




Your Touchstone Energy® Cooperative 

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PUBLIC SERVICE
COMMISSION

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

**APPLICATION OF BIG RIVERS ELECTRIC)
CORPORATION FOR APPROVAL OF ITS)
2012 ENVIRONMENTAL COMPLIANCE)
PLAN, FOR APPROVAL OF ITS AMENDED)
ENVIRONMENTAL COST RECOVERY)
SURCHARGE TARIFF, FOR CERTIFICATES)
OF PUBLIC CONVENIENCE AND)
NECESSITY, AND FOR AUTHORITY TO)
ESTABLISH A REGULATORY ACCOUNT)**

**Case No.
2012-00063**

**Response to the Office of the Attorney General's
Initial Request for Information
Dated May 21, 2012**

Volume 2 of 2

FILED: June 1, 2012

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
FOR APPROVAL OF ITS 2012 ENVIRONMENTAL COMPLIANCE PLAN,
FOR APPROVAL OF ITS AMENDED ENVIRONMENTAL COST
RECOVERY SURCHARGE TARIFF, FOR CERTIFICATES OF PUBLIC
CONVENIENCE AND NECESSITY, AND FOR AUTHORITY TO
ESTABLISH A REGULATORY ACCOUNT
CASE NO. 2012-00063**

**Response to the Office of the Attorney General's
Initial Request for Information
Dated May 21, 2012**

June 1, 2012

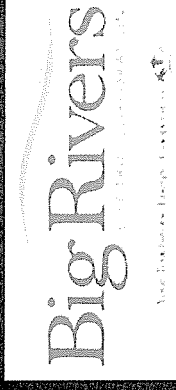
1 **Item 46)** *Reference the Berry testimony at page 14. Provide copies of*
2 *any and all materials used in the “communications with its members,*
3 *constituents, or other stakeholders” as noted in the testimony.*

4
5 **Response)** Please see the attached documents, and the documents provided in
6 Big Rivers' response to Item 36 of KIUC's First Set of Data Requests, and which
7 are provided on a CD accompanying Big Rivers' responses to those requests.

8
9
10 **Witness)** Robert W. Berry

11

**Environmental Compliance Update to Big Rivers Board –
January 19, 2012**



Environmental Compliance Update

Eric Robeson
January 19, 2012

Recommendations from Sargent & Lundy Study

- Replace FGD at Wilson
- Install SCR at one Green unit
- Upgrade fans at HMPL and install additional FGD recycle pumps
- Install low NOx burners at HMPL and Wilson
- Convert Reid to natural gas



CSAPR Update

- On December 30, the DC Court of Appeals issued a stay regarding CSAPR
- Compliance has been suspended pending resolution of this action
- Probable outcome will be a one year delay in implementation
- Until this is resolved, all utilities must continue to comply with CAIR, which was the air regulation prior to CSAPR
- Big Rivers should be in CAIR compliance with minimal NOx allowance purchases for 2012

MATS Mercury and Air Toxics Standard

- Regulations issued in December
- Emissions rates limits instead of total emissions (allowances)
- 2015 compliance date with 1 year extension likely
- Activated Carbon Injection required at all plants
- Precipitator upgrades with dry sorbent injection possible at all plants
- Subject to litigation as well

CSAPR & MATS Cost Update - Capital

CSAPR CAPITAL EXPENSE ESTIMATES (\$ Millions)					
Project	'12	'13	'14	'15	Total
Wilson FGD	5	30	50	15	100
Green SCR	5	50	20	-	75
HMPL Fan Upgrades	2	6	-	-	8
Reid Conversion	2	-	-	-	2
Total	14	86	70	15	185
MATS CAPITAL EXPENSE ESTIMATES (\$ Millions)					
Activated Carbon Injection and Particulate Monitors					
Station	'12	'13	'14	'15	Total
Coleman	-	-	3.5	10.0	13.5
Wilson	-	-	1.0	4.0	5.0
Green	-	-	1.0	8.0	9.0
HMPL	-	-	-	1.0	1.0
Total	-	-	5.5	23.0	28.5
Overall - CSAPR & MATS CAPITAL EXPENSE (\$ Millions)					
Assumes no additional particulate compliance measures required					
	'12	'13	'14	'15	Total
Total	14.0	86.0	75.5	38.0	213.5

CSAPR & MATS Cost Update – O&M

CSAPR O&M EXPENSE		
Project	\$ (Millions)	Comment
Wilson FGD	0.70	
Green SCR	1.50	additional 4 personnel
HMPL Fan Upgrades	0.75	
Reid Conversion	-	
Total	2.95	
MATS O&M EXPENSE		
Activated Carbon Injection and Particulate Monitors		
Station	\$ (Millions)	Comment
Coleman	2.55	
Wilson	2.20	
Green	2.40	
HMPL	0.08	
Total	7.23	
OVERALL CSAPR & MATS O&M EXPENSE		
Assume no additional particulate compliance measures required		
Total	10.18	\$ (Millions)

Alternatives

- Reduce generation and buy purchased power
- Install SNCR at Coleman and Green Units and replace burners at Coleman
 - Estimated cost of \$28M
- Convert Green Units to Natural Gas
 - Estimated \$25M each vs \$75M SCR each
 - MWH cost goes from \$30 to \$50
 - Complies with future HAPS/MACT and CCR regulations
- Buy NOx Allowances instead of SCR
 - Market needs to develop
 - Cannot exceed 18% variability limit of allowances




Time Line

- April 2012 File Environmental Compliance Plan, CPCN and Revised Environmental Surcharge
- Release A/E to develop RFP's
- October 2012 PSC Approval
- Notice to proceed to vendors
- January 2013 Vendor procurement begins
- July 2013 Construction begins
- January 2015 Wilson FGD in service

Big Rivers Environmental Surcharge Update to Big Rivers Board

- February 21, 2012

Big Rivers
ELECTRIC CORPORATION

Your Touchstone Energy[®] Cooperative 

Big Rivers Environmental Surcharge (ES) Rate Formula

February 21, 2012



The ES Rate Formula...

- Environmental Compliance Plan (ECP) Monthly Costs, E(m), equals Return on Investment (ROI), plus Pollution Control Operating Expenses (OE) minus net proceeds from By-Product and Emission Allowance Sales (BAS), plus any (Over)/Under Recovery from the prior period
- $E(m) = ROI + OE - BAS + (Over)/Under \text{ Recovery}$
- ES Factor = jurisdictional compliance costs divided by Member and Smelter kWh, kW or Adjusted Revenue

Options for ES Cost Allocation

Management Recommendation

- Total Adjusted Revenue = Rural revenue plus Surcredit, Large Industrial revenue plus Surcredit, and Smelter revenue *less* Smelter contractual premiums (premiums = 25 cents/MWh, Tier Adjustment Charge and Surcharge)

Other Options

- kWh = Rural kWh, Large Industrial kWh, and Smelter Base Monthly Energy kWh
- kWh/kW "Combo" = Variable cost on kWh basis as per above. Fixed cost allocated entirely to Members and Smelters – billing demand kW for Rural and LI, and Base Fixed Demand kW for Smelters
- Total kW and Net Adjusted Revenue (Net Adjusted Revenue = Total Adjusted Revenue *less* Fuel and Non-FAC PPA) based allocations are inappropriate due to significant variable cost and off-system sales

2012 ECP

- Includes Fixed O&M and Capital Costs
 1. Cost of capital components are a) interest, b) a 1.24 TIER thereon, c) depreciation, d) property taxes, and e) property insurance
 2. Is continued allocation of all ES costs on a kWh basis appropriate (as all costs are no longer variable)?

Allocation by kWh?

- Appropriate when the a majority of costs are variable
- 100% of existing plan costs are variable (approx. \$43.3 million in 2016)
- 2012 ECP costs are currently estimated to be 68% fixed and 32% variable (\$27.1 million fixed; \$12.8 million variable) in 2016
- Together, it's estimated that approximately 33% of all ES costs are fixed and 67% are variable
- To the extent costs are fixed, lower load factor consumers benefit with a kWh cost allocation

Calculation of 2012 ECP Cost

	CSAPR	MATS	Total
<u>Capital</u>			
Wilson	139,000,000	11,240,000	150,240,000
HMPL (Net of City)	3,850,000	280,000	4,130,000
Reid	1,200,000		1,200,000
Green	81,000,000	18,480,000	99,480,000
Coleman		28,440,000	28,440,000
	<u>225,050,000</u>	<u>58,440,000</u>	<u>283,490,000</u>
Cost of Capital	9.42%	9.42%	9.42%
Capital Cost	21,199,710	5,505,048	26,704,758
O&M Cost	3,220,000	10,010,000	13,230,000
Total Annual 2012 ECP Cost in 2016	<u>24,419,710</u>	<u>15,515,048</u>	<u>39,934,758</u>

Additional Revenue Requirement Under ES Allocation Alternatives

	Total Adj. Revenue	kWh	kWh / kW Combo
Rural	6.6%	5.5%	6.6%
Large Industrial	6.6%	6.6%	7.4%
Smelter	5.5%	5.9%	5.8%
Off-System	6.1%	6.1%	4.2%


Note: This slide depicts the estimated percent rate increase from each rate class resulting from CASPR and MATS. To the extent the off-system increment isn't realized, the non-smelter and smelter rate classes would be required to make up the shortfall.

Management Recommendation

- Total Adjusted Revenue... Rural revenue plus Surcredit, Large Industrial revenue plus Surcredit, and Smelter revenue less Smelter contractual premiums (premiums = 25 cents/MWh, Tier Adjustment Charge and Surcharge)

**Big Rivers Environmental Surcharge Update Rate Formula to Big
Rivers Board – March 16, 2012**

Big Rivers
ELECTRIC CORPORATION

Your Touchstone Energy Cooperative 

Environmental Surcharge (ES) Update - Rate Formula

March 16, 2012



The ES Rate Formula

- Current ES Factor = jurisdictional compliance costs divided by Member and Smelter Total Adjusted Revenue
- $$\text{CESF} = \text{E(m)} / \text{R(m)}$$
- Environmental Compliance Plan (ECP) Monthly Costs, E(m), equals Return on Rate Base (RORB), plus Pollution Control Operating Expenses (OE) minus net proceeds from By-Product and Emission Allowance Sales (BAS), plus any (Over)/Under Recovery from the prior period

$$\text{E(m)} = \text{RORB} + \text{OE} - \text{BAS} + (\text{Over})/\text{Under Recovery}$$

E(m) Components

- RORB = Return on Rate Base for ECP Projects
 - RORB = Rate Base x Rate of Return
- Rate Base = Total Utility Plant in Service less Accumulated Depreciation, Cash Working Capital, and Materials & Supplies Inventory (including inventory of emission allowances)
- Rate of Return = Average Cost of Debt for ECP Projects, borrowing cost, plus application of 1.24 TIER

E(m) Components

- OE = Operating Expenses
- OE includes the monthly O&M expenses associated with ECP Projects, including depreciation, property taxes, property insurance, emission allowance, and third-party professional fees
- Big Rivers will seek regulatory approval to include in OE a three-year amortization of the third-party professional expenses of the ECP filing and PSC proceeding
- Variable costs for existing approved pollution control projects -- SO₂, NO_x, and SO₃ -- will continue to be included in OE

E(m) Components

- BAS is the net proceeds from By-products and Emission Allowance Sales
- The Over/Under Recovery accounts for variances in recovery of allowed amounts from prior periods
- E(m) is jurisdictionalized by the ratio of total adjusted revenues from member and smelter sales to total adjusted revenues from all sales (i.e. the difference being off-system sales) -- so that off-system sales are allocated a share of the ECP costs

Revenue R(m)

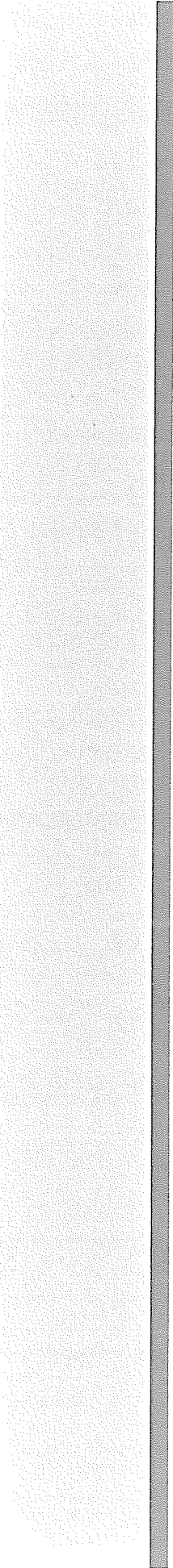
- Total Adjusted Revenue: Rural revenue plus Surcredit, Large Industrial revenue plus Surcredit, and Smelter revenue /less Smelter contractual premiums (premiums = 25 cents/MWh, Tier Adjustment Charge and Surcharge)
- Determined on a rolling 12-month average basis in order to mitigate seasonal variations
- ES cost will effectively incorporate a 2-month lag (i.e. March costs = May billing)
- Rate formula adheres to Commission-approved standard in place for other Kentucky electric utilities

ECP Revenue and Rate Impact in 2016

	Base 2012 <u>1</u>	Base 2016 <u>2</u>	Build 2016 <u>3</u>	(3-2)/2	(3-2)/1
(In \$/MWh)					
Gross of MRSM					
<u>Rate \$/MWh</u>					
Rural	52.64	58.89	62.98	6.9%	7.8%
Large Industrial	45.46	51.64	54.80	6.1%	6.9%
Smelter Unadjusted	51.08	54.45	58.18	6.8%	7.3%
Smelter Adjusted*	48.13	53.09	55.72	5.0%	5.5%
Net of MRSM					
<u>Rate \$/MWh</u>					
Rural	44.32	51.27	51.27	0.0%	0.0%
Large Industrial	37.21	51.64	54.80	6.1%	8.5%
Smelter Unadjusted	51.08	54.45	58.18	6.8%	7.3%
Smelter Adjusted*	48.13	53.09	55.72	5.0%	5.5%

*Smelter Adjusted reflects removal of the TIER Adjustment Charge. The Build Case has lower off-system net sales margin in 2016 due to ECP costs, causing the Smelters to move up within the TIER bandwidth.

**Sargent & Lundy Environmental Compliance Report Update to
Big Rivers Coordinating Committee –
February 16, 2012**



Sargent & Lundy Environmental Compliance Report Update

Eric Robeson
February 16, 2012

Big Rivers
ELECTRIC CORPORATION

Sargent & Lundy Compliance Report

- Based on CSAPR, Utility HAPS/MACT, and proposed CCR and 316b regulations
- Technology Solution
- Options to purchase allowances or reduce generation are being evaluated outside S&L report

	Baseline Emissions	2012 Allowances	2014 Allowances	% Reduction In 2014
Wilson				
Coleman				
Green				
HMPL				
Reid				
Total				

	Baseline Emissions	2012 Allowances	2014 Allowances	% Reduction in 2014
Wilson				
Coleman				
Green				
HMPL				
Reid				
Total				

Summary of Recommendations

- Replace Wilson FGD
- Install SCR at Green 2
- Upgrade fans and pump at HMP&L
- Convert Reid to natural gas
- Install Activated Carbon Injection systems and Dry Sorbent Injection systems on all units except HMP&L

CSAPR Cap Ex and Cash Flow

	2012	2013	2014	2015	2016	Total
Wilson FGD	1.80	27.60	55.00	47.60	7.00	139.00
Green SCR	1.00	20.00	44.00	16.00		81.00
HMPL FGD	0.30	2.20	3.10	0.70		6.30
Reid Conv	0.05	1.15				1.20
Total	3.15	50.95	102.10	64.30	7.00	227.50

All figures in millions

NAIS Cap Ex and Cash Flow

	2012	2013	2014	2015	2016	Total
Wilson		1.20	4.80	5.24		11.24
Coleman		1.20	14.40	12.84		28.44
Green		1.20	8.00	9.28		18.48
HMPL				0.48		0.48
Total		3.60	27.20	27.84		58.64

All figures in millions

Annual O&M Expenses

	2013	2014	2015	2016
CSAPR		0.76	2.23	2.92
MATS				9.07
Total		0.76	2.23	11.99

All figures in millions

Future Environmental Issues

- ∞ NAAQS Update
 - Reduce SO₂ and NO_x allowances by 20%
Second SCR at Green Station
\$81 M around 2018
- ∞ Coal Combustion Residuals
 - Reduce ash ponds
SSC: Submerged Scraper Conveyors at all plants
\$94 M by 2018
- ∞ 316b
 - Install rotating fish screens at Coleman and Sebree
\$6 M around 2016

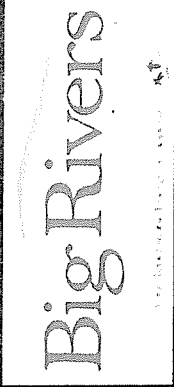
Estimated Rate Impacts by Year

2012	0.6%
2013	2.9%
2014	2.0%
2015	2.4%
2016	6.9%

Regulatory Schedule

- April File ECP/CPCN/ES
- May-June Data Requests
- July-August Hearings
- October PSC Order

**Station II Environmental Update to HMP&L –
February 15, 2012**



Station II Environmental Update

Eric Robeson
February 15, 2012

Station 11 - CSAPR Data

	S&L Baseline	2011 Actual	2012 Allowances	2014 Allowances	2014 % Reduction vs S&L	2014 % Reduction vs 2011
--	-----------------	----------------	--------------------	--------------------	----------------------------------	-----------------------------------

H1

SO2
Annual Nox

H2

SO2
Annual Nox

Note: Split bypass emissions 50/50 between H1 & H2
All units in tons

Station II - MATS Data

H1	Test	Limit	Units
	Mercury	1.20000	#/Tbtu
	Filterable Particulate Matter	0.03000	#/MMbtu
	HydroChloric Acid	0.00200	#/MMbtu
H2			
	Mercury	1.20000	#/Tbtu
	Filterable Particulate Matter	0.03000	#/MMbtu
	HydroChloric Acid	0.00137	#/MMbtu

Sargent & Lundy Recommendation

- Run 2nd Recycle Pump Full Time
 - Improves removal efficiency from 93% to 97%
 - Modify fan & replace motor to overcome pressure drop
 - Option to install 3rd pump as spare
 - Estimated cost \$3.15M/unit
 - In-service date 1-1-15
- Install Hg, Particulate, & HCL Monitors
 - Estimated cost \$48k/unit

Value of 3rd Pump

Annual planned pump maintenance hours	144
Annualized forced outage hours	<u>40</u>
	184

Incremental SO2 tons 31.5

130 MW, 6# coal

Allowance cost per unit @ \$500/allowance \$15,800

Next Steps

**Big Rivers Letter to Rural Utilities Service –
March 6, 2012**



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

March 6, 2012

Mr. Victor T. Vu, Director
Power Supply Division
Electric Program
United States Department of Agriculture
Rural Development Utilities Program
Stop 1568, Room 0270
1400 Independence Avenue, SW
Washington, DC 20250-0700

RE: KY 62 Big Rivers Electric Corporation
2012 Environmental Compliance Plan

Dear Victor:

Big Rivers Electric Corporation ("*Big Rivers*") writes this letter to follow-up on our telephone conversation of February 9, 2012, in which we generally described Big Rivers' current plans to comply with federal environmental laws. More specifically, this letter is written for purposes of informing the Rural Utilities Service ("*RUS*") about Big Rivers' plans, and seeking information and assistance regarding approvals Big Rivers may require from RUS in connection with the implementation and financing of Big Rivers' environmental compliance plans.

As you know, Big Rivers owns or leases 1,646 MW of principally coal-fired generation. The U.S. Environmental Protection Agency ("*EPA*") Cross-State Air Pollution Rule ("*CSAPR*") and Mercury and Air Toxins Standard ("*MATS*") require reductions in the levels of several air pollutants emitted by Big Rivers' generating plants. For purposes of achieving the emissions levels allowed by those standards, Big Rivers has developed, with assistance from Sargent & Lundy, L.L.C. ("*Sargent & Lundy*"), an environmental compliance plan ("*ECP*") that will allow Big Rivers to meet these environmental standards in a cost-effective manner.

Big Rivers' ECP includes capital projects for construction of new environmental control facilities, upgrading of certain existing environmental control facilities and implementation of changes in the operation and maintenance of certain of Big Rivers' generating units. A list of anticipated ECP capital projects and project costs are provided for your information as Attachment A to this letter.

Big Rivers requires certain state regulatory approvals in connection with the implementation of its ECP. On or about April 2, 2012, Big Rivers will file with the Kentucky Public Service Commission an application seeking approval of its ECP, certificates of public convenience and necessity for the projects in the ECP, and recovery of the capital and operating costs of the ECP projects through an amendment to the environmental surcharge in Big Rivers' rates.

We are also trying to identify the RUS requirements with which Big Rivers must comply in connection with the construction and financing of the projects in its ECP. One question we have arises under Section 5.2 of the Amended and Consolidated Loan Contract dated as of July 16, 2009, between Big Rivers and the United States ("*Loan Contract*"). Section 5.2 requires compliance with Section 8.1 of the Loan Contract before Big Rivers may add to its System¹ by construction of Capital Assets with funds from sources other than loans made or guaranteed by RUS in the case of generating facilities if the total expenditures for the facilities to be built will exceed \$10 million. We are unclear about whether the term "generating facilities" includes pollution control equipment added to existing generating facilities. The term "generating facilities" is not defined in the Loan Contract.

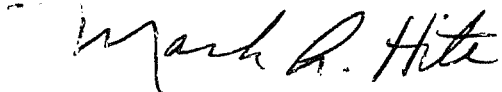
We anticipate having quite a few other questions about the RUS requirements applicable to the ECP projects, and compliance with those requirements. The timing applicable to initiating and completing compliance activities will obviously be an issue of primary concern. We would appreciate it if you would identify the appropriate person or persons at RUS we should contact with our additional questions. At Big Rivers, Eric Robeson, Vice President of Environmental Services and Construction, will have responsibility for tracking and assuring compliance with the RUS requirements.

Big Rivers is considering whether to apply for RUS loan funds for the permanent financing of the ECP capital projects. Big Rivers currently estimates its share (net of the City of Henderson's cost share of Station Two) of these ECP capital costs to be \$283,490,000. We understand that qualifying for RUS loan funds requires compliance with a number of requirements, including compliance with the National Environmental Policy Act. Because Big Rivers has not completed a loan application since the early 1980s, we would expect to have several questions about that process, as well.

¹ Capitalized terms in references to or from the Loan Contract are defined terms in the Loan Contract.

We look forward to meeting with you and other RUS representatives on March 20, 2012. Please contact Eric Robeson or me with any questions you may have or any information you may provide as a result of this letter.

Sincerely yours,

A handwritten signature in black ink that reads "Mark A. Hite". The signature is written in a cursive style with a large, prominent initial "M".

Mark A. Hite
Vice President and Interim CFO

ATTACHMENT A

c: Mark Bailey
Bob Berry
Eric Robeson
Jim Miller

**Big Rivers Electric Corporation
2012 Environmental
Compliance Options**

Project #	Pollutant	Control Facility	Plant	Environmental Regulation or Regulatory Requirement	Permit	CPCN Filed	Projected Completion	Projected Capital Cost (\$ Million)	Projected Capital Cost Net of City (\$ Million)
4	SO ₂	Flue Gas Desulfurization ("FGD" or "Scrubber")	Wilson Unit 1	Clean Air Act (1990), Cross State Air Pollution Rule ("CSAPR")	Title V Permit	Yes	2016	139 00	139 00
5	NO _x	Selective Catalytic Reduction ("SCR") @85% Removal	Green Unit 2	Clean Air Act (1990), Cross State Air Pollution Rule ("CSAPR")	Title V Permit	Yes	2015	81 00	81 00
6	SO ₂ , NO _x	Convert Existing Burners to Natural Gas	Reid Unit 1	Clean Air Act (1990), Cross State Air Pollution Rule ("CSAPR")	Title V Permit	Yes	2014	1 20	1 20
7	SO ₂	Install Additional Recycle Pump & New Motors On ID Fans	HMP&L Unit1	Clean Air Act (1990), Cross State Air Pollution Rule ("CSAPR")	Title V Permit	No	2015	3 15	1 92
			HMP&L Unit 2		Title V Permit		2015	3 15	1 93
8	Mercury	Advanced Carbon Injection, Dry Sorbent Injection and Monitors	Coleman Unit 1	Clean Air Act (1990), Mercury and Air Toxics Standards ("MATS") Rule	Title V Permit	Yes	2016	9 48	9 48
			Coleman Unit 2		Title V Permit		2016	9 48	9 48
			Coleman Unit 3		Title V Permit		2016	9 48	9 48
9	Mercury	Advanced Carbon Injection, Dry Sorbent Injection and Monitors	Wilson Unit 1	Clean Air Act (1990), Mercury and Air Toxics Standards ("MATS") Rule	Title V Permit	Yes	2016	11 24	11 24
10	Mercury	Advanced Carbon Injection, Dry Sorbent Injection and Monitors	Green Unit 1	Clean Air Act (1990), Mercury and Air Toxics Standards ("MATS") Rule	Title V Permit	Yes	2016	9 24	9 24
			Green Unit 2		Title V Permit		2016	9 24	9 24
11	Mercury	Particulate Monitors	HMPL Unit 1	Clean Air Act (1990), Mercury and Air Toxics Standards ("MATS") Rule	Title V Permit	No	2016	0 24	0 14
			HMPL Unit 2		Title V Permit		2016	0 24	0 14

Total (\$ Million) 286 14 283 49

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
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**Response to the Office of the Attorney General's
Initial Request for Information
Dated May 21, 2012**

June 1, 2012

1 **Item 47)** *Reference the Berry testimony at page 15. With regard to the*
2 *sensitivity analysis, provide a copy of the analysis, with cells intact, along*
3 *with answers to the following:*

4

5 *a. Who performed it?*

6 *b. When it was done?*

7 *c. What was the cost for the analysis?*

8 *d. Was the ability of the residential and commercial*
9 *consumers to pay their bills taken into consideration*
10 *along with the viability of the smelters to remain in*
11 *existence?*

12 *e. Provide any and all materials in any way associated with*
13 *your responses.*

14

15 **Response)** Please see Big Rivers' response to Item 26b of the Commission Staff's
16 First Request for Information.

17

18 *a. The financial analysis was performed by Big Rivers with input*
19 *from ACES Power Marketing and PACE Global.*

20 *b. The sensitivity analyses were performed concurrently with the*
21 *development of this Application.*

**Case No. 2012-00063
Response to AG 1-47
Witness: Robert W. Berry
Page 1 of 2**

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- 1 c. The sensitivity studies were largely compiled by Big Rivers'
2 personnel. ACES Power Marketing provided the planning models
3 for these scenarios, and PACE Global provided certain price
4 forecast data, as noted above and as provided in Big Rivers'
5 response to Item 26 of the Commission Staff's First Request for
6 Information. There was no incremental cost incurred by Big
7 Rivers specifically for these sensitivity analyses.
- 8 d. The ability of the residential and commercial customer to pay
9 their bills was given consideration, but because such ability is not
10 entirely analogous to the viability of the smelters, it was not the
11 subject of a sensitivity scenario in the cost effectiveness
12 evaluation. Please see the response to Item 22.
- 13 e. Please see Big Rivers' response to Item 26b of the Commission
14 Staff's First Request for Information.

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Witness) Robert W. Berry

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Dated May 21, 2012**

June 1, 2012

1 **Item 48)** *Reference the Berry testimony at page 26. Provide a copy of*
2 *the S&L study with all cells intact.*

3

4 **Response)** Please see the CD Big Rivers filed on May 30, 2012, in response to
5 the May 11, 2012, letter from KIUC's counsel to Big Rivers' counsel.

6

7

8 **Witness)** William DePriest

9

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
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June 1, 2012

1 **Item 49)** *Reference the Berry testimony at page 27. Was there any other*
2 *“key input information” available to the applicant that were not used in*
3 *the S&L study? If so, please provide list of any such information together*
4 *with a detailed description.*

5

6 **Response)** Big Rivers is not aware of any other key input information that
7 might have been pertinent to the S&L study.

8

9

10 **Witness)** Robert W. Berry

11

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June 1, 2012

1 **Item 50)** Reference the Berry testimony at page 29. Are the retirements of the
2 assets taken into account with the costing of the projects and the final impact on
3 ratepayers? If so, describe in detail.

4

5 **Response)** The retirement of assets at the existing Wilson FGD was included in
6 the evaluation of ECP project number 4. Big Rivers estimates that \$49.185 million in
7 gross plant will be retired from the Wilson scrubber.

8

9

10 **Witness)** Robert W. Berry

11

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1 Item 51) *Please refer to Berry Testimony p. 19, lines 17-20. Please*
2 *provide the data used to arrive at the percentages referenced therein,*
3 *including the following:*

4

5 a. *On what data does Mr. Berry rely for his statement that*
6 *“total billings to the rate classes will increase*
7 *approximately 6.9% relative to the projected billings.”*

8 b. *What are the “projected billings”?*

9 c. *For what years were these billings projected?*

10 d. *How were these billings projected?*

11 e. *On what data does Mr. Berry rely for his statement that*
12 *“total billings to the rate classes will increase ... by*
13 *approximately 7.8% relative to projected 2012 billings.”*

14 f. *What are the “projected 2012 billings”?*

15 g. *How were the 2012 billings projected?*

16

17 Response)

18 a. Please see Exhibit Wolfram-6 found in the Direct Testimony of
19 John Wolfram, which compares 2016 rates by customer class in
20 the “Base Case” to rates in the “Build Case.” The difference in the
21 2016 rates is due to the “2012 Plan” net cost and is expressed a

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- 1 percentage of 2016 "Base Case" rates and as a percentage of 2012
2 "Base Case" rates.
- 3 b. Please see the exhibit attached to Big Rivers' response to Item 19
4 the Attorney General's Initial Data Request, which shows the
5 projected 2016 average monthly usage in MWh's and the projected
6 2016 average monthly charge by customer class.
- 7 c. 2016.
- 8 d. Using the "Base Case" financial model and the "Build Case"
9 financial model.
- 10 e. The data comes from Exhibit Wolfram-6, the "Base Case"
11 financial model, and the "Build Case" financial model.
- 12 f. Please see the attached exhibit, which shows the projected 2012
13 billings from the "Base Case" financial model.
- 14 g. The "Base Case" financial model.
- 15
- 16
- 17 **Witness)** Mark A. Hite
- 18

Big Rivers Electric Corporation
Case No. 2012-00063
Projected 2012 Billings - Base Case Model

	Energy (MWh)	Rate (\$/MWh)	Annual Billing (\$)
<u>Gross of MRSM and RER Rider</u>			
Rural	2,377,957	52.64	125,175,656
Large Industrial	961,547	45.46	43,711,927
Smelter	7,317,072	51.08	373,756,038
<u>Net of MRSM and RER Rider</u>			
Rural	2,377,957	44.32	105,391,054
Large Industrial	961,547	37.21	35,779,164
Smelter	7,317,072	51.08	373,756,038

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1 **Item 52)** *With regard to any retirements or the placing of any*
2 *equipment or materials in salvage, what is the protocol for the applicant*
3 *in selling the items?*

- 4
- 5 *a. Are the items merely scrapped or is there an RFP process?*
6 *b. If the items are merely scrapped, why?*
7 *c. If there is an RFP process, please describe the protocol for*
8 *the complete process, including the issuance of the RFP,*
9 *the place of sale, etc.*
10 *d. If the items are merely scrapped, is the applicant aware of*
11 *the fact that certain enterprises are in the business of*
12 *purchasing items, and that some other types of items are*
13 *capable of being refurbished or restored?*

14

15 **Response)**

- 16 *a. The goal of Big Rivers will be to salvage assets where appropriate.*
17 *An RFP process will be used where the nature of the retirements*
18 *makes doing so practical.*
19 *b. Certain items will have little salvage value and will be*
20 *scrapped/disposed of properly. Examples would be concrete*
21 *foundations.*

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- 1 c. Big Rivers will identify firms that engage in this type of activity to
2 include in the RFP process. The RFP will include a list of assets
3 that appear to be salvageable. A pre-bid meeting and site
4 walkdown will take place at the appropriate location involving Big
5 Rivers' personnel and the contractor's personnel. Big Rivers will
6 then evaluate bids received and negotiate with the bidder that
7 appears to provide the greatest value to Big Rivers and its
8 Members.
- 9 d. Yes. Big Rivers is aware that certain enterprises are in the
10 business of purchasing items and that some items are capable of
11 being refurbished. Big Rivers will apply common sense and good
12 business practices to disposing of retirements associated with its
13 compliance plan.

14
15
16 Witness) Robert W. Berry
17

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1 **Item 53)** *Reference the Berry testimony at page 29. Describe any and all*
2 *projected quantifications of energy avoided from DSM and energy*
3 *efficiency as expected by the applicant. Provide copies of any and all DSM*
4 */ energy efficiency studies the applicant may have conducted associated*
5 *with the instant filing.*

6

7 **Response)** Big Rivers evaluated its energy efficiency and DSM program
8 attributes first in its Integrated Resource Plan filed in Case No. 2010-00443 and
9 more recently updated those analytics in Case No. 2012-00142, *In The Matter Of:*
10 *Tariff Filing of Big Rivers Electric Corporation To Implement Demand Side*
11 *Management Programs.* No additional analysis was prepared for the instant case.
12 Also, see Big Rivers' response to Item 4 of the Sierra Club's Initial Requests for
13 Information.

14

15

16 **Witness)** Robert W. Berry

17

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June 1, 2012

1 **Item 54)** *Reference the Berry testimony at pages 30-31. With regard to*
2 *the intention to hire an "Architectural/Engineering" firm to construct the*
3 *facilities included in the 2012 plan, state the following:*

- 4
5 *a. How will the contract(s) be awarded, as in by way of an*
6 *RFP or otherwise?*
7 *b. What criteria will be used?*
8 *c. Who will make the decision?*
9 *d. What cost(s) are anticipated?*
10 *e. When are the decisions expected to be made?*

11
12 **Response)**

- 13 a. Proposals have been solicited from three engineering firms that
14 have performed similar work in the past to prepare an RFP for
15 the Wilson FGD project. Please see also Big Rivers' responses to
16 Item 21 of the Attorney General's Initial Data Requests and Item
17 18 of the Commission Staff's First Request for Information.
18 b. Selection of the engineering firm will be based on the best
19 evaluated bid which includes price, estimated man-hours to
20 complete the scope of work, the personnel assigned to the project
21 and ability to perform the scope in the required time frame.
22 Please see also Big Rivers' responses to Item 21 of the Attorney

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- 1 General's Initial Data Requests and Item 18 of the Commission
2 Staff's First Request for Information.
- 3 c. The decision will be made by the Vice President of Environmental
4 Services and Construction following consultation with the Vice
5 President of Power Production and Director of Supply Chain.
- 6 d. Please see Big Rivers' response to Item 21 of the Attorney
7 General's Initial Data Request.
- 8 e. The decision regarding the Wilson FGD project is expected to be
9 made during June 2012. The decision regarding the engineering
10 services for the other projects will be made during the third
11 quarter of 2012.

12
13
14
15

Witness) Robert W. Berry

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1 Item 55) *Reference the Berry testimony at pages 32-33. If the applicant*
2 *is required to purchase allowances or curtail generation, what are the*
3 *expected costs associated with those actions?*

4

5 **Response)** Big Rivers forecasted net margin for 2015 in the "buy" scenario is
6 [REDACTED] and [REDACTED] in the "build" scenario. Please see the CD Big Rivers filed
7 on April 26, 2012 with its response to KIUC's motion to dismiss. In order for Big
8 Rivers to meet its TIER requirement, a 3% rate increase was needed in the "buy"
9 scenario, but not in the "build" scenario. Therefore, Big Rivers would earn [REDACTED]
10 [REDACTED] less margins in the "buy" scenario, [REDACTED].

11

12

13 **Witness)** Robert W. Berry

14

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June 1, 2012

1 **Item 56)** *Reference the Sargent and Lundy report, pp. 5-2 through 5-3.*
2 *Please confirm that O & M costs identified therein total approximately*
3 *\$120 million.*

4

5 *a. Please state whether all of the projects costs identified*
6 *therein are those which BREC has included in the instant*
7 *filing.*

8 *b. If "yes," please reconcile the figure of \$15.73 million*
9 *provided in Berry Exhibit-2.*

10

11 **Response)** The O&M costs represented in Table 5-1 in the Sargent & Lundy
12 report beginning on page 5-2 does total to approximately \$120 million.

13

14 a. Table 5-1 in the Sargent & Lundy report shows estimated capital
15 and O&M costs for all of the screened technologies considered in
16 the evaluation. Not all of the projects identified in table 5-1 are
17 included in Big Rivers 2012 Environmental Compliance Plan.

18 b. The \$15.73 million figure provided in Exhibit Berry-2 represents
19 the estimated additional annual O&M cost for the Big Rivers 2012
20 Plan in the year 2023.

21

22 **Witness)** Robert W. Berry

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1 **Item 57)** *Please provide all details regarding the company's attempts*
2 *to obtain financing for the proposed projects, including but not limited to*
3 *RUS financing, and private bonding.*

4

5 **Response)** Please see Big Rivers' response to Item 64 of the Attorney General's
6 Initial Data Requests. Also, Big Rivers has had numerous telephone discussions
7 with Mark Glotfelty of Goldman Sachs regarding possible capital market
8 financing options (see direct testimony of Mark A. Hite, Application Exhibit 7, at
9 page 15), and Big Rivers met with representatives of CFC on April 11, 2012, and
10 shortly thereafter received a proposal for a revolving credit facility from the
11 National Rural Utilities Cooperative Finance Corporation (CFC) (see my direct
12 testimony at pages 15-16 and the response to Item 56 of Ben Taylor and the Sierra
13 Club's Initial Requests for Information).

14

15

16 **Witness)** Mark A. Hite

17

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1 **Item 58)** *Please state to what extent, if any, the company's modeling*
2 *took into consideration the EPA's new CO2 rule.*

3

4 **Response)** The EPA has not issued a new rule limiting CO2 emissions at
5 existing power plants. Big Rivers did not include any CO2 costs in its modeling.
6 However, PACE did include the impact of potential CO2 cost impacts, on a
7 probabilistic basis, when determining its electrical price forecast. Please also see
8 Big Rivers' response to Item 10 of the Sierra Club's Initial Request for
9 Information.

10

11

12 **Witness)** Robert W. Berry

13

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1 **Item 59)** *Refer to the Hite testimony, p. 6, wherein he states that BREC*
2 *chose three case alternatives to evaluate for their cost effectiveness, and*
3 *four financial models to evaluate those cases. Please identify all other*
4 *alternatives reviewed, examined and/or analyzed for cases, financial*
5 *models, and sensitivity studies which BREC had ejected as being not*
6 *viable.*

7

8 *a. Provide copies of any and all data relevant thereto.*

9

10 **Response)** Other alternatives considered include different technologies to
11 comply with CSAPR and MATS as part of the Sargent & Lundy study. These are
12 listed in Section 3 of Exhibit DePriest-2. Please also see the files provided in
13 response to the Commission Staff's First Request for Information Item 26b.

14

15 *a. Please see Sections 3, 4 and 5 of Exhibit DePriest-2 to the*
16 *testimony of William DePriest, Application Exhibit 5.*

17

18

19 **Witnesses)** Robert W. Berry and Mark A. Hite

20

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1 **Item 60)** *Reference the Hite testimony at page 6. Why did BREC only*
2 *use a planning period of 15 years?*

3

4 **Response)** Please see Big Rivers' response to Item 24(a) of the Commission
5 Staff's First Request for Information.

6

7

8 **Witness)** Mark A. Hite

9

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1 **Item 61)** *Reference the Hite testimony pages 7-8. Provide the referenced*
2 *data from PACE Global.*

3

4 **Response)** Please see the CD Big Rivers filed May 29, 2012, in response to the
5 May 11, 2012, letter from KIUC's counsel to Big Rivers' counsel, and the CD Big
6 Rivers filed with its April 26, 2012, response to KIUC's Motion to Dismiss.

7

8

9 **Witness)** Patrick N. Augustine

10

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1 **Item 62)** *Reference the Hite testimony at page 8. Provide the production*
2 *cost models, with cells intact, which ACES Power Marketing ran.*

3

4 **Response)** Please see the CD Big Rivers filed May 24, 2012, in response to the
5 May 11, 2012, letter from KIUC's counsel to Big Rivers' counsel.

6

7

8 **Witness)** Brian J. Azman

9

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1 **Item 63)** *Reference the Hite testimony at page 8. Provide the financial*
2 *model, with cells intact, which is referenced at line 4 of the testimony.*

3

4 **Response)** Please see the financial model Excel files Big Rivers filed with its
5 April 26, 2012, response to KIUC's motion to dismiss.

6

7

8 **Witness)** Mark A. Hite

9

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 64)** *Reference the Hite testimony at page 12. Provide copies of any*
2 *and all communications that BREC has had with RUS with regard to the*
3 *EPA compliance plan. This request should include any communications*
4 *regarding projects, if any, that are not in the application.*

5

6 **Response)** There are four such documents attached hereto. The first is a letter
7 dated March 6, 2012, that discusses Big Rivers' 2012 Plan (*see* page 1 through 4 of
8 47). The second is the PowerPoint presentation prepared by Big Rivers and used
9 at the March 20, 2012, meeting with RUS representatives in Washington D.C.
10 where the 2012 Plan was discussed. The third is an email exchange regarding an
11 RUS loan application in connection with pursuing RUS financing for Big Rivers'
12 2012 Plan (*see* pages 5 and 6 of 47). The fourth is an RUS document titled
13 Financing Document RUS Loan Application Package (*see* pages 7 through 47 of
14 47). Please also see Big Rivers' response to Item 36 of KIUC's First Set of Data
15 Requests.

16

17 **Witness)** Mark A. Hite

18



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

March 6, 2012

Mr. Victor T. Vu, Director
Power Supply Division
Electric Program
United States Department of Agriculture
Rural Development Utilities Program
Stop 1568, Room 0270
1400 Independence Avenue, SW
Washington, DC 20250-0700

RE: KY 62 Big Rivers Electric Corporation
2012 Environmental Compliance Plan

Dear Victor:

Big Rivers Electric Corporation ("*Big Rivers*") writes this letter to follow-up on our telephone conversation of February 9, 2012, in which we generally described Big Rivers' current plans to comply with federal environmental laws. More specifically, this letter is written for purposes of informing the Rural Utilities Service ("*RUS*") about Big Rivers' plans, and seeking information and assistance regarding approvals Big Rivers may require from RUS in connection with the implementation and financing of Big Rivers' environmental compliance plans.

As you know, Big Rivers owns or leases 1,646 MW of principally coal-fired generation. The U.S. Environmental Protection Agency ("*EPA*") Cross-State Air Pollution Rule ("*CSAPR*") and Mercury and Air Toxins Standard ("*MATS*") require reductions in the levels of several air pollutants emitted by Big Rivers' generating plants. For purposes of achieving the emissions levels allowed by those standards, Big Rivers has developed, with assistance from Sargent & Lundy, L.L.C. ("*Sargent & Lundy*"), an environmental compliance plan ("*ECP*") that will allow Big Rivers to meet these environmental standards in a cost-effective manner.

Big Rivers' ECP includes capital projects for construction of new environmental control facilities, upgrading of certain existing environmental control facilities and implementation of changes in the operation and maintenance of certain of Big Rivers' generating units. A list of anticipated ECP capital projects and project costs are provided for your information as Attachment A to this letter.

Case No. 2012-00063
Attachment for Response to Item AG 1-64
Witness: Mark A. Hite
Page 1 of 47

Big Rivers requires certain state regulatory approvals in connection with the implementation of its ECP. On or about April 2, 2012, Big Rivers will file with the Kentucky Public Service Commission an application seeking approval of its ECP, certificates of public convenience and necessity for the projects in the ECP, and recovery of the capital and operating costs of the ECP projects through an amendment to the environmental surcharge in Big Rivers' rates.

We are also trying to identify the RUS requirements with which Big Rivers must comply in connection with the construction and financing of the projects in its ECP. One question we have arises under Section 5.2 of the Amended and Consolidated Loan Contract dated as of July 16, 2009, between Big Rivers and the United States ("*Loan Contract*"). Section 5.2 requires compliance with Section 8.1 of the Loan Contract before Big Rivers may add to its System¹ by construction of Capital Assets with funds from sources other than loans made or guaranteed by RUS in the case of generating facilities if the total expenditures for the facilities to be built will exceed \$10 million. We are unclear about whether the term "generating facilities" includes pollution control equipment added to existing generating facilities. The term "generating facilities" is not defined in the Loan Contract.

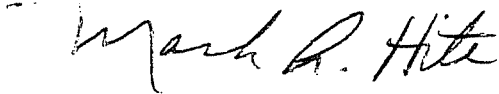
We anticipate having quite a few other questions about the RUS requirements applicable to the ECP projects, and compliance with those requirements. The timing applicable to initiating and completing compliance activities will obviously be an issue of primary concern. We would appreciate it if you would identify the appropriate person or persons at RUS we should contact with our additional questions. At Big Rivers, Eric Robeson, Vice President of Environmental Services and Construction, will have responsibility for tracking and assuring compliance with the RUS requirements.

Big Rivers is considering whether to apply for RUS loan funds for the permanent financing of the ECP capital projects. Big Rivers currently estimates its share (net of the City of Henderson's cost share of Station Two) of these ECP capital costs to be \$283,490,000. We understand that qualifying for RUS loan funds requires compliance with a number of requirements, including compliance with the National Environmental Policy Act. Because Big Rivers has not completed a loan application since the early 1980s, we would expect to have several questions about that process, as well.

¹ Capitalized terms in references to or from the Loan Contract are defined terms in the Loan Contract.

We look forward to meeting with you and other RUS representatives on March 20, 2012. Please contact Eric Robeson or me with any questions you may have or any information you may provide as a result of this letter.

Sincerely yours,



Mark A. Hite
Vice President and Interim CFO

ATTACHMENT A

c: Mark Bailey
Bob Berry
Eric Robeson
Jim Miller

Big Rivers Electric Corporation 2012 Environmental Compliance Options

Project #	Pollutant	Control Facility	Plant	Environmental Regulation or Regulatory Requirement	Permit	CPCN Filed	Projected Completion	Projected Capital Cost (\$ Million)	Projected Capital Cost Net of City (\$ Million)
4	SO ₂	Flue Gas Desulfurization ("FGD" or "Scrubber")	Wilson Unit 1	Clean Air Act (1990), Cross State Air Pollution Rule ("CSAPR")	Title V Permit	Yes	2016	139.00	139.00
5	NO _x	Selective Catalytic Reduction ("SCR") @85% Removal	Green Unit 2	Clean Air Act (1990), Cross State Air Pollution Rule ("CSAPR")	Title V Permit	Yes	2015	81.00	81.00
6	SO ₂ , NO _x	Convert Existing Burners to Natural Gas	Reid Unit 1	Clean Air Act (1990), Cross State Air Pollution Rule ("CSAPR")	Title V Permit	Yes	2014	1.20	1.20
7	SO ₂	Install Additional Recycle Pump & New Motors On ID Fans	HMP&L Unit 1	Clean Air Act (1990), Cross State Air Pollution Rule ("CSAPR")	Title V Permit	No	2015	3.15	1.92
			HMP&L Unit 2		Title V Permit		2015	3.15	1.93
8	Mercury	Advanced Carbon Injection, Dry Sorbent Injection and Monitors	Coleman Unit 1	Clean Air Act (1990), Mercury and Air Toxics Standards ("MATS") Rule	Title V Permit	Yes	2016	9.48	9.48
			Coleman Unit 2		Title V Permit		2016	9.48	9.48
			Coleman Unit 3		Title V Permit		2016	9.48	9.48
9	Mercury	Advanced Carbon Injection, Dry Sorbent Injection and Monitors	Wilson Unit 1	Clean Air Act (1990), Mercury and Air Toxics Standards ("MATS") Rule	Title V Permit	Yes	2016	11.24	11.24
10	Mercury	Advanced Carbon Injection, Dry Sorbent Injection and Monitors	Green Unit 1	Clean Air Act (1990), Mercury and Air Toxics Standards ("MATS") Rule	Title V Permit	Yes	2016	9.24	9.24
			Green Unit 2		Title V Permit		2016	9.24	9.24
11	Mercury	Particulate Monitors	HMP Unit 1	Clean Air Act (1990), Mercury and Air Toxics Standards ("MATS") Rule	Title V Permit	No	2016	0.24	0.14
			HMP Unit 2		Title V Permit		2016	0.24	0.14

Total (\$ Million) 286.14 283.49

Mark Hite

From: Vu, Victor - RD, Washington, DC <Victor.Vu@wdc.usda.gov>
Sent: Monday, April 09, 2012 9:22 AM
To: Mark Hite
Subject: RE: Big Rivers
Attachments: Financing Document.pdf

Hi Mark,

Attached is our Financing Document to provide guidance in submitting a loan application to RUS Electric Program. If you have any questions, please contact me at your convenience.

Prior to any consideration for financing, I suggest Big Rivers arrange a meeting with RUS and OGC to discuss any requirements under the old debt restructure documents for becoming a RUS borrower again. I know it was before your time and mine, but OGC reminded me that most debt restructures may have some restrictions or requirements for returning to the Program. Perhaps your attorney(s) could look into it before a meeting.

Victor T. Vu | Director, Power Supply Division
Rural Development | Rural Utilities Service | Electric Program
U.S. Department of Agriculture
1400 Independence Ave., S.W., Room 0270-S | Washington, DC 20250-1568
Tel: 202-720-6436 | Cell: 202-365-7708 | Fax: 202-720-1401
www.rurdev.usda.gov/UEP_HomePage.html

"Committed to the future of rural communities"

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From: Mark Hite [mailto:Mark.Hite@bigrivers.com]
Sent: Tuesday, April 03, 2012 1:42 PM
To: Vu, Victor - RD, Washington, DC
Subject: Big Rivers

Was good to see you on March 20, 2012, and having the opportunity to discuss the possibility of RUS financing the approximately \$283.49 million of capital expenditures associated with Big Rivers 2012 environmental compliance plan (ECP) for complying with CSAPR and MATS. As discussed with you, Big Rivers did file its ECP with the Kentucky Public Service Commission yesterday, April 2, 2012. Big Rivers hasn't borrowed any new monies in approximately 30 years. You indicated during our March 20, 2012, meeting and discussion that the you would provide Big Rivers comprehensive documents that itemized the RUS FFB loan application process. Might I refer to this as an all-inclusive checklist, the purpose of which would be to assist Big Rivers in preparing a loan application.

Any direction/guidance you can provide regarding completing the loan application would be most appreciated.

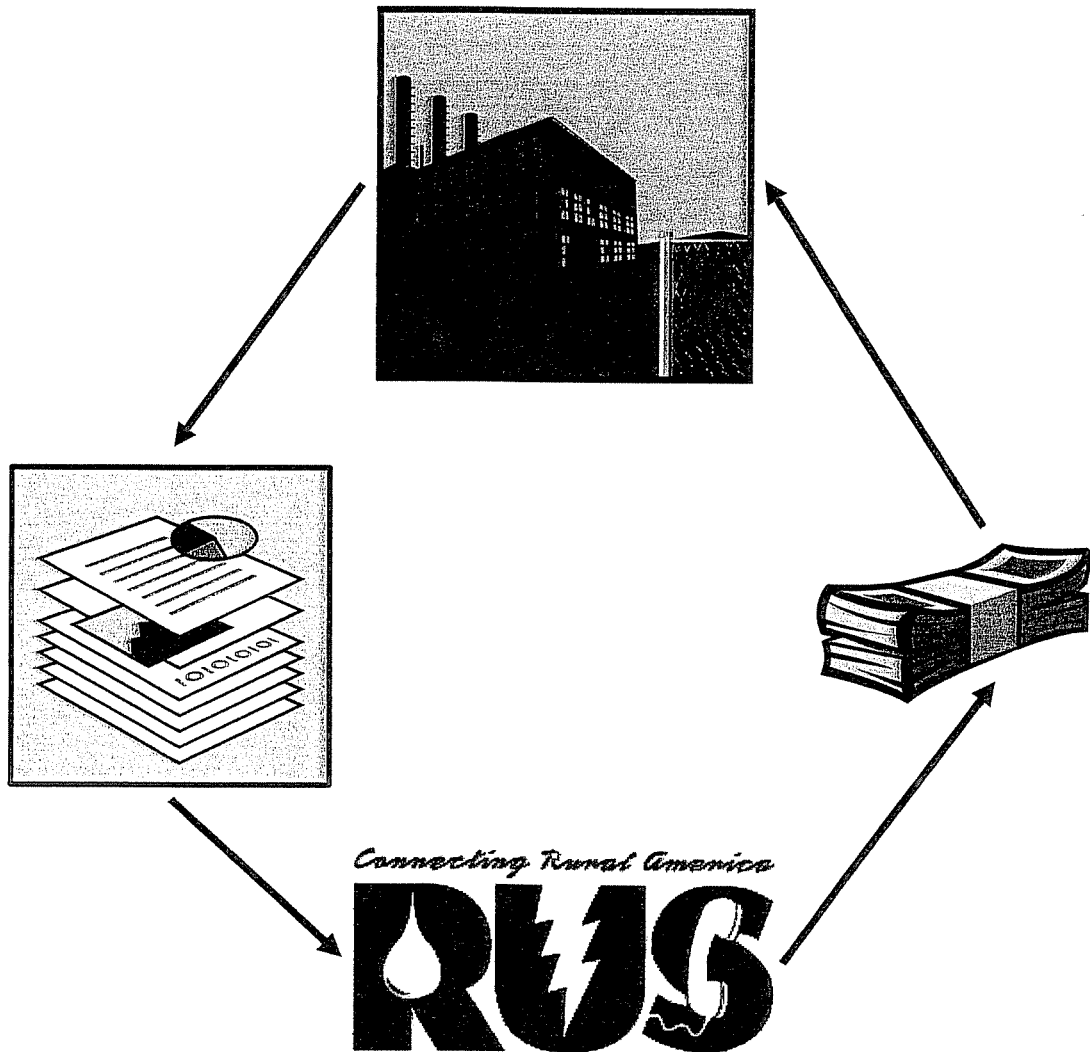
Thank you,
ark

Mark A. Hite, CPA
VP Accounting & Interim CFO
Big Rivers Electric Corporation
201 Third St.
Henderson, KY 42420
270-827-2561 (corporate)
270-844-6149 (office)
270-577-6815 (mobile)
812-853-0405 (home)
mhite@bigrivers.com

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Financing Document Loan Application Package



*A consolidated package
to obtain RUS financing*

March 2003

Case No. 2012-00063
Attachment for Response to Item AG 1-64
Witness: Mark A. Hite
Page 7 of 47

FINANCING DOCUMENT – LOAN APPLICATION PACKAGE

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PART 1 – GENERAL

I. INSTRUCTIONS

A power supply applicant is eligible for a municipal rate (uncapped) loan (loan) and/or a loan guarantee (loan guarantee). This type of applicant is not eligible for a hardship loan, municipal rate (capped) loan, or a Treasury loan due to Rural Utilities Service's (RUS) regulations and policies.

Three hard copy sets of the Financing Document – Loan Application Package (Financing Document) should be submitted to the RUS. One of the three sets must contain original documents, signatures and corporate seals. The set containing the original documents, signatures and seals should be designated with the word "Original" on the first page of the Financing Document.

Please submit to RUS a CD containing the Financing Document along with the three copy sets. All material should be prepared using Microsoft Word and/or Excel.

Forms and other materials, if available on the RUS web page, can be located at <http://www.usda.gov/rus/electric/forms.htm>.

Some time may lapse between submittal of the Financing Document until consideration by the loan committee(s); therefore, RUS may ask for some updated material. Depending upon the complexity of the project(s) in the Financing Document or if a special purpose entity has been established, RUS may ask for additional information.

It is suggested that the Financing Document be submitted to RUS via Federal Express, UPS, etc. If sent in this manner, the street and room number must be used. If sent by regular mail, the street and stop number must be used.

II. DOCUMENT SUBMITTAL LETTER

Date _____

[Insert Director's Name – Current Director (Victor T. Vu)]
Director, Power Supply Division
Rural Utilities Service
U.S. Department of Agriculture
1400 Independence Avenue S.W.
Stop 1568, Room 0270-S
Washington, DC 20250

RE: Application for Rural Utilities Service (RUS) *[Insert as appropriate: Municipal Rate (Uncapped) Loan (loan), and/or Loan Guarantee (loan guarantee)]*

Enclosed are three sets of the Financing Document - Loan Application Package (Financing Document) prepared in support of *[Insert: Name of Applicant]* *[Insert as appropriate: loan and/or loan guarantee]* application to RUS in the amount of *[Insert: Total loan and/or loan guarantee Amount]* for *[Insert: Brief Description of Projects]*.

The Financing Document summarizes the project(s) included in the *[Insert as appropriate: loan and/or loan guarantee]* application, provides the studies, analyses, and evaluations, along with a summary of each, as required by RUS regulations, policies and practices.

We understand that the Financing Document represents the overview document from which information will be presented by the Power Supply Division to the RUS loan committee(s) as part of the loan recommendation process.

Name & Title

Enclosure

III. FINANCING DOCUMENT COVER PAGE

FINANCING DOCUMENT - LOAN APPLICATION PACKAGE

[Name of Applicant]

Rural Utilities Service

[Insert One or Both of the Following, as Appropriate:]

RUS Municipal Uncapped Loan Application

[Insert RUS Loan Amount and RUS Percentage of Total Loan Amount]

[Insert Supplemental Lender's Name, Supplemental Loan Amount and Supplemental Percentage of Total Loan Amount]

and/or

Loan Guarantee Application

Federal Financing Bank (FFB)

[Insert FFB Loan Amount]

[Insert Number of Years] **Loan Term**

Financing Purposes: (From RUS Form 740c and RUS Form 740g)

[\$ Amount] (Distribution)

[\$ Amount] (Transmission)

[\$ Amount] (Generation)

[\$ Amount] (Headquarters)

[\$ Amount] (All Other)

IV. BOARD OF DIRECTORS, EXECUTIVES, LOAN CONTACTS

[Insert: Name of Applicant]
[Insert: Address of Applicant]

Board of *[Insert: Directors or Trustees, as Appropriate]*:

[Insert: Names of Board of Directors or Trustees and Name of Entity Each Represents]

Executives

[Insert: Name of Applicant's Executive Staff and Title of Each Individual]

Loan Contacts

[Insert for Each Individual Listed Below the Following Information:

- *Name*
- *Telephone Number*
- *Fax Number*
- *E-Mail Address*

Financial Contact:
Transmission Engineering Contact:
Generation Engineering Contact:

PART 2 – APPLICANT INFORMATION

I. GENERAL

- A. Legal name of applicant
- B. Address of applicant
- C. Legal structure of applicant (i.e., cooperative, corporation, limited-liability company, etc.)
- D. RUS Status (i.e., new applicant, existing applicant or previous applicant)
- E. Most recent year-ending total sales (MWs) and the percentage of residential, small and large commercial loads
- F. Number and type (i.e., steel mills, factories, industrial parks, shopping centers, etc.) of large loads
- G. State territorial act or other territorial protection
- H. Average wholesale rate competitiveness
- I. Type of current security instrument (mortgage or indenture)
- J. State if applicant has a Memorandum of Understanding with RUS

II. MANAGEMENT

- A. Name and title of applicant's manager
- B. Length of service
- C. Previous experience

III. MEMBERS

- A. Number of members
- B. Names of members and city and state where each is located
- C. Type of member (i.e., Class and/or distribution cooperative, municipal, industrial, military base)
- D. Service territory listing by state and counties
- E. Number of meters served and number of consumers
- F. Most recent year-ending total sales (MWs) and the percentage of residential, small and large commercial loads
- G. Number and type (i.e., steel mills, factories, industrial parks, shopping centers, etc.) of large loads
- H. Retail rate competitiveness issues
- I. State territorial act or other territorial protection
- J. 8x10 colored map of the member's service territory divided into individual member's service area

IV. SUBSIDIARY

- A. Number and name of subsidiary(ies) of all levels
- B. State owners and percentage of ownership for each
- C. Purpose of subsidiary(ies)
- D. Most recent 5-year summary of profits and/or losses by year

- E. If subsidiary(ies) are showing losses in the yearly summary, provide a yearly projection of the losses until it is estimated profits will be realized
- F. Discuss the business plan or strategy plan for unprofitable subsidiary(ies)
- G. State the line number on the RUS Form 12 where subsidiary(ies) profits or losses are stated

V. PUBLIC RATING

- A. Date of each rating
- B. Name of rating agency
- C. Copy of each rating
- D. Type of debt rated
- E. Rating assigned
- F. If applicant has received a down grade, been assigned a negative or has been placed on a credit watch, provide a summary of the plans made to remedy the situation(s) and timeframe

VI. PROJECT OVERVIEW SUMMARY

- A. Purposes
 - 1. Transmission (i.e., load growth, reliability, voltage support, Regional Transmission Organization (RTO), etc.)
 - 2. New generation resource project(s) (i.e., capacity deficiency, load growth, contract expiration, etc.)
 - 3. Generation system improvements (i.e., maintain reliability, improve efficiency, environmental compliance, etc.)

VII. RE ACT BENEFICIARY ISSUES

- A. An RE Act beneficiary analysis may be required to determine the rural area makeup of the borrower's member system(s) using Bureau of the Census data. Guidance can be obtained from the Power Supply Division based on the policies and procedures currently in effect. The analysis must be provided for RUS review.
 - 1. Members that are RUS borrowers
 - Indicate those members that have had an uninterrupted lending relationship with RUS prior to November 1, 1993.
 - a. An RE Act beneficiary analysis will not be required for the member's original service area.
 - b. An RE Act beneficiary analysis may be required if the member service area has been expanded into non-rural areas or noncontiguous areas depending on the type of projects in the loan.
 - 2. Members that are new and returning RUS borrowers
 - Indicate those members that received its initial RUS financing on or after November 1, 1993.
 - a. An RE Act beneficiary analysis may be required depending on the type of projects in the loan.
 - 3. Members that are not an RUS borrower

Indicate those members that do not have RUS financing.

- a. An RE Act beneficiary analysis may be needed depending on the type of projects in the loan.
- B. Discuss issues or implications associated with RTO participation.

VIII. INTERIM FINANCING

- A. Discuss the need for, amount of and status
- B. Indicate type (i.e., line of credit, letter of credit, commercial paper, loan, etc.)
- C. Indicate any RUS actions or approvals given or needed (i.e., lien accommodation)
- D. Describe the terms and conditions
- E. Indicate if interim financing is to be replaced by loan and/or loan guarantee

IX. RURAL ECONOMIC DEVELOPMENT

- A. Discuss any efforts made by the applicant and its members such as:
 1. Number of jobs created
 2. Time involvement in community or state programs
 3. Sponsorship in community or state events
 4. Contributions made to community

X. RISK MANAGEMENT

- A. Briefly describe any risk that the applicant considers a financial or business risk to its entity and the efforts made by the applicant to mitigate the risks. The items below are only examples and should not be considered to be an all inclusive list:
 1. Arrangement(s) with power marketers or others
 2. Contingent liability(ies)
 3. Portfolio of resources
 4. Hedging arrangements
 5. Power sales contract from owned generation
 6. Transmission constraints
 7. Member participation in retail competition
 8. Fuel strategies
 9. Performance guarantees made on any energy sales
 10. Imposition of any new or proposed environmental standard(s) and any need to retrofit unit(s) after commercial operation
 11. Loss of large loads
 12. Addition of any large loads developing within a short period of time
 13. Loss of members' territory or parts thereof
 14. Concentration of large loads in a particular market (i.e., steel, cooper, etc.)
 15. Loss associated with any aborted project(s)
 16. Emergency backup service provided from power pools or other organizations during unplanned outages of generation resources

17. Performance guarantees or penalty payment in equipment and construction contracts of proposed project(s)
 18. No market exists for excess energy
 19. Construction delays
 20. Construction cost overruns
 21. Unit Reliability
 22. Fuel availability and cost
- B. Copies of any risk management written policy(ies)
 - C. Insurance policy(ies) to minimize risks
 - D. Participation in ACES or similar organizations

XI. HOMELAND SECURITY

- A. Discuss activities and policies pertaining to physical protection of existing and projected assets
- B. Discuss coordination with local, state and federal offices
- C. Discuss the plans for business continuity
- D. Discuss disaster recovery plans

XII. INTERNAL REVENUE SERVICE

- A. State whether tax or tax-exempt
- B. Discuss the possibility and potential timeframe of losing exempt status, if applicable
- C. If loss of tax-exempt status is anticipated, discuss financial impact

XIII. DEREGULATION

- A. Discuss status of deregulation in the state(s) in which the members serve
- B. Discuss and indicate any estimated time frame for consideration by state legislature(s) of any proposed deregulation law(s) or statute(s)
- C. Discuss the potential impact on applicant if proposed law(s) or statute(s) goes into effect

XIV. LOAN SECURITY CONTRACTS

- A. Discuss the following contracts
 1. Transmission contracts
 2. Power purchase/sale contracts
 3. Power delivery contracts
 - a. Expiration date
 - b. Applicant's consideration of an extension and the length of extension being considered
 - c. Includes supplemental agreement ("Shoshone language")

4. Wholesale power contracts
 - a. RUS Standard form
 - b. Discuss deviation(s) if not RUS standard form
 - c. Expiration date
 - d. Applicant's consideration of an extension and the length of extension being considered
 - e. Includes supplemental agreement ("Shoshone language")

PART 3 – FINANCIAL AND MISCELLANEOUS

I. STATEMENT – 7 CFR 1710.401(a)(1)

- A. Signed by applicant's manager
- B. Applicant's corporate name
- C. Taxpayer identification number
- D. Indicate any project(s) located in a flood hazard zone. For those project(s) indicated, provide the following:
 - 1. Amount of flood insurance
 - 2. Insurance company name and location
 - 3. Term of insurance policy
- E. Breakdown of requested loan and/or loan guarantee funds by state
- F. List the county(ies) where the members serve

II. BOARD RESOLUTION – 7 CFR 1710.401(a)(2)

- A. Certified by the Secretary of the Board
- B. Indicate lender(s) and loan amount(s) by type
- C. Term (i.e., 20, 25, 30, 34 Years)
- D. Final maturity date(s)
- E. Method of amortization
- F. Sources and amounts of any supplemental or other financing
- G. Authorization for RUS to release appropriate information to supplemental or other lender(s), and authorization for other lender(s) to release appropriate information to RUS
- H. Election of the prepayment option (Required only for loan)

III. RUS FORM 740c – 7 CFR 1710.401(a)(3)

- A. Description of funds and materials (As noted on Page 4 of the RUS Form 740c)
 - 1. Availability of materials and equipment
 - 2. Available unadvanced funds from prior loan(s) and/or loan guarantee(s)
 - 3. General funds designated to be applied
- B. A statement certifying that at least 90 percent of the loan and/or loan guarantee are for facilities that have a useful life of 33 years or longer
 - 1. For transmission project(s), a schedule providing the costs and the proposed useful life for each project and the weighted average useful life for the projects in the loan application. (See Sample 1.)
 - 2. For new generation resource project(s), the useful life must be agreed to by RUS
 - 3. For generation system improvement project(s), provide the cost of all project(s) and the remaining useful life for each affected unit. Also provide the weighted average useful life for the project(s) in the loan application. (See Sample 2)

- C. Reimbursement schedule
 - 1. List the date, amount and identification number of each inventory of work orders and special equipment summary(ies) that form the basis for the applicant's request for reimbursement of general funds on the RUS Form 740c
 - 2. If the applicant is not requesting reimbursement of general funds, this schedule need not be submitted.

IV. RUS FORM 740g – 7 CFR 1710.401(a)(4)

- A. Must be submitted only if the following project(s) are requested:
 - 1. New headquarters building or renovation(s)
 - 2. New warehouse(s) or renovation(s)
 - 3. New service type facility(ies) or renovation(s)

V. RUS FORM 12 – 7 CFR 1710.401(a)(5)

- A. Signed by official of applicant
- B. Most recent year-ending RUS Form 12
- C. Monthly RUS Form 12a (Dated no later than 60 days prior to application submittal)

VI. PENDING LITIGATION STATEMENT – 7 CFR 1710.401(a)(6)

- A. Signed by official of applicant or applicant's legal counsel
- B. Discussion on pending or anticipated litigation including projected outcome
- C. Insurance coverage for pending or anticipated litigation
- D. Discussion of current or potential annexation issues
- E. Discussion of any pending wholesale rate or wholesale power contract issues
- F. On any litigation or issues above, state the potential financial or other impact(s) on the applicant

VII. SECURITY DOCUMENTATION – 7 CFR 1710.401(a)(7)

- A. First-time loan and/or loan guarantee requires either a mortgage or indenture
- B. If an applicant has an existing indenture with RUS, every loan and/or loan guarantee requires a supplement to the indenture
- C. If the debt limit stated in an existing executed and filed mortgage is being exceeded, a new security instrument will be required and the applicant must submit a resolution of the applicant's board of directors or trustees, whichever is applicable, and any other authorizations or certifications required by State law, certifying that a new debt limit has been legally established that is adequate to accommodate existing indebtedness and the proposed new financing

- D. If an applicant has an existing mortgage with RUS, provide in this section a signed statement by either an official of the applicant's entity or applicant's legal counsel stating:
 - 1. Parties to existing security instrument
 - 2. Current debt limit
 - 3. Total of outstanding debt under existing mortgage
 - 4. Name and date of most recent last full mortgage, if applicable
 - 5. Name(s) and date(s) of all supplements to the mortgage, if applicable
 - 6. Any changes to real property owned or sold by the applicant since most recent loan and/or loan guarantee
- E. Based on the above information and following the loan and/or loan guarantee approval, if it is determined by RUS and its legal counsel that no new or supplemented security instrument is required, RUS will request the following additional information from the applicant:
 - 1. An opinion of counsel stating:
 - a. RUS' security under the existing security instrument is adequate
 - b. The applicant has not had a material change in its property since the latest executed and filed security instrument
 - c. The debt limit in the latest executed and filed security instrument is adequate for all debt including the debt contained in this application
- F. Based on the information supplied at the time of application, if it is determined by RUS and its legal counsel that a new form of security instrument is required, RUS will request the following information from the applicant:
 - 1. Property schedule listing and describing all real property owned by the applicant

VIII. STANDARD FORM 100 - 7 CFR 1710.401(a)(9)

- A. Only required if applicant has 100 or more employees
- B. While 7 CFR 1710.401(a) (9) states that this form is required only for a loan, it is standard RUS policy for this form to be submitted for a loan guarantee also

IX. FORM AD-1047 - 7 CFR 1710.401(a)(10)

- A. Must be signed by the president of the board of directors or trustees, whichever is applicable

X. UNIFORM RELOCATION ACT ASSURANCE STATEMENT - 7 CFR 1710.401(a)(11)

- A. Indicate if this statement has previously been submitted to RUS
- B. This statement only needs to be provided if not previously submitted to RUS
- C. Must be signed by the president of the board of directors or trustees, whichever is applicable

XI. LOBBYING CERTIFICATE(S) - 7 CFR 1710.401(a)(12)

- A. If only a loan is being applied for and the applicant does not participate in lobbying activities, use the certificate for a loan
- B. If only a loan guarantee is being applied for and the applicant does not participate in lobbying activities, use the certificate for a loan guarantee
- C. If both a loan and loan guarantee is being applied for and the applicant does not participate in lobbying activities, use both certificates
- D. If applicant participates in lobbying activities use Standard Form LLL
- E. The certificate(s) and form must be signed by the president of the board of directors or trustees, whichever is appropriate

**XII. FEDERAL DEBT DELINQUENCY REQUIREMENTS CERTIFICATE
- 7 CFR 1710.401(A)(13)**

- A. The certificate must be signed by the president of the board of directors or trustees, whichever is appropriate

**XIII. ARTICLES OF INCORPORATION AND BYLAWS - 7 CFR
1710.401(a)(14)**

- A. Needed if first-time applicant or if either document has been amended since the last loan or loan guarantee or if a long period of time has lapsed since the last loan or loan guarantee was submitted to RUS
- B. If needed, must be those currently in effect and adopted by the applicant's board of directors or trustees and, if appropriate, filed with the appropriate state office

XIV. STATE REGULATORY APPROVALS - 7 CFR 1710.401(a)(15)

- A. Describe any regulation by the state(s) of the applicant or its members service territory
- B. Indicate any approvals required from the state
- C. Discuss pertinent history the applicant or its members have had with the regulators
- D. In states where regulatory authorities have jurisdiction over the applicant's rates, the applicant must provide in this section an opinion of counsel or a signed statement from another qualified source stating that based on information known by the individual, that the state regulatory authority will not exclude from the applicant's rate base any of the project(s) included in the loan or loan guarantee request or otherwise prevent the applicant from charging rates sufficient to repay with interest the debt incurred for the project(s)
- E. Describe the state's jurisdiction over the applicant or its member's rates and any construction permits needed for the proposed project(s).

XV. AVERAGE WHOLESALE RATES

- A. Submit current wholesale rate schedule(s)
- B. Include a table showing five most recent years of historical data for the average wholesale rates of its members in mills/kWh, (include the delivery cost for a "TRANSCO," if applicable)
- C. Include a table of projected average wholesale rates of its members for the next five years (include the delivery cost for a "TRANSCO," if applicable)

XVI. FINANCIAL FORECAST (FF) – 7 CFR 1710.152

- A. Accompanied by a certified board resolution adopting, and indicating the board of directors' or trustees', as appropriate, approval of the FF and directing management to take whatever steps may be necessary, including the filing for rate increases, to achieve the goals set forth in the FF
- B. FF must have an historical year by which RUS can compare starting figures to the most current year-ending RUS Form 12 and go ten years beyond the latest in-service date of the project(s) in the application
- C. The following must be used to develop the FF:
 - 1. Most recent RUS-approved Construction Work Plan (CWP) and any amendment(s), if applicable
 - 2. Most recent RUS-approved Long Range Engineering Plan
 - 3. Most recent RUS-approved Load Forecast data
 - 4. Most current generation resource addition studies
 - 5. Most recent members average wholesale rates
 - 6. Submit a narrative with the FF that, at a minimum, includes the following:
 - a. Explanation of assumptions, supporting data and analysis used in the FF
 - b. Methodology used to project loads, rates, revenues, power costs, operating expenses, plant additions, and other factors having a material effect on the balance sheet and financial ratios
 - c. Interest rates used in current and future borrowings
 - d. Variables such as retail and wholesale power prices
 - e. Type of depreciation used (straight line or sinking fund) and rate(s) of depreciation
 - f. Annual rate of inflation for future plant additions and operating expenses
 - g. Statement that future costs are projected at future cost level rather than in constant dollars
 - h. Identify all plans for future capital requirements, additions or major system improvements
 - i. Identify percentage rate used for fuel cost escalation
 - j. Provide an in-depth discussion of the regional markets for power and the applicant's ability to sell surplus power until the applicant's system loads grow to meet any new planned capacity
 - k. Projected kW and kWh requirements

- l. Purchased power costs
- m. Member and non-member power sales
- 7. Discuss the availability and use of any interim financing such as a line of credit or "bridge loan" and indicate amounts available under such arrangements including any currently outstanding balances, interest rates and payment terms
- 8. Provide and discuss the financial impacts on the applicant due to any FF sensitivity(ies) requested by RUS. (Check with RUS for the latest requirements)
- D. FF must contain the following:
 - 1. Projected results of future actions planned
 - 2. Times Interest Earned Ratio or Margins for Interest
 - 3. Debt Service Coverage Ratio or Debt Service Ratio
 - 4. Equity to Assets Percentage
 - 5. General Funds to Total Utility Plant Percentage
 - 6. Cash Flows
 - 7. Future borrowings and the associated interest and principal expenses
 - 8. Amount of general funds to be invested in plant
 - 9. KW and kWh energy sales
 - 10. All system operating costs including but not limited to the following: purchased power, fuel, plant O&M, transmission, depreciation expense, debt service, insurance, taxes, A&G, etc.
 - 11. Member revenue from sales of electric power and energy
 - 12. Non-member revenue from sales of electric power and energy
 - 13. Non-operating income(s) and expense(s)
 - 14. Current and projected future borrowings
 - 15. Average member wholesale rates with incorporated rate increases, as needed
 - 16. Integrate all projections of operation and maintenance expenses associated with existing plant with those of the new proposed project(s) to determine total costs of system operation
 - 17. A table showing estimated capital needs including the proposed project(s) for each year of the FF and done separately for transmission and generation project(s)
 - 18. A table showing the members' average cost of power for the study period of the FF (See Sample 8)
 - 19. Draw down of any unadvanced loan funds

XVII. ADDITIONAL INFORMATION

- A. Include a table of three years of historical balance sheet data from the RUS Form 12a
- B. Include a table of three years of historical income statement from the RUS Form 12a
- C. Include a table showing three years of historical cash flow
- D. For all tables include a detail explanation of the cause(s) and effect(s) of all negative numbers and all declining financial trends
- E. Latest CPA audit

- F. Annual Report, if such a report is produced
- G. Table of unadvanced loan funds by loan(s) and a time schedule for requesting advances

PART 4 – POWER DELIVERY SYSTEM

I. TRANSMISSION SYSTEM

- A. Describe the borrower's transmission system.
 - 1. Include a table showing owned transmission facilities by miles, voltage levels, substations, etc. (See Sample 3) For facilities with joint ownership, provide a similar table noting the percentage of facilities owned.
 - 2. Service area
 - 3. Utility interconnections
 - 4. Transmission constraint issues

II. TRANSMISSION SERVICE ARRANGEMENTS

- A. Provide a general description of existing arrangements with termination dates and any ongoing activity that would impact on the proposed projects. If the borrower is part of an integrated transmission system, discuss those arrangements. Include a discussion of the borrower's dependence on the transmission system of others.

III. NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

- A. Discuss the North American Electric Reliability Council ("NERC") region(s) served by the members and a description of the borrower's involvement with the regional organization. Discuss reliability issues that could impact on the borrower or RUS' security. Describe member transmission service benefits.

IV. REGIONAL TRANSMISSION ORGANIZATIONS

- A. Discuss RTO activities in the borrower's service area and the borrower's activities with any proposed RTO and its plans with respect to joining an RTO. Discuss any issues concerning RTO participation.
 - 1. Leasing of facilities;
 - 2. Operation & Maintenance;
 - 3. Capital improvements; and
 - 4. Use by non RE Act beneficiaries.
- B. If the proposed loan is for transmission facilities that will become part of a RTO, then the following should be described as they impact on both current and future facilities:
 - 1. The RTO;
 - 2. Financing, operating and ownership arrangements of the facilities;
 - 3. Rate setting mechanism including a demonstration of how the RTO tariff will ensure the borrower will recover its RTO related costs; and
 - 4. Maintenance.

V. TRANSMISSION AND SUBTRANSMISSION FACILITIES

- A. Load Forecast (7 CFR 1710 Subpart E)
 - 1. Provide a board resolution and a Load Forecast unless RUS has approved the forecast and it remains current.
 - 2. Note and compare any differences between the approved Load Forecast and the load assumptions used in the Financial Forecast.
- B. Transmission Long Range Plan (7 CFR 1710 Subpart F)
 - 1. Provide a board resolution and a Long Range Plan unless RUS has approved a current Long Range Plan.
- C. Construction Work Plan (7 CFR 1710 Subpart F)
 - 1. Provide a board resolution and a CWP unless RUS has approved the CWP.
 - 2. All projects proposed in the loan must be included in the CWP or amendment.
 - 3. Include a map(s) that shows the location of proposed system improvements and facilities.
- D. Project Information
 - 1. Provide a table(s) of all projects included in the loan application with the following information:
 - a. Project code
 - b. Name of the project
 - c. Date approved in a CWP or amendment
 - d. The original cost estimate per the CWP or amendment
 - e. The amount of loan funds requested
 - f. Indicate if a carry over project from a prior loan
 - g. Indicate the construction status and date of completion
 - h. Indicate those projects that serve non-RE Act loads and provide an analysis of the amount requested for financing
 - i. Provide the environmental classification
 - Type of project (Categorical exclusion, ER, EA, EIS)
 - Date of approval
 - 2. Provide updated information to the CWP to include a discussion of:
 - a. Major permits and licenses
 - b. Regulatory approvals and certificate of need and necessity
 - c. Interconnection, O&M, and joint use and transmission service agreements required in connection with a project
 - d. Responsibility for construction and financing of new transmission facilities, with regard to joint planning activities with other utilities or a RTO.
 - 3. Provide a table summary of the projects in the loan (see Sample 4)
 - a. Number of new and upgraded substations and total MVA
 - b. Miles of new transmission and sub-transmission line by voltage class
 - c. Miles of new line to replace retired transmission and sub-transmission line by voltage class

- E. Operations and Maintenance (7 CFR 1730)
 - 1. Provide the latest RUS Form 300
 - 2. Discuss any problems noted on the RUS Form 300
 - 3. Provide a summary of outage data for the previous five years and explain any high outage data
- F. Transmission Extension Policy
 - 1. Provide a copy of the latest extension policy unless unchanged from last loan
- G. Prior Loans
 - 1. Analysis of unadvanced transmission loan funds
 - a. Projected draw down schedule
 - b. Identify projects to be applied

VI. TRANSMISSION REQUIREMENTS FOR GENERATION PROJECTS

- A. The transmission facilities required for the construction, purchase or replacement of additional generation capacity must be included in a Transmission Construction Work Plan (CWP) or submitted separately with the loan application for the generation project.
- B. Describe the current activities of the transmission facilities including the planning, environment, construction and work with other utilities, independent transmission provider, regional transmission organization and public utility commission to obtain the needed arrangements to allow for a reliable export and delivery path for the capability of the generation facility. Discuss generation dispatch and interface with the RTO. Discuss the financing, contribution in aid of construction, shared facilities and the ownership of all required facilities.
- C. To adequately review and assess the overall feasibility of the project, the following documentation will be required:
 - 1. Studies required by 7 CFR 1710.253 and system regional transmission impact studies:
 - a. Load flow studies
 - b. Short circuit analysis
 - c. System stability analysis
 - d. Provide conclusions on the following:
 - Identify voltage, overload, stability problems and proposed actions or contingencies.
 - Single contingency analysis of proposed facilities
 - Transmission constraints
 - System Improvements needed
 - 2. Detailed description of and cost breakdown of:
 - a. Size, voltage and capacity of all major components
 - b. Network facilities
 - c. Interconnection facilities
 - d. Switchyard and generation connection facilities

3. Maps that provide:
 - a. The location of the proposed project
 - b. The existing system area and regional transmission lines
4. Project schedule and time lines for:
 - a. Environment (7 CFR 1794)
 - b. Major equipment
 - c. Construction
 - d. Permitting
 - e. Right of way
 - f. Development of agreements to provide for interconnection and transmission service
5. Identify the proposed contracts for the construction of switchyard and transmission facilities

PART 5 – GENERATION

I. POWER SUPPLY SYSTEM

A. Power Supply Resources

Provide a discussion or a table of the existing power supply resources available to the applicant that includes:

1. Owned, Co-owned or Leased Generation Facilities:

- a. Name of plant and unit;
- b. Ownership interest (%);
- c. Type of plant and fuel used;
- d. Net peak capacity;
- e. In-service date;
- f. Operating license expiration date if applicable;
- g. Lease termination date;
- h. Identify if the facility was financed by RUS; and
- i. Operating arrangements if jointly owned resources

B. Power Supply Contracts

1. Power Purchase Contracts

Provide a discussion of applicant's power purchase contracts (greater than two years) that includes:

- a. Type of contract (take-or-pay, unit power purchase, system firm, etc.);
- b. Parties to the contract;
- c. Amount (capacity and energy);
- d. Term and expiration date; and
- e. Any special provisions

2. Power Sales Contracts

Provide a discussion of applicant's power sales contracts (greater than two years) that includes:

- a. Type of contract (take-or-pay, unit power sales, system firm, etc.);
- b. Parties to the contract;
- c. Amount (capacity and energy);
- d. Term and expiration date; and
- e. Any special provisions.

3. Power Pool Participation

Describe any power pool or other similar organization that the applicant participates in and the benefits derived by such participation. Identify reserve requirements of the power pool and any penalties associated with not meeting the power pool requirements.

C. Future Resource Needs

Provide a discussion of applicant's plan for meeting new resource requirements for the study period of ten years subsequent to the last in service date of the proposed project(s) in this loan application. The cost associated with this plan should be accounted for in the FF. Provide a

capacity balance table that includes future new resources contained in this plan (See Sample 7).

II. PROPOSED NEW GENERATION RESOURCES

A. Project Description

Provide a description of the proposed project that includes:

1. Type;
(Combustion turbine, combined cycle, circulating fluidized bed boiler, pulverized coal fired boiler, repowering, etc.)
2. Number of generating units;
3. Nominal and net peak rating of each unit;
(Repowering project should include the current rating and the new rating)
4. Fuel;
(Primary and secondary or backup (if applicable))
5. Location;
6. Site description;
(Repowering project should include a description of the existing facility and identify major equipment being replaced or added.)
7. Estimated project cost;
(Attach cost breakdown of the project – See Sample 9)
8. Ground breaking and in service dates; and
(Attach project milestone schedule)
9. Projected capacity factor (See Sample 7).

B. Joint Project (if applicable)

Describe the joint project arrangements and any agreements for any joint ownership or use of common facilities associated with the project. The discussion should demonstrate that the applicant has sufficient management control or other contractual safeguards with respect to the construction and operation of the jointly owned facility to ensure that the applicant's interests are protected. Where the applicant is a very small part of a large project describe any contractual protection it has especially with respect to future capital requirements etc.

C. Project Benefits

State the conclusions reached as a result of the applicant's economic analysis such as:

1. Economic benefits of the project based on present value analysis;
2. Effectiveness of proposed project to meet member needs; and
3. Describe any specific constraints or limitations that may impact the proposed project.

D. Environmental (7 CFR 1794)

Discuss compliance with RUS environmental regulations including the following:

1. Indicate the environmental status of the project(s);
2. State the type of process being undertaken (i.e. EIS, EA with scoping, FONSI, etc.);
3. Indicate status of the process;

4. Describe any potential environmental controversy or unusual environmental problems; and
 5. Indicate timelines for completing the environmental process.
- E. Project Contracting (Engineering, Procurement & Construction)
 Discuss the contracting status (i.e. plans & specifications, bidding status etc.). The applicant should discuss contracting with RUS at an early stage and resolve any issues prior to submitting the Financing Document – Loan Application Package (RUS standard contract forms, bidding procedures, etc). As early as possible, the applicant should submit a list of all contracts, including the following information, for RUS determination of which contract will require RUS approval:
1. Description of the contracts; and
 2. Cost estimate of each contract.
- Contracts requiring RUS approval must be submitted and approved by RUS before advance of loan funds.
- F. Major Agreements Needed
 As early as possible, provide RUS a list of all implementing agreements needed for the project. Provide a short summary describing each agreement to provide RUS with general information. This will be used by RUS to determine which agreement will require RUS approval. Agreements requiring RUS approval must be submitted and approved by RUS before advance of loan funds. Such agreements would include, but not limited to:
1. Amendment and/or supplement to Member Wholesale Power Contracts;
 2. O&M Arrangements;
 3. Joint Arrangements;
 4. Fuel Management;
 5. Fuel Supply and Transportation;
 6. Interconnection;
 7. Transmission; and
 8. RTO.
- G. Regulatory Approvals
 Provide a list and the status of all required authorizations, approvals, permits, and licenses of Federal, State, governmental authorities, and/or regulatory authorities related to the financing, construction, operation, and maintenance of the proposed new generating resource.
- H. Project Justification and Support
1. General
 Describe the investigative process that led to the proposed course of action (i.e. determination of need, initial internal analysis of alternative sources of supply, load management, forward price curve analysis etc.).
 2. Need for Capacity
 - a. Power Requirements
 Develop a table based on the RUS approved Load Forecast of the projected needs of the members (See Sample 5).
 - b. Capacity Requirements

Using the RUS approved Load Forecast develop capacity and energy balance tables showing total capacity and energy needs (including reserves) and the resources available without the proposed project(s). The discussion in this section should establish the need for additional capacity resources. Resources should include firm power purchase contracts. Firm power sales should be included as load (See Sample 6). Provide a capacity and energy balance table that includes the proposed new generation project (See Sample 7).

c. Type of Unit

Identify proposed new generation resources as base, peaking or intermediate load resources and discuss how such determination was made. Provide the detail analysis of such determination and provide RUS a copy of any economic study performed.

d. Size of Unit

Provide the detail analysis of the size of unit selected.

e. Alternate Technology

Identify and describe any alternative considered. Provide analysis of why the chosen technology was selected.

3. Power Purchase Alternative Investigation Methods (7 CFR 1710.254)

The applicant must use the Request for Proposals ("RFP") process or other RUS approved methods to investigate power purchase alternatives.

a. RFP Process (if required)

- Provide a copy of the RFP to RUS for comment prior to bid;
- Provide evidence that the solicitation has been published in at least three major publications reaching all sources;
- The RFP should not be restrictive or biased to imply pre-selection of any option by the solicitor;
- The RFP should include a long term power purchase option of at least fifteen years;
- Provide a summary of the results and the recommendations of the RFP process including the number of respondents and generally describe the ability of each respondent to supply the requested power in a reliable manner; and
- In table format, show the economic present value analysis of the responses to the RFP process. Include the major assumptions used in the analysis and provide a copy of the economic study.

b. Alternate Process Acceptable to RUS

- Describe the proposed alternate power purchase process;
- Provide a summary of the results and the recommendations of the alternate power purchase process including the number of respondents and generally describe the ability of each respondent to supply the requested power in a reliable manner; and

- In table format, show the economic present value analysis of the responses. Include the major assumptions used in the analysis and provide a copy of the economic study.
4. Economic Analysis of Alternatives

Provide a brief description of the analytical approach taken by the applicant. The economic analysis should include a present value analysis of the costs of all reasonable alternatives and their effect on total power costs as required by 7 CFR 1710.254 and 7 CFR 1710.303. Reasonable alternatives must include the short list of power purchase options resulted from the RFP process or the RUS accepted alternate power purchase process, self-build option(s) or other alternative(s) considered by the applicant.

 - a. Describe the computer model used and whether the applicant used consultants to run model;
 - b. Discuss with RUS during the early stage of the project concerning the computer model to be used to determine if an outside RUS consultant is needed;
 - c. List all assumptions used;
 - d. The economic evaluation should generally have a term equal to the life of the proposed new generation project;
 - e. Provide a discussion of the transmission constraint issues and costs associated with the analysis of alternatives; and
 - f. Provide a summary of the evaluation, recommendations and a copy of the economic studies of alternatives.
 5. Other Alternatives Considered

List other alternatives considered and provide an explanation why they were rejected. Example of such alternatives includes:

 - a. No action;
 - b. Distributed generation;
 - c. Load management;
 - d. Renewable energy; and
 - e. Energy conservation.
 6. Regional Power Supply Analysis

Provide an analysis of the regional power supply situation. State the applicant's involvement within the region and the power supply planning activities. Include a table that shows planned construction and anticipated reserves. Include any pertinent information that is available on power supply projections and units planned or under construction. Indicate how the applicant's proposed projects fit into the regional activities.
 7. Project Issues

Discuss the following issues that impact the proposed generation project.

 - a. Water supply issues;

Provide evidence that there will be adequate water supply for the life of the project (i.e., water supply contracts, water rights, etc.).
 - b. Fuel and fuel transportation strategies; and

- Fuel adequacy for the life of the project based on published projections.
 - Fuel supply contracts/arrangements and term.
 - Fuel transportation contracts and term.
- c. Operating restrictions.
(i.e., environmental, fuel availability, noise, etc.).
8. Bus Bar Cost
Develop a table that demonstrates costs and general information associated with the proposed new generation project. The table should show the capacity factor of the proposed generating project, fixed costs of the project with a line item summary in \$/KW and \$/MWh and the variable costs in \$/MWh. The bus bar cost table for the new resource shall include data for at least ten years from the last commercial operation date of the proposed project(s) and shall be consistent with the FF. (See Sample 10)

III. PROPOSED GENERATION SYSTEM IMPROVEMENTS

- A. General
System improvement to existing generating plant(s) must be supported by a Construction Work Plan (CWP) in accordance with 7 CFR 1710 Subpart F. Provide a table containing the following information for each project, grouped by generating unit and plant:
1. Plant and Unit ID;
 2. Code or number;
 3. Title;
 4. Estimated cost;
 5. Loan funds requested;
 6. Construction status
(Date construction started and estimated/actual in service date);
 7. Environmental classification;
 - a. Type of project (Categorical exclusion, ER, EA, EIS)
 - b. Date of approval
 8. Date approved in a CWP or amendment; and
 9. General fund approval status, if required.
- B. Justification and Support
1. General
Describe the investigative process that led to the proposed course of action (i.e., determination of need, analysis of alternatives, environmental compliance, safety compliance, etc).
 2. Construction Work Plan (CWP)
The projects proposed for financing must be supported by the RUS approved CWP per 7 CFR 1710 Subpart F and must contain the following information:
 - a. Need for the project(s);
 - b. Detailed project description;
 - c. Project cost estimate;
 - d. Alternatives considered and evaluated;

- e. Cost/Benefit Analysis of the alternatives based on present value analysis; and
 - f. Conclusion and Recommendations.
- C. Prior RUS Loans (if applicable)
Provide a washdown of any prior generation system improvement loans that has unadvanced loan funds.

PART 6 – SAMPLES

1. Weighted Average Useful Life of Power Delivery Projects
2. Generation System Improvement Project Weighted Average Useful Life
3. Table of Current Power Delivery Facilities
4. Table for New Power Delivery Projects
5. Forecasted Power Requirements
6. Load/Capacity Comparison Table
7. Generation Expansion Plan
8. Member Power Cost Projection
9. Cost Estimate
10. New Resource Bus Bar Cost

Sample 1
**Weighted Average Useful Life
of Power Delivery Projects**

Code	Project Name	Useful Life	Cost	Product
800	Smith to Kane 69kV	36	\$ 200,000	7,200,000
801	Eagle to Dell 115kV	36	\$ 1,000,000	36,000,000
803	River 69kV Tap	36	\$ 50,000	1,800,000
Add additional 800 series projects as needed				
900	Clark 115/69kV Sub	36	\$ 500,000	18,000,000
901	Car Transformer	36	\$ 220,000	7,920,000
Add additional 900 series projects as needed				
1000	Wolf Sub Upgrade	36	\$ 150,000	5,400,000
1001	NTRO 69kV Carbon Line	36	\$ 800,000	28,800,000
Add additional 1000 series projects as needed				
1100	SCADA	15	\$ 500,000	7,500,000
1101	Green Microwave	15	\$ 300,000	4,500,000
Add additional 1100 series projects as needed				
Total			\$ 3,720,000	117,120,000

Weighted Average Useful Life = 31.48

Sample 2
Generation System Improvement Project
Weighted Average Useful Life

	<u>(A)</u> <u>Remaining Useful</u> <u>Life</u>	<u>(B)</u> <u>Loan Amount</u> <u>Requested</u>	<u>(A) X (B)</u>
Plant A Unit 1	20	\$2,000,000	\$40,000,000
Plant A Unit 2	15	\$3,000,000	\$45,000,000
Plant B Unit 1	5	\$4,000,000	\$20,000,000
Plant B Unit 2	10	\$2,000,000	\$20,000,000
Plant C Unit 1	25	\$4,000,000	\$100,000,000
Total		\$15,000,000	\$225,000,000

Weighted Average Useful Life = \$225,000,000/\$15,000,000 = 15

Remaining useful life of a unit is determined by the useful life of the unit from the in-service date.
The remaining useful life of a unit may be longer than its initial remaining life provided that it is based on a useful life study that is acceptable to RUS.

Sample 3

Table of Current Power Delivery Facilities

Transmission and Subtransmission Lines	
Voltage (kV)	Miles
345	70
138	145
69	300
Total	515

Substations	Number	MVA
Transmission	15	1,800
Distribution	100	1,400

Sample 4
Table for New Power Delivery Projects

	New	Upgrade	Miles	
			New	Rebuilt
New Substations	5	1		
MVA	125	10		
Miles of Transmission Line				
345kV			20.7	0
138kV			15.0	0
69kV			42.0	12.5
Miles of Subtransmission Line				
34.5kV			0	16.5
		Total	77.7	29.0

Sample 5
Forecasted Power Requirements

Year	Demand ⁽¹⁾ (MW)	Energy Requirements ⁽¹⁾ (MWh)
2001	646.0 ⁽²⁾	2,595 ⁽²⁾
2002	613.8	2,731
2003	628.0	2,799
2004	642.2	2,868
2005	656.4	2,937
2006	670.7	3,007
2007	684.9	3,077
2008	699.2	3,147
2009	713.4	3,217
2010	727.7	3,288
2011	741.9	3,359
2012	756.1	3,430
2013	770.1	3,500

Notes:

(1) At delivery point

(2) Historical data

Sample 6 Load/Capacity Comparison

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
2001 ⁽¹⁾												
System Load (MW)												
Members Coincident Peak	646.0	628.0	642.2	656.4	670.7	684.9	699.2	713.4	727.7	741.9	756.1	770.1
Losses @ 2.5%	16.2	15.7	16.1	16.4	16.8	17.1	17.5	17.8	18.2	18.5	18.9	19.3
Reserve Requirements	76.9	81.3	83.4	85.6	89.8	72.0	74.2	76.4	78.6	80.8	82.9	85.1
System Peak w/ Reserve Req.	739.1	724.9	741.7	758.5	757.3	774.0	790.9	807.7	824.4	841.2	857.9	874.5
Resource Capacity without Proposed Capacity Addition (MW)												
Baseload Unit 1	38.7	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
Baseload Unit 2	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1
Long Term Purchase	128.0	128.0	128.0	128.0	127.5	127.5	127.5	127.5	127.5	127.5	127.5	127.5
Interim Purchase	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long Term Unit Power Purchase	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Other Purchase Contracts	463.2	285.2	287.4	289.6	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
Total Capacity	739.0	708.3	560.4	564.8	394.7	394.7	394.7	394.7	394.7	394.7	394.7	394.7
Surplus (Deficit)	(0.0)	0.0	(164.5)	(179.1)	(362.6)	(379.3)	(396.2)	(413.0)	(429.7)	(446.5)	(463.2)	(479.8)

Notes:

(1) Historical Data

(2) System peak should include individual non-member firm sales.

(3) Load should be based on current RUS approved Load Forecast.

Sample 7

Generation Expansion Plan

	2001 ⁽¹⁾	2002	2003 ⁽²⁾	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
System Load (MW)													
Members Coincident Peak	646.0	613.8	625.0	642.2	656.4	670.7	684.9	689.2	713.4	727.7	741.9	756.1	770.1
Losses @ 2.5%	16.2	15.3	15.7	16.1	16.4	16.8	17.1	17.5	17.8	18.2	18.5	18.9	19.3
Reserve Requirements	76.9	79.1	81.3	83.4	85.6	89.8	92.0	94.2	96.4	98.6	100.8	103.0	105.2
System Peak w/ Reserve Req.	739.1	708.3	721.8	741.7	758.5	757.3	774.0	790.9	807.7	824.4	841.2	857.9	874.5
Resource Capacity (MW)													
Baseload Unit 1	38.7	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
Baseload Unit 2	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1
Long Term Purchase	128.0	128.0	128.0	128.0	128.0	127.5	127.5	127.5	127.5	127.5	127.5	127.5	127.5
Long Term Unit Power Purchase	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Capacity Addition (This Loan)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Generation A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Generation B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Market Purchases	463.3	433.1	417.7	401.5	218.3	217.6	234.3	234.3	180.0	250.0	250.0	250.0	250.0
Total Capacity	739.1	708.3	721.8	741.7	758.5	757.3	774.0	790.9	807.7	824.4	841.2	857.9	874.5
Energy Requirements (GWH)													
Members Requirements	2,595	2,731	2,759	2,868	2,937	3,007	3,077	3,147	3,217	3,288	3,359	3,430	3,500
Losses/Aux. Power	36	38	39	40	41	42	43	44	45	46	47	48	49
Total Energy Requirements	2,631	2,769	2,798	2,908	2,979	3,049	3,120	3,191	3,262	3,334	3,405	3,478	3,549
GENERATION BY UNIT (GWH)													
Baseload Unit 1	259.9	272	275	274	245	270	269	271	271	272	245	275	274
Baseload Unit 2	431.5	546	546	591	599	526	589	591	589	589	589	528	589
Long Term Purchase	260.5	346	346	346	346	346	346	346	346	346	346	346	346
Long Term Unit Power Purchase	228.0	214	228	215	228	199	213	228	214	228	200	215	228
Capacity Addition (This Loan)	0	0	0	395	394	651	636	664	719	748	831	878	855
New Generation A	0	0	0	131	131	131	131	131	131	131	131	131	131
New Generation B	0	0	0	0	0	0	0	0	0	0	0	0	0
Market Purchases	1451	1,391	1,186	957	1,045	926	836	41	73	100	144	185	206
TOTAL	2,631	2,769	2,798	2,908	2,979	3,049	3,120	3,191	3,262	3,334	3,405	3,478	3,549
Capacity Factor													
Baseload Unit 1	76.66%	81.59%	81.59%	82.10%	73.35%	80.81%	80.63%	81.08%	81.29%	81.47%	73.26%	82.49%	82.22%
Baseload Unit 2	62.27%	78.78%	78.78%	85.25%	84.99%	75.97%	84.99%	85.25%	84.99%	84.99%	84.99%	76.23%	84.99%
Long Term Purchase	23.23%	30.89%	30.89%	30.89%	30.89%	31.00%	31.00%	31.00%	31.00%	31.00%	31.00%	31.00%	31.00%
Long Term Unit Power Purchase	86.76%	0.00%	0.00%	27.35%	27.27%	45.05%	81.09%	86.83%	81.24%	86.72%	75.95%	81.62%	86.80%
Capacity Addition (This Loan)	0.00%	0.00%	0.00%	14.95%	14.95%	14.95%	14.95%	14.95%	14.95%	14.95%	14.95%	14.95%	14.95%
New Generation A	0.00%	0.00%	0.00%	54.20%	54.67%	48.57%	45.59%	406.34%	46.48%	32.89%	32.01%	30.99%	27.71%
New Generation B	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Market Purchase	35.76%	36.67%	47.55%	54.20%	54.67%	48.57%	45.59%	406.34%	46.48%	32.89%	32.01%	30.99%	27.71%

Notes:
 1) Historical Data
 2) In-service year of proposed new generation project.
 3) System peak and system energy requirements should include individual non-members firm sales.
 4) Demand and energy requirements should be based on current RUS approved load forecast.

Sample 8 Member Power Cost Projection

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Expenses (\$)												
Production												
Fuel	11,476,255	14,885,700	19,554,800	21,904,872	22,197,701	29,243,566	31,638,184	33,121,229	34,027,890	37,959,464	39,524,244	41,389,926
Operation	1,563,311	1,554,500	2,019,700	2,452,100	2,433,400	2,852,200	3,123,900	3,282,000	3,401,700	3,557,300	3,654,700	3,820,700
Maintenance	1,872,350	1,362,600	3,531,700	5,341,500	5,459,700	5,574,800	5,803,600	5,918,500	6,037,500	6,156,500	6,276,600	6,408,200
Purchased Power	70,555,381	70,130,500	59,836,300	55,342,300	65,118,400	70,711,600	74,545,300	79,111,700	81,860,100	84,277,500	87,685,200	93,516,200
A&G	1,856,784	2,547,600	2,611,300	2,938,300	3,085,200	3,401,500	3,571,600	3,750,200	3,937,700	4,134,600	4,341,300	4,558,300
Transmission	2,595,000	2,731,000	2,799,000	2,868,000	2,937,000	3,077,000	3,147,000	3,217,000	3,288,000	3,359,000	3,430,000	3,500,000
Depreciation	3,224,335	3,220,000	4,928,900	6,589,100	6,608,800	6,627,800	6,666,500	6,686,300	6,706,400	6,726,800	6,747,500	6,768,400
Interest	5,128,730	4,978,000	7,805,400	10,045,300	9,748,100	9,429,900	8,719,900	8,324,600	7,900,600	7,445,300	6,956,400	6,430,700
Other Expenses	833,804	896,800	1,659,400	1,724,000	1,757,300	1,791,000	1,826,500	1,862,800	1,899,800	1,937,500	1,976,000	2,015,200
Total Expenses (\$)	99,105,950	102,306,700	104,746,500	109,172,872	119,312,301	132,663,666	139,042,484	145,274,329	149,059,690	155,553,964	160,591,944	168,407,626

Interest Income	2,868,443	1,632,800	2,436,100	4,530,500	4,939,400	5,580,000	5,844,800	6,146,500	6,405,300	6,612,400	6,874,500	7,105,800
Other Revenues ⁽³⁾	905											
Net Expenses (\$)	96,236,602	100,673,900	102,310,400	104,642,372	114,372,901	127,425,666	133,197,684	139,127,829	142,654,390	148,941,564	153,717,444	161,301,826

Member Energy Reqsmts (GWh) ⁽³⁾	2,595	2,731	2,799	2,868	2,937	3,007	3,147	3,217	3,288	3,359	3,430	3,500
Member Power Cost (\$/MWh)	37.09	36.86	36.55	36.49	38.94	42.38	41.76	43.25	43.39	44.34	44.82	46.09
Weighted Avg. (\$/MWh)	41.37											

Notes:

- 1) Historical data
- 2) Should include revenues from non-member sales.
- 3) Member energy requirements at delivery point

Sample 9 Cost Estimate

XYZ Power Plant

Generation Facilities

Item	Estimate
Engineering services	\$ _____
Turbines	\$ _____
Boilers	\$ _____
Main step-up transformers	\$ _____
EPC contract	\$ _____
Mechanical installation	\$ _____
Electrical installation	\$ _____
Water and gas pipelines	\$ _____
Rail Facilities	\$ _____
Sales tax	\$ _____
Startup costs	\$ _____
Shop equipment and spares	\$ _____
Land and road upgrades	\$ _____
Legal	\$ _____
Development expense (overhead, studies etc)	\$ _____
Contingency	\$ _____
IDC	\$ _____
Total Generation	\$ _____

Transmission Facilities

Item	Estimate
Power plant switchyard	\$ _____
Lines/interconnections _____ miles, _____ kV	\$ _____
Substations _____ kV, _____ MVA	\$ _____
Total Transmission	\$ _____

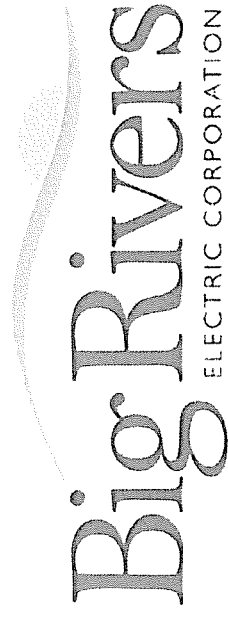
Total Project Cost \$ _____


Sample 10
New Resource Bus Bar Cost Table

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Capacity (MW)										
Energy (GWh)										
Capacity Factors (%)										
Operating Expenses (\$ 000)										
Fuel Costs										
O&M-Variable										
O&M-Fixed										
Insurance										
Depreciation										
Property Tax										
Total Operating Expense										
Interest Charges (\$ 000)										
Total Expenses (\$ 000)										
Total Cost (\$/MWh)										
Total Fixed Costs (\$ 000)										
Fixed Cost (\$/KW)										
Fixed Cost (\$/MWh)										
Total Variable Costs (\$ 000)										
Variable Costs (\$/MWh)										
The data should be for at least 10 years from the commercial operation date and be consistent with the FF.										

**Big Rivers Presentation at Rural Utilities Service Meeting -
March 20, 2012**

**Meeting with Rural Utilities Service
on March 20, 2012**



Your Touchstone Energy[®] Cooperative 

Participants

Big Rivers Electric Corporation

Mark Bailey, *President & CEO*

Mark Hite, *Vice President Accounting & Interim CFO*

Robert Berry, *Vice President Production*

James Miller, *Corporate Counsel, Sullivan Mountjoy Stainback & Miller*

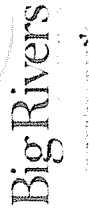
Key Topics for Today's Discussion

- Plans to refinance a portion of the RUS 2009 Promissory Note Series A (the "RUS Series A Note"), as described in the letter dated March 6, 2012
- 2012 Environmental Compliance Plan (the "ECP"), as described in the letter dated March 6, 2012
- General Adjustment in Member Rates effective September 1, 2011
- Status of the aluminum smelter operations (Alcan and Century)
- MISO membership update

Table of Contents

- I. Overview of Big Rivers Electric Corporation
 - II. Overview of Members & Customer Base
 - III. Operations
 - IV. Indenture/Financial Goals
 - V. Financials
 - VI. Appendix – Senior Management Brief Biographies
-

I. Overview of Big Rivers Electric Corporation



Overview of Big Rivers Electric Corporation

- Big Rivers Electric Corporation (“Big Rivers”) was formed in 1961 and is based in Henderson, Kentucky
- Big Rivers supplies wholesale electric generation and transmission service to three electric distribution cooperatives (“Members”):
 - Jackson Purchase Energy Corporation
 - Kenergy Corp. (“Kenergy”)
 - Meade County Rural Electric Cooperative Corporation
- Members are local customer-owned cooperatives providing service to approximately 112,500 retail customers on a not-for-profit basis
 - Members serve residential, commercial and industrial customers located in portions of 22 western Kentucky counties

• Big Rivers and its Members are generally regulated by the Kentucky Public Service Commission

- Big Rivers provides capacity and energy to its members through a combination of 5 owned generation stations, one leased generation station and purchased power
 - Net capacity of owned generation – 1,444 MW
 - Net capacity of leased generation from Henderson Municipal Power & Light Station II (HMPL) – 202 MW
 - Power purchased from SEPA – 178 MW
 - 1,266 miles of transmission lines and 22 substations
 - Midwest ISO membership implementation – Dec. 2010

Key 2011 Statistics
Energy Sales - 13,255 GWh
Operating Revenues - \$562mm
Total Assets - \$1,418mm
Non-Smelter Member Rate (Excluding MRSM Credit) \$45.29/MWh
Non-Smelter Member Rate Stability Mechanism (\$6.22/MWh)
Non-Smelter Member Wholesale Rate \$39.07/MWh
Smelter Effective Rate \$44.48/MWh

Rate Case

- On March 1, 2011, Big Rivers filed an application for a general rate adjustment with the Kentucky Public Service Commission (“KPSC”)
 - Case number 2011-00036
 - New Rates were effective September 1, pending approval from the KPSC.
 - Formal approval by the KPSC was granted in November 2011 for a rate increase of \$26.7mm
 - \$10.6 million was assigned to the rural class
 - \$ 1.9 million to the large industrial class
 - \$14.2 million to the smelters
 - A rehearing has been granted by the KPSC wherein Big Rivers has requested an additional \$2.7 mm to be reconsidered
 - Kentucky Industrial Utility Customers have appealed the \$26.7 mm rate increase granted by the KPSC
-

Power Supply - ACES Power Marketing & NRCO

ACES Power Marketing

Big Rivers has been a member/owner of ACES Power Marketing, one of the nation's largest electricity traders, since January 2003. ACES operates as an energy risk management and hedge manager. Member/owners like Big Rivers actively participate by utilizing the ACES infrastructure and resources to assess their risks and execute specific, customized portfolio strategies.

National Renewables Cooperative Organization

In the tradition of working together, cooperatives across the country have formed the National Renewables Cooperative Organization (NRCO) to promote and facilitate the development of renewable energy resources. Membership in the NRCO is open to generation and transmission cooperatives (G&Ts) and distribution cooperatives with the legal ability to buy power in the wholesale market. Big Rivers was one of 24 founding members of the organization, which formed in November 2008.

Big Rivers' Strategic Plan

NORTH STAR

- North Star will be the cost per kWh of the total Member load, including distribution members and smelters.
- Big Rivers will manage the cost per kWh within the board-approved risk tolerance, always striving to keep costs as low as possible while still meeting the Members' service requirements.

MISSION

Big Rivers' Mission is to safely deliver low-cost, reliable, wholesale power and cost-effective shared services desired by our members.

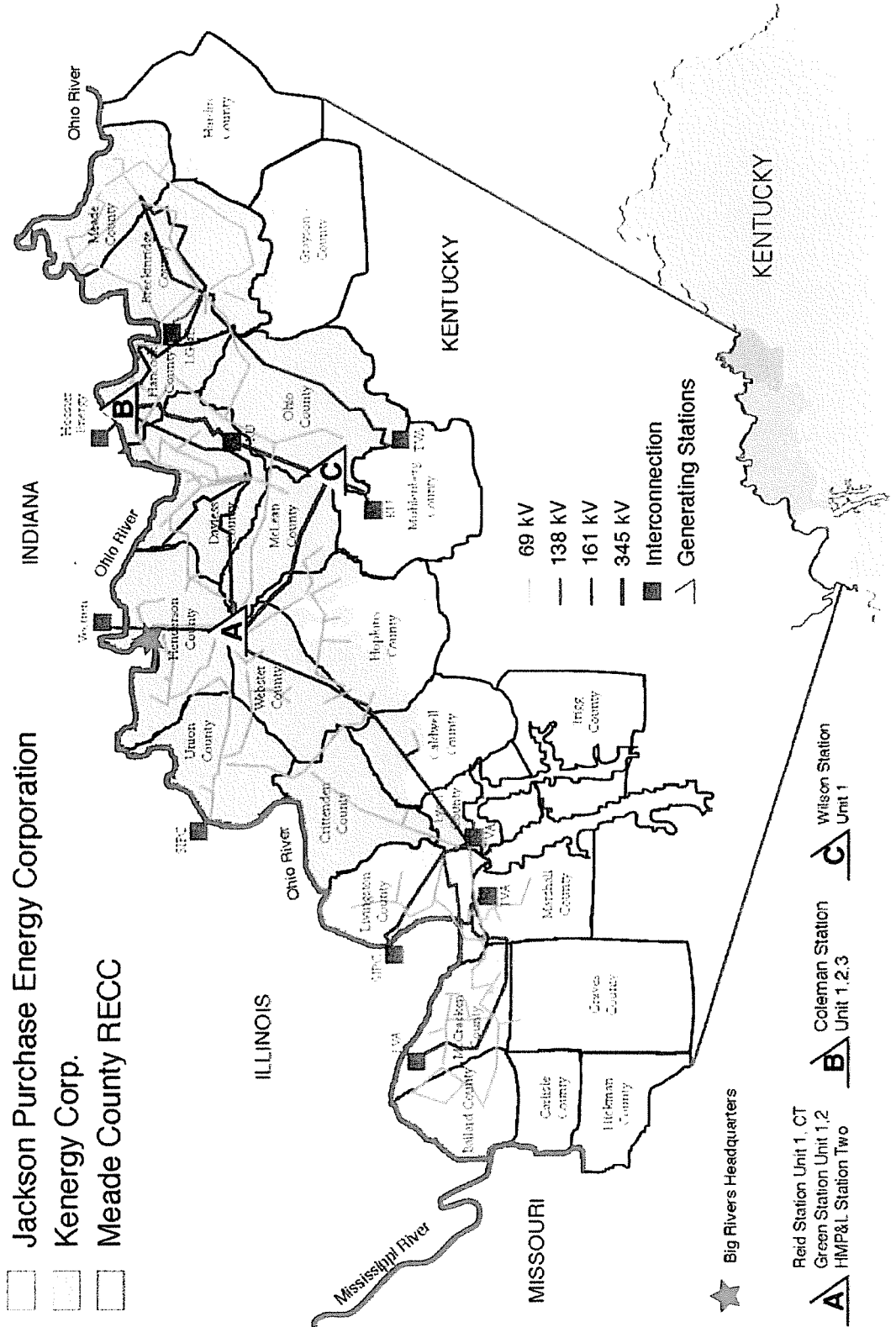
VISION

Big Rivers' Vision is to be viewed as one of the top G&Ts in the country and will provide services the members desire in meeting future challenges.

VALUES

- Safety
- Integrity
- Excellence
- Member and Community Service
- Respect for the Employee
- Teamwork
- Environmentally Conscious

Big Rivers Members' Service Territory



Big Rivers' Senior Management

Big Rivers is led by an experienced senior management team and is governed by a six-member board of directors. The board is comprised of two representatives from each distribution cooperative.

Senior Management Team:

Mark Bailey, President & CEO

Robert Berry, V.P. Production

David Crockett, V.P. System Operations

James Haner, V.P. Administrative Services

Mark Hite, V.P. Accounting & Interim CFO

Eric Robeson, V.P. Environmental Services and Construction

Albert Yockey, V.P. Governmental Relations & Enterprise Risk Management

Big Rivers' Financing

Big Rivers currently has two \$50 million lines of credit available to it, one with CoBank, ACB, expiring July 16, 2012, and the other with National Rural Utilities Cooperative Finance Corporation ("CFC") that expires July 16, 2014.

Long Term Debt Schedule (\$mm) - as of December 31, 2011

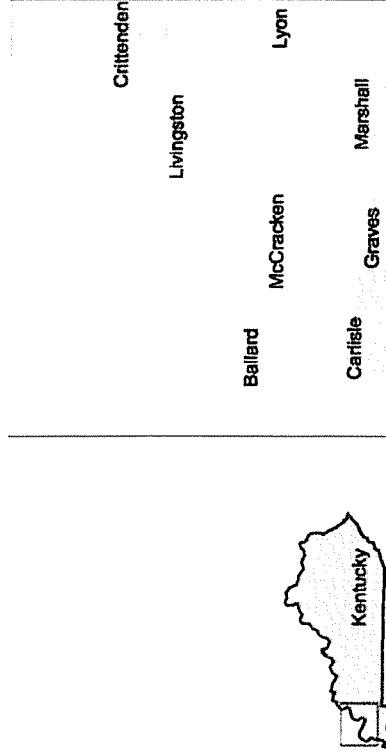
Debt	Maturity Date	Stated Value	Principal	Notes:
RUS Series A Note, stated interest rate of 5.75%, with an imputed interest rate of 5.84%	July 2021	\$ 523.2	\$ 521.3	A portion hereof to be refinanced by CoBank and CFC
RUS Series B Note, no stated interest rate, with an imputed interest rate of 5.80%	December 2023	\$ 245.5	\$ 123.0	
Pollution Control Bonds Series 1983 - County of Ohio, Kentucky with a 3.25% interest rate in 2011	June 2013	\$ 58.8	\$ 58.8	Plan to refinance in 2013
Pollution Control Bonds Series 2010 , County of Ohio, Kentucky with a 6.0% fixed interest rate	July 2031	\$ 83.3	\$ 83.3	
TOTAL		\$ 910.8	\$ 786.4	

II. Overview of Members & Customer Base

Overview of Jackson Purchase Energy Corporation

Overview Service Territory

- Established in 1937
- Serves approximately 29,000 accounts in portions of 6 counties in Western Kentucky
- Managed by 8 member/consumer elected board serving four-year staggered terms
- Primarily residential & small commercial customer mix
- Most recent residential retail rate increase: July 2008, 9.5%



Summary Financial Information (\$mm)

	Fiscal Year Ended December 31		
	2011	2010	2009
Income Statement			
Operating Revenues	\$45.1	\$46.5	\$41.9
Operating Expenses	38.0	36.1	34.4
Net Operating Income ¹	7.1	10.4	7.5
Cash Flow			
Debt Service	5.1	4.9	4.9
Debt Service Coverage Ratio	1.50 x	2.32 x	1.62 x
TIER	1.04 x	2.51 x	1.26 x
Balance Sheet			
Net Utility Plant	\$92.4	\$91.5	\$87.3
Equities/Capitalization	39.4%	43.6%	39.8%

Source: RUS Form 7 - Before Depreciation, Taxes & Interest

Customer Profile

	FY 2011		
Customer Type	MWh	Number of Consumers	Revenue (\$000)
Residential	411,231	26,054	29,070
Comm. And Ind. (< 1,000 kW)	190,024	3,126	11,916
Comm. And Ind. (> 1,000 kW)	49,396	9	2,909
Public Lighting/Irrigation	888	10	101
Total	651,539	29,199	43,996

Overview of Kenergy Corp.

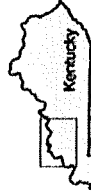
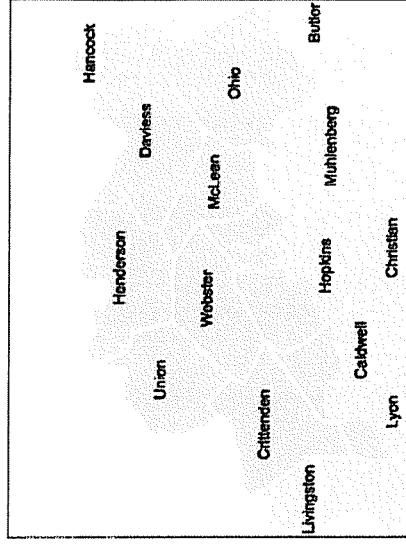
Overview Service Territory

- Established in July 1999 through the consolidation of – Henderson Union Electric Coop (established 1936), and – Green River Electric Corporation (established 1937)
- Serves approximately 55,000 customers in 14 western Kentucky counties along more than 7,000 miles of line
- Fourth largest electric cooperative in Kentucky (based on customers)
- Managed by 11 member customer-elected board
- Most recent residential retail rate increase: Sept. 2011, 7.49%
- Responsible for supplying Hawesville and Sebree smelters

Summary Financial Information (\$mm)

	Fiscal Year Ended December 31	
	2011	2010
Income Statement		
Operating Revenues	\$425.6	\$401.0
Operating Expenses	407.5	381.3
Net Operating Income ¹	18.1	19.7
Cash Flow		
Debt Service	11.5	11.6
Debt Service Coverage Ratio	1.62 x	1.79 x
TIER	1.66 x	1.95 x
Balance Sheet		
Net Utility Plant	\$182.9	\$179.2
Equities/Capitalization	36.3%	33.2%
		30.3%

Source: RUS Form 7-Before Depreciation, Taxes & Interest



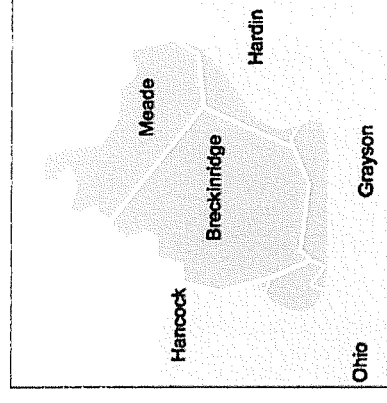
Customer Profile

	FY 2011		
Customer Type	MWh	Number of Consumers	Revenue (\$'000)
Residential	754,124	45,294	56,284
Comm. And Ind. (< 1,000 kW)	314,861	9,803	22,563
Comm. And Ind. (> 1,000 kW)	8,326,066	35	344,888
Public Lighting	1,733	78	282
Total	9,396,784	55,210	424,017

Overview of Meade County Rural Electric Cooperative

Overview Service Territory

- Established in 1937
- Serves approximately 28,000 customers in portions of 6 Kentucky counties along approximately 2,900 miles of line
- Managed by 7 member customer-elected board
- Primarily residential customer mix
- Most recent residential retail rate increase: Feb. 2011, 3.92%



Summary Financial Information (\$mm)

	Fiscal Year Ended December 31		
Income Statement	2011	2010	2009
Operating Revenues	\$35.8	\$34.6	\$31.1
Operating Expenses	28.3	27.5	24.7
Net Operating Income ¹	7.5	7.1	6.4
Cash Flow			
Debt Service	4.8	4.9	4.8
Debt Service Coverage Ratio	1.58 x	1.55 x	1.37 x
TIER	2.09 x	2.05 x	1.57 x
Balance Sheet			
Net Utility Plant	\$72.2	\$69.9	\$66.6
Equities/Capitalization	33.9%	33.5%	32.3%

Source: RUS Form 7-Before Depreciation, Taxes & Interest

Customer Profile

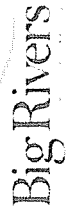
	FY 2011		
Customer Type	MWh	Number of Consumers	Revenue (\$'000)
Residential	364,735	26,402	27,480
Comm. And Ind. (< 1,000 kW)	94,657	2,070	7,131
Public Lighting	1,057	6	75
Total	460,449	28,478	34,686

Long-Term Smelter Contracts

- Big Rivers and Kenergy (the Member serving the Smelters) entered into the Smelter Wholesale Power Contracts in which Big Rivers supplies energy to Kenergy for resale to the Smelters through the end of 2023 on a take-or-pay basis, subject to a one-year termination notice from the Smelter(s)
 - The two aluminum smelters, owned by Alcan and Century, have a base demand of 850 MW and typically use 98% of the energy
 - Energy made available to the Smelters will consist of three types
 - **Base Monthly Energy:** 368 MW hourly for Alcan and 482 MW hourly for Century
 - **Supplemental Energy:** 10 MW hourly of interruptible energy to each Smelter
 - **Back-up Energy:** Imbalance energy for Kenergy made available to the Smelters
 - Charges to the Smelters will also include the following adjustments:
 - Base Rate always 25 cents per MWh over Large Industrial
 - Fuel Adjustment Clause ("FAC") – Adjusts monthly for incremental changes in fuel costs
 - Environmental Surcharge ("ES") – Adjusts monthly for incremental changes in non-fuel variable production expenses (emission allowances, reagents and waste disposal)
 - Purchased Power Adjustment ("PPA") – Adjusts monthly for incremental changes in purchased power costs (non-FAC PPA regulatory account for non-smelter members)
 - TIER Adjustment (described on page 29)
 - Surcharges – Mitigate impact of FAC and ES on Non-Smelter Members
-

Overview of Smelters

- **Sebree, Kentucky Smelter (Alcan Primary Products Corporation)**
 - Alcan is owned by Rio Tinto, an international mining group, and is Rio Tinto's only U.S. aluminum smelter
 - Commenced operation in 1973
 - Produces 186,000 metric tons of primary aluminum annually from its 3 potlines
 - 600 employees
 - Base contract demand: 368 MW and Projected annual energy consumption: 3.1 TWh
 - Recently completed \$37mm bake furnace project
 - **Hawesville, Kentucky Smelter (Century Aluminum of Kentucky General Partnership)**
 - Century is a public company and through its various subsidiaries owns and operates aluminum smelters in Kentucky, South Carolina, West Virginia and Iceland
 - Commenced operation in 1970
 - Produces 244,000 metric tons of primary aluminum annually from its 5 potlines
 - 775 employees
 - Base contract demand: 482 MW and Projected annual energy consumption: 4.2 TWh
-



Big Rivers' Members Provide Some of the Lowest Cost Residential Electricity in the Nation

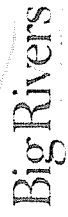
Average Residential Rate – Kentucky
December 2011¹

Average Residential Rate – National
November 2011²

Kentucky Utility	Cents / kWh	National Region	Cents / kWh
East Kentucky Power Cooperative	11.66	Pacific Noncontiguous	27.94
AEP Kentucky Power	9.72	New England	15.90
Duke Energy Kentucky	8.65	Middle Atlantic	15.80
Louisville Gas and Electric Company	8.57	Pacific Contiguous	12.71
Kentucky Utilities Company	7.82	East North Central	12.02
		South Atlantic	11.21
		West South Central	10.60
Big Rivers Rate (including credits)	7.82	East South Central	10.46
Big Rivers Rate (excluding credits)	9.11	Mountain	10.12
		West North Central	9.83
		Kentucky	9.30
		United States Total	11.88

¹Source: Kentucky Public Service Commission Orders and Filings

²Source: Energy Information Administration Table 5.6.A



Big Rivers' Members Provide Some of the Lowest Cost Commercial and Industrial Electricity in the Nation

Average Commercial & Industrial Rate – National 2011

National Region	Cents/kWh
Pacific Noncontiguous	24.67
New England	13.51
Middle Atlantic	10.99
Pacific Contiguous	10.13
East North Central	8.05
South Atlantic	8.14
East South Central	7.96
Meade County	7.53
Mountain	7.52
West South Central	7.39
West North Central	7.21
Kenergy - excluding Smelters	7.17
Kentucky	6.86
Jackson Purchase	6.19
Kenergy - Smelters	4.40

Source: RUS Form 7 and Energy Information Administration

III. Operations

Big Rivers' Available Generation Resources

	Fuel Type	Net Capacity (MW)	Commercial Operation
Owned Generation			
Kenneth C. Coleman Plant			
Unit 1	Coal	150	1969
Unit 2	Coal	138	1970
Unit 3	Coal	155	1972
Robert D. Green Plant			
Unit 1	Coal	231	1979
Unit 2	Coal	223	1981
Robert A. Reid Plant			
Unit 1	Coal / Gas	65	1966
Combustion Turbine	Oil / Gas	65	1979
D. B. Wilson Unit 1	Coal	417	1986
Owned Subtotal		1,444	
Leased Generation			
HMP&L Station Two			
Unit 1	Coal	153	1973
Unit 2	Coal	159	1974
City's Current Capacity Allocation ¹		(110)	
Leased Subtotal		202	
Total Owned / Leased Generation		1,646	
Purchased Power			
Member's SEPA Allocation	Hydro	178	
Total Capacity		1,824	

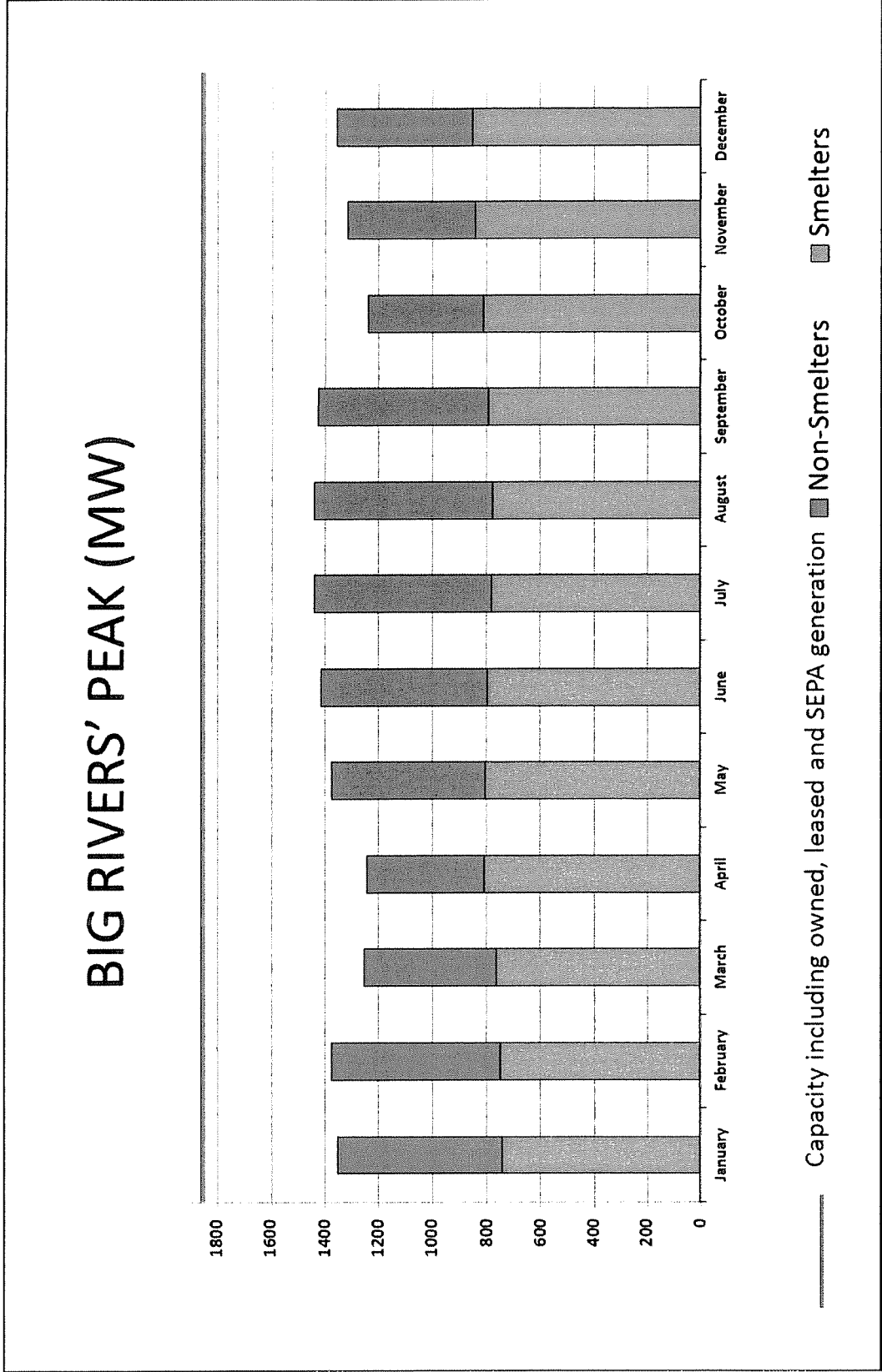
¹Big Rivers operates Station Two, which is owned by the City of Henderson, and is entitled to all capacity and energy not taken by the City under the terms of a power purchase agreement.

Big Rivers' Coal-Fired Power Plants System Performance

- Eight of the nine coal generating units are equipped with Flue Gas Desulfurization systems (FGDs) to control SO₂ emissions
- Wilson 1, HMP&L 1 and HMP&L 2 are equipped with Selective Catalytic Reduction systems (SCRs) to control NO_x emissions
- System performance is actively benchmarked against the industry utilizing GKS Navigant services. In the most recent benchmarking survey (2007 to 2011 Q3), Big Rivers displayed the following results when comparing O&M costs including fuel:
 - System capacity weighted O&M cost including fuel was \$2.38/MWh less than the median cost (\$32.08/MWh vs. \$34.46/MWh).

Key Performance Indicators per IEEE Standards (6 Year Averages 2006 thru 2011)							
Unit	Net Generation (MWHrs)	Net Heat Rate (BTU/kWH)	Gross Capacity Factor (%)	Gross Capacity Output (%)	Equivalent Availability Factor (%)	Equivalent Forced Outage Rate (%)	
Coleman 1	981,391	10,762	75.2	84.5	89.1	4.9	
Coleman 2	904,899	11,561	74.8	81.9	90.9	3.1	
Coleman 3	1,014,199	10,654	75.5	83.4	88.9	6.8	
Green 1	1,768,041	11,132	88.7	95.5	92.1	2.5	
Green 2	1,725,642	11,265	89.5	95.1	94.1	1.8	
Henderson 1	1,098,054	10,911	83.1	93.2	88.4	8.3	
Henderson 2	1,093,491	11,182	79.3	88.0	88.8	5.2	
Wilson 1	3,143,151	11,201	86.4	96.8	88.1	4.8	
SYSTEM	11,728,868	11,109	83.0	91.5	90.0	4.5	

Big Rivers' Peak 2011 (MW)



Big Rivers' Coal-Fired Power Plants Variable Cost 2011 – by unit

BREC Variable Costs*
 Period Ending December 31, 2011
 Year - to - Date

<u>Unit</u>	<u>Total Fuel</u>	<u>(Reagent) Scrubber</u>	<u>SOx Allowances</u>	<u>NOx Allowances</u>	<u>Total Variable \$</u>	<u>Net Generation</u>	<u>\$/MWH</u>
Green 1							
Green 2							
HMP&L 1							
HMP&L 2							
Coleman 1							
Coleman 2							
Coleman 3							
Wilson 1							
Totals							

*Does not include Reid 1 and Reid CT which are used for peaking purposes

Big Rivers' Environmental Compliance Plan (ECP) for CSAPR & MATS

Cross-State Air Pollution Rule (CSAPR) and the Mercury and Air Toxics Standards (MATS) were both finalized in 2011. Both rules will impact Big Rivers' ECP. Big Rivers plans to pass through these costs under the Environmental Surcharge, and will be presenting this information to the Kentucky Public Service Commission in 2012. The estimated compliance costs are as follows:

	CSAPR	MATS	Total
<u>Capital</u>			
Wilson	139,000,000	11,240,000	150,240,000
HMPL (Net of City)	3,850,000	280,000	4,130,000
Reid	1,200,000		1,200,000
Green	81,000,000	18,480,000	99,480,000
Coleman		28,440,000	28,440,000
	<u>225,050,000</u>	<u>58,440,000</u>	<u>283,490,000</u>
Cost of Capital	9.42%	9.42%	9.42%
Annual Capital Cost	21,199,710	5,505,048	26,704,758
Annual O&M Cost	3,220,000	10,010,000	13,230,000
Total Annual 2012 ECP Cost in 2016	<u>24,419,710</u>	<u>15,515,048</u>	<u>39,934,758</u>

IV. Indenture/Financial Goals

Big Rivers' Financial Covenants

Big Rivers is in compliance with all debt covenants associated with both long-term and short-term debt.

- The Company's Indenture and its line of credit with CFC require that Margins for Interest Ratio (MFIR) of at least 1.10 be maintained each fiscal year.
- The CoBank line of credit agreement requires that at the end of each fiscal year the Company have a Debt Service Coverage Ratio (DSCR) of not less than 1.20.
- CoBank and CFC also require an Equity to Assets ratio of 15% or greater at the end of each fiscal year.

Historical Performance against covenants

Ratio	Agreement	Loan Covenant	2011	2010	2009
MFIR	Indenture/NRUCFC	1.10	1.12	1.15	9.87
Debt Service Coverage Ratio*	CoBank	1.20	1.47	1.47	2.44
Equity to Assets	CoBank	15%	27%	26%	25%
Equity to Assets	NRUCFC	12%	27%	26%	25%
TIER		n/a	1.12	1.15	9.85
Debt to Total Capitalization		n/a	67%	68%	69%

* DSCR not included in the proposed CoBank Revolver

Smelter Agreements TIER Support Calculation

(\$ mm)

		Sample Rebate and TIER Adjustment Calculation	
		20XX	2013
•	20XX Rebate		
-	TIER before adjustment (line 4) exceeds 1.24		
-	\$18.8mm is available for Rebate, split ratably between Non-Smelter Members and Smelters	\$79.9	\$45.7
-	Maximum TIER adjustment available is \$1.95/MWh	\$49.3	\$53.3
		1.62x	0.86x
•	2013 TIER Adjustment		
-	TIER before adjustment (line 4) is below 1.24	(6.2)	-
-	\$20.36mm is contributed by Smelters via TIER adjustment or \$2.79/MWh	(12.6)	-
-	Maximum TIER adjustment available is \$2.95/MWh	(18.8)	-

		20XX	2013
1 Before Rebate / TIER Adjustment			
2	Net Margin + Interest Charges	\$79.9	\$45.7
3	Interest Charges	\$49.3	\$53.3
4	Contract TIER	1.62x	0.86x
5 Rebate			
6	Members	(6.2)	-
7	Smelters	(12.6)	-
8	Total	(18.8)	-
9 TIER Adjustment			
10	Smelters	-	\$20.4
11	Total	-	\$20.4
12 After Rebate / TIER Adjustment			
13	Net Margin + Interest Charges	\$61.1	\$66.1
14	Interest Charges	\$49.3	\$53.3
15	Contract TIER	1.24x	1.24x

V. Financials

Statement of Operations

Big Rivers

Statement of Operations (\$mm)	Actual		Projected				
	2010	2011	2012	2013	2014	2015	2016
Electric Energy Revenues	\$ 514.5	\$ 558.4					
Other Operating Revenue and Income	12.8	3.6	4.0	4.0	4.0	4.0	4.0
Total Operating Revenues	\$ 527.3	\$ 562.0					
Operating Expense - Excluding Fuel	\$ 187.2	\$ 201.8					
Operating Expense Fuel	207.7	226.2					
Maintenance Expense	46.9	47.7					
Depreciation and Amortization	34.2	35.4	41.9	43.3	44.7	48.1	52.5
Interest Expense	47.1	45.7	43.6	59.3	59.5	59.3	59.2
Other - Net	(2.8)	(0.4)	(0.5)	(4.5)	(10.4)	(13.4)	(4.6)
Total Expenses	\$ 520.3	\$ 556.4	\$ 580.9	\$ 617.6	\$ 643.5	\$ 657.0	\$ 701.8
Net Margins	\$ 7.0	\$ 5.6					
TIER	1.15	1.12	1.12	1.14	1.24	1.24	1.24

Balance Sheet

Balance Sheet (\$mm)	Actual		Projected				
	2010	2011	2012	2013	2014	2015	2016
Assets							
Net Utility Plant	\$ 1,092	\$ 1,092	\$ 1,120	\$ 1,189	\$ 1,339	\$ 1,436	\$ 1,427
Cash & Investments	45	45	35	241	101	32	32
Transition Reserve	35	0	35	35	36	36	36
Economic Reserve	121	100	72	38	8	0	0
Rural Economic Reserve	62	63	64	65	66	52	23
Receivables, Inventories, & Other	117	118	133	141	139	142	149
Total	\$ 1,472	\$ 1,418	\$ 1,459	\$ 1,709	\$ 1,689	\$ 1,698	\$ 1,667
Equities & Liabilities							
Equities	\$ 387	\$ 390	\$ 395	\$ 404	\$ 418	\$ 433	\$ 447
Debt	817	786	859	1,133	1,124	1,114	1,104
Deferred Revenue - Economic Reserves	181	162	136	103	74	52	23
Line of Credit Advances	10	0	0	0	0	25	15
Payables & Other	77	80	69	69	73	74	78
Total	\$ 1,472	\$ 1,418	\$ 1,459	\$ 1,709	\$ 1,689	\$ 1,698	\$ 1,667
Equities / Total Capitalization	32%	33%	31%	26%	27%	28%	29%

Debt Service Coverage

	Actual		Projected				
	2010	2011	2012	2013	2014	2015	2016
Debt Service Coverage (\$mm)							
Margins	\$ 7.0 \$	5.6					
Interest Expense	47.1	45.7	43.6	59.3	59.5	59.3	59.2
Depreciation & Amortization	36.3	37.5	44.5	46.0	47.5	51.0	55.7
Numerator for DSCR	\$ 90.4 \$	88.8					
Interest Expense	47.1	45.7	43.6	59.3	59.5	59.3	59.2
Principal Due on Long-Term Debt	14.2	14.9	16.1	21.6	22.4	23.3	24.3
Denominator for DSCR	\$ 61.3 \$	60.6 \$	\$ 59.7 \$	\$ 80.9 \$	\$ 81.9 \$	\$ 82.6 \$	\$ 83.5
Debt Service Coverage Ratio	1.47	1.47					

Non-Smelter Member Rates

Big Rivers

Rate Derivation (\$/MWh)	Actual			Projected			
	2010	2011	2012	2013	2014	2015	2016
Non-Smelter Members							
Base Rate	\$ 35.33	\$ 42.45					
Regulatory Account Amortization	0.00	(0.32)	(1.23)	(1.23)	(0.38)	0.17	0.28
FAC	9.98	4.49	5.09	5.47	5.95	6.36	6.80
Environmental Surcharge	2.25	2.16	2.51	4.98	4.94	4.92	7.33
Surcredits	(3.30)	(3.49)	(4.10)	(4.05)	(4.00)	(3.97)	(3.93)
Rebate (Accrual)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rate Stabilization							
Economic Reserve	(7.91)	(6.22)	(8.69)	(10.10)	(9.10)	(2.20)	0.00
Rural Economic Reserve	0.00	0.00	0.00	0.00	0.00	(4.68)	(8.44)
Blended Rate	\$ 36.35	\$ 39.07					

Smelter Rates

Big Rivers

Rate Derivation (\$/MWh)	Actual		Projected				
	2010	2011	2012	2013	2014	2015	2016
Smelters							
Large Industrial Rate @ 98%	\$ 29.07	\$ 34.70					
Additional Smelter Charge	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Base Rate	\$ 29.32	\$ 34.95					
Tier Adjustment	1.95	1.95	2.95	2.95	2.60	2.55	2.44
Non-FAC PPA	(1.18)	(0.70)	(0.40)	(0.21)	(0.04)	0.28	0.38
FAC	10.13	4.53	5.11	5.48	5.95	6.36	6.80
Environmental Surcharge	2.26	2.18	2.48	4.07	4.11	4.07	6.08
Surcharge	1.57	1.57	1.87	1.87	1.87	1.87	1.87
Rebate (accrued)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Effective Rate	\$ 44.05	\$ 44.48					

Big Rivers' Credit Rating

Big Rivers maintains investment grade credit ratings...

Moody's Investor Service – Moody's has assigned a 'Baa1' senior secured rating for the Series 2010A County of Ohio, Kentucky, Pollution Control Bonds.

Standard & Poor's (S&P) – S&P has assigned a 'BBB-' issuer credit rating to Big Rivers and has assigned a "BBB-" long-term rating for its Series 2010A County of Ohio, Kentucky, Pollution Control Bonds.

Fitch Ratings Ltd. – Fitch has assigned a 'BBB-' rating on the Series 2010A County of Ohio, Kentucky, Pollution Control Bonds.

VI. Appendix – Senior Management Brief Biographies

Big Rivers' Senior Management

Senior Management Brief Biographies

Mark A. Bailey, President & Chief Executive Officer, received a Bachelor of Science in Electrical Engineering from Ohio Northern University in 1974, and a Master of Science in Management from the Massachusetts Institute of Technology in 1988. He was employed by American Electric Power Company ("AEP") for nearly 30 years, beginning as an Electrical Engineer in 1974. Mr. Bailey was employed as Vice President of AEP subsidiary Indiana Michigan Power Company until AEP's reorganization in 1996, when he became Director-Regions with American Electric Power Service Corporation ("AEPSC"), also a subsidiary of AEP. He was employed as Vice President of Transmission Asset Management for AEPSC from June 2000 until his employment as President and Chief Executive Officer ("CEO") with Kenergy Corp. in 2004. Mr. Bailey was employed as Executive Vice President and Chief Operating Officer of Big Rivers beginning in June 2007 until being elected by the Board of Directors to his current position in October 2008.

Robert W. Berry, Vice President of Production, graduated from the University of Kentucky Community College system with an Associate degree in Mechanical Engineering Technology and Mid-Continent University with a Bachelor of Science in Business Management. He was employed by Big Rivers from 1981 to 1998 and served in various maintenance positions such as Superintendent of Maintenance and Maintenance Manager. In 1998 he was employed by Western Kentucky Energy and served in various positions such as Maintenance Manager, Plant Manager and General Manager until the Unwind transaction closed in July 2009, at which time he assumed his current position at Big Rivers.

David G. Crockett, Vice President of System Operations, graduated from the University of Kentucky with a Bachelor of Science in Electrical Engineering in 1972. He has been employed with Big Rivers since 1972. He served in various engineering positions before assuming the responsibility of Manager of Energy Control in 1998. Mr. Crockett assumed his current position as Vice President System Operations in 2006.

James V. Haner, Vice President of Administrative Services, graduated from the University of Kentucky with a Bachelor of Science in Accounting in 1970. He has been employed with Big Rivers since 1972. He served in various accounting and finance capacities prior to transferring to administrative services in 1991. He assumed duties as Manager Human Resources in 1998. Mr. Haner assumed his current position of Vice President Administrative Services in 2005.

Big Rivers' Senior Management

Senior Management Brief Biographies - continued

Mark A. Hite, Vice President of Accounting & Interim Chief Financial Officer, graduated from the University of Evansville with a Bachelor of Science in Accounting in 1980 and a Master of Business Administration in 1985. He is a licensed CPA. Mr. Hite has been employed with Big Rivers since 1983, and has served in various accounting and finance capacities prior to assuming his current position.

Eric Robeson, Vice President of Environmental Services and Construction, graduated from Rose Hulman Institute of Technology in 1977 with a Bachelor of Science in Mechanical Engineering and Ball State University in 1988 with a Masters of Business Administration. He is a registered Professional Engineer in the state of Indiana. Mr. Robeson worked at Vectren (and its predecessor company Sigeco) from 1980 to 2011. He served in a variety of engineering and managerial positions including Plant Manager, Director of Generation Planning, and Director of Infrastructure Services. He joined Big Rivers in 2011 as Vice President of Construction overseeing environmental compliance efforts and assumed his current position in February 2012.

Albert M. Yockey, Vice President of Governmental Relations & Enterprise Risk Management, graduated from the University of Pittsburgh with a Bachelor of Science in Electrical Engineering in 1972, a Master of Science from Lehigh University in 1979, and a Juris Doctor from Capital University Law School in 1994. He is a registered Professional Engineer in Pennsylvania and a licensed attorney in Ohio. Mr. Yockey was employed in operation and planning positions with Pennsylvania Power and Light Co. from 1972 through 1985. He was employed in planning, regulatory, and compliance positions with American Electric Power Company from 1985 until February 2008. Mr. Yockey joined Big Rivers as Vice President of Enterprise Risk Management and Strategic Planning in 2008 and assumed his current position in July 2009.

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
FOR APPROVAL OF ITS 2012 ENVIRONMENTAL COMPLIANCE PLAN,
FOR APPROVAL OF ITS AMENDED ENVIRONMENTAL COST
RECOVERY SURCHARGE TARIFF, FOR CERTIFICATES OF PUBLIC
CONVENIENCE AND NECESSITY, AND FOR AUTHORITY TO
ESTABLISH A REGULATORY ACCOUNT
CASE NO. 2012-00063**

**Response to the Office of the Attorney General's
Initial Request for Information
Dated May 21, 2012**

June 1, 2012

1 **Item 65)** *Reference Exhibit Hite-4. Is the \$269.94 million figure the total*
2 *amount requested by the company in this application on a net present*
3 *value basis? If not, please state the amount and identify with*
4 *particularity any additional costs.*

5
6 **Response)** The \$269.94 million figure is the difference between the present
7 value of the Build Case over the 15-year study period (i.e. \$3,210.38 million) and
8 the present value of the Base Case over that same period (\$2,940.44 million). The
9 total amount of the environmental compliance plan in the instant case (i.e. the
10 present value of the amounts for the Build Case, over the 15-year study period
11 and reported in 2012 dollars) is \$3.2 billion, as shown in Exhibit Hite-4. The total
12 capital cost of the proposed 2012 Plan is \$283.49 million, as noted in the direct
13 testimony of Mark Hite on page 6 and in Exhibit Berry-2.

14
15
16 **Witness)** Mark A. Hite

17

BIG RIVERS ELECTRIC CORPORATION

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CASE NO. 2012-00063**

**Response to the Office of the Attorney General's
Initial Request for Information
Dated May 21, 2012**

June 1, 2012

1 **Item 66)** *Reference the Hite testimony at pages 12-13. What*
2 *depreciation lives are being used for the new capital projects for Acct 312*
3 *A-K and Acct 312 L-P?*

4

5 **Response)** New capital projects placed in accounts 312A-K are being depreciated
6 at a rate of 2.28% per year. This gives a depreciable life of 43.86 years. New
7 capital projects placed in accounts 312L-P are being depreciated at a rate of
8 20.22% per year. This gives a depreciable life of 4.95 years.

9

10 **Witness)** Mark A. Hite

11

BIG RIVERS ELECTRIC CORPORATION

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**Response to the Office of the Attorney General's
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Dated May 21, 2012**

June 1, 2012

1 **Item 67)** *Reference the Hite testimony at page 14. What is the projected*
2 *amount for the retirement of plant?*

3

4 **Response)** Big Rivers estimates that \$49.185 million in gross plant will be
5 retired from the Wilson scrubber.

6

7

8 **Witness)** Mark A. Hite

9

BIG RIVERS ELECTRIC CORPORATION

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**Response to the Office of the Attorney General's
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Dated May 21, 2012**

June 1, 2012

1 **Item 68)** *Please reference the Hite Testimony p. 5 at lines 15-22. Please*
2 *confirm that BREC relied solely on S&L's cost-effectiveness evaluation of*
3 *technology alternatives and explain why BREC did not conduct its own*
4 *cost-effectiveness evaluation of technology alternatives.*

5

6 **Response)** Big Rivers relied solely on the S&L compliance study as the basis for
7 its selection of compliance projects. Big Rivers is not staffed with an engineering
8 group to perform work of this nature and did not see the need to duplicate the
9 work of an engineering firm that has a much greater expertise and exposure to
10 these types of evaluations.

11

12 **Witness)** Robert W. Berry

13

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
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RECOVERY SURCHARGE TARIFF, FOR CERTIFICATES OF PUBLIC
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CASE NO. 2012-00063**

**Response to the Office of the Attorney General's
Initial Request for Information
Dated May 21, 2012**

June 1, 2012

1 **Item 69) *Reference the Hite testimony at page 15. Has BREC made any***
2 ***presentations to "various institutional investors" since the filing of this***
3 ***application?***

- 4
- 5 ***a. If the answer to the above question is in the affirmative,***
6 ***provide copies of any and all materials presented.***
- 7 ***b. If the presentations have been made, what was the input***
8 ***from the investors? Please answer the question with as***
9 ***much detail as possible, including but not limited to:***
- 10 ***i. whether public debt versus bond is the best choice;***
11 ***ii. the percentage rates either being explored or***
12 ***essentially guaranteed; and***
- 13 ***iii. the anticipated credit rating for BREC given this***
14 ***application.***
- 15 ***c. Please identify and provide copies of communications to***
16 ***and from BREC regarding "the potential for a term loan***
17 ***from the RUS."***

18

19 **Response) No.**

- 20
- 21 **a., b. Not applicable.**
- 22 **c. Please see Big Rivers' response to Item 64.**

BIG RIVERS ELECTRIC CORPORATION

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**Response to the Office of the Attorney General's
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Dated May 21, 2012**

June 1, 2012

1

2 **Witness)** Mark A. Hite

3

BIG RIVERS ELECTRIC CORPORATION

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**Response to the Office of the Attorney General's
Initial Request for Information
Dated May 21, 2012**

June 1, 2012

1 **Item 70)** *Please reference the Hite Testimony at p. 15, lines 5-7. Please*
2 *provide the total dollar amount of the cost share that HMP&L has agreed*
3 *to pay relative to the costs to retrofit its 2 units, HMPL 1 & 2. Please*
4 *provide the total cost of the 2012 Plan with the cost share allocation to*
5 *HMP&L and without the cost share allocation to HMP&L.*

6
7 **Response)** Please refer to Exhibit Hite-2, which depicts Big Rivers'
8 environmental capital expenditures gross and net of HMP&L's share. HMP&L's
9 share of the HMP&L Units 1 and 2 environmental compliance capital was
10 calculated based on HMP&L's projected capacity take (as a percentage of the total
11 capacity of the two HMP&L units) and the HMP&L contracts. HMP&L has not
12 "agreed" to the retrofit plans for the Station Two Units; please see the response to
13 Item 7 of the Commission Staff's First Data Request.

14
15
16 **Witness)** Mark A. Hite

17

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
FOR APPROVAL OF ITS 2012 ENVIRONMENTAL COMPLIANCE PLAN,
FOR APPROVAL OF ITS AMENDED ENVIRONMENTAL COST
RECOVERY SURCHARGE TARIFF, FOR CERTIFICATES OF PUBLIC
CONVENIENCE AND NECESSITY, AND FOR AUTHORITY TO
ESTABLISH A REGULATORY ACCOUNT
CASE NO. 2012-00063**

**Response to the Office of the Attorney General's
Initial Request for Information
Dated May 21, 2012**

June 1, 2012

1 **Item 71)** *Reference the Hite testimony at page 16. Provide copies of any*
2 *and all materials presented to RUS at the March 20, 2012 meeting.*

3
4 *a. If there were any communications with RUS prior to or*
5 *following the March 20, 2012 meeting, please provide*
6 *copies of same.*

7
8 **Response)** Please see Big Rivers' response to Item 64. Also, following the March
9 20, 2012, meeting with RUS, Big Rivers provided its most recent Load Forecast
10 Study (provided in the documents with Big Rivers' response to Item 23 of these
11 responses, and which are provided on the CD accompanying these responses) and
12 its 2010 Integrated Resource Plan (provided in the documents with Big Rivers'
13 response to Item 4 of the Sierra Club's Initial Requests for Information, and which
14 are provided on a CD accompanying those responses), as well as the Sargent and
15 Lundy report shown in Exhibit DePriest-2.

16
17
18 **Witness)** Mark A. Hite
19

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
FOR APPROVAL OF ITS 2012 ENVIRONMENTAL COMPLIANCE PLAN,
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**Response to the Office of the Attorney General's
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Dated May 21, 2012**

June 1, 2012

1 **Item 72)** *Reference the Hite testimony at page 17. Provide the basis,*
2 *along with any materials upon which same was based, for his conclusion*
3 *of an expected 30 fixed year rate of 5.78% to 6.16%.*

4

5 **Response)** Please see Big Rivers' response to Item 29 of the Commission Staff's
6 First Request for Information. Also, please see the attached memorandum from
7 Goldman Sachs, Big Rivers' investment advisor, dated December 1, 2011.

8

9

10 **Witness)** Mark A. Hite

11



Memorandum

To: Bill Blackburn and Mark Hite, Big Rivers Electric Corporation

From: Mark Glotfelty, Dan Byrne, and David Randolph, Goldman Sachs

Date: December 1, 2011

RE: Developing a Plan of Finance

Executive Overview

Big Rivers has a significant amount of future financing needs that will require it to develop a plan of finance that can accommodate its needs. Current benchmark UST rates are near all time lows and despite widening credit spreads and market volatility, all-in financing rates are very attractive. 2011 has been a very active year for G&T financings with over \$2.2 billion raised to date. Despite all of the G&T activity there have been no G&Ts rated below Baa1 to access the market this year. For Big Rivers this means price and capacity discovery for its bonds is crucial in developing its plan of finance. In order to gauge the market receptivity for its bonds, Big Rivers should conduct an in person "non deal" roadshow in New York and Boston with investors. This is a common approach for infrequent or first time issuers in the capital markets. Feedback from these investor meetings will be the basis in developing a plan of finance. Goldman Sachs has developed a target list of investors for Big Rivers to meet with. We will work with Big Rivers to develop a comprehensive investor presentation used to educate investors on Big Rivers' credit story. Based on the feedback we will receive from investors, we will assist Big Rivers in developing a plan of finance for best execution strategy.

Big Rivers Financing Needs

In the table below we estimate that over the next five years (2012-2016) Big Rivers will need to raise approximately \$703.8 million to meet required prepayments to the RUS under the Unwind Transaction, refinance outstanding tax-exempt pollution control bonds currently held by Dexia, reimburse itself for prior capital expenditures and fund environmental compliance costs related to the Cross State Air Pollution Rule and Mercury and Air Toxics Standards.



Big Rivers Financing Needs 2012 - 2016		
Financing Needs	Timing	Par Amount
Prepay RUS	October 1, 2012	\$60,000,000
Reimbursement of Prior Capital Expenditures	2012	65,000,000
Refinancing 1983 PCB	June 1, 2013	58,800,000
Prepay RUS	January 1, 2016	200,000,000
Environmental Capital Expenditures	2012 – 2014*	320,000,000*
Total		\$703,800,000

* Estimated

In addition to the above stated financing requirements, Big Rivers could, subject to market conditions and economics, refinance the entire amount of the RUS Series A Promissory Note in the estimated amount outstanding as of November 15, 2011 of \$530 million without any prepayment premium. This may be a particularly appealing option since every dollar that can be repaid for less than 5.75% would be risk reducing for Big Rivers and would result in lower debt service.

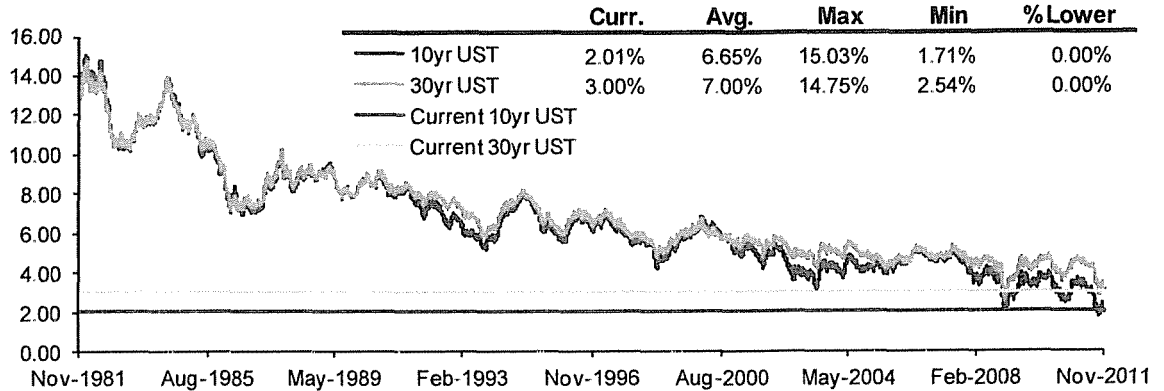
Given the substantial level of projected financing requirements over the near term, it is strategically important for Big Rivers to develop a plan of finance to meet its financing requirements in the most economically and efficient manner possible.

Capital Markets Update

Since mid-summer 2011 the capital markets have been volatile due to the uncertainty in the market caused by the downgrade of the US by S&P on August 5th, implementation of the Fed's Operation Twist on September 21st, the ongoing European debt crisis and the overall sluggishness of the economic recovery in the US.

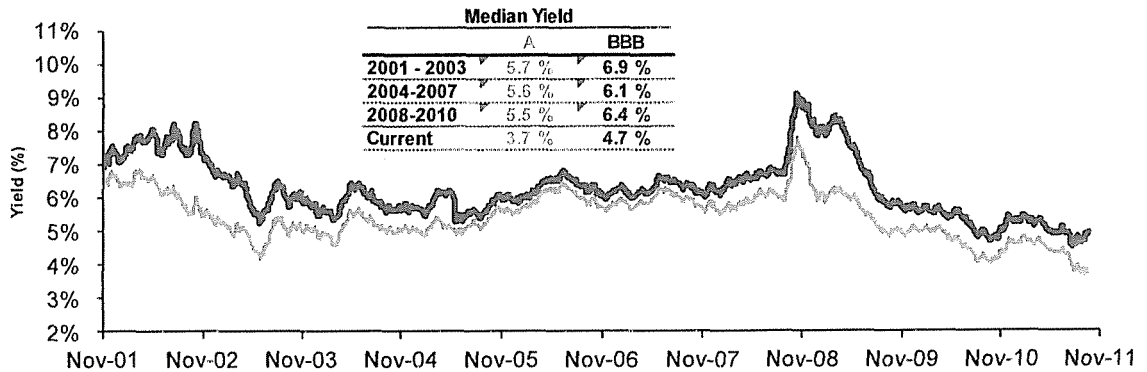
As a result of these events, US Treasuries have rallied to near all time lows as depicted in the graph below. As of December 1 the yield on the 10 and 30 year USTs was 2.11% and 3.13%, respectively. These yields compare very favorably to the 30 year averages of the 10 and 30 year USTs of 6.65% and 7.00%, respectively. Moreover, the current rates on the 10 and 30 year USTs have nearly never been lower.

Historical 30 and 10-Year Treasury Rates (%)



As is often the case, when UST yields decline, credit spreads tend to widen. This has been the case since the beginning of the year. As seen in the chart below, despite widening in credit spreads all-in financing rates (UST + credit spread) remain extremely attractive and are near all time historic lows.

Historical All-In Financing Rates (%)



Given the current market conditions, Big Rivers has an opportunity to lock in attractive funding levels. To put the current market in context for G&Ts, 2011 has been a very active year. As seen in the table below, eight G&Ts have accessed the capital markets in 2011 for a total issuance volume of \$2.2 billion.

As the table below shows, G&Ts that accessed the market in early 2011 achieved a lower credit spread than those G&Ts that more recently accessed the market. Despite the higher credit spreads, all-in yields are significantly lower in the more recent transactions. For a more detailed listing of the 2011 G&T transactions please refer to Appendix A.

2011 G&T Taxable Market Access

G&T	Date	Par (\$mm)	Credit Spread of Longest Tranche (bp)	Coupon of Longest Tranche (%)
Old Dominion	January	\$350	95 bp	5.54%
Arkansas Electric	February	200	85	5.62
Square Butte	May	70	145	5.68
Golden Spread	June	430	145	5.65
Oglethorpe	August	300	163	5.25
Hoosier	September	240	200	4.86
Basin Electric	October	350	190	5.10
Chugach Electric	October	250	190	4.78

Goldman Sachs was placement agent or underwriter on \$1.09 billion or 50% of the 2011 YTD G&T taxable issuance. It is worth noting that the capital markets have evolved between the time of the Old Dominion and Arkansas transactions in early 2011 and the Hoosier and Basin transactions in late 2011. At the time of the Arkansas and Old Dominion transactions the private placement market was very robust with many investors fearing that there was not enough supply to meet demand. This led to transactions being oversubscribed and investors were willing to make loans under the terms of the indenture without a need for additional covenants. Issuers at that time of the year clearly had the advantage. As the year progressed and markets turned turbulent issuers slowly lost their advantage and investors gained more leverage. This was clear in the recent Hoosier and Basin transactions. In both of these transactions investors had become more selective which led to fewer investors participating in deals and those large investors that did participate had the leverage to demand covenants outside of the indenture because they had the ability to make or break a transaction.

Additionally, we received comments from some of the larger investors that they were focusing more on the urban G&Ts than the more rural G&Ts, some investors expressed concern over potentially large environmental expenditures and the impact they will have on leverage and other financial ratios, while other investors told us they were bumping up against capacity for single names as well as the sector.

While the market has significantly changed over the course of the year, we would caution against any G&T that needs financing to rely solely on the private placement market. We think it is more prudent to look at both the private and public markets before making a decision. While the public markets have been turbulent, deals continue to get done and there is very little risk that a single investor will hold a deal hostage over covenant negotiation.



Developing a Plan of Finance to Access the Capital Markets

In developing a plan of finance, it is important for Big Rivers to know the depth and breadth of the investor base for its bonds. Given that none of the G&Ts that accessed the market in 2011 were rated below Baa1, price and capacity discovery will be very important factors in formulating a plan of finance. While the market for "BBB" rated utilities is not as deep as it is for higher rated utilities, there have been a significant number of "BBB" rated utilities that accessed the market in 2011. During 2011 year to date over \$21.8 billion of "BBB" rated utility paper has been issued including \$8.1 billion of debt with a 29 year or longer final maturity. Further, only \$4.2 billion of the \$21.8 billion had S&P or Fitch ratings of BBB-. We have included a full breakdown of 2011 "BBB" utility issuance as Appendix B to this memo.

In order for Big Rivers to gauge the potential depth and breadth of the market for its bonds so it can develop its plan of finance, we recommend it conduct a "non-deal" roadshow with prospective investors. This method of communicating with investors is used by issuers that need market intelligence to gain price and capacity discovery because they are first time or infrequent capital market's borrowers or have a complex credit story and/or there are no directly comparable credits trading in the market to gauge investor receptivity. A "non-deal" roadshow can provide market intelligence on the receptivity (price, capacity and deal structure) of an issuer's bonds that is necessary to make a well informed decision to move forward with a capital markets transaction.

The process of conducting a roadshow includes developing a comprehensive investor presentation used to educate investors on Big Rivers' credit story and develop a target list of potential investors that will likely have the most interest in Big Rivers' bonds.

A good target list of potential investors to begin with is the investors that participated in Big Rivers' 2010 transaction. That transaction was marketed to over 21 investors and ultimately placed with 16 investors. These investors have familiarity with Big Rivers' credit story and potentially could have more demand for its bonds.

Investors in 2010 Transaction	
Riversource	1861 Capital Management LLC
CoBank	PIMCO
Standish Mellon Asset Management	CL King & Associates
Columbia Asset Management	Saybrook Capital, LLC
Franklin Fund	Cypress Investments
Susquehanna Financial Group	RMR Asset Management
USAA	Delaware Management Company
Waddell & Reed Investment Management	Neuberger & Berman LLC

In addition to these investors, in the table below is a partial list of additional investors that have participated in this year's G&T transactions.

Additional Private Placement Investors		
40/86	Farm Bureau Life	One America
Advantus	Fort Washington	Pac Life
Aegon	Genworth	Phoenix
AIG	Great West	PPM
AllianceBernstein	Guardian	Prime Advisors
Allianz	Hartford	Principal
Allstate	ING	Protective
American Equity	John Hancock	Prudential
Assurity	Knights of Columbus	Southern Farm Bureau
Aviva	MetLife	St. Paul's / Travelers
Babson	Modern Woodmen of America	Standard Insurance
Beneficial Life	Mutual of Ohama	State Farm
CIGNA	National Guardian Life	Summit/Ameritas
Conning	National Life of Vermont	SunLife
Country Trust	Nationwide	Thrivent
CUNA/Members	NML	TIAA
Lincoln	NY Life	UNUM
Ensign Peak	Ohio National	Woodmen of the World

From this list of investors we would prioritize those accounts that are considered high quality, have an appetite for BBB rated utility debt, and are buy and hold investors that can place large orders to set a positive tone for Big Rivers' order book. Once we have finalized the appropriate accounts we would schedule 1x1 meeting with those accounts so Big Rivers could present its credit story to them on a confidential basis.

In the table below, we have identified those accounts that we believe should be a top priority for a Big Rivers' roadshow. As can be seen below, the roadshow would likely take place in New York (1-2 days), Boston (1 day), and via teleconference (1-2 days).



Preliminary Roadshow Investors		
New York	Boston	Telephonic
AIG (Downtown)	Babson (Boston, MA)	40/86 (Midwest)
AllianceBernstein (Midtown)	John Hancock (Boston, MA or Merrimack, NH)	Allstate (Northbrook, IL)
Blackrock (Midtown)	Standish Mellon (Boston, MA)	Delaware (Philadelphia, PA)
Deutsche Asset Management (Midtown)	State Street (Boston, MA)	Hartford (Hartford, CT)
JPMIM (Midtown)	Wellington (Boston, MA)	Legal & General (Chicago)
Lord Abbett (Jersey City, NJ)		Pacific Life (Newport Beach, CA)
MetLife (Morristown, NJ)		Principal (Des Moines, IO)
NY Life (Midtown)		T-Rowe Price (Baltimore, MD)
Prudential (Newark, NJ)		
TIAA-CREF (Midtown or Charlotte, NC)		

We realize that a 3-4 day roadshow is a significant time commitment on Big Rivers' senior management team but given the magnitude of Big Rivers' financing needs we feel it is necessary and would be a very productive exercise.

The end result of the roadshow would be to expose investors to Big Rivers' senior management team and its credit story. Once the roadshow is completed, Goldman Sachs' syndicate desk would have a dialogue with the investors to discuss how they would view Big Rivers in terms of comparable issuers, thoughts on price, and appetite for duration and structure of Big Rivers' bonds. Additionally, we would have feedback as to whether it would be better for Big Rivers to access the public or private markets. The feedback that we receive will be invaluable in formulating a plan of finance for best execution strategy. Generally the shelf life of a "non deal" roadshow is about six months. Based on the feedback we will receive from investors, this should provide Big Rivers with ample time to receive all its necessary approvals to move forward with a financing.

Conclusion

Goldman Sachs will work with Big Rivers in all aspects to assist it in developing an optimal financing strategy to meet its goals. If you have any questions please don't hesitate to contact Mark Glotfelty at (212) 902-6467.

Appendix A

Taxable Electric Cooperative Issuance

Taxable Electric Cooperative Transactions										
Issuer	Date	NAIC	Moody's	S&P	Total Par (\$mm)	Tranche (\$mm)	Final Maturity	Avg. Life	Spread (bp)	Coupon
Chugach Electric	Oct-11	NAIC-1	A3	A-	250	75	20	11	170	4.01
Chugach Electric	Oct-11	NAIC-1	A3	A-		125	30	16	210	4.41
Chugach Electric	Oct-11	NAIC-1	A3	A-		50	30	21	190	4.78
Basin Electric Power Cooperative	Oct-11	NAIC-1	A1	A+	350	250	20	13	182	4.00
Basin Electric Power Cooperative	Oct-11	NAIC-1	A1	A+		100	38	34	190	5.10
Hoosier Energy	Sep-11	NAIC-1	A3	A	240	190	29	26	200	4.86
Hoosier Energy	Sep-11	NAIC-1	A3	A		50	18	18	185	4.07
Oglethorpe	Aug-11	NAIC-1	Baa1	A	300	300	30	30	163	5.25
Golden Spread Electric	Jun-11	NAIC-1	A2	A-	430	30	5	5	120	2.79
Golden Spread Electric	Jun-11	NAIC-1	A2	A-		250	20	12	140	3.99
Golden Spread Electric	Jun-11	NAIC-1	A2	A-		150	30	19	145	5.65
Square Butte Electric Cooperative	Jun-11	NAIC-1	A3	A-	13	13	15.5	16	168	4.65
Square Butte Electric Cooperative	May-11	NAIC-1	A3	A-	57	28	20	12	130	4.42
Square Butte Electric Cooperative	May-11	NAIC-1	A3	A-		30	31	27	145	5.68
Arkansas Electric Cooperative Corp	Feb-11	NAIC-1	A1	AA-	200	120	30	26	85	5.62
Arkansas Electric Cooperative Corp	Feb-11	NAIC-1	A1	AA-		80	19	13	100	4.71
Old Dominion Electric	Jan-11	NAIC-1	A3	A	350	90	30	15	140	4.83
Old Dominion Electric	Jan-11	NAIC-1	A3	A		165	30	20	95	5.54
Old Dominion Electric	Jan-11	NAIC-1	A3	A		95	40	20	95	5.54
Total					\$ 2,190					



Appendix B

BBB Utility Issuance

2011 "BBB" Rated Utility Issuance								
Issuer Name	Date	Moody's	S&P	Size	Total Transaction	Final Maturity	Spread	Coupon
				(\$mm)	Size (\$mm)			
Onor Electric Delivery Co LLC	Nov-11	Baa1	A-	300	300	30.1	160	4.550%
Indianapolis Power & Light Co	Nov-11	A3	BBB	140	140	30.0	180	4.875%
Duke Energy Corp	Nov-11	Baa2	A-	500	500	5.0	125	2.150%
NISource Finance Corp	Nov-11	Baa3	BBB-	250	500	30.1	275	5.800%
NISource Finance Corp	Nov-11	Baa3	BBB-	250	500	30.1	275	5.800%
NISource Finance Corp	Nov-11	Baa3	BBB-	250	500	10.1	245	4.450%
NISource Finance Corp	Nov-11	Baa3	BBB-	250	500	10.1	245	4.450%
Baltimore Gas & Electric	Nov-11	Baa2	BBB+	300	300	10.0	150	3.500%
Baltimore Gas & Electric	Nov-11	Baa2	BBB+	300	300	10.0	150	3.500%
Southern Power Co	Nov-11	Baa1	BBB+	550	550	29.9	190	5.150%
Southern Power Co	Nov-11	Baa1	BBB+	550	550	29.9	190	5.150%
Tucson Electric Power Co	Nov-11	Baa3	BBB-	250	250	10.0	312.5	5.150%
Tucson Electric Power Co	Nov-11	Baa3	BBB-	250	250	10.0	312.5	5.150%
Public Service Co of New Mexico	Oct-11	Baa3	BBB-	160	160	10.0	340	5.350%
Public Service Co of New Mexico	Oct-11	Baa3	BBB-	160	160	10.0	340	5.350%
LG&E & KU Energy	Sep-11	Baa2	BBB+	250	250	10.0	250	4.375%
LG&E & KU Energy	Sep-11	Baa2	BBB+	250	250	10.0	250	4.375%
AGL Capital Corp	Sep-11	Baa1	BBB+	200	500	29.6	165	5.875%
AGL Capital Corp	Sep-11	Baa1	BBB+	200	500	29.6	165	5.875%
AGL Capital Corp	Sep-11	Baa1	BBB+	300	500	10.0	160	3.500%
AGL Capital Corp	Sep-11	Baa1	BBB+	300	500	10.0	160	3.500%
Kansas City Power & Light Co	Sep-11	Baa2	BBB	400	400	30.1	200	5.300%
Kansas City Power & Light Co	Sep-11	Baa2	BBB	400	400	30.1	200	5.300%
PSEG Power LLC	Sep-11	Baa1	BBB	250	500	10.0	215	4.150%
PSEG Power LLC	Sep-11	Baa1	BBB	250	500	10.0	215	4.150%
PSEG Power LLC	Sep-11	Baa1	BBB	250	500	5.0	190	2.750%
PSEG Power LLC	Sep-11	Baa1	BBB	250	500	5.0	190	2.750%
Southern Power Co	Sep-11	Baa1	BBB+	300	300	30.0	190	5.150%
Southern Power Co	Sep-11	Baa1	BBB+	300	300	30.0	190	5.150%
Western Massachusetts Electric Company	Sep-11	Baa2	BBB+	100	100	10.0	162.5	3.500%
Western Massachusetts Electric Company	Sep-11	Baa2	BBB+	100	100	10.0	162.5	3.500%
Pacific Gas & Electric Co	Sep-11	A3	BBB+	250	250	10.0	130	3.250%
Xcel Energy Inc	Sep-11	Baa1	BBB+	250	250	30.0	150	4.800%
Xcel Energy Inc	Sep-11	Baa1	BBB+	250	250	30.0	150	4.800%
Enbridge Energy Partners	Sep-11	Baa2	BBB	150	750	29.0	237.5	5.500%
Enbridge Energy Partners	Sep-11	Baa2	BBB	150	750	29.0	237.5	5.500%
Enbridge Energy Partners	Sep-11	Baa2	BBB	600	750	10.0	225	4.200%
Enbridge Energy Partners	Sep-11	Baa2	BBB	600	750	10.0	225	4.200%
Commonwealth Edison Co	Aug-11	Baa1	A-	350	600	10.0	123	3.400%
Commonwealth Edison Co	Aug-11	Baa1	A-	250	600	5.0	103	1.950%
Arizona Public Service	Aug-11	Baa2	BBB	300	300	30.0	170	5.050%
Arizona Public Service	Aug-11	Baa2	BBB	300	300	30.0	170	5.050%
Duke Energy Corp	Aug-11	Baa2	BBB+	500	500	10.1	145	3.550%
Duke Energy Corp	Aug-11	Baa2	BBB+	500	500	10.1	145	3.550%
Midland Cogeneration	Aug-11	NR	BBB-	560	560	13.6	383.1	6.000%
Oglethorpe Power Corp	Aug-11	Baa1	A	300	300	39.1	163	5.250%
Southern Company	Aug-11	Baa1	A-	500	500	5.0	105	1.950%
Dominion Resources	Aug-11	Baa2	A-	450	450	5.0	105	1.950%
Dominion Resources	Aug-11	Baa2	A-	500	500	30.0	110	4.900%
AES Gener SA	Jul-11	Baa3	NR	400	400	10.1	242	5.250%
NextEra Energy Capital	Jun-11	Baa1	BBB+	400	400	10.0	148	4.500%
NextEra Energy Capital	Jun-11	Baa1	BBB+	400	400	10.0	148	4.500%
NISource Finance Corp	Jun-11	Baa3	BBB-	400	400	30.0	170	5.950%
NISource Finance Corp	Jun-11	Baa3	BBB-	400	400	30.0	170	5.950%
Duquesne Light	May-11	Ba1	BBB-	350	350	10.5	280	5.900%
Oklahoma G&E	May-11	A2	BBB+	250	250	30.0	105	5.250%
Pacific Gas and Electric	May-11	A3	BBB+	300	300	10.0	108	4.250%
Scana Corp	May-11	Baa2	BBB	300	300	10.0	160	4.750%
Scana Corp	May-11	Baa2	BBB	300	300	10.0	160	4.750%
Appalachian Power Co	Mar-11	Baa2	BBB	350	350	10.0	130	4.600%
Appalachian Power Co	Mar-11	Baa2	BBB	350	350	10.0	130	4.600%
AGL Capital Corp	Mar-11	Baa1	BBB+	500	500	30.0	150	5.875%
AGL Capital Corp	Mar-11	Baa1	BBB+	500	500	30.0	150	5.875%
Southern California Edison Co	Mar-11	Baa2	BBB-	125	125	-	37.5	6.500%
Southern California Edison Co	Mar-11	Baa2	BBB-	125	125	-	37.5	6.500%
Public Service Co of Oklahoma	Jan-11	Baa1	BBB	250	250	10.1	115	4.400%
Public Service Co of Oklahoma	Jan-11	Baa1	BBB	250	250	10.1	115	4.400%
Commonwealth Edison Co	Jan-11	Baa1	A-	600	600	3.0	70	1.625%
Total					\$ 21,870			

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**Response to the Office of the Attorney General's
Initial Request for Information
Dated May 21, 2012**

June 1, 2012

1 **Item 73)** *Reference the Hite testimony at page 18. Is the estimated*
2 *financing cost of \$2.1 to \$2.8 million an additional cost to the project cost*
3 *of \$283.49 million?*

4

5 **Response)** Yes.

6

7

8 **Witness)** Mark A. Hite

9

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June 1, 2012

1 **Item 74)** *Reference the Hite testimony at pages 19-20. What are the*
2 *current costs for which the witness, on behalf of BREC, seeks for the*
3 *regulatory asset?*

4

5 **Response)** Please see Big Rivers' response to Item 1 of the Commission Staff's
6 First Request for Information.

7

8 **Witness)** Mark A. Hite

9

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**Response to the Office of the Attorney General's
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Dated May 21, 2012**

June 1, 2012

1 **Item 75) *To the extent not already introduced into the official record of***
2 ***this matter, please provide copies of the following, as set forth on p. 3 of***
3 ***KIUC's previously-filed motion to dismiss:***

4

5 **a. *Sargent & Lundy models and electronic spreadsheets used***
6 ***to assess compliance options;***

7 **b. *PACE Global information provided to ACES Power***
8 ***Marketing, which includes forward hourly energy prices,***
9 ***monthly coal prices, monthly natural gas prices, and***
10 ***monthly allowance prices;***

11 **c. *Big Rivers' plant specific data provided to ACES Power***
12 ***Marketing;***

13 **d. *The ACES Power Marketing production cost models used;***

14 **e. *The Big Rivers' corporate financial model used and***
15 ***studies of compliance alternatives;***

16 **f. *Testimony from a PACE Global witness to support their***
17 ***projections of forward hourly energy prices, monthly coal***
18 ***prices, monthly natural gas prices and monthly allowance***
19 ***prices;***

20 **g. *Testimony from an ACES witness to support the***
21 ***production cost model runs;***

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1 *h. The assumptions under the sensitivity studies which*
2 *assume the loss of the 7,300,000 mWh Smelter load at the*
3 *end of 2013 (70% of native load sales) were not provided.*

4
5 **Response)**

6 a-e. Please see the CD Big Rivers filed April 26, 2012, with its
7 response to KIUC's Motion to Dismiss, and the CDs Big Rivers
8 filed May 24, 2012, May 29, 2012, and May 30, 2012, in response
9 to the May 11, 2012, letter from KIUC's counsel to Big Rivers'
10 counsel.

11
12 f.g. Big Rivers has not requested that ACES or PACE provide
13 testimony.

14
15 h. Please see the CDs Big Rivers filed May 24, 2012, and May 29,
16 2012, in response to the May 11, 2012, letter from KIUC's
17 counsel to Big Rivers' counsel.

18
19 **Witness)** Robert W. Berry

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1 **Item 76)** *Describe in complete detail how BREC developed the rate of*
2 *return provision which it proposes to earn in association with the instant*
3 *case. Provide copies of any and all data, including any and all*
4 *workpapers, and any Excel spreadsheets, with formulae intact.*

5
6 **Response)** Big Rivers developed the rate of return provision by modeling the
7 Commission-approved rate of return provisions in the environmental cost recovery
8 tariff of East Kentucky Power Company ("EKPC"). In Case No. 2004-00321, the
9 Commission authorized a return component for EKPC which allowed EKPC to
10 recover its average cost of debt for environmental compliance plan projects
11 approved by the Commission plus application of EKPC's approved Times Interest
12 Earned Ratio ("TIER"). Big Rivers modeled this provision in its proposed tariff.
13 The actual average cost of debt for the projects in the 2012 Plan is not yet known,
14 so the specific rate of return to be earned is not yet known.

15
16
17 **Witness)** John Wolfram

18

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1 **Item 77) *Reference the Wolfram testimony, pp. 7-8, regarding the***
2 ***proposed return on investment.***

3

4 **a. *Provide the rolling 12-month average of BREC's total***
5 ***adjusted revenue for 2011. Applying the proposed formula***
6 ***for return on investment, provide in terms of annual***
7 ***average percentage what the return on investment would***
8 ***equal. If necessary to complete the calculation, assume***
9 ***hypothetically that the ECR costs for 2011 were \$100***
10 ***million.***

11 **b. *Using the same data for 2011, provide the total in return***
12 ***on investment in terms of real 2011 dollars.***

13

14 **Response)**

15 **a. Please see the attached chart depicting Big Rivers' rolling 12-**
16 **month Total Adjusted Revenue for 2011. Applying the**
17 **proposed formula for return on investment for 2011 would**
18 **yield a return of zero no matter what level of environmental**
19 **cost assumed because Big Rivers had zero Rate Base ("RB") in**
20 **2011.**

21 **b. Big Rivers' total return on investment for 2011 environmental**
22 **compliance costs is zero because none of Big Rivers'**

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1 environmental compliance costs were capital expenditures and
2 no return is earned on the expenses incurred in 2011 that were
3 necessary for environmental compliance. There was neither a
4 Rate Base, nor a Return on Rate Base for environmental
5 compliance.
6
7

8 Witness) Mark A. Hite
9

Big Rivers Electric Corporation
Case No. 2012-00063
Environmental Surcharge Report
Monthly Average Revenue Computation of R(m)
For the Years Ended 2010 and 2011

1	Revenue from Member Systems					Total Company Revenues				
	2	3	4	5	6	7	8	9	10	
Month	Base Rate Revenue	Fuel Clause Revenue	Non-Fac PPA Revenue	Envir Surch Revenue	Total = 2 + 3 + 4 + 5	Total Excl Envir Sur = 6 - 5	Off-System Sales	Total = 6 + 8	Total Excl Envir Sur = 9 - 5	Rolling 12 Mo. Average
2010	Jan	28,671,539.81	10,953,639.12	(1,045,055.28)	1,869,532.33	40,449,655.98	38,580,123.65	8,147,840.47	48,597,496.45	46,727,964.12
2010	Feb	26,291,684.99	7,977,787.52	(238,112.36)	1,549,277.04	35,580,637.19	34,031,360.15	9,539,433.39	45,120,070.58	43,570,793.54
2010	Mar	26,233,277.78	9,603,323.46	(763,825.46)	1,816,538.59	36,889,314.37	35,072,775.78	7,986,498.34	44,875,812.71	43,059,274.12
2010	Apr	23,919,126.68	7,103,468.51	(731,019.09)	1,874,069.01	32,165,645.11	30,291,576.10	5,678,793.99	37,844,439.10	35,970,370.09
2010	May	25,908,246.50	8,209,595.33	(391,706.32)	1,888,767.97	35,514,903.48	33,626,135.51	6,341,555.61	41,856,459.09	39,967,691.12
2010	June	27,340,732.09	8,282,771.71	(338,869.04)	2,003,087.58	37,287,722.34	35,284,634.76	7,049,362.48	44,337,084.82	42,333,997.24
2010	July	28,360,619.62	8,706,971.93	(530,844.20)	2,264,505.44	38,801,252.79	36,536,747.35	7,908,326.76	46,710,179.55	44,445,674.11
2010	Aug	28,886,635.55	9,529,963.65	(525,131.69)	2,177,520.02	40,068,987.53	37,891,467.51	8,630,308.53	48,699,296.06	46,521,776.04
2010	Sep	25,733,601.10	8,783,754.23	(719,444.49)	1,876,540.73	35,674,451.57	33,797,910.84	5,166,061.10	40,840,512.67	38,963,971.94
2010	Oct	24,358,976.76	9,916,176.15	(683,232.43)	1,929,144.03	35,521,064.51	33,591,920.48	4,182,270.67	39,703,335.18	37,774,191.15
2010	Nov	24,841,600.40	8,418,115.20	(221,802.50)	2,289,179.96	35,327,093.06	33,037,913.10	4,876,364.26	40,203,457.32	37,914,277.36
2010	Dec	28,806,598.91	9,658,828.50	(349,265.24)	2,205,566.73	40,321,728.90	38,116,162.17	8,317,211.31	48,638,940.21	46,433,373.48
2011	Jan	28,842,958.05	8,031,311.96	(685,629.87)	1,978,729.03	38,167,369.17	36,188,640.14	8,936,792.23	47,104,161.40	45,125,432.37
2011	Feb	25,298,391.66	8,186,317.71	(623,402.84)	1,542,279.22	34,403,585.75	32,861,306.53	7,789,954.36	42,193,540.11	40,651,260.89
2011	Mar	26,261,002.32	10,774,896.65	(812,842.16)	1,772,372.02	37,995,428.83	36,223,056.81	8,750,029.55	46,745,458.38	44,973,086.36
2011	Apr	24,531,726.37	8,091,490.84	(685,520.35)	1,938,194.33	33,875,891.19	31,937,696.86	9,559,100.82	43,434,992.01	41,496,797.68
2011	May	26,522,233.85	10,110,056.44	(795,469.93)	1,514,602.19	37,351,422.55	35,836,820.36	12,396,668.11	49,748,090.66	48,233,488.47
2011	June	35,873,876.22	(917,428.96)	(613,074.24)	2,012,879.67	36,356,252.69	34,343,373.02	8,863,730.98	45,219,983.67	43,207,104.00
2011	July	38,702,108.30	392,111.40	(27,983.30)	2,016,982.79	41,083,219.19	39,066,236.40	10,169,219.31	51,252,438.50	49,235,455.71
2011	Aug	37,730,517.88	1,122,108.66	(835,897.89)	2,037,756.74	40,054,485.39	38,016,728.65	8,860,470.76	48,914,956.15	46,877,199.41
2011	Sep	36,385,665.71	1,318,413.10	(527,200.65)	1,610,556.70	38,787,434.86	37,176,878.16	8,228,520.51	47,015,955.37	45,405,398.67
2011	Oct	35,304,422.34	718,683.12	(593,409.88)	2,078,006.23	37,507,701.81	35,429,695.58	7,275,165.66	44,782,867.47	42,704,861.24
2011	Nov	35,428,230.68	(481,711.33)	(299,911.71)	2,345,908.86	36,992,516.50	34,646,607.64	5,802,703.64	42,795,220.14	40,449,311.28
2011	Dec	37,951,462.95	933,311.24	(100,394.50)	2,088,055.12	40,872,434.81	38,784,379.69	5,388,426.81	46,260,861.62	44,172,806.50
	Totals									
Average Monthly Member System Revenues, Excluding Environmental Surcharge, for 12 Months										
Ending Current Expense Month										
Member System Allocation Percentage for Current Month (Environmental Surcharge excluded from Calculations): Column 7/Column 10 =										

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1 *Item 78) Reference the Wolfram testimony at page 8 and his testimony*
2 *in general. Does the proposed deviation from BREC's ECR methodology*
3 *increase or decrease the residential and commercial class more than it*
4 *would than if the current methodology was used? If the answer is in the*
5 *affirmative, please provide a table with complete quantifications. If the*
6 *analysis has not already been performed, please perform it.*

7

8 **Response)** The proposed allocation method (Total Adjusted Revenue) will
9 increase the environmental compliance cost allocated to the Rural class relative to
10 the current allocation method (\$/kWh) because the proposed method includes a
11 fixed cost recovery component that will collect relatively more of the fixed cost
12 from low load factor customers than from high load factor customers, and the
13 Rural class has a lower load factor than Big Rivers' other customer classes.
14 Please see the attached exhibit, which depicts the allocation of total 2016
15 environmental compliance costs from the "Build Case" financial model under the
16 current method (\$/kWh) and the proposed method (Total Adjusted Revenue).

17

18

19 **Witnesses)** Mark A. Hite and John Wolfram

20

Big Rivers Electric Corporation
Case No. 2012-00063
Allocation of Environmental Compliance Plan Costs
Base Case Model

	\$ / kWh 2016	Total Adjusted Revenue 2016
Build Case Total ECP Costs	\$ 80,151,585	\$ 80,151,585
<u>Energy (MWh)</u>		
Rural	2,519,435	
Large Industrial	961,547	
Smelter	7,317,072	
Off-System	1,424,198	
Total Energy Sales	12,222,252	
<u>Total Adjusted Revenue</u>		
Rural		\$ 149,340,532
Large Industrial		50,027,620
Smelter		347,482,159
Off-System		75,790,881
Total		\$ 622,641,192
<u>Allocation of ECP Costs</u>		
Rural	\$ 16,522,054	\$ 19,224,363
Large Industrial	6,305,672	6,439,974
Smelter	47,984,195	44,730,812
Off-System	9,339,664	9,756,436
Total	\$ 80,151,585	\$ 80,151,585

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1 **Item 79) *Reference the Wolfram testimony, pp. 10-11, in which he***
2 ***describes the “average cost of debt for environmental compliance projects***
3 ***approved by the Commission.” Describe in complete detail any and all***
4 ***sources for determining the above-referenced “cost of debt,” how it was***
5 ***“average[d],” and provide a comprehensive list of citations to any and all***
6 ***“environmental compliance projects approved by the Commission” from***
7 ***which the data is derived.***

- 8
- 9 **a. *Provide a complete justification for why a non-profit***
10 ***entity would be entitled to earn a rate of return***
11 ***commensurate with an investor-owned utility?***
- 12 **b. *Provide a complete explanation as to whether BREC***
13 ***believes earning what is essentially a profit would***
14 ***jeopardize its tax-exempt status.***
- 15 **c. *Provide the total return (with TIER of 1.24 factored in)***
16 ***which BREC seeks in this case, and express it in terms of***
17 ***both a percentage, and annual dollar amounts that will***
18 ***flow to the company for each and every year of the***
19 ***lifespan of all proposed projects included in this***
20 ***application. Provide also a complete explanation of why***
21 ***the company could not have provided this essential data***
22 ***in the company’s application.***

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- 1 *d. With regard to East Kentucky Power Cooperative's Case*
2 *No. 2004-00321, provide a break-down of the "rate of*
3 *return" which Mr. Wolfram alleges that company was*
4 *allowed to earn, broken down in the same manner as set*
5 *forth in subpart (c) of this question.*
6 *e. Does BREC look upon the instant case as a means of*
7 *revenue enhancement? Provide a detailed explanation.*
8

9 **Response)** The cost of debt will be determined from the financing that is
10 ultimately secured by Big Rivers for the projects in the 2012 Plan. The cost of
11 debt is estimated in this Application to be 5.75%.

- 12
13 a. The rate of return is not commensurate with that of an investor-
14 owned utility. Investor-owned utilities earn an overall rate of
15 return that includes a return on equity ("ROE") as well as the
16 cost of debt. The rate of return here includes only the cost of
17 debt and does not include an equity component. This approach
18 is currently employed by East Kentucky Power Company
19 ("EKPC") in its environmental surcharge mechanism and was
20 approved by the Commission in Case No. 2004-00321.
21 b. Please see the response to part a. Big Rivers is not tax-exempt,
22 and Big Rivers' environmental compliance plan presented in this

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- 1 case would not affect Big Rivers' ability to re-apply for tax
2 exempt status.
- 3 c. The total return is the cost of debt plus TIER. If the cost of debt
4 is 5.75% as estimated by Big Rivers, the total return will be
5 5.75% multiplied by the Contract TIER of 1.24, or 7.13%. This is
6 described on page 12 of the Direct Testimony of John Wolfram.
- 7 d. In Case No. 2004-00321, EKPC was authorized to earn its cost of
8 debt with the application of TIER, just as Big Rivers requests in
9 this case.
- 10 e. Big Rivers considers the instant case as a means of recovering
11 the eligible costs associated with the 2012 Plan, including its
12 cost of debt and the applicable TIER, consistent with KRS
13 278.183.

14
15
16 Witness) John Wolfram
17

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1 **Item 80)** *Reference the Wolfram testimony, page 9. Eight cost*
2 *components to be included in the proposed ES tariff rider are specified.*
3 *Please provide estimates for each of these cost components and any rates*
4 *used to calculate them.*

5

6 **Response)** Please see Big Rivers' responses to Items 2b and 2c of the
7 Commission Staff's First Request for Information.

8

9 **Witness)** John Wolfram

10

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1 Item 81) *Reference the Wolfram testimony, page 12, wherein it is stated*
2 *that “in each month, $E(m)$ will be adjusted by the proportion of revenues*
3 *from sales to native load to the total Big Rivers revenues including off-*
4 *system sales for the current month.” Please explain what proportion will*
5 *be used and how this adjustment will be calculated.*

6

7 a. *Was the 1.24 TIER awarded to EKPC in case number 2004-*
8 *00321 in a time when the EPA compliance costs were more*
9 *or less than they currently are/will be? If the answer is*
10 *more, please explain.*

11

12 **Response)** The proportion of revenues from sales to native load to the total Big
13 Rivers revenues including off-system sales for the current month will be
14 determined by the actual values for these terms. See Exhibit Woffram-5, page 15
15 of 16, ES Form 3.00.

16

17 a. The 1.24 TIER is the amount Big Rivers seeks in the instant
18 proceeding; it was not the TIER awarded to EKPC in Case No.
19 2004-00321. At that time, EPA compliance costs in general were
20 less than they are today.

21

22 **Witnesses)** John Wolfram and Mark A. Hite

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1 **Item 82)** *Reference the Wolfram testimony, pages 14-15, wherein you list*
2 *17 revenue items which will be excluded from revenues in calculating*
3 *total revenues. Mr. Wolfram also claims that it is consistent with the cost*
4 *allocation in the current ES tariff rider, which does not include certain*
5 *kWh variances. Are there any sources of revenue which are included in*
6 *calculating total revenue for the current ES tariff rider but will not be*
7 *included in calculating total revenue for the proposed ES tariff rider? If*
8 *so, please specify which ones and explain why they should be excluded.*

9

10 **Response)** No.

11

12

13 **Witness)** John Wolfram

14

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1 **Item 83) *Reference the Wolfram testimony, page 20, regarding Exhibit***
2 ***Wolfram-6. Mr. Wolfram states that total billings will increase by 6.9%***
3 ***relative to 2016 and 7.8% relative to 2012. Please explain how you arrived***
4 ***at these calculations, and provide any data, formulae, or documents used***
5 ***to calculate them.***

- 6
- 7 **a. *Will there be any projected billing increases in 2013, 2014,***
8 ***or 2015, and if so, what are their amounts?***
- 9 **b. *Referencing p. 20, please identify and explain the “other***
10 ***factors” that “may affect the exact timing of the***
11 ***expiration of the Economic Reserve and RER funds.”***
- 12 **c. *If the Economic Reserve and RER accounts are depleted***
13 ***before 2018, how would the bill impact on the Rurals be***
14 ***affected? Has BREC or the Prime Group, LLC or any other***
15 ***consultant for BREC modeled or otherwise studied such***
16 ***contingencies? Please provide any analysis available***
17 ***regarding the bill impact of the 2012 Plan on Rurals***
18 ***absent the Economic Reserve and RER accounts as they***
19 ***are proposed in the MRSM and the RER rider.***
- 20

21 **Response) The rates depicted in Exhibit Wolfram-6 are taken from the “Stmts**
22 **RUS” tab in the “Build Case” financial model and the “Base Case” financial model,**

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1 which were provided by Big Rivers in its April 26, 2012, response to KIUC's
2 Motion to Dismiss.

- 3
- 4 a. Yes. The attached exhibit titled 'Response to AG 83a' compares
5 rates for each of the years 2013, 2014, and 2015 in the "Base
6 Case" to the same years in the "Build Case." This analysis
7 shows how much higher rates are anticipated to be in a given
8 year due to environmental compliance than they otherwise
9 would have been in that given year.
- 10 b. The MRSM is designed to offset a portion of fuel cost and
11 environmental compliance cost that would otherwise flow
12 through the rates of Rural and Large Industrial rate payers.
13 The Unwind Surcredit, which is collected from the Smelters as a
14 Surcharge, is also designed to offset a portion of the fuel cost and
15 environmental compliance cost that would otherwise flow
16 through the rates of Rural and Large Industrial ratepayers,
17 essentially reducing the amount needed to be drawn from the
18 reserve accounts. Therefore, any change in projected fuel cost,
19 environmental compliance cost, Surcharge collection from the
20 Smelters, or even member load will alter the amount drawn
21 from the Economic Reserve and Rural Economic Reserve.
- 22

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- 1 c. The Stmt's RUS tab in each of the financial model files,
2 including the "Build Case," shows the detailed components of
3 each customer class's rate. This detail includes the amount of
4 member rates offset by the Economic Reserve and Rural
5 Economic Reserve. One can derive the impact to rates of early
6 depletion of the Economic Reserve and the Rural Economic
7 Reserve by simply adding back the amount on the Economic
8 Reserve and the Rural Economic Reserve lines to the Rural or
9 Large Industrial Effective Rate.

10
11
12 **Witness)** Mark A. Hite
13

Big Rivers Electric Corporation
Case No. 2012-00063
Base Case Rates versus. Build Case Rates

	Base Case Rates (\$/MWh)			Build Case Rates (\$/MWh)			% Difference		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
<u>Gross of MRSM and RER Rider</u>									
Rural	53.61	56.78	57.94	54.32	57.68	59.71	1.3%	1.6%	3.1%
Large Industrial	46.47	49.53	50.66	46.73	49.94	51.83	0.6%	0.8%	2.3%
Smelter Unadjusted*	52.09	53.68	54.26	52.18	54.34	55.53	0.2%	1.2%	2.3%
Smelter Adjusted	49.14	51.38	52.35	49.23	51.52	53.06	0.2%	0.3%	1.4%
<u>Net of MRSM and RER Rider</u>									
Rural	45.79	49.57	51.11	45.78	49.61	51.18	0.0%	0.1%	0.1%
Large Industrial	38.73	42.32	43.90	38.72	42.36	46.76	0.0%	0.1%	6.5%
Smelter Unadjusted*	52.09	53.68	54.26	52.18	54.34	55.53	0.2%	1.2%	2.3%
Smelter Adjusted	49.14	51.38	52.35	49.23	51.52	53.06	0.2%	0.3%	1.4%

*Smelter Adjusted reflects removal of the TIER Adjustment Charge. The Build Case has lower off-system net sales margin in 2016 due to 2012 Plan costs, causing the Smelters to move up within the TIER bandwidth.

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1 **Item 84)** *Reference the Wolfram testimony in general. What will the*
2 *projected cost of the capital projects be each year? What are the projected*
3 *amounts that will be paid each year out of the Economic Reserve account*
4 *and the Rural Economic Reserve account? Please explain how you*
5 *calculated these projections, and provide any data, formulae, or*
6 *documents used to calculate them.*

7

8 **Response)** Please refer to the "ECP" tab of the "Build Case" financial model file,
9 which details Big Rivers' projected environmental costs by year, provided with Big
10 Rivers' April 26, 2012, response to KIUC's Motion to Dismiss. Please also refer to
11 the Rates tab (lines 142 through 159) of the "Build Case" financial model file,
12 which shows the projected Economic Reserve and Rural Economic Reserve draw
13 schedule.

14

15

16 **Witness)** Mark A. Hite

17

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1 **Item 85)** *Reference the Wolfram testimony at page 19. Please explain in*
2 *detail what is meant with “generally consistent” by the Commission at line*
3 *3.*

4

5 **Response)** Please see Big Rivers' response to Item 33 of the Commission Staff's
6 First Request for Information.

7

8

9 **Witness)** John Wolfram

10

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1 Item 86) *Please refer to Wolfram Testimony p. 19, line 19 through p. 20,*
2 *lines 4 and Exhibit Wolfram-6. Please provide the data used to arrive at*
3 *the percentages referenced therein, including the following:*

- 4
- 5 a. *On what data does Mr. Wolfram rely for his statement that*
6 *“total billings to each rate class will increase*
7 *approximately 6.9% relative to projected 2016 billings”?*
8 b. *What are the “projected 2016 billings”?*
9 c. *How were these billings projected?*
10 d. *On what data does Mr. Wolfram rely for his statement that*
11 *“total billings to each rate class will increase ... by*
12 *approximately 7.8% relative to projected 2012 billings”?*
13 e. *What are the “projected 2012 billings”?*
14 f. *How were the 2012 billings projected?*

15

16 **Response)** Please see Item 51 of these responses.

17

18

19 **Witness)** Mark A. Hite

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1 Item 87) *Please refer to Wolfram Testimony p. 20, lines 15-17, wherein*
2 *Mr. Wolfram states: "The MRSM and the RER rider will entirely mitigate*
3 *the bill impact of the 2012 Plan on the Rurals until the Economic Reserve*
4 *and RER accounts are depleted." How can Mr. Wolfram support this*
5 *statement when he explains on p. 21 that "with the 2012 Plan ... the*
6 *accounts will be depleted in 2018"?*

7

8 a. *Will the early depletion of these accounts result in the*
9 *company having to file a base rate case in 2018?*

10

11 **Response)** The MRSM and RER accounts are expected to become depleted by
12 2018. These accounts will mitigate the bill impact of the 2012 Plan on the Rural
13 rate class until that time, after which the Rural rate class will experience a bill
14 increase. Also please see Item 84 of these responses.

15

16 a. No. The depletion of these accounts will result in the Rural rate
17 class experiencing the full impact of the FAC and the ECR on
18 their monthly bills. The need for and/or timing of additional
19 base rate increases will depend upon other factors.

20

21 **Witness)** John Wolfram

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1 **Item 88)** *Reference the Wolfram testimony in general. Does Mr.*
2 *Wolfram agree that the smelters negotiated a special contract with the*
3 *applicant which was approved as part of the Unwind transaction? If not,*
4 *please explain.*

5
6 **Response)** As part of the Unwind Transaction, the Commission approved
7 agreements between Big Rivers, Kenergy, and each of the smelters. They are:

- 8
9 1. Wholesale Electric Service Agreement (Alcan) dated as of July 1,
10 2009 by and between Big Rivers Electric Corporation and
11 Kenergy Corporation, and
12 2. Wholesale Electric Service Agreement (Century) dated as of July
13 1, 2009 by and between Big Rivers Electric Corporation and
14 Kenergy Corporation.

15
16
17 **Witness)** John Wolfram
18

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1 **Item 89)** *Reference the Wolfram testimony at page 20. Is it true that the*
2 *witness' proposed use of the Economic Reserve will be applied to non-FAC*
3 *costs?*

4

5 **Response)** Yes. The Economic Reserve is currently used to mitigate the impact
6 of both the FAC and the ES costs, and Big Rivers is not proposing any change in
7 this regard.

8

9 **Witness)** John Wolfram

10

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1 **Item 90)** *Reference Exhibit Wolfram-6. Provide dollar quantifications*
2 *for the percentage increases noted for each respective BREC distribution*
3 *company per the tariffs as listed.*

4

5 **Response)** Please see Items 1, 2 and 3 of these responses.

6

7 **Witness)** John Wolfram

8

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1 **Item 91)** *Reference the DePriest testimony in general, and in particular*
2 *at page 8. Does S&L own any stock in any company which manufactures*
3 *electric generation equipment?*

4

5 **Response)** No.

6

7

8 **Witness)** William DePriest

9

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1 **Item 92)** *Reference the DePriest testimony at pages 9-10. Were any*
2 *candidates for EPA compliance not used? If the answer is yes, please*
3 *identify same and the reason for the exclusion.*

4

5 **Response)** S&L considered commercially available technologies and
6 combinations of technologies that had the potential to meet the regulatory
7 requirements. S&L chose the most cost effective technology options.

8

9 **Witness)** William DePriest

10

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1 **Item 93)** *Reference the DePriest testimony at page 13. Provide copies of*
2 *any and all models, with any Excel spreadsheets intact if the models were*
3 *formulaic in nature, and worksheets which S&L generated in its capital*
4 *and O&M cost estimates.*

5

6 **Response)** Please see the CD Big Rivers filed May 30, 2012, in response to the
7 May 11, 2012, letter from KIUC's counsel to Big Rivers' counsel.

8

9

10 **Witness)** William DePriest

11

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1 **Item 94)** *Reference the DePriest testimony at page 14. Provide copies of*
2 *any and all information which BREC provided for use in the study*
3 *referenced at line 8 of the testimony.*

4
5 **Response)** Economic inputs used in the cost evaluation are shown in Exhibit
6 DePriest – 2, Table 1-1. Boiler operating data and emissions data were provided
7 on the CD which Big Rivers filed May 30, 2012, under a petition for confidential
8 treatment, and in response to the Kentucky Industrial Utility Customers' May 11,
9 2012 letter.

10

11

12 **Witness)** William DePriest

13

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1 **Item 95)** *Reference the DePriest testimony at page 21. What are the*
2 *anticipated costs to purchase allowances or purchased power if BREC is*
3 *not in compliance by 2014?*

4

5 **Response)** Please see the response to Item 55 of these responses.

6

7 **Witness)** Robert W. Berry

8

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1 **Item 96)** *Please reference Exhibit DePriest 2, Executive Summary p. 1*
2 *(ES-1) last sentence of paragraph 1, which states: "This report has not*
3 *been updated to reflect the new MATS rule."*

4
5 *a. Please explain why the report was not updated to reflect*
6 *the new Mercury and Air Toxins Standards (MATS) rule*
7 *issued on February 16, 2012.*

8 *b. Please confirm or deny the following and explain your*
9 *answer if required:*

10 *i. That the formal title for the new MATS rule is*
11 *"National Emission Standards for Hazardous Air*
12 *Pollutants from Coal- and Oil-Fired Electric Utility*
13 *Steam Generating Units and Standards of*
14 *Performance for Fossil-Fuel-Fired Electric Utility,*
15 *Industrial-Commercial-Institutional, and Small*
16 *Industrial-Commercial-Institutional Steam*
17 *Generating Units."*

18 *ii. That the final MATS rule was finalized by the EPA on*
19 *or about February 16, 2012.*

20 *iii. That the final MATS rule expanded the rule's*
21 *applicability from the standards proposed in March*

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Response to AG 1-96

Witnesses: Robert W. Berry (a), Thomas L. Shaw (b),
and William DePriest (c and d)

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- 1 *2011 (EGU MACT) to now include EGUs that*
2 *commenced a modification after May 3, 2011.*
3 *iv. That the final MATS rule does not specify how much*
4 *of an increase in the quantity or type of emissions is*
5 *needed to constitute a modification.*
6 *c. How do the differences between the proposed EGU MACT*
7 *rule and the final MATS rule, including the differences*
8 *listed above in (iii) and (iv), impact the environmental*
9 *compliance study conducted by Sargent & Lundy, LLC?*
10 *d. Please provide an update to Exhibit DePriest 2 if and*
11 *when it is available.*

12
13 **Response)**

- 14 a. The Sargent & Lundy report was finalized and published on
15 February 13, 2012, three days before the final MATS rule was
16 published by the U.S. EPA on February 16, 2012. Sargent &
17 Lundy did publish a supplement to its report entitled "ESP
18 Performance Based on Final MACT Rule" explaining that
19 subsequent to its original report the U.S. EPA issued the final
20 rule, referred to as the Mercury and Air Toxics Standard
21 (MATS). This supplement is filed as Exhibit DePriest-3.

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- 1 b.
- 2 i. The title of the rule for hazardous air pollutants also known
- 3 as MATS published in the Federal Register Vol. 77 No.
- 4 32/Thursday February 16, 2012, page 9304 is "National
- 5 Emission Standards for Hazardous Air Pollutants From
- 6 Coal- and Oil-Fired Electric Utility Steam Generating
- 7 Units and Standards of Performance for Fossil-Fuel-Fired
- 8 Electric Utility, Industrial-Commercial-Institutional, and
- 9 Small Industrial-Commercial-Industrial Steam Generating
- 10 Units"
- 11 ii. The Rule was published in final form in the Federal
- 12 Register, Volume 77, No. 32, on February 16, 2012.
- 13 iii. The rule currently defines "new units" as those that
- 14 commenced construction, reconstruction or modification
- 15 after May 3, 2011. This is believed to be an error, as the
- 16 rule also provides emission standards for existing units.
- 17 iv. Modification is not defined in the MATS rule. Modification
- 18 is defined in the Clean Air Act 42 USC §7411(a) (4) -
- 19 Standards of Performance For New Stationary Sources:
- 20 "The term modification means any physical change in, or
- 21 change in the method of operation of, a stationary source

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1 which increases the amount of any air pollutant emitted by
2 such source or which results in the emission of any air
3 pollutant not previously emitted”.

4 c. A supplemental discussion of the impact of the MATS rule was
5 developed for the environmental compliance study. It is included
6 in Exhibit DePriest-3. The differences listed in (iii) and (iv)
7 above do not impact the environmental compliance study.

8 d. None is planned.

9

10 Witnesses) a. Robert W. Berry
11 b. Thomas L. Shaw
12 c.,d. William DePriest

13

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1 **Item 97)** *Reference the Shaw testimony in general. Regarding all the*
2 *applicable rules and regulations, when did BREC know of the need to*
3 *begin the planning process to comply with the impending EPA compliance*
4 *requirements?*

5
6 **Response)** Big Rivers had concerns about the likelihood of regulations becoming
7 finalized in 2010 and, at that time, it began to develop its initial compliance
8 strategy. (See October 2010 presentation to the Commission provided in response
9 to Item 57 of the Sierra Club's Initial Requests for Information.) Based on that
10 effort, Big Rivers made the determination to involve an outside engineering firm
11 in a more in-depth review of the environmental regulations as well as engineering
12 efforts to better quantify compliance options and costs. This resulted in engaging
13 Sargent & Lundy in April 2011 to develop the compliance study that was the basis
14 of the Big Rivers Environmental Compliance Plan submitted in this proceeding.

15

16

17 **Witness)** Robert W. Berry

18