate Design, FERC Seven Factor Test)
Iowa Utilities Board	Docket No. FCU-99-3 (C-99-76) (Standby Rates)
Kentucky Public Service Commission	Case No. 90-342 (Cost of Service)
Louisiana Public Service Commission	Docket No. U-17735 (Rate Design, Cost of Service)
Michigan Public Service Commission	Case Nos. U-6354 & U-6434 (Cost of Service)
Montana Department of Public Utilities	Docket No. 95.6.____ (Marginal Cost)
Newfoundland & Labrador Public Utilities Board	Newfoundland & Labrador Hydro 2003 & 2006 GRA (Rates & Cost of Service)
Nova Scotia Utility and Review Board	NSUARB-P-882, P-884 and P-886 (Cost of Service, Rate Design and DSM cost recovery on behalf of Halifax Regional Municipality)

Plant Inspections for Bond Indenture Requirement

Orange & Rockland Utilities
Jamaica Water Supply Company (NY)

Annual/Consultants Reports

Energy Services of Pensacola
Philadelphia Gas Works

RELATED BACKGROUND

Costing, Pricing and Ratemaking

Actively involved in electric industry restructuring assignments including, preparation of fully unbundled cost of service study models, unbundled rate alternatives, rates designs consistent with Integrated Resource Plans and myriad other issues associated with electric deregulation.

Cogeneration rates, load retention rates and strategies. In conjunction with a comprehensive review of the tariff system for China Light & Power Company, focused on ways of structuring rates to retain industrial load that was closing operations, moving out of the service territory or installing self-generation. Developed unbundled cost of service study for the Barbados Light & Power Company and advised client as to recommendations for changes to rate structure with an objective of retaining industrial customers that are considering self-generation. Prepared unbundled electric and gas cost of service studies for Southern Indiana Gas and Electric Corporation that were heavily relied on in developing new projects and successfully attracting new business to the service territory, including an automobile assembly plant.

Adjustment Clauses: Developed a power adjustment clause for Southwest Louisiana Electric Membership Corporation and adopted as a model for use by cooperatives within the state of Louisiana. Developed an operation and maintenance adjustment clause mechanism for Alpena Power Company, and automatic adjustment clauses for the Guyana Electricity Corporation to adjust rates for changes in foreign exchange, fuel, labor, and inflation. Provided support Northern Indiana Public Service Company for purchased power and environmental trackers. Compiled an industry survey of characteristics of gas adjustment clause mechanisms of responding utilities in the U.S. and Canada to be presented to the American Gas Association.

Prepared a Glossary of Rate and Regulatory Terms; investigated the costs associated with implementation of time-of-day metering; compared the effects of master metering and individual metering on utility load and revenues; and analyzed the impacts of automatic fuel adjustment clauses on revenues in conjunction with the Public Utility Ratemaking Guidelines Project for the U.S. Department of Energy.

Conducted research for a report on The Evolution of Cost Allocation Methodologies Employed by the FPC and FERC (gas pipelines) in conjunction with providing rate case support for Pan-Alberta Gas, Ltd.

Conducted water system costing and pricing studies including work for a large New York water authority with over 300,000 customers.

Participated in a comprehensive review of the main extension policy for Oklahoma Natural Gas Company including cost of extensions and recommendations for change on policy and practices to encourage new load.

Demand Side Management

Investigated the cost effectiveness of potential energy efficiency programs for NIPSCO for both electric and gas companies in Indiana. Effort included developing an evaluation tool, researching the measures and programs in the US to assess those better suited for the Indiana service territory, evaluating the service territory and its ability to conserve, developing a series of measures that passed the standard tests, and documenting the results for use in regulatory filings and the Integrated Resource Plan.

Developed a set of measures for use in Consumers Energy Company's IRP including a cost-effectiveness modeling plan.

Investigated gas conservation programs for Brooklyn Union Gas Co.; Developed DSM screening models and program parameters for Consumers Energy Corp. and Northern Indiana Public Service Co., including statistical analysis relating to projection of program participants and impact on system load and sales.

Energy Audits and Electrical Load Surveys

Conducted a study for Riverbay Corporation to determine the quantity of heat generated by its steam plant and transferred for sale via a high-temperature, hot-water system to six nearby public schools. Compared cost with current price of this service to the New York City Board of Education.

Conducted electrical load surveys and cost analyses to determine reasonable charges to be paid for electricity by a customer in billing disputes involving the utility, or the landlord in the case of submetered properties. Clients included Radio New York Worldwide (WRFM), Wometco WWHT, Inc., Key Food Supermarkets, Morningside Heights Housing Corporation, Pavlo Engineering Company, A7A Graphic Arts Studio, Inc. and Fisher Brothers Management Company.

Valuation

Prepared pro forma income and rate base statements for clients in valuation efforts in connection with the potential acquisition of utility and other business assets.

Organizational Studies

Conducted an investigation of the organization, structure and operation of the rate department of a major Northeast combination utility. Focused on the gas ratemaking function as part of a study to determine if gas should operate as separate business unit from electric.

Power Contract Analysis

Conducted an analysis of a proposed negotiating plan by Westvaco Corporation to modify an electric service agreement with the Potomac Edison Company for purchase and sale of power from Westvaco's Luke Mill Plant.

Energy Procurement

Participated in a study concerning the Niagara Power Project in which Vermont, Pennsylvania and Ohio were competing for a 30-MW block of low-cost hydro power from the Power Authority of the State of New York. Performed load forecasting and research, including coal reserve data for report to show why Vermont could derive the greatest economic benefit.

Load Forecasting

Performed a load forecast for a proposed 650-MW, combined-cycle plant in Georgia, Vermont. Analysis of Vermont's present installed capacity, joint ownership in out-of-state units, and future purchased power agreements versus peak-load forecasts for the state.

Feasibility Studies

Participated in a study to determine the economic feasibility of constructing a 40-MW electric generating plant in Vermont, using wood chips obtained from the state's rough and rotten trees as fuel.

Marketing Studies

Performed an analysis of local market conditions for the disposal of flue gas desulfurization by-products for a major northeastern utility. Conducted research and interviews to determine current and forecasted supply/demand characteristics for five potential by-products. Recommended which product had the most favorable market for absorption of continuing supplies.

Electrical Systems Design

Responsible for design and engineering of electrical systems including power distribution, lighting, and signal systems for various commercial and educational facilities.

EDUCATION

The City College of New York, Bachelor of Engineering - Electrical, 1970

REGISTRATION

Professional Engineer - State of New York

Professional Engineer - State of New Jersey

AFFILIATIONS (*past and present*)

American Water Works Association

Institute of Electrical & Electronic Engineers

New York Academy of Sciences

Mensa

ARTICLES & PRESENTATIONS

"A Determination of Fire Hydrant Rental Fees," presentation at the 16th Annual Legislative Dinner of the Long Island Water Conference.

"Utility Rate Design and Structure," *Skylines*, August 1983 (Building Owners & Managers Association).

"Preparing for a Rate Case" and "Electric Utility Cost of Service", Presentation at a General Electric Company Seminar. Schenectady, N.Y., June 1992

"Gas Cost of Service and Rate Design in a Deregulated Environment", Presentation at a joint conference of the American Gas Association (AGA) and the Mexican Natural Gas Association (AMGN) in Mexico City, March 28, 1996.

Speaker on "Electric and Gas Fully-Allocated and Marginal Cost of Service " at Stone & Webster's Utility Management and Development Program.

"Setting Up Your Cost Models", Presentation at the INFOCAST Functional Unbundling Program. Chicago, IL, November 2000.

Joseph F. Pino

Executive Consultant

Management consultant with diverse experience in the electric utility industry centering on business process reviews and improvement, approaches to deregulation, unbundling of cost, rate design, customer aggregation, state and federal regulatory proceedings, and customer information systems including billing, and settlement. Joined Shaw Consultants International Inc. with over 25 years experience that includes rates, cost-of-service, demand-side management, performance-based rates, pricing, billing and information systems.

PROFESSIONAL EXPERIENCE

2002 - Present	Shaw Consultants International Inc. <i>Executive Consultant</i>
1981 - 2002	NSTAR (formerly Boston Edison Company) <i>Manager - Customer Information System</i>

CONSULTING EXPERIENCE

Utility Restructuring

Involved in the implementation of new unbundled tariffs for deregulation. Mr. Pino has developed methods of unbundling cost by rate class. He has also participated in the redesign of a customer billing system for deregulation, assisted in development of Performance Based Rates (PBR) metrics associated with service quality, and separated street lighting revenue and cost to prepare for municipalization.

Pricing

Participated on the team that implemented real-time pricing pilot. Recommended and implemented several rate design improvements including economic development rates by class and manufacturer retention rates. Assisted in development of sample performance base rates (PBR) for PUC. Created and negotiated pricing for several special contracts in competitive customer situations. Set policy and pricing on non-regulated products, services and special contracts.

Demand-Side Management (DSM)

Assisted in several process and impact evaluations that included data analysis, field investigation, program design, program implementation and management. Developed company's first data warehouse to retrieve billing and customer participation information for DSM related projects. Managed several internal consultants in creating DSM information system. Managed external consultants in program evaluations of several DSM programs.

Business Process Reviews and Management Audits

Mr. Pino led review of all work and service orders for an electric utility that included detailed mapping of each process and assisted in a process and management review of electric utility's work practices and procedures. He has also led assessments of previous management audit on review of implementation of recommendations, as well as led several teams in developing detailed business process review, analysis and enhancements.

Northern Indiana Public Service Company (NIPSCO)

Researched and recommended energy efficient end uses for Integrated Resource Plan. Assisted in analyzing modeling savings, cost and benefits for several energy efficiency programs including demand response and load management programs. Researched the application of the FERC seven factor test across the US to form the basis for an application at NIPSCO. The research included developing a matrix showing the diversity and homogeneous classifications undertaken and approved.

Consumers Energy

Developed and recommended energy efficient end uses for Integrated Resource Plan including air conditioning cycling program. Assisted in analyzing modeling savings, cost and benefits for several energy efficiency programs including demand response and load management programs. Program development included investigating implementation and management of programs in the most efficient and costly manner.

Yucca Mountain, DOE

Completed an energy audit of two buildings for the Yucca Mountain Facility in Las Vegas. On site for a detailed walk through of both facilities, gather building demographic information and produced a detailed report of energy efficiency results with recommendations.

Developed a conservation plan for the Yucca Mountain facility that identified all the activities that need to take place to comply with DOE requirements in the environmental, energy efficiency, load management and compliance areas. The document required a field visit to the facilities, a review of the current and anticipated facility uses, a series of teleconferences, and a study of the end-uses to complete.

Massachusetts Institute of Technology (MIT)

Acted as Project Manager of the MIT team responsible for creating a modeling tool to support the campus utility master plan. This model was customized to handle multiple energy sources including steam, electric, hot and chilled water with the flexibility to handle one of all at the same time. Coordinated the data gathering necessary to develop the model, translated and scrubbed the data and provided alternatives to support future requirements of the campus.

Vermont Electric Cooperative

Assisted in detailed business process review and audit of the Cooperative. Interviewed several employees, board members and commission personnel. Reviewed and analyzed company and commission documents related to the project scope. Developed process charts for several business processes. Assisted in the presentation and delivery of results of the review and audit.

Hoosier Energy Cooperative

Assisted Hoosier staff in selection of vendor to provide CMMS software. Liaison between vendors and company. Set up vendor demonstrations, assisted in developing requirements document, facilitated selection team, assisted in vendor selection and negotiated pricing of software. Assisted in the development of an implementation plan.

E.ON U.S. Services

Directed an assessment of the utility's coal generation in Kentucky for a benchmarking study and report. The study included reviewing all reliability reports, staffing, capital costs, O&M costs, age, size, schedule maintenance and unscheduled outages. Compared information to similar plants in U.S. and provided a detail report of the results. Assessment included interviews with key personnel at all six plants.

Energie New Brunswick

Directed an assessment of the Company's implementation of recommendations resulting from an earlier assessment of Energie New Brunswick's planning for and operation of its transmission and distribution systems. The update included reviewing all recommendations from the previous assessment, updating the status of recommendations, developing findings and conclusions relative to the company's progress in implementation each recommendation. Directed an update of the benchmarking from the previous report. The benchmarking included analysis of similar size companies from the northeast US and Canada with benchmarks associated with reliability, sales, revenue, employees, peak demand, capital costs, O&M costs, customers, and miles of line.

Hoosier Energy Cooperative

Assisted Hoosier staff by managing several business process teams as they reviewed the current processes in order to develop the preferred future process including coordinating information, diagramming processes, facilitating business process meetings and advising during the development of the new business process design. Provided assistance on several different process teams including asset management, work order process, communication and information technology.

Long Island Power Authority

Coordinated the review of community meeting comments on the needs of Long Island for the energy plan. Organized the comments by topic, developed a means for tracking the originator, comparing information, and developed draft responses to the questions. These questions included policy level concerns such as divestiture of utility assets, management decisions, and compensation issues; technical concerns such as the adoption of renewable resources and energy efficiency technology, operational issues, and customer issues. Fielded the review of the responses and developed a document for stakeholder input.

Rhode League of Cities and Towns (RILCT)

Acted as liaison between the RILCT and suppliers in the aggregation of electric power supply for its members. Provided researched of supply options available to the RILCT and created a short list to negotiate with based upon the RILCT requirements. Coordinated the review of the RILCT billing information with suppliers and assisted in providing timely and accurate information to them based upon the requirements of RILCT. Negotiated pricing options for the RILCT with multiple suppliers that lead to the selection of a provider for future service to the RILCT. Provided various other information upon request and review supplier contracts.

New Hampshire Electric Cooperative

Currently working with all levels of management and staff to develop a process map that includes full documentation for eight related work processes that directly touch the customer. Process involves extensive number of interviews with staff responsible for each step in the processes. Map provides decision information, areas where overlap occurs, competing and conflicting data management systems, a method for estimated time commitments and elapsed process time, and reporting inconsistencies. Project will result in significant efficiencies and cost reductions for the client.

Customer Information Systems

Responsible liaison between information system business area and business partners for whom the software and databases are maintained. Worked with clients to establish information requirements, reporting efforts, data management requirements, and data issues for investigation by information system personnel. Directed team of professionals in developing software upgrades, standard reports, and new system interfaces to meet client needs.

Led NSTAR investigation of customer information system capabilities and weaknesses during merger of acquired utility. Required working with a team to establish the new business entity's requirements:

Information System Manager

Provided support and resources leading up to merger process. Managed implementation of supplier billing using EBT/EDI. Managed successful Y2K team effort for the Customer Information System. Led team responsible for the daily operation and maintenance of the billing system. Implemented several tariff changes to billing system. Assisted in the creation of new financial and usage reports

EDUCATION

BS, Mathematics, University of Massachusetts, Boston

Ms. McSweeney is a management consultant with an engineering and business background. She is a new addition to our team and a recent graduate of Villanova University. She has a mechanical engineering degree with a business minor.

PROFESSIONAL EXPERIENCE

Shaw Consultants International, Inc.
Consultant

June 2008 - Present

Wyeth BioTech, Andover MA
Intern II

Summer 2006

CONSULTING EXPERIENCE***Long Island Power Authority (LIPA)***

Ms. McSweeney has been involved in analyzing, presenting, and documenting information relative to the LIPA Electric Resource Plan, 2009-2018. She has experience incorporating and combining multiple information streams from various sources into a publically available set of documentation. Her duties related to this project include technical writing, policy review, and data management and analysis.

Northern Indiana Public Service Company (NIPSCO)

Ms. McSweeney has experience auditing extensive and complicated excel based models including cost of service allocation tools and rate revenue proofs. She has contributed to extensive research into regulatory precedent involving topics necessary to support allocation approaches and Rate Design for use in testimony filed on behalf of NIPSCO. Her experience also includes presentation design and development. She has completed numerous tasks to organize information and sort information as needed for input to other analyses.

Market Modeling

Ms. McSweeney is trained in energy market modeling as well as power plant valuation based on projected revenue streams. She has developed presentations for revenue models for use in combination with market forecasting.

Rhode Island League of Cities and Towns

Ms. McSweeney has experience in the procurement of the energy needs of the Rhode Island League of Cities and Towns for 2009 and the years to follow. Her experience includes research into electricity suppliers as well as possible roles the RILCT could take to procure affordable electricity rates in the future.

OTHER EXPERIENCE***Senior Design Project***

2007-2008

Designing and constructing an original thermal management system for use in electronics cooling (XBOX360). Utilizing techniques and themes studied in Honors level Heat Transfer course (Spring 2007) and Thermal-Fluid System Design course (Fall 2007). Completed two written proposals/reports and one oral presentation of the project. Final written and oral reports completed in April 2008. Developed and enhanced my project management skills over a three-semester-long project. Learning the importance and practice of project task delegation, and teamwork

Management Project

Fall 2007

Project that required the organization of twelve business students to complete a thorough investment pitch to a panel of Vanguard and Johnson & Johnson executives. Participated in the product development, marketing strategy and financial analysis phases.

Other Projects

Dec. 2005

Manufactured and programmed a small robot to self-navigate a pre-specified maze. Cultivated individual and group ideas and concepts through effective teamwork. Applied Skills, including experience with Vernier software and measurement devices, AutoCAD, MathCAD, MatLAB, Solidworks, Microsoft Word, Excel, and PowerPoint.

EDUCATION

Villanova University, Villanova PA

May 2008

Bachelor of Science in Mechanical Engineering (3.30 GPA)

Minor in General Business, Villanova School of Business (VSB)

International Education

Università Urbino; Istituto Lorenzo de' Medici

Aug. 2007

(Villanova University Study Abroad Program – Urbino & Florence Italy)

Professional Certificates

Engineer In Training (EIT) – passed the Fundamentals of Engineering Exam

April 2007

Timothy J. O'Brien

Senior Consultant

Mr. O'Brien is a management consultant who specializes in energy market assessments and energy planning including electric price forecasting, utilizing Prosym, the energy market simulation software. He has experience in energy efficiency program design and evaluation. He also has a significant amount of experience in the areas of project controls, earned while working on the EPC side of Shaw Consultants International Inc., including cost tracking, monitoring earned value, change orders, reporting and budget forecasts, with a special focus on running ShawTrac, The Shaw Group's proprietary earned progress software. Before joining Shaw Consultants International Inc., Mr. O'Brien worked in the financial services industry, where he focused on sales and new business development. He earned a BA in Economics from the University of Massachusetts and a MS in Economic Policy and Planning from Northeastern University, with a focus on economic development.

PROFESSIONAL EXPERIENCE

2006- Present	Shaw International Consultants, Inc. Consultant
2001 – 2006	Stone & Webster Engineering & Construction, Inc., Cost Analyst
1998 - 2001	WearGuard Corporation Business Account Manager
1995 – 1998	PaineWebber Inc. Sales Assistant
1994 – 1995	Wells Fargo Bank Sales Representative
1989 – 1993	Scudder, Stevens and Clark Registered Representative

CONSULTING EXPERIENCE

Market Assessments

Modeled multiple markets to assess and forecast the market price of power and the competitive positioning of units or portfolios in each market, including New England, the Midwest, the Dakotas, Texas, Nevada, California, and the Northwest. In Canada, studies have included the Alberta and Ontario markets. Resources modeled have included both fossil fuels as well as renewables, including the addition of wind in California and financing support for wind farms in the Northwest.

Prepared a nationwide study of existing aggregation programs and marketed our services to states that allow aggregation but do not currently have a program in place.

Compiled a database of coal fired plant costs and statistics, utilizing FERC 1 forms, to provide a benchmark for future plant modeling. Included plants of 27 companies across 6 years of history.

Researched NIPSCO electric DSM – and developed 6 additional programs with high kW savings

Researched NIPSCO gas DSM and energy efficiency opportunities for use in filed DSM investment plan

Acquisition Support Projects

Prepared regional market studies for A. G. Edwards energy sector research team as part of their client energy sector report development.

Provided forecasting and market studies for a portfolio of Canadian generation assets to support the development of a bid strategy. This effort included analysis of gas and coal fired technologies as well as the regulatory and provincial government activities that might impact the future value of these assets. Our team participated in numerous strategic discussions to develop the right market approach for the assets of interest in a very uncertain long term competitive wholesale electricity market.

Provided a projection of market prices as well as an assessment of PPA dispatch for a portfolio of assets that were spread across the US. This assessment included an analysis of carbon tax implications on costs and revenues for RGGI regions and non-carbon tax regions. Contributed to discussions of revenue implications and provided input to the proforma analysis.

Competitive Market Price Forecasting and Advisor Services

Provided support to Consumers Energy IRP...Price forecasting and research of Michigan market in support of a long term energy resource plan filed with Michigan Regulators.

Competitive long term market price forecasting for Great River Energy, Midland Cogeneration, Selkirk, Keystone-Conemaugh

EDUCATION

M.S., Economic Policy and Planning, Northeastern University, 2000

B.S., Economics, University of Massachusetts, 1985

EXPERIENCE

Member, Cohasset Economic Development Committee

Member, Board of Trustees, Cohasset Sailing Club

Member, Board of Managers, Cohasset Swim Center

Chairman, Cohasset Village Revitalization Committee, 1998-2002

Attachment E
Shaw Consultants International, Inc. – Standard Perpetual Licensing Agreement

**SCOST - PC VERSION LICENSE AGREEMENT
LIMITED PURPOSE LICENSE AGREEMENT**

THIS LICENSE AGREEMENT, entered into this _____ day of _____, between _____, a _____ corporation (hereinafter referred to as "Licensee") and STONE & WEBSTER MANAGEMENT CONSULTANTS, INC., a Louisiana Corporation (hereinafter referred to as "Stone & Webster")

WHEREAS, Stone & Webster is the owner of all right, title and interest to a system of computer programs entitled "SCOST - PC VERSION"; and

WHEREAS, Stone & Webster desires to license the Licensee to use the SCOST - PC VERSION system subject to the terms and conditions of this Agreement; and

WHEREAS, Licensee shall use the SCOST - PC VERSION system upon the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereto hereby agree as follows:

1. License. Stone & Webster hereby grants and Licensee accepts, upon the terms and conditions hereinafter set forth, a non-transferable, non-sublicensable and non-exclusive license to use Stone & Webster's SCOST - PC VERSION system ("Program"), for the sole and limited purpose of reviewing **INSERT CASE NAME AND NUMBER** ("Rate Case") and no other purpose. Title to and ownership of the Program shall remain in Stone & Webster.

2. System Operation/Material. The Program is designed to operate on a PC-based computer. The minimum hardware requirements are a microprocessor with a clock speed of 150 MHz, 128 megabytes (MB) of random access memory (RAM), one CD ROM drive and a hard disk drive with at least 30 MB of free space. The Program is designed to run under Microsoft Excel for Windows. Stone & Webster will provide the Program on a CD. It is intended that the Program be transferred to the hard disk drive and that the CD be retained for back-up purposes.

3. Fees and payment. Consolidated Edison shall pay a license fee in the amount of \$1500.00 upon execution of this License. All fees shall be due by Licensee within thirty days after receipt of an invoice.

4. Term. This Agreement shall not be effective until accepted by Stone & Webster and shall continue until a final non-appealable decision has been rendered in the Rate Case or the Rate Case has been dismissed. Notwithstanding any other provision of this License, Stone & Webster may forthwith terminate this License upon breach by Licensee of any of the covenants,

conditions and representations contained herein, after having given notice of such breach and allowing the Licensee thirty days to correct such breach.

5. Protection of Programs. The Program, shall remain confidential and proprietary property of Stone & Webster. Licensee agrees to continue to treat such information as confidential and proprietary property of Stone & Webster and shall acquire no rights in such information except to use such information solely for the internal purposes of Licensee in the Rate Case and only during the term of the license. The Program and other information supplied directly or indirectly by Stone & Webster (except such as Licensee may be required to disclose pursuant to judicial, governmental, or regulatory action) shall be received and maintained by the Licensee in confidence. Licensee shall not use or cause to be used such system or other such information for the benefit of any other person or entity whether or not for a consideration unless otherwise agreed to by Stone & Webster in writing. Licensee shall not sell, rent, loan, disclose, or otherwise communicate or make available such Program or other information or any part or change thereof to any person except employees of the Licensee and Licensee agents for the Rate Case, and shall take all reasonable precautions to maintain the confidentiality thereof but not less than that customarily employed to protect its own proprietary information. Licensee shall not in any manner represent that it has any ownership in the Program or such other information. Licensee represents and warrants that it shall require its employees and agents who have access to the Program and such other information to execute an agreement with Licensee to maintain the confidentiality of the Program and related documentation. In the event the License expires or is terminated, the provisions of this paragraph shall nevertheless continue in force and effect; and Licensee shall thereafter cease to use the Program or other information furnished by Stone & Webster and shall promptly delete the Program from its library and electronic systems and return to Stone & Webster any material associated therewith and all copies of the Program and related documentation.

6. Assignment. This License and any of the licenses, Programs or materials to which it applies may not be assigned, sublicensed, or otherwise transferred by Licensee without prior written consent from Stone & Webster.

7. Warranty. The Program is furnished by Stone & Webster to Licensee "AS IS", and Stone & Webster is not obligated to provide maintenance or support services of any kind to Licensee with respect to the Program. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PROGRAM, THIS LICENSE, OR ANY ACTIONS BY STONE & WEBSTER ASSOCIATED WITH THIS LICENSE.

8. Limitation of Liability. STONE & WEBSTER'S LIABILITY HEREUNDER FOR DAMAGES, REGARDLESS OF THE FORM OF ACTION, SHALL NOT EXCEED THE TOTAL LICENSE FEES PAID BY LICENSEE. STONE & WEBSTER WILL NOT BE LIABLE FOR ANY LOST PROFITS, OR FOR ANY CLAIM OR DEMAND AGAINST LICENSEE BY ANY OTHER PARTY. NO ACTION, REGARDLESS OF FORM, ARISING

OUT OF TRANSACTIONS UNDER THIS LICENSE MAY BE BROUGHT BY LICENSEE MORE THAN ONE YEAR AFTER THE CAUSE OF ACTION HAS ACCRUED. IN NO EVENT WILL STONE & WEBSTER BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES EVEN IF STONE & WEBSTER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

9. Governing Law. The License shall be construed and otherwise governed pursuant to the laws of the State of New York and any litigation arising out of this License shall be brought before courts in the State of New York.

10. Equitable Relief. The parties agree that in the event of any breach of the provisions hereof by Licensee, money damages alone will not adequately compensate Stone & Webster; hence, the parties agree that Stone & Webster, at its option, shall have the right to enforce this License and/or to prevent or to restrain the violation by Licensee of any provisions hereof by action for an injunction or its equivalent and shall be entitled to injunctive relief without posting of bond or showing of irreparable harm. All specific remedies provided for in this License shall be cumulative, and shall not be exclusive of one another or of any other remedies available in law or in equity or otherwise.

11. Notices. All notices given under or pursuant to this License shall be sent by Certified or Registered Mail, Return Receipt Requested, and shall be deemed to have been delivered when physically delivered, if to Stone & Webster, at

Attn: Kathleen Kelly
One Main Street
Suite 900
Cambridge, Massachusetts 02142

And if to licensee, at

12. Excused Performance. Stone & Webster shall not be deemed in default of any provision hereof or be liable for any delay, failure in performance, or interruption of service resulting directly or indirectly from acts of God, civil or military authority, civil disturbance, war, strikes or other labor disputes, fires, other catastrophes, or other force beyond its reasonable control.

13. Complete Agreement. It is understood and agreed that this License embodies the complete understanding of the parties and the any and all provisions, negotiations and representation not included herein are hereby abrogated and this License cannot be changed,

modified or varied except by written instrument signed by both parties. In the event Licensee issues a purchase order or memorandum or other instrument covering the Program herein provided, it is hereby specifically agreed and understood that such purchase order, memorandum, or instrument is for Licensee's internal purposes only, and any and all terms and conditions contained therein, whether printed or written, shall be of no force or effect. No waiver by either party of a breach hereof or a default hereunder shall be deemed a waiver by such party of a subsequent breach or default of like or similar nature.

By (Authorized signature)

The foregoing License is hereby accepted by Stone & Webster Management Consultants, Inc. this _____ day of _____.

(Vice President)

SAMPLE

Attachment F
Shaw Consultants International, Inc. – Cooperative Qualifications



Management and Strategy Practice Qualifications

Cooperative Experience

Santee Cooper - Resource Planning Study

Shaw Consultants International, Inc. resource planning experts developed a comprehensive assessment of all potential supply-side options, including: self- and joint-ownership, cogeneration, and all types of purchased power and sales. The study consisted of six major tasks: (1) Project initiation, (2) Resource bid solicitation, (3) Supply-side analysis, (4) Integration and evaluation, (5) Sensitivity and risk analysis, and (6) Report and presentation. A key part of the study was to prepare a letter and specifications to solicit bids from potential power suppliers, and to evaluate/rank the bids received in comparison to other supply-side options. Shaw Consultants International, Inc. used the EGEAS optimization model to perform the "integration" analysis of the power supply bids and supply-side options in order to determine the least-cost resource plan.

Iowa Association of Electric Cooperatives (IAEC)

Our senior staff worked with a task force of the CEO's of a cross section of generation and T&D cooperatives in Iowa to devise a strategy and positioning plan for the development of renewable energy portfolios and energy efficiency portfolios and policies within the state of Iowa. Our support provided educational packages to update the CEO's on the state of the industry in the US and Canada, an analysis of the implication of alternative approaches to each subject, and the facilitation of meetings to discuss and consider the appropriate course of action for the cooperatives.

Iowa Association of Electric Cooperatives

Shaw Consultants International, Inc. assisted the cooperative association and its member task force by developing their understanding of restructuring issues and their impact on the cooperative's position in the industry. Educating the task force required developing a working document outlining the major issues, stakeholder opinions on the issues, and relevant impact on the operation of and financial condition of cooperatives as compared to other types of utilities. All work with the project team was accomplished using an interactive, facilitating role to assess the appropriate route for cooperatives.

The second phase of the engagement involved assisting a smaller team of cooperative representative with their development of negotiating strategy and legislative language designed to formulate restructuring legislation in the state. Our staff negotiated on behalf of the client with the other parties as needed.

The last phase of the effort required the design, development and implementation of a restructuring education program for the member cooperative's directors, managers and employees with the objective of providing each of them the appropriate tools to prepare for a competitive market. This phase required the development of training materials including a copyrighted workbook, articles, identification of relevant resources (website, literature, and commission decisions), and the preparation of seminar tools (power point presentation materials, and case studies for interactive learning). Our staff was heavily involved in the training for the cooperatives. Over 400 attendees participated in each of the six topical training sessions; which were held twice to facilitate attendance since each required up to three days of training.

Vermont Electric Cooperative

Our staff worked with the CEO and Board of Directors of the Cooperative in concert with the Vermont Department of Public Service to perform a Business Process Review and Audit of the Transmission and Distribution Cooperative as part of a settlement agreement between the parties. This effort involved a review of the entire organization including Board activities to assess whether improvements could be made to the organization's structure, effectiveness and

execution. Our recommendations for improvement were extensive impacting capital investment and cooperative direction for the near term.

In support of this effort our staff developed the regulatory strategy to support a request for a rate increase that was required to finance the capital improvements. This support included the redrafting of testimony in all major areas of the filing including; financial, reliability and labor relations. For the first time in VEC's history the rate request was accepted as filed with no modification to the amount of the requested increase.

Iowa Association of Electric Cooperatives

Our team is working with a diverse group of electric cooperatives to assess the potential strategies related to adoption of carbon limiting legislation at the state and federal levels. We are supporting education, position development, and evaluating implications of numerous approaches to proposed legislation and anticipated legislation. The effort will be the basis for communication and negotiation with legislators and industry groups.

Cornbelt Power Cooperative

Shaw Consultants International, Inc. executives met with and assisted the Cornbelt Board of Directors by planning and facilitating its annual strategic planning session. During this engagement we facilitated discussion of key business issues and provided strategic advice as the board 1) assessed the implications of the energy and economic markets on its existing short-term plan, 2) adjusted their short-term implementation plans as needed, and 3) evaluated recommendations for longer-term investigation.

Southeast Iowa Electric Cooperative

Our staff assisted the Cooperative manager with preparations for several strategy sessions with the Board of Directors and facilitated Board discussion and consideration of numerous business altering strategies. The resulting recommendations set the strategy for the cooperative's five-year business plan including major shift in directions for expansion.

Southwest Louisiana Electric Membership Corporation

Shaw Consultants International, Inc. prepared an unbundled cost of service study and associated unbundled rates for filing before the Louisiana Public Service Commission. We provided filing strategy advice and support for the case. We provided testimony and exhibits to unbundle costs and rates into power supply and distribution components. We also developed a power adjustment clause mechanism, which the Commission recommended as a model for use by all cooperatives within Louisiana.

In a follow-on effort, Shaw Consultants International, Inc. prepared electric industry restructuring white papers and regulatory support documents for submission before the Commission in its investigation of industry restructuring. We worked with the client to evaluate the business impact on the cooperative in anticipation of adoption of the various restructuring policies proposed in the state.

Vermont Electric Cooperative

Our staff worked with the CEO and Board of Directors of the Cooperative in concert with the Vermont Department of Public Service to perform a Business Process Review and Audit of the Transmission and Distribution Cooperative as part of a settlement agreement between the parties. This effort involved a review of the entire organization including Board activities to assess whether improvements could be made to the organization's structure, effectiveness and execution. Our recommendations for improvement were extensive impacting capital investment and cooperative direction for the near term.

East Kentucky Power Cooperative Performance Review

In support of this effort an organizational assessment was performed which analyzed and assessed the effectiveness of the existing organizational structure, alignment, performance in achieving results in meeting the utility's core mission. A functional and core process review was performed in order to analyze the as-is processes, policies, and procedures and how these subsequently hinder, impact, or strengthen desired levels of efficiency and effectiveness. This analysis involved reviewing the process activities, looking for improvement opportunities including: areas of inconsistency,

disconnects in service, duplication of efforts, sources of rework or errors, bottlenecks that hinder response time, and overall communication barriers.

As part the on-site analysis, interviews, and field observations, the top issues, concerns and opportunities were identified. Key conclusions were summarized along with the potential impacts to the organization. Specific recommendations were developed, including recommendations for improving performance, and recommended changes to organizational structure, functional activities, core processes and proposed staffing levels.

Hoosier Energy Cooperative

Shaw Consultants International, Inc. conducted a management evaluation including both business process reviews and a condition assessment of the largest generation asset owned by Hoosier energy. This process involved a series of interviews with senior executives, senior manager and staff throughout the company, relevant document and information reviews, report reviews, several process review teams composed of Company staff and our team members, and an extensive analysis of trends to provide recommendations for changes and improvements to the organization, staffing, planning, business processes, and system applications.

Southwestern Louisiana Electric Membership Cooperative

Shaw Consultants International, Inc. conducted a review of the organization through interviews with the CEO followed by interviews of key managers and a review of appropriate documentation. We assessed the effectiveness and efficiency of management and business operations through our discussions and document reviews as well as observations of business processes. We evaluated the risks associated with anticipated succession issues over the next decade. Our recommendations included a realignment of responsibilities, acquiring new personnel for several positions, a shift in organizational focus, revised reporting, and new resource training and mentoring plans.

Lower Valley (WY) Energy Cooperative

Shaw Consultants International, Inc. provided business process mapping of several key areas of Lower Valley Energy Coop in Wyoming. We facilitated sessions to discuss billing, materials control, GIS, and work order processes. Process maps with identification of the advantages and disadvantages of each work flow were also provided.

New Hampshire Electric Cooperative

Shaw Consultants International, Inc. staff developed a business process map that included full documentation for eight related work processes that directly touched the customer. This was accomplished by interacting with all levels of the Cooperative's management and staff. Process mapping involved an extensive number of interviews with staff responsible for each step in the processes. The process map provided decision information, areas where overlap occurred, identification of competing and conflicting data management systems, a method for estimating time commitments and elapsed process time, and reporting inconsistencies. The project resulted in significant efficiencies and cost reductions for the client.

Peace River Electric Cooperative

Our staff worked with the client to assess their organizational efficiency and to develop recommendations to improve their organization design, management effectiveness and business process efficiency.

Kauai Electric Cooperative

Shaw Consultants International, Inc. staff worked with a team of consultants to review the organization, management, operations, and business processes of this island cooperative and provided a roadmap to guide future investment and improvements in each area.

Linn County REC

Shaw Consultants International, Inc. reviewed the planning processes for work management at this distribution cooperative using group facilitation and personal interviews to gather information. The project resulted in a mapping of the processes involved identifying process owners, participants, and significant contributors; areas of duplication; system integration issues; and recommended improvements.

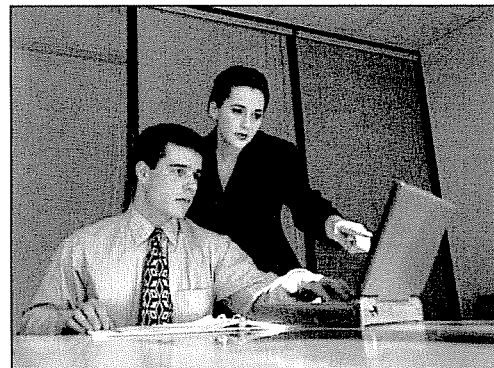
Expert Witness Services

Shaw Consultants International, Inc. has provided expert testimony before regulatory commissions on subjects including revenue requirements, cost of service, rate design, restructuring matters, sales forecasting, resource planning, and DSM planning. Examples of these U.S. and Canadian jurisdictions include:

- Federal Energy Regulatory Commission
- Delaware Public Service Commission
- Indiana Public Service Commission
- Iowa Utilities Board

Shaw Consultants International, Inc. uses an approach that includes:

- Evaluation of Current Performance
- Assessment of Metrics and Benchmarks
- Gap Analysis
- High-Level and Detail-Oriented Business and Customer Process Reviews
- Identification of Opportunities and Priorities
- Detailed Business Case of Solutions
- Improvement Implementation Plan



Expert Witness Services

- Regulatory Policy
- Integrated Resource Planning
- Demand Side Management
- Cost of Service
- Rate Design and Pricing
- Independent Evaluation of RFPs
- Market Pricing

- Kentucky Public Service Commission
- Louisiana Public Service Commission
- Michigan Public Service Commission
- Montana Department of Public Utilities
- Massachusetts Department of Telecommunications and Energy
- Massachusetts Energy Facilities Siting Council
- New Jersey Board of Public Utilities
- Board of Commissioners of Public Utilities, Newfoundland & Labrador



Selected Project Descriptions

In this section, we provide project descriptions for some representative assignments performed recently by Shaw Consultants International, Inc.

Iowa Association of Electric Cooperatives - Electricity Restructuring Facilitation, Legislation and Negotiation

Skills include organization, negotiation, communication, process reviews, and industry knowledge.

Project Description

Over a four year period, Shaw Consultants International, Inc. worked hand-in-hand with a diverse set of cooperatives to enhance their ability to negotiate beneficial legislative control over their businesses during industry restructuring efforts.

Services Provided

Shaw Consultants International, Inc. worked with the Iowa Association of Electric Cooperatives (IAEC) to develop an extensive business plan. During 1997, the state of Iowa was considering adopting legislation to introduce a competitive electric utility marketplace. There are more than 40 different cooperatives in Iowa, consisting of both distribution companies and generation and transmission entities. They are all members of the IAEC and as a group they decided to hire Shaw Consultants International, Inc. to help them understand the restructuring (or deregulation) issues that they faced and then to assist them in determining their best strategic action on this issue. The project spanned four years of effort starting in mid-1997 and concluding in early 2001. This effort spanned educational efforts, developing strategy, facilitating discussions and negotiation among the cooperatives, negotiation with other utilities and non-utility parties to develop legislation, and legislative language development.

Initially, we were directed to assist a team of twenty cooperatives as they wrestled with their understanding of the potential business implications of restructuring. This entailed our development of an educational issue profile – a workbook of nearly 200 pages that described more than twenty key restructuring issues for the members. Working through more than 40 facilitated sessions during the summer and fall of 1997, Shaw Consultants International, Inc. presented each issue and completed a list of positions, through structured discussions with the participants, which were the key to cooperative adoption of a restructured electricity market. Shaw Consultants International, Inc. then worked with the team to present the conclusions (and the process) to the more than forty cooperatives delegates – comprising board members, general managers, and key staff; these sessions typically involved more than two hundred attendees. We facilitated the sessions and provided assistance or directly presented the concepts. Key to this communication role was the fear that the business model in use by the cooperatives would be eliminated under the anticipated restructured environment. At the conclusion of this first phase, we successfully supported the adoption of a series of positions that would represent the cooperatives during legislative development.

In phase 2, which commenced in the summer of 1998, we worked with a more focused “negotiation team” of cooperatives who were charged with representing the entire group at expected legislative negotiation sessions. Working with this team we created the future cooperative utility business model, identified must have positions, neutral positions, and wish list positions for our strategic negotiation policies. We developed a negotiation strategy and then positioned the cooperatives so that they would be a respected partner in the legislative sessions. During a two year period, we presented the cooperative plan to other utilities, regulators, business institutions, consumer advocates, labor unions, environmental advocates, and consumers. As a result of our efforts, the legislative language development was driven by the cooperative needs and we achieved acceptance of all key positions.

Legislation was adopted and considered by the Iowa legislature. In parallel, our team was directed to educate the more than forty cooperatives in the issues and business implications, providing them tools with which they could prepare for the new market reality. We developed six different educational workshops of two days in length that were attended by more than four hundred people. To complete this we developed educational workbooks, case studies, and actively provided the training.

Period of Performance

1997 - 2002

Project Reference

Mr. Brian Kading
Executive Vice President and General Manager
Telephone: 515.727.8941

Southwestern Louisiana Electric Membership Cooperative - Organization Review

Skills include organization, facilitation, communication, process, and industry knowledge

Project Description

Over a three month period, Shaw Consultants International, Inc. worked with the CEO of the Cooperative to define the strategy of the organization, identify key business issues and assess the ability of the organization to meet its goals. Shaw Consultants International, Inc. provided a long term organization redesign targeted at meeting new strategic goals.

Services Provided

Initially, Shaw Consultants International, Inc. met with the CEO to understand the corporate direction, current organizational and management concerns, and to assess the scope of the effort. We were provided an extensive amount of management reports for review, organizational charts, job descriptions, and general corporate information to allow us to assess the effort. Shaw Consultants International, Inc. provided a preferred approach to the issue and started the effort.

Our staff met with the CEO's direct reports and their direct reports for a number of hours in one-on-one interviews designed to understand their skills, responsibilities, vision for the organization, their issues with the structure, and other general issues of management. We developed a matrix of management and process issues and trends from these more than 25 interviews. Our team met to discuss the trends and implications and then presented these to the CEO.

Upon completion of a general discussion with the CEO, we developed alternative organizational structures that would change the focus of the cooperative to the preferred goals. These were fully developed and presented to the CEO and a report provided.

We are currently working with the organization to implement change and assist them in the changes that are desired.

Period of Performance

2004

Project Reference

Mr. J. U. Gajan
CEO and General Manager
Telephone: 337.896.2515

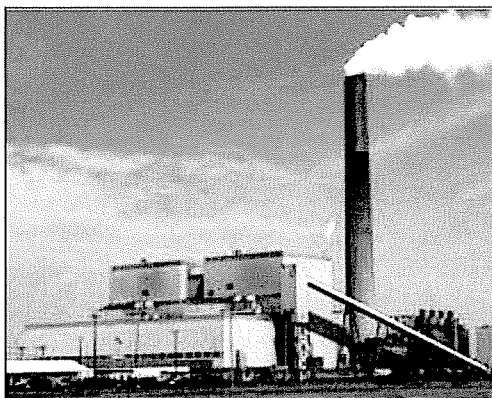
Hoosier Energy Cooperative – Organizational Improvement Review and Development

Skills include organization, technology, communication, process reviews, and industry knowledge.

Description

Working in conjunction with the Hoosier's staff, Shaw Consultants International, Inc. conducted a business process review and condition assessment of their generation units.

Services Provided



Hoosier Energy Cooperative (Hoosier) engaged Shaw Consultants International, Inc. to work with its staff to initially evaluate the management team and operational issues to identify and prioritize areas where improvements could result in the greatest efficiencies. As a result we created teams to review several of the company business processes, perform an organization review and to provide a generation assessment of its coal units.

The process of assessing the organization involved a series of interviews throughout all levels of the company, information reviews, report reviews, and extensive analysis of trends to provide recommendations for changes and improvements to the organization, including staffing, planning, and business processes and applications. We worked extensively with defined teams to identify current work processes for six major areas relative to asset management, operations and budgeting. These business processes have been redefined and the implementation of future processes to improve efficiency is currently ongoing.

Business Process and Organization Review

The results of the teams with additional analysis by Shaw Consultants International, Inc. provided a blueprint for Hoosier's future policies regarding their generation units. It articulates a strategy for developing a balanced and comprehensive plan to use their assets and resources in a safe, economical and efficient manner. Business processes have been made more efficient throughout the company with new processes added and others combined or streamlined. As a result of the business process review, an organization review of the current structure was performed by Shaw Consultants International, Inc. and recommendation provided to senior management for review. A plan has been developed by Hoosier incorporating several of the recommendations by Shaw Consultants International, Inc. combined with internal suggestions to produce a new and more efficient organization.

Generation Assessments

As part of the review a condition assessment of the generation assets was performed by Shaw Consultants International, Inc. . The assessment included benchmarking Hoosier's units against similar units across the country. The benchmarks included:

- O&M Cost per MW
- Capital Cost per MW
- Staffing

- Unscheduled Outages
- Schedule Outages
- EFOR
- EAF
- Heat Rate
- Net Capacity Factor (%)

The results of the benchmarking study identified areas where improvements could be achieved and identified the competitive position of Hoosier relative to the peer group.

Summary

Working in conjunction with the Hoosier's staff, Shaw Consultants International, Inc. led the development of a multi-phase plan to create business, organization and generation performance improvements. The plan provides a comprehensive and flexible approach to providing a safe, reliable, environmentally friendly and cost efficient manner to generate electricity for its customers.

Period of Performance

2005 to Present

Project Reference

Mr. Robert Richhart
Vice President, Management Services
Telephone: 812.876.0236

New Hampshire Electric Cooperative (NHEC) - Business Process Improvement

Skills include organization, technology, communication, process reviews, and industry knowledge.

Project Description

Over one year period, Shaw Consultants International, Inc. worked hand-in-hand with the Cooperative to enhance their ability to identify all tasks associated with the processes of both work and service orders.

Services Provided

Shaw Consultants International, Inc. worked with the NHEC to develop business process maps of the work and service order processes. There were a total of nine processes identified by NHEC that required detailed business process mapping. Shaw Consultants International, Inc. staff with the assistance of the NHEC project manager gathered all pertinent information for each process. Shaw Consultants International, Inc. staff interviewed over 80 NHEC employees from office clerks to vice presidents to gather information about each process.

For each map, all processes, decisions, data sources and documents were identified. All shapes in the maps were labeled and number. Each shape also had detailed information relating to the function. For processes the information included how many resources were required for the process, job title of each resource, department, a maximum and minimum of the actual time the process would take to complete, a maximum and minimum of the length of time the process would take from start to completion, cost and any issues associated with that process. For each decision box a percentage was attached for "YES" and "NO". All data sources were identified as databases, forms or documents. All data sources were clearly identified and labeled accordingly. A separate copy of each document was copied onto a CD with an associated title and number. A cross reference table was produce identifying all the places where the document was referenced.

After the maps were finalized, Shaw Consultants International, Inc. produced a draft and final report detailing all the information we had gathered during the project. The reports included recommendations for both the long and short term, identified duplication of effort, data and databases, identified low hanging fruit, and identified critical paths for each process and documentation of all interviews and processes. Maps of each of the processes were included in the document.

NHEC has ownership the process maps and continues to update them. They use them periodically to assist them in making their business run more efficient.

Period of Performance

2002

Project Reference

Mr. Ray Gosney
Executive Vice President, Strategy and Governmental Relations
Telephone: 603.536.1800