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July 31, 2019

VIA HAND DELIVERY

Ms. Gwen R. Pinson
Executive Director
Public Service Commission
211 Sower Boulevard, P.O. Box 615
Frankfort, Kentucky 40602-0615

Re: *In the Matter of: Application of Big Rivers Electric Corporation for Enforcement of Rate and Service Standards—Case No. 2019-00 269*

Dear Ms. Pinson:

Enclosed on behalf of Big Rivers Electric Corporation (“Big Rivers”) are an original and ten (10) copies of (i) Big Rivers’ Application for Enforcement of Rate and Service Standards; and (ii) a petition for confidential treatment. Also enclosed is one (1) sealed, confidential copy of the material for which Big Rivers is seeking confidential treatment.

On this date, a copy of this letter and the petition are being served on each of the persons listed on the attached service list by either hand delivery or overnight courier.

Please feel free to contact me should you have any questions regarding this filing.

Sincerely yours,

A handwritten signature in black ink, appearing to read "TK", is written over the typed name.

Tyson Kamuf
Corporate Attorney,
Big Rivers Electric Corporation
tyson.kamuf@bigrivers.com

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR
ENFORCEMENT OF RATE AND SERVICE STANDARDS
CASE NO. 2019-00_269**

Service List

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City of Henderson, Kentucky
222 First Street
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Attention: Mayor

Utility Commission of the
City of Henderson, Kentucky
100 Fifth Street
Henderson, KY 42420
Attention: Chris Heimgartner

Hon. Dawn Kelsey
City Attorney
City of Henderson, Kentucky
222 First Street
Henderson, KY 42420

ORIGINAL



Your Touchstone Energy® Cooperative 

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

APPLICATION OF)	
BIG RIVERS ELECTRIC CORPORATION)	Case No.
FOR ENFORCEMENT OF)	2019-00<u>269</u>
RATE AND SERVICE STANDARDS)	

APPLICATION and APPLICATION EXHIBITS

Including

DIRECT TESTIMONIES and EXHIBITS THERETO

FILED: July 31, 2019

ORIGINAL

RECEIVED

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COMMONWEALTH OF KENTUCKY

JUL 31 2019

BEFORE THE PUBLIC SERVICE COMMISSION^{PUBLIC SERVICE}
COMMISSION

IN THE MATTER OF:

APPLICATION OF BIG RIVERS ELECTRIC)
CORPORATION FOR ENFORCEMENT OF) Case No.
RATE AND SERVICE STANDARDS) 2019-00 269

PETITION OF BIG RIVERS ELECTRIC CORPORATION FOR
CONFIDENTIAL TREATMENT

1. Big Rivers Electric Corporation (“Big Rivers”) hereby requests that the Kentucky Public Service Commission (“Commission”), pursuant to 807 KAR 5:001 Section 13 and KRS 61.878(1)(c), grant confidential protection to the confidential information contained in the Direct Testimony of Michael T. Pullen and Exhibit Pullen-8 thereto filed with this petition. The information Big Rivers seeks to protect as confidential is hereinafter referred to as the “Confidential Information.”
2. One copy of the testimony and Exhibit Pullen-8, with the Confidential Information highlighted with transparent ink, is being filed with this petition in a separate, sealed envelope marked “CONFIDENTIAL.” Ten (10) copies of the testimony and Exhibit Pullen-8, with the Confidential Information redacted, are also being filed with this petition. 807 KAR 5:001 Sections 13(2)(a)(3).
3. If and to the extent the Confidential Information becomes generally available to the public, whether through filings required by other agencies or

1 otherwise, Big Rivers will notify the Commission and have its confidential status
2 removed. 807 KAR 5:001 Section 13(10)(b).

3 4. As discussed below, the Confidential Information is entitled to
4 confidential protection based upon KRS 61.878(1)(c)(1), which protects “records
5 confidentially disclosed to an agency or required by an agency to be disclosed to it,
6 generally recognized as confidential or proprietary, which if openly disclosed would
7 permit an unfair commercial advantage to competitors of the entity that disclosed
8 the records.” KRS 61.878(1)(c)(1); 807 KAR 5:001 Section 13(2)(a)(1). Section I
9 below explains that Big Rivers operates in competitive environments in the
10 wholesale power market and in the credit market. Section II below shows that the
11 Confidential Information is generally recognized as confidential or proprietary.
12 Section III below demonstrates that public disclosure of the Confidential
13 Information would permit an unfair commercial advantage to Big Rivers’
14 competitors.

15 **I. Big Rivers’ Faces Actual Competition**

16 5. As a generation and transmission cooperative, Big Rivers competes in
17 the wholesale power market. This includes not only the short-term bilateral energy
18 market, the day-ahead and real-time energy and ancillary services markets, and the
19 capacity market to which Big Rivers has access by virtue of its membership in
20 Midcontinent Independent System Operator, Inc. (“MISO”), but also forward
21 bilateral long-term agreements and wholesale agreements with utilities and
22 industrial customers. Big Rivers’ ability to successfully compete in the market is

1 dependent upon a combination of its ability to: (i) obtain the maximum price for the
2 power it sells, and (ii) keep its cost of production as low as possible. Fundamentally,
3 if Big Rivers' cost of producing a unit of power increases, its ability to sell that unit
4 in competition with other utilities is adversely affected.

5 6. Big Rivers also competes for reasonably priced credit in the credit
6 markets, and its ability to compete is directly impacted by its financial results.
7 Lower revenues and any events that adversely affect Big Rivers' margins will
8 adversely affect its financial results and potentially impact the price it pays for
9 credit. A competitor armed with Big Rivers' proprietary and confidential
10 information will be able to increase Big Rivers' costs or decrease Big Rivers'
11 revenues, which could in turn affect Big Rivers' apparent creditworthiness. A
12 utility the size of Big Rivers that operates generation and transmission facilities
13 will always have periodic cash and borrowing requirements for both anticipated and
14 unanticipated needs. Big Rivers expects to be in the credit markets on a regular
15 basis in the future, and it is imperative that Big Rivers improve and maintain its
16 credit profile.

17 7. Accordingly, Big Rivers has competitors in both the power and capital
18 markets, and its Confidential Information should be protected to prevent the
19 imposition of an unfair competitive advantage.

1 the Commission has previously granted confidential treatment to similar
2 information. *See, e.g., In the Matter of: An Examination of the Application of the*
3 *Fuel Adjustment Clause of Kentucky Power Company from November 1, 2012*
4 *through October 31, 2014*, Order, P.S.C. Case No. 2014-00450 (Jan. 24, 2019)
5 (granting confidential treatment to forecasted cost data).

6 11. The Confidential Information is not publicly available, is not
7 disseminated within Big Rivers except to those employees and professionals with a
8 legitimate business need to know and act upon the information, and is not
9 disseminated to others without a legitimate need to know and act upon the
10 information. As such, the Confidential Information is generally recognized as
11 confidential and proprietary.

12 **III. Disclosure of the Confidential Information Would Permit an Unfair**
13 **Commercial Advantage to Big Rivers' Competitors**

14 12. Public disclosure of the Confidential Information would permit an
15 unfair commercial advantage to Big Rivers' competitors. As discussed above, Big
16 Rivers faces actual competition in both the short- and long-term wholesale power
17 markets and in the credit markets. It is likely that Big Rivers' ability to compete in
18 these markets would be adversely affected if the Confidential Information was
19 publicly disclosed, and Big Rivers seeks protection from such competitive injury.

20 13. The Commission recently granted confidential treatment to pricing
21 information provided by Cumberland Valley in P.S.C. Case No. 2018-00056. *See In*
22 *the Matter of: Application of Cumberland Valley Electric, Inc. for Commission*
23 *Approval for a Certificate of Public Convenience and Necessity to Install an*

1 *Advanced Metering Infrastructure (AMI) System Pursuant to KRS 807 KAR 5:001*
2 *and KRS 278.020*, Order, P.S.C. Case No. 2018-00056 (May 9, 2018). In that case,
3 the Commission recognized “that the specific cost information may be used to the
4 financial detriment of Cumberland Valley and its ratepayers by allowing potential
5 future vendors to bid just under the cost of its current vendor, which, in turn, would
6 place Cumberland Valley at a competitive disadvantage.” *Id.*

7 14. The Commission also recognized these effects in P.S.C. Case No. 2003-
8 00054. In that case, Union Light Heat & Power (“ULH&P”) argued, and the
9 Commission implicitly accepted, that if the bids it received were publicly disclosed,
10 contractors on future work could use the bids as a benchmark, which would likely
11 lead to the submission of higher bids. *In the Matter of: Application of the Union*
12 *Light, Heat and Power Company for Confidential Treatment*, Order, P.S.C. Case No.
13 2003-00054 (Aug. 4, 2003). The Commission also implicitly accepted ULH&P’s
14 further argument that the higher bids would lessen ULH&P’s ability to compete
15 with other gas suppliers. *Id.*

16 15. The same competitive harm that the Commission recognized in P.S.C.
17 Case Nos. 2003-00054 and 2018-00056 would befall Big Rivers if the Confidential
18 Information in this case were publicly disclosed. Public disclosure of the
19 Confidential Information would provide potential purchasers of the Coleman
20 Station and potential bidders on the project listed on Exhibit Pullen-8 with insight
21 into Big Rivers view of Coleman’s value and the expected costs of the projects.
22 These counterparties could use this information as a benchmark, leading to higher

1 costs or lower revenues to Big Rivers, hurting Big Rivers' ability to compete in the
2 wholesale power and credit markets.

3 16. Thus, Big Rivers' competitiveness will be adversely affected if potential
4 counterparties are given such an unfair advantage. Accordingly, the public
5 disclosure of the information that Big Rivers seeks to protect pursuant to KRS
6 61.878(1)(c)(1) would provide Big Rivers' competitors with an unfair commercial
7 advantage.

8 IV. Time Period

9 17. Big Rivers requests that the Confidential Information remain
10 confidential for 10 years from the date of this petition, after which the information
11 will likely be sufficiently outdated to no longer pose a competitive risk to Big Rivers.
12 807 KAR 5:001 Section 13(2)(a)(2).

13 V. Conclusion

14 18. Based on the foregoing, the Confidential Information is entitled to
15 confidential protection.

16 19. WHEREFORE, Big Rivers respectfully requests that the Commission
17 classify and protect as confidential the Confidential Information.

18

1 On this the 30th day of July, 2019.

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Respectfully submitted,



Tyson Kamuf
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COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

APPLICATION OF)
BIG RIVERS ELECTRIC CORPORATION) Case No.
FOR ENFORCEMENT OF) 2019-00 269
RATE AND SERVICE STANDARDS)

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APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR
ENFORCEMENT OF RATE AND SERVICE STANDARDS

10

INTRODUCTION

11 1. Big Rivers Electric Corporation (“Big Rivers”) files this Application
12 (“Application”) pursuant to KRS 278.200, 278.030, and 278.040, seeking an order
13 from the Kentucky Public Service Commission (“Commission”) enforcing the rates
14 and service standards contained in the series of contracts that the City of Henderson,
15 Kentucky and City of Henderson Utility Commission (collectively, “Henderson”)
16 entered into with Big Rivers related to the Station Two generating units (the “Station
17 Two Contracts” or “Contracts”).¹ Specifically, Big Rivers asks that the Commission
18 find that: 1) Big Rivers correctly performed the calculations contained in the Interim
19 Accounting Summary (Exhibit Smith-1), Henderson is contractually obligated to pay
20 its share of costs as reflected therein, and Big Rivers correctly determined each
21 party’s ownership of the coal and lime reagent remaining at Station Two; 2)

¹ The Station Two Contracts include the Power Sales Contract, the Power Plant Construction and Operation Agreement, the Joint Facilities Agreement, the System Reserves Agreement, and amendments to the Station Two Contracts that were made in years 1993, 1998, and 2005. *Please see Exhibits 8-14 attached hereto and Big Rivers’ Application & Exhibits 1-8 in Case No. 2016-00278.*

1 Henderson has both a current and an ongoing contractual obligation to share in the
2 costs of decommissioning Station Two; 3) Henderson has current and ongoing
3 contractual obligations to share in the costs of maintaining Station Two waste in Big
4 Rivers' Green Station landfill; and 4) Henderson is contractually obligated to allow
5 Big Rivers to continue utilizing city-owned joint use facilities.

6 **BACKGROUND**

7 2. The Applicant, Big Rivers, is a rural electric cooperative corporation
8 organized pursuant to KRS Chapter 279. Its full name is Big Rivers Electric
9 Corporation. Big Rivers' mailing address is P.O. Box 24, Henderson, Kentucky
10 42419-0024, and its street address is 201 Third Street, Henderson, Kentucky 42420.
11 Big Rivers' address for electronic mail service is regulatory@bigrivers.com.²

12 3. Big Rivers owns generating assets and purchases, transmits and sells
13 electricity at wholesale. Its principal purpose is to provide the wholesale electricity
14 requirements of its three distribution cooperative members: Jackson Purchase
15 Energy Corporation, Kenergy Corp., and Meade County Rural Electric Cooperative
16 Corporation (collectively, the "Members"). The Members in turn provide retail
17 electric service to approximately 117,000 consumers/retail members located in 22
18 western Kentucky counties: Ballard, Breckenridge, Caldwell, Carlisle, Crittenden,
19 Daviess, Graves, Grayson, Hancock, Hardin, Henderson, Hopkins, Livingston, Lyon,
20 Marshall, McCracken, McLean, Meade, Muhlenberg, Ohio, Union, and Webster.

² 807 KAR 5:001 Section 14(1).

1 4. Big Rivers was incorporated in the Commonwealth of Kentucky on June
2 14, 1961, and hereby attests that it is currently in good standing in Kentucky.³

3 5. The City of Henderson is a municipality in Western Kentucky with a
4 street address of 222 First Street, Henderson, Kentucky 42420, and a mailing address
5 of P.O. Box 716, Henderson, Kentucky 42419-0716. The City of Henderson Utility
6 Commission, d/b/a Henderson Municipal Power and Light, is a municipal utility
7 organized under the law of Kentucky with an address of 100 Fifth Street, Henderson,
8 Kentucky 42420.

9 6. Henderson owns two coal-fired electric generating units near Sebree,
10 Kentucky, known as “Station Two,” which have a Total Capacity of 312 MW. Big
11 Rivers has operated and maintained the Station Two units pursuant to the Contracts.

12 7. The Contracts were originally executed on August 1, 1970 and
13 subsequently approved by the Commission on October 22, 1970 in Case No. 5406.
14 The initial Contracts were amended on several occasions and the amendments were
15 approved by the Commission.⁴ The relevant Contracts and amendments are attached
16 as exhibits hereto.

17 8. Under Section 1.1 of the 1993 Amendments to the Station Two
18 Contracts, Big Rivers had the option to extend the term of the Contracts “for so long
19 as [either of the Station Two units] is operated, or is capable of normal, continuous,
20 reliable operation for the economically competitive production of electricity,

³ 807 KAR 5:001 Section 14(2).

⁴ See e.g. Case No. 94-032, Order (March 31, 1995) (approving 1993 Amendments); Case No. 1998-00267, Order (July 14, 1998) (approving 1998 Amendments); Case No. 2005-00532, Order (February 24, 2006) (approving 2005 Amendments).

1 temporary outages excepted.” Big Rivers elected to exercise that option, and the
2 extension of the term is reflected in the 1998 Amendments to the Contracts.

3 9. However, as time progressed and the electric market changed, the
4 Station Two units became uneconomic. And on August 29, 2018, at Big Rivers’
5 request, the Commission issued an Order finding that, pursuant to Section 1 of the
6 1998 Amendments to the Station Two Contracts, the term of each of the Contracts,
7 except for the Joint Facilities Agreement, expired when the Station Two units were
8 no longer economically viable.⁵ In that Order, the Commission also granted Big
9 Rivers authority to continue to operate Station Two under the terms of the Station
10 Two Contracts for a period up to May 31, 2019, in order to afford Henderson an
11 opportunity to find alternate arrangements for its power supply needs.⁶

12 10. Henderson and Big Rivers agreed to expedite the closure of Station Two
13 and cease generating electricity by February 1, 2019 in order to prevent additional
14 economic losses. Further, because Station Two was uneconomic, ceasing operations
15 at Station Two prior to May 31, 2019 saved Big Rivers additional money, which
16 allowed Big Rivers to increase the Station Two Depreciation Credit established in
17 Case No. 2018-00146 to its Members by approximately \$1.1 million (from about \$5.4
18 million to \$6.5 million).

⁵ *In the Matter of: Application of Big Rivers Electric Corporation for Termination of Contracts and a Declaratory Order and for Authority to Establish a Regulatory Asset*, Case No. 2018-00146.

⁶ *Id.*, Order (August 29, 2018).

1 11. Big Rivers and Henderson began the process of decommissioning by
2 starting to transition the plant into a “safe, dark, and dry” status to prepare the plant
3 to undergo full decommissioning in the near future.

4 12. Henderson retained an alternate power supplier to begin serving its
5 native load through the MISO⁷ market beginning February 1, 2019.

6 13. Station Two retired on February 1, 2019.

7 14. While Big Rivers and Henderson were able to reach an agreement on
8 the retirement date of Station Two, multiple disputes have arisen between Big Rivers
9 and Henderson regarding the parties’ respective rights and obligations under the
10 Station Two Contracts. These disputes, which are still unresolved, include
11 Henderson’s refusal: 1) to pay certain amounts owed to Big Rivers under the
12 Contracts; 2) to pay its share of decommissioning costs as required under Section 8 of
13 the 1993 Amendments;⁸ 3) to pay its share of the costs of maintaining Station Two
14 waste in Big Rivers’ Green Station landfill under Sections 4.1 and 6.1 of the Joint
15 Facilities Agreement; and 4) to allow Big Rivers to continue to utilize city-owned joint
16 use facilities as required by Section 1.5 of the Joint Facilities Agreement, which is
17 necessary in order to continue operation of Big Rivers’ Green generating units.

18 15. Additionally, Henderson has initiated two pending actions in Kentucky
19 Circuit Courts: 1) an action in the Franklin Circuit Court to review the Commission’s

⁷ “MISO” is the Midcontinent Independent System Operator, Inc.

⁸ That Section amended the Contracts to provide that “[i]f Big Rivers exercises its option under Section 1.1... to extend the life of the Contracts for the operating life of Station Two... **the parties shall bear decommissioning costs of Station Two in the proportions in which they shared capacity costs during the life of Station Two**” (emphasis added).

1 January 5, 2018, Order in Case No. 2016-00278, to which Big Rivers has filed a
2 counterclaim to protect its rights and to enforce the Commission's January 5, 2018
3 Order; and 2) an action in the Webster Circuit Court in which Henderson is seeking
4 a determination that Big Rivers now owns the real estate on which portions of Station
5 Two were constructed.⁹

6 16. The Franklin Circuit Court proceeding is the natural predecessor to this
7 case. In Case No. 2016-00278, the Commission case on appeal, Big Rivers filed a
8 request for a Declaratory Order finding that under the Station Two Contracts, Big
9 Rivers was not required to pay for any variable costs associated with Excess
10 Henderson Energy generated by Station Two that Big Rivers did not elect to take.
11 Invoking its jurisdiction under KRS 278.200 and 278.030, the Commission granted
12 Big River's request.¹⁰ Henderson appealed the Commission's Order on jurisdictional
13 grounds. And because Henderson continued to refuse to reimburse Big Rivers for the
14 variable costs of Excess Henderson Energy that Big Rivers elected not to take, Big
15 Rivers filed a counterclaim in that action seeking to recover damages associated with
16 those costs.

17 17. In the Webster Circuit Court proceeding, Henderson seeks a declaration
18 that Big Rivers now owns the real property on which portions of Station Two are
19 located, citing a provision of the 1971 Station Two Deed that states in part that, "upon
20 discontinuance by [Henderson] of the... operation and/or maintenance [of Station

⁹ This lawsuit is described in more detail in the Direct Testimony of Robert W. Berry. It is in the discovery stage.

¹⁰ Case No. 2016-00278, Order (January 5, 2018).

1 Two]...and the retirement of all outstanding [Station Two Bonds issued by
2 Henderson]...title...shall revert to Big Rivers.”¹¹ Henderson’s position in that case is
3 that the real property automatically reverted to Big Rivers on February 1, 2019.
4 However, Henderson’s position is contrary to both the law and the facts. KRS 381.218
5 abolished automatic reversions such as the one claimed by Henderson, and even were
6 that not the case, the conditions precedent for the reversion have not occurred
7 (maintenance continues on Station Two and Big Rivers understands that there are
8 still Station Two Bonds outstanding). Additionally, Big Rivers asserts, *inter alia*,
9 that it cannot acquire a generating facility like Station Two in the absence of a
10 Certificate of Public Convenience and Necessity (“CPCN”) from this Commission. As
11 the Commission recently explained, “To obtain a CPCN, the utility must demonstrate
12 a need for such facilities and an absence of wasteful duplication.”¹² Hence, the
13 property transfer that Henderson seeks would likely require a CPCN, which Big
14 Rivers does not intend to seek since Big Rivers does not believe that the property
15 satisfies the legal standard for a CPCN.

16 18. Consequently, in order to resolve the outstanding issues within the
17 Commission’s jurisdiction, Big Rivers respectfully requests that the Commission
18 exercise its enforcement authority over the rates and service standards set forth in
19 the Contracts pursuant to KRS 278.200 by finding that: 1) Henderson must comply
20 with its contractual obligations to pay its share of costs under the Contracts as set

¹¹ See Henderson Complaint for Declaratory Relief (Exhibit 17 hereto) at 3.

¹² *In the Matter of the Application of East Kentucky Power Cooperative, Inc...*, Case No. 2017-00376, Order (May 18, 2018) at 30 (emphasis added); *In the Matter of the Application of East Kentucky Power Cooperative, Inc....*, Case No. 2015-00267, Order (Dec. 1, 2015) at 39.

1 arising out of any such contract are subject to the jurisdiction of this Commission.

2 KRS 278.200 states:

3 **Power to regulate rates and service standards fixed by agreement**
4 **with city.**

5 The commission may, under the provisions of this chapter, originate, establish,
6 change, promulgate and enforce any rate or service standard of any utility that
7 has been or may be fixed by any contract, franchise or agreement between the
8 utility and any city, and all rights, privileges and obligations arising out of any
9 such contract, franchise or agreement, regulating any such rate or service
10 standard, shall be subject to the jurisdiction and supervision of the
11 commission, but no such rate or service standard shall be changed, nor any
12 contract, franchise or agreement affecting it abrogated or changed, until a
13 hearing has been had before the commission in the manner prescribed in this
14 chapter.

15 22. Because enforcing Big Rivers' existing contract rights would not "limit
16 or restrict" the contract rights of Henderson, the Commission's exercise of authority
17 in this case would be consistent with KRS 278.040, and in furtherance of its mandates
18 to maintain just and reasonable rates under KRS 278.030.

19 23. While Henderson is not a "utility" as defined under KRS 278.010(3), the
20 Kentucky Supreme Court has held that "[t]he statutory definition of utility is not to
21 serve as an impenetrable shield to afford the City immunity."¹³ The Court has
22 explained that when addressing contracts between a city and a utility, "[j]urisdiction
23 to regulate...rates and service has been exclusively vested in the PSC."¹⁴ The Court
24 of Appeals of Kentucky has held similarly, finding that "...the PSC does not have
25 jurisdiction over utility services furnished by a municipality except to the extent that

¹³ *Simpson County Water Dist. v. City of Franklin*, 872 S.W.2d 460, 464 (Ky. 1994).

¹⁴ *Id.* See also *Simpson* at 465 ("The rates and service exception effectively insures, throughout the Commonwealth, that any water district consumer/customer that has contracted and become dependent for its supply of water from a city utility is not subject to either excessive rates or inadequate service").

1 those services are rendered pursuant to a contract with a utility which is regulated
2 by the PSC. In such cases the municipality, in the matters covered under the
3 contract, is subject to the jurisdiction of the PSC.”¹⁵ Because Big Rivers’ request
4 directly relates to the rates and service standards set forth in the Contracts, the
5 Commission has the exclusive jurisdiction over these matters.

6 24. Indeed, the Commission has previously exercised jurisdiction over the
7 Station Two Contracts by approving the Contracts and the amendments thereto, and
8 by resolving other issues that have arisen between the parties arising out of the
9 Contracts.¹⁶

10 **REQUEST FOR ENFORCEMENT OF RATE AND SERVICE STANDARDS**
11 **WITH RESPECT TO OUTSTANDING FINANCIAL DISPUTES**

12 25. As described more fully in the Direct Testimony of Mr. Robert W. Berry,
13 for over a year, Big Rivers and Henderson have engaged in extensive negotiations in
14 order to resolve various outstanding issues related to how certain costs and revenues
15 should be allocated between the parties, including the costs of decommissioning
16 Station Two. In fact, each party has issued checks to the other party representing
17 various amounts that each believed were sufficient to settle the outstanding financial
18 disputes between them. But neither party cashed the checks because each continued
19 to dispute the other’s calculations. As such, the financial obligations of each party

¹⁵ *City of Greenup v. PSC*, 182 S.W.3d 535, 538 (Ky. App. 2005).

¹⁶ *See, e.g.*, Case No. 5406, Order (Oct. 22, 1970) (approving the Contracts); Case No. 1998-00267; Order (March 31, 1995) (approving 1993 Amendments); Order (July 14, 1998) (approving 1998 Amendments) Case No. 94-032; Case No. 2016-00278, Order (Jan. 5, 2018).

1 still remain unresolved. It is now clear that the involvement of the Commission is
2 necessary and in the public interest to bring closure to these matters.

3 26. Accordingly, commensurate with the filing of this Application, Big
4 Rivers is delivering the Interim Accounting Summary and an invoice to Henderson
5 (attached hereto as Exhibit 1), informing Henderson of its calculation of the final
6 amounts due and owing by the parties to each other under the Station Two Contracts
7 and the amount still owed to Big Rivers by Henderson as of June 30, 2019. Big Rivers'
8 calculations, associated methodology, and contractual support for each calculation
9 are detailed in the Direct Testimony of Mr. Paul G. Smith.

10 27. Additionally, Mr. Berry and Mr. Smith discuss in their testimonies that
11 under the Contracts, each party was required to supply the fuel and reagent
12 associated with the generation of the energy that party took from Station Two.
13 Because Henderson refuses to accept that any Excess Henderson Energy that Big
14 Rivers did not take belonged to Henderson, Henderson also disagrees with Big Rivers'
15 calculations as to the ownership of the coal and lime reagent remaining at Station
16 Two.

17 28. Big Rivers requests that the Commission exercise its enforcement
18 authority over rates and service standards set forth in the Station Two Contracts
19 pursuant to 278.200 by entering an order finding that the calculations and
20 methodology associated with each calculation comprising the Interim Accounting
21 Summary is the correct application of the terms of the Contracts, that Henderson
22 owes Big Rivers \$718,942 as of June 30, 2019, and must immediately pay Big Rivers

1 that amount, that 481 tons of lime reagent remaining at Station Two belongs to
2 Henderson as of February 1, 2019, and that all of the coal and the rest of the lime
3 reagent remaining at Station Two belong to Big Rivers.

4 **REQUEST FOR ENFORCEMENT OF RATE AND SERVICE STANDARDS**
5 **WITH RESPECT TO STATION TWO DECOMMISSIONING COST SHARING**

6 29. The Station Two Contracts are clear that the parties remain obligated
7 to share in the decommissioning costs associated with Station Two. Section 8 of the
8 1993 Amendments provides that “the parties shall bear decommissioning costs of
9 Station Two in the proportions in which they shared capacity costs during the life of
10 Station Two.”

11 30. The Direct Testimony of Mr. Jeffrey T. Kopp describes the tasks that
12 comprise decommissioning, and the Direct Testimony of Mr. Smith explains how
13 decommissioning costs are allocated between the parties under the Contracts. Mr.
14 Berry and Mr. Kopp also detail in their testimonies how the parties’ obligations under
15 the Station Two Contracts to share in decommissioning costs include not only the
16 costs to dismantle the Station Two units, but also: (i) the costs to decommission any
17 joint use facilities once Big Rivers ceases to utilize them, which includes the Station
18 Two ash pond and the Station Two dredgings in Big Rivers’ Green Station landfill;
19 and (ii) all ongoing legally mandated environmental monitoring, remediation and
20 permitting costs relating to Station Two, including the joint use facilities.

21 31. Henderson has indicated that it will no longer share in the
22 decommissioning costs, except perhaps relating to the closure of the Station Two ash
23 pond. Additionally, Henderson has refused to accept any further financial

1 responsibility for costs associated with making Station Two “safe, dark and dry,” and
2 has not been amenable to retaining an engineering firm to develop a formal
3 decommissioning plan for the Station Two units and auxiliary facilities that are no
4 longer needed by either party. Instead, Henderson has taken the position that it is
5 no longer obligated for any of the ongoing costs associated with Station Two under
6 the Station Two Contracts.

7 32. Big Rivers requests an Order from the Commission holding that
8 pursuant to Section 8 of the 1993 Amendments, Henderson is responsible for its share
9 of the current and ongoing costs of decommissioning Station Two, net of its salvage
10 value, that decommissioning consists of the activities described by witness Mr. Kopp,
11 including all ongoing environmental monitoring and any future environmental
12 remediation that may be required; and that Henderson’s share of the
13 decommissioning costs is 22.76%.

14 33. Big Rivers has an alternative request for relief regarding
15 decommissioning. Mr. Kopp explains in his testimony that decommissioning requires
16 the facility to be dismantled and made suitable for future industrial use, and that
17 because the costs to maintain a generating facility in a retired-in-place state will
18 typically exceed the costs to fully decommission the facility in approximately 5 to 7
19 years, absent a valid reason for delay, it is prudent to proceed with fully
20 decommissioning the facility as soon as practical. Because Station Two is owned by
21 the City, Big Rivers must follow municipal bidding and contracting requirements
22 prior to contracting work on Station Two, and the City must approve any such

1 contracts. Since Big Rivers is prepared to begin the full decommissioning process for
2 Station Two, except the joint use facilities it continues to have the right to utilize
3 under the Joint Facilities Agreement, Big Rivers requests that the Commission find
4 that in the event Henderson elects not to cooperate in fully decommissioning any
5 portion of Station Two or not to city-bid and award contracts necessary for the
6 completion of full decommissioning of Station Two, any ongoing maintenance costs or
7 other costs or liabilities that may result from those decisions are solely the
8 responsibility of Henderson, and Big Rivers shall have no obligation to share in those
9 costs or associated liability.

10 **REQUEST FOR ENFORCEMENT OF RATE AND SERVICE STANDARDS**
11 **WITH RESPECT TO COSTS OF MAINTAINING STATION TWO WASTE IN**
12 **GREEN STATION LANDFILL**

13 34. Certain waste from Station Two was deposited in the landfill at Big
14 Rivers' Green Station. Exhibit 1 of the Joint Facilities Agreement, as amended, lists
15 that waste (Station Two ash pond dredgings in the Big Rivers Green Station sludge
16 disposal landfill) as a city-owned joint use facility on Big Rivers' property. Section
17 4.1 of the Joint Facilities Agreement, as amended, provides that title to such joint use
18 facilities remains with Henderson. As such, Henderson's portion of Station Two
19 waste residing in the Green Station landfill still belongs to Henderson but resides on
20 Big Rivers' property.

21 35. As discussed above, once Big Rivers no longer needs a joint use facility
22 for the continued operation of its Green Station, that joint use facility should be
23 decommissioned, with the parties splitting the decommissioning costs. Big Rivers
24 has no use for the Station Two waste in the landfill; however, Big Rivers continues to

1 use the landfill itself. And so long as Big Rivers continues to need the landfill for its
2 Green Station, the landfill cannot be closed and the Station Two waste in the landfill
3 cannot be decommissioned.

4 36. Section 6.1 of the Joint Facilities Agreement provides that Henderson is
5 “severally and jointly responsible for the continued operation, maintenance, repair,
6 renewal and replacements of such joint use facilities so as to assure the continuous
7 operation of the parties’ respective generating station or stations served thereby.”
8 The city-owned Station Two waste in the landfill must be maintained so that it is
9 contained as required by environmental laws and regulations and to assure the
10 continuous operation of Big Rivers’ Green Station.

11 37. Therefore, Big Rivers requests an Order from the Commission enforcing
12 the rates and service standards set forth in the Joint Facilities Agreement by finding
13 that, until such time as the Station Two ash pond dredgings can be fully
14 decommissioned, Henderson is contractually obligated to share in the costs to
15 maintain them in proportion to Henderson’s share of the waste deposited into the
16 landfill.

17 **REQUEST FOR ENFORCEMENT OF RATE AND SERVICE STANDARDS**
18 **WITH RESPECT TO USE OF JOINT FACILITIES**

19 38. Section 1.5 of the Joint Facilities Agreement allows Big Rivers to
20 continue to utilize city-owned joint use facilities for so long as Big Rivers operates a
21 generating facility in connection therewith. That section provides:

22 It is the intention of the parties, by this Agreement, each to devote to the joint
23 use of both parties, as long as they or either of them, or their respective
24 successors or assigns, shall continue to operate a generating station or stations
25 in connection therewith, those joint use facilities to be provided by each, and

1 to provide for the continuous operation and maintenance thereof for the
2 parties' joint and separate benefits.

3 39. Section 1.5 was inserted into the Joint Facilities Agreement as a
4 protection for both Henderson and Big Rivers as it allowed each party use of the
5 auxiliary generating facilities of the other even in the event that the generating
6 station owned by one of the parties ceased to operate.

7 40. Although the Joint Facilities Agreement is still in effect, as recognized
8 by the Commission in its August 29, 2018 Order in Case No. 2018-00146, Henderson
9 has objected to Big Rivers continuing to utilize the joint use facilities in connection
10 with Big Rivers' Green generating station without purchasing those joint facilities
11 from Henderson or otherwise compensating Henderson for their use.

12 41. Section 4.1 of the Joint Facilities Agreement provides that title to the
13 city-owned joint use facilities remains with Henderson and that the allocation for the
14 joint use of those facilities by the City is irrevocable and continues for so long as Big
15 Rivers operates and/or maintains a generating station in connection therewith.

16 42. Therefore, Big Rivers requests an Order from the Commission enforcing
17 the rate and service standards set forth in the Joint Facilities Agreement by finding
18 that: (i) Big Rivers is entitled to continue utilizing any city-owned joint use facilities
19 for so long as Big Rivers operates and/or maintains a generating station in connection
20 therewith; and (ii) if Big Rivers no longer has the need to utilize any city-owned joint
21 use facility, then Big Rivers must notify Henderson, at which time the parties shall
22 share in any decommissioning costs related to that facility incurred by either party
23 in the same proportion as for the other Station Two facilities.

1 **ONGOING ENFORCEMENT**

2 43. After the payment of all past due amounts, Big Rivers believes that on
3 an ongoing basis the outcome of this case should result in an efficient ratemaking
4 process that is fair, just and reasonable to both Big Rivers and Henderson. That
5 ongoing process should be a process under which 1) Big Rivers files monthly with the
6 Commission (similar to the monthly filings Big Rivers makes with respect to its fuel
7 adjustment clause, environmental surcharge, member rate stability mechanism, and
8 non-FAC Purchased Power Adjustment) a charge representing Henderson's share
9 (based on the percentages described herein and in the accompanying testimony) all
10 Station Two Contract costs incurred by Big Rivers; 2) after filing with the
11 Commission, the monthly charge would be submitted to Henderson for payment
12 within thirty days; and 3) the charges would be subject to comprehensive Commission
13 review, audit, true-up and refund under whatever schedule the Commission deems
14 appropriate. If Henderson fails to timely pay the monthly charge, then the
15 Commission should seek enforcement of its rate order at the Franklin Circuit Court
16 pursuant to KRS 278.390.

17 **SUMMARY OF TESTIMONY**

18 44. Robert W. Berry, President and Chief Executive Officer for Big Rivers,
19 summarizes the disputes between Big Rivers and the City of Henderson, and supports
20 Big Rivers' request for the relief sought in this Application.

21 45. Paul G. Smith, Chief Financial Officer for Big Rivers, supports the
22 Interim Accounting Summary of amounts owed between Big Rivers and Henderson
23 as of June 30, 2019, the methodology that was used to arrive at the calculations set

1 immediately pay its share of the costs set forth therein to Big Rivers, 481 tons of lime
2 remaining at Station Two belong to Henderson as of February 1, 2019, and all coal
3 and all other lime remaining at Station Two belong to Big Rivers.

4 2. Pursuant to Section 8 of the 1993 Amendments, Henderson is
5 contractually obligated to pay its share of current and future Station Two
6 decommissioning costs. Decommissioning consists of the activities described by Mr.
7 Kopp to demolish the Station Two facilities and to make the Station Two site suitable
8 for future industrial use. The decommissioning costs that the parties are obligated
9 to share also include any ongoing environmental monitoring, remediation and
10 permitting costs relating to Station Two, including the joint use facilities, which
11 includes but is not limited to the Station Two ash pond and the ash pond dredgings
12 in the Big Rivers Green Station landfill. Big Rivers' share of decommissioning costs
13 is 77.24%, and Henderson's share of decommissioning costs is 22.76%. Additionally,
14 the ongoing obligation to share in decommissioning costs applies to both parties,
15 regardless of who incurs the cost or owns the real property upon which the asset is
16 located.

17 3. In the event Henderson elects not to cooperate in fully decommissioning
18 any portion of Station Two or not to city bid and award contracts necessary for the
19 completion of full decommissioning of Station Two, any ongoing maintenance costs or
20 other costs or liabilities that may result from those decisions are solely the
21 responsibility of Henderson, and Big Rivers shall have no obligation to share in those
22 costs or associated liability.

1 4. Until such time as the Station Two ash pond dredgings can be fully
2 decommissioned, Henderson is contractually obligated to share in the costs to
3 maintain them in the Green Station landfill so as to contain them in accordance with
4 applicable laws and regulations, in proportion to Henderson's share of waste
5 deposited into the landfill. As of December 31, 2018, Henderson owned 12% percent
6 of the waste in the landfill.

7 5. Pursuant to the Joint Facilities Agreement, Big Rivers is entitled to
8 continue utilizing any city-owned joint use facilities for so long as Big Rivers operates
9 and/or maintains generating stations in connection therewith. At such time as Big
10 Rivers no longer has the need to utilize any city-owned joint use facility, Big Rivers
11 shall notify Henderson, at which time the parties shall share in any decommissioning
12 costs related to that facility incurred by either party in the same proportion as for the
13 other Station Two facilities.

14 6. Big Rivers shall file monthly a charge representing Henderson's share
15 of all Station Two Contract costs incurred by Big Rivers. Big Rivers shall submit the
16 monthly charge to Henderson for payment within thirty days. The monthly charge
17 is subject to comprehensive Commission review, audit, true-up and refund under
18 whatever schedule the Commission deems appropriate. If Henderson fails to timely
19 pay the monthly charge, then the Commission will seek enforcement of its rate order
20 at the Franklin Circuit Court pursuant to KRS 278.390.

21 7. In the event that the Commission grants any or all of Big Rivers'
22 requested relief yet Henderson refuses to comply with the Commission's Order, then

1 the Commission will exercise its enforcement authority pursuant to KRS 278.390 and
2 KRS 278.990 and will also require Henderson to pay interest at a rate determined by
3 the Commission.

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1 On this the 30th day of July, 2019.

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Respectfully submitted,



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Laura Chambliss, Esq.
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Corporation*

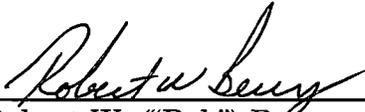
BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR
ENFORCEMENT OF RATE AND SERVICE STANDARDS
CASE NO. 2019-00_____**

VERIFICATION

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I, Robert W. ("Bob") Berry, President and Chief Executive Officer for Big Rivers Electric Corporation, hereby state that I have read the foregoing Application and that the statements contained therein are true and correct to the best of my knowledge and belief, on this the 30th day of July, 2019.



Robert W. ("Bob") Berry
President and Chief Executive Officer
Big Rivers electric Corporation

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COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

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SUBSCRIBED AND SWORN TO before me by Robert W. ("Bob") Berry, as President and Chief Executive Officer for Big Rivers Electric Corporation, on this the 30th day of July, 2019.



Notary Public, Kentucky State at Large
My Commission Expires 2/22/22
ID: 594036

19
20



Big Rivers Electric Corporation
 P.O. Box 24
 201 Third Street
 Henderson, KY 42419-0024
 Ph (270) 827-2561 Fax (270) 827-2558

Invoice No. BR2019

Henderson Municipal Power & Light P.O. Box 8 Henderson, KY 42419-0008	Date July 31, 2019
---	--------------------

Description	Date	Amount
Excess Henderson Energy - MISO Revenue less Coal & Lime Shortfall	01/05/18 - 05/31/19	(\$3,310,482.54)
HMP&L Native Load Coal & Lime Shortfall	01/05/18 - 05/31/19	\$4,693,587.29
MISO Fees	12/01/10 - 05/31/16	\$1,422,761.54
FY 17/18 Annual Settlement True-Up	06/01/17 - 05/31/18	(\$1,649,922.53)
FY 18/19 Annual Settlement True-Up	06/01/18 - 05/31/19	(\$649,850.80)
Auxiliary Power	10/01/18 - 01/31/19	\$78,750.98
Decommissioning Costs	01/01/19 - 06/30/19	\$134,098.00
Payment due immediately upon receipt	TOTAL	\$718,941.94

**Big Rivers Electric Corporation
Amounts Due (To) / From Henderson
Excess Henderson Energy
June 30, 2019**

<u>Description</u>	<u>Reference</u>	<u>Amount (\$) Due (To)/From</u>
Excess Henderson Energy	Exhibit Smith-2	(3,310,482)
Henderson Native Load	Exhibit Smith-3	4,693,587
Other Operating Costs	Exhibit Smith-4	(798,261)
Decommissioning Costs	Exhibit Smith-5	134,098
Total Due (To) / From Henderson		<u><u>718,942</u></u>

ORIGINAL



Your Touchstone Energy® Cooperative 

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

**APPLICATION OF
BIG RIVERS ELECTRIC CORPORATION
FOR ENFORCEMENT OF
RATE AND SERVICE STANDARDS**

)
)
)

**Case No.
2019-00_____**

DIRECT TESTIMONY

OF

**ROBERT W. BERRY
PRESIDENT AND CHIEF EXECUTIVE OFFICER**

ON BEHALF OF

BIG RIVERS ELECTRIC CORPORATION

FILED: July 31, 2019

**DIRECT TESTIMONY
OF
ROBERT W. BERRY**

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1 **Q. Have you previously testified before the Kentucky Public Service**
2 **Commission (“Commission”)?**

3 A. Yes. I testified on behalf of Big Rivers in the Unwind Transaction case (Case
4 No. 2007-00455), in two cases seeking approval of contracts relating to the
5 two smelters owned by subsidiaries of Century Aluminum Company (Case
6 Nos. 2013-00221 and 2013-00413), in Big Rivers’ last two general rate cases
7 (Case Nos. 2012-000535 and 2013-00199), and in its 2012 Environmental
8 Compliance Plan case (Case No. 2012-00063). Most recently, I testified in
9 two cases that involved the same contracts that are the subject of this
10 proceeding: Case No. 2016-00278, in which the Commission found that Big
11 Rivers was not responsible for the costs of Excess Henderson Energy that Big
12 Rivers declined to take; and Case No. 2018-00146, in which the Commission
13 found, among other things, that the Station Two units were no longer
14 economically viable and that, as a result, the Station Two Contracts (except
15 for the Joint Facilities Agreement) had terminated.

16

17 **II. PURPOSE OF TESTIMONY**

18 **Q. What is the purpose of your testimony in this proceeding?**

19 A. The purpose of my testimony is to describe the disputes between Big Rivers
20 and the City of Henderson, Kentucky and City of Henderson Utility

1 Commission d/b/a Henderson Municipal Power & Light (“HMP&L”)¹ and to
2 support Big Rivers’ request that the Commission enforce the series of related
3 contracts between Henderson and Big Rivers related to the Station Two
4 generating plant and associated facilities (“Station Two Contracts” or
5 “Contracts”). Specifically, my testimony will support: 1) that Big Rivers
6 correctly applied the rate and service standards under the Contracts to arrive
7 at the net amount owed by Henderson to Big Rivers as of June 30, 2019; 2)
8 that both Big Rivers and Henderson have current and ongoing contractual
9 obligations to share in the costs of decommissioning Station Two; 3) that both
10 Big Rivers and Henderson have current and ongoing contractual obligations
11 to share in the costs of maintaining Station Two waste in Big Rivers’ Green
12 Station landfill; and 4) that Big Rivers is contractually eligible to continue
13 utilizing city-owned joint use facilities.
14

15 **Q. Are you sponsoring any Exhibits?**

16 **A.** Yes. I have prepared the following exhibits to my prepared testimony:

- 17 • Exhibit Berry-1 – Professional Summary
- 18 • Exhibit Berry-2 – December 15, 2017 Settlement Agreement

19

¹ The City of Henderson and HMP&L are collectively referred to in my testimony as “Henderson” or “City.”

1 Q. Please identify the witnesses that will testify for Big Rivers and the
2 areas their testimony will address.

3 A. In addition to my testimony, Big Rivers presents the testimony of the
4 following witnesses:

5 • Paul G. Smith, Chief Financial Officer for Big Rivers: supports the
6 Interim Accounting Summary reflecting the amounts owed between
7 Big Rivers and Henderson as of June 30, 2019, and the methodology
8 that was used to arrive at the calculations set forth in the summary
9 and the calculations of each party's coal and lime inventories
10 remaining at Station Two.

11 • Michael T. Pullen, Vice President of Production for Big Rivers:
12 discusses Big Rivers' and Henderson's current and ongoing Station
13 Two decommissioning obligations and reports on the status of the joint
14 use facilities.

15 • Mark Eacret, Vice President of Energy Services for Big Rivers:
16 describes the Midcontinent Independent System Operator, Inc.
17 ("MISO") fees incurred by Big Rivers that Henderson owes Big Rivers
18 and explains the methodology used to calculate those fees.

19 • Michael W. Chambliss, Vice President of System Operations for Big
20 Rivers: supports Big Rivers' request for a finding related to
21 Henderson's obligation to pay its share of MISO fees incurred by Big
22 Rivers on account of Henderson's load.

- 1 • Jeffrey T. Kopp, Manager of the Utility Consulting Department, Burns
2 & McDonnell Engineering Company, Inc.: outlines prudent
3 decommissioning activities and describes the decommissioning process
4 as it relates to decommissioning obligations associated with Henderson
5 Station Two.

6
7 **III. RELATIONSHIP OF THE PARTIES**

8 **Q. Please provide an historical overview of the relationship between**
9 **Big Rivers and Henderson.**

10 A. Big Rivers and Henderson have essentially been partners in the 312 MW
11 Station Two generating facility since 1970. For the vast majority of that time,
12 the partnership has been mutually beneficial. In 1970, the load of the City
13 was much too small to justify construction of a 312 MW power plant. But by
14 constructing the plant adjacent to Big Rivers' existing Reid generating
15 station, taking advantage of shared joint use facilities and labor costs, and
16 having Big Rivers take and pay for the capacity not needed by Henderson,
17 the City was able to enjoy the economies of scale, the low cost of a large
18 efficient power plant, and the benefit of an experienced power plant operator.
19 And when Station Two was down for planned or unplanned outages, Big
20 Rivers provided back-up service at cost. The contracts allowed the City to
21 grow its native load without constructing new generation by nominating
22 additional capacity takes out of Station Two as needed. On the other hand,

1 Big Rivers had access to the low-cost Station Two generation not needed by
2 the City. Big Rivers also enjoyed reduced labor costs and had access to the
3 joint use facilities at Station Two that were used by Big Rivers' Green and
4 Reid power plants which are located at the same complex. Until relatively
5 recently, both parties prospered from this relationship.

6 The business relationship between Big Rivers and Henderson began to
7 fray over disagreements regarding the entitlement to Excess Henderson
8 Energy. For over thirty years, Big Rivers paid for and took a portion of the
9 Excess Henderson Energy; however, when the wholesale power markets
10 strengthened, Henderson suddenly wanted access to this energy since selling
11 it was profitable. Later, when the wholesale market declined and the Excess
12 Henderson Energy could only be sold at a loss, the tables were turned. While
13 neither party wanted to take Excess Henderson Energy that could only be
14 sold at a loss, it took Big Rivers substantial effort to get Henderson to no
15 longer object to economically dispatching Station Two so as to minimize the
16 amount of uneconomic Excess Henderson Energy being generated. The
17 market changes also led to the Commission's 2016 ruling in Case No. 2016-
18 00278 that Big Rivers' interpretation as to who should bear the loss on the
19 sale of Excess Henderson Energy was correct. Later, Big Rivers determined
20 that Station Two was no longer capable of the economically competitive
21 production of electricity and that both parties would benefit from the
22 retirement of Station Two. Yet, it ultimately required another filing at the

1 Commission to persuade Henderson to agree to the retirement of Station Two
2 (Case No. 2018-00146).

3 Now Big Rivers is forced to come back to the Commission again
4 because Henderson refuses to live up to its Commission-approved contractual
5 obligations to share in decommissioning costs, MISO fees and other costs, or
6 even to bear the costs of Excess Henderson Energy as the Commission
7 already ordered in Case No. 2016-00278 and which was agreed to in a
8 December 2017 Settlement Agreement. The City is trying to just wash its
9 hands of all Station Two liabilities despite its ownership of the plant since
10 1970 and the benefits it has received as a result of that ownership. It is
11 unreasonable for Henderson to take the position that after receiving the
12 benefits from owning Station Two for almost 50 years, it can now walk away
13 without any obligation to pay for any cost to decommission the plant even
14 though it has a contractual obligation to share in those costs. In my 38 year
15 career in the electric power business, I have negotiated agreements with
16 municipal utilities throughout Kentucky, coal suppliers from around the
17 region, and investor owned electric utilities for transmission and other
18 services, and I feel that I have a good understanding of how this industry
19 works. But despite my repeated efforts to have the City live up to its
20 obligations, we have reached an impasse. I believe that Big Rivers has been
21 more than fair in its negotiations with Henderson, but we now have no choice
22 but to take the matter to this Commission for resolution. This case is not

1 about Big Rivers trying to shift cost to Henderson; Big Rivers is more than
2 willing to pay its share (78%) of the cost to close and decommission the plant.
3 This case is simply about requiring Henderson to pay its share (22%) of the
4 closing and decommissioning cost. These percentages are based on the
5 capacity each party benefited from during the almost 50 year agreement.
6

7 **IV. OVERVIEW OF THE STATION TWO CONTRACTS**

8 **Q. What facilities comprise Station Two, as that term is used
9 throughout the Contracts?**

10 **A. Station Two is defined in the 2005 Amendments to Contracts between the
11 parties as:**

12 City's 350-megawatt generating station (rated on the date of the 2005
13 Amendments to Contracts at 312 MW net send out capability),
14 located at a site on the Green River in Henderson County, Kentucky,
15 and, to the extent furnished and owned by City, all auxiliary
16 facilities, joint use facilities and related facilities, renewals,
17 replacements, additions, expansions and improvements thereto,
18 including the Station Two FGD System added thereto and the
19 Station Two SCR System but excluding the City's Transmission and
20 Transformation Facilities as [defined in the 2005 Amendments to
21 Contracts], and excluding facilities furnished and owned by Big
22 Rivers.
23

24 **Q. Please provide a brief overview of the Contracts between Big Rivers
25 and Henderson related to Station Two.**

26 **A. The relevant Station Two Contracts principally include the Power Plant
27 Construction and Operation Agreement, the Power Sales Contract, and the
28 Joint Facilities Agreement, all three of which were entered into on August 1,**

1 1970, and were subsequently approved by the Commission on October 22,
2 1970 in Case No. 5406. These contracts have since been amended on several
3 occasions and those amendments have also been approved by the
4 Commission.²

5 The Contracts enabled Henderson to construct its Station Two
6 generating plant to provide for the immediate and future electric power needs
7 for itself and its inhabitants. Under the Contracts, Henderson constructed
8 Station Two adjacent to Big Rivers' existing Reid generating station so that
9 the two plants could share certain joint use facilities and benefit from other
10 cost savings by having Big Rivers operate Station Two as an independent
11 contractor. Additionally, the Contracts required Big Rivers to take and pay
12 for Station Two capacity in excess of the capacity reserved by the City, and
13 the Contracts acknowledged (in Section 1.4 of the Power Sales Contract, for
14 example) that the sales of surplus power and energy to Big Rivers under the
15 Contract would "assure [the] economic feasibility" of Station Two.

16 The Contracts set forth the rates and service standards upon which
17 Big Rivers would purchase capacity and, on occasion, energy, from Station
18 Two, which was at all times and is still owned by Henderson. Under the
19 Contracts, the yearly quantity of capacity that Big Rivers was required to

² Case No. 94-032, Order (March 31, 1995) (approving 1993 Amendments); Case No. 1998-00267, Order (July 14, 1998) (approving 1998 Amendments); Case No. 2005-00532, Order (February 24, 2006) (approving 2005 Amendments).

1 purchase from Henderson included all of the capacity from Station Two in
2 excess of Henderson's annual reserved system generating capacity. The price
3 that Big Rivers paid to Henderson for the yearly capacity from Station Two
4 was calculated based upon Big Rivers' annual allocation of capacity from
5 Station Two. Station Two Capacity Costs included, but were not limited to:
6 1) capital costs; 2) general administration and general expenses; 3) amounts
7 paid to or payable to Big Rivers by Henderson under the Power Plant
8 Construction and Operation Agreement under which Big Rivers supplied
9 operating personnel, materials, supplies and technical services to Henderson
10 as an independent contractor; and 4) any other costs associated with Station
11 Two that were not included in other provisions of the Power Sales Contract.
12

13 **Q. Please explain the current status of the Station Two Contracts.**

14 A. On May 1, 2018, pursuant to its rights under the Contracts, Big Rivers gave
15 notice to Henderson that Station Two had reached the end of its operating
16 life because the Station Two units were no longer capable of normal,
17 continuous, reliable operation for the economically competitive production of
18 electricity. Therefore, by their own terms, the Contracts ended on May 1,
19 2018. Big Rivers also initiated a proceeding at the Commission, Case No.
20 2018-00146, seeking a declaratory order from the Commission confirming
21 that the Contracts had terminated. The Commission agreed with Big Rivers
22 and issued an Order on August 29, 2018, finding that Station Two was no

1 longer economically viable and that the term of the Contracts, except for the
2 Joint Facilities Agreement, had ended. In that Order, the Commission also
3 granted Big Rivers the authority to continue to operate Station Two under
4 the terms of the Contracts for a period up to May 31, 2019, in order to afford
5 Henderson an opportunity to find alternate arrangements for the operation of
6 Station Two and for the City's Power Supply needs unless Big Rivers and
7 Henderson reached a mutually acceptable agreement regarding the ongoing
8 operation of Station Two prior to May 31, 2019, or the Commission directed
9 Big Rivers to cease operation of Station Two prior to May 31, 2019.

10

11 **Q. What has occurred with respect to Station Two since the**
12 **Commission's August 29, 2018, Order in Case No. 2018-00146?**

13 **A.** Henderson and Big Rivers mutually agreed to cease generating electricity at
14 Station Two as of February 1, 2019, in order to prevent additional economic
15 losses, and each party began taking the necessary steps toward this end
16 beginning in October 2018. During that same time period, as a result of the
17 impending discontinuance of operations at Station Two, Big Rivers
18 underwent a workforce reduction that ultimately resulted in the elimination
19 of 55 full time positions by August 31, 2019 and the payment of related
20 severance benefits to displaced employees in the amount of \$3.4 million.
21 Additionally, MISO approved Henderson's request to retire Station Two

1 effective February 1, 2019, and Henderson retained a new power supplier
2 and began serving its native load through the MISO market.

3 On January 31, 2019, upon mutual agreement between Big Rivers and
4 Henderson, and as approved by MISO, Station Two was taken offline and
5 ceased generating electricity as of February 1, 2019. Because Station Two
6 was uneconomic, ceasing operations at Station Two early allowed Big Rivers
7 to increase the Station Two Depreciation Credit to its Members established
8 in Case No. 2018-00146 by \$1.1 million.

9 Although Station Two ceased operation February 1, 2019, Big Rivers
10 has continued to supply the operating personnel, materials, supplies and
11 technical services to Henderson as an independent contractor during the
12 process to ramp down the Station Two units to a safe, dark, and dry condition
13 until the units can be fully decommissioned. While Henderson has paid a
14 small portion of its costs to Big Rivers and allowed Big Rivers use of the city-
15 owned joint use facilities needed in the operation of Big Rivers' Green
16 Station, Henderson has failed to fulfill all of its obligations under the Station
17 Two Contracts and those failures have given rise to the disputes that I
18 describe in my testimony.

19
20 **V. SUMMARY OF OUTSTANDING FINANCIAL DISPUTES**

21 **Q. Please provide a brief summary of the outstanding financial disputes**
22 **between Big Rivers and Henderson.**

1 A. The disputes involve the parties' interpretations of the rates and service
2 standards set forth in the Station Two Contracts. Those disagreements
3 include:

4 1. Excess Henderson Energy ("EHE"): Whether Henderson received
5 delivery of all EHE and therefore shall receive all revenue for the
6 sales of that energy and pay all variable costs associated with the
7 production and sale of that energy. The ownership of EHE forms
8 the basis of the dispute between the parties related to the allocation
9 of variable costs and each parties' resulting ownership interest in
10 the residual Station Two coal and lime inventories as of February 1,
11 2019.

12 2. Henderson Native Load: Whether the ownership of the EHE, and
13 the resulting utilization of fuel and reagents to generate such
14 energy, caused Henderson to deplete its fuel and reagent inventory,
15 and therefore utilize Big Rivers' fuel and reagent inventory to
16 generate the power to serve its native load; whether Henderson
17 failed to provide sufficient low chlorine coal to generate the energy
18 used by its native load; and whether Henderson's coal inventory
19 should be allocated a portion of the adjustments resulting from
20 surveys of the Station Two coal pile.

21 3. Other Operating Costs: Whether the methodology and resulting
22 calculations used by Big Rivers to allocate auxiliary power costs to

1 Henderson for fiscal year 2018/2019 is fair, just, and reasonable,
2 and consistent with the terms of the Station Two Contracts.

3 4. MISO Fees: Whether the MISO fees incurred by Big Rivers as a
4 result of Henderson's native load are costs that are properly
5 allocated to Henderson under the Station Two Contracts.

6 5. Decommissioning Costs: Whether the costs to decommission
7 Station Two are properly allocated to Henderson under the Station
8 Two Contracts.

9 6. Severance Costs: Whether the severance costs incurred by Big
10 Rivers related to the closure of Station Two are reasonable labor
11 costs necessitated by the cessation of operations at Station Two,
12 and are appropriately allocated to Henderson based on the capacity
13 split in the 2018/2019 annual settlement.

14 7. Offsetting Account Provision: Whether Big Rivers' offsetting of
15 amounts owed to Henderson (including MISO revenues associated
16 with Excess Henderson Energy as well as annual year end
17 settlement payments) against amounts owed to Big Rivers by
18 Henderson (including MISO fees, outstanding coal, reagent and
19 disposal costs related to EHE and Henderson's native load) is
20 consistent with the terms of the Station Two Contracts and
21 accurately reflected in the Interim Accounting Summary.

22

1 **Q. Please summarize the attempts Big Rivers has made to resolve the**
2 **outstanding financial disputes with Henderson.**

3 A. Big Rivers and Henderson have engaged in extensive negotiations in order to
4 resolve various outstanding issues related to how certain costs and revenues
5 should be allocated between the parties. Between August 2018 and July
6 2019, Big Rivers and Henderson met on numerous occasions in an attempt to
7 resolve the outstanding financial disputes between them as well as to plan
8 and provide for an orderly transition away from the contractual arrangement
9 between Big Rivers and Henderson. In addition, Big Rivers discussed with
10 Henderson its recommendations for decommissioning Station Two as well as
11 Big Rivers' ongoing use of certain city-owned joint use facilities. Further,
12 each party issued checks to the other party representing various amounts
13 that each believed were sufficient to settle the outstanding financial disputes
14 between them. Unfortunately, as described in the Direct Testimony of Mr.
15 Paul G. Smith, neither party cashed the checks because each continued to
16 dispute the other's calculations. As such, the parties' respective financial
17 obligations remain unresolved.

18 In order to analyze these issues holistically, I directed Big Rivers' Chief
19 Financial Officer, Paul Smith, to prepare a summary of the costs and
20 revenues in dispute, which are outlined in the Interim Accounting Summary
21 attached to Mr. Smith's testimony as Exhibit Smith-1. The Interim
22 Accounting Summary demonstrates that, after netting the amounts due to,

1 and from, Henderson, as of June 30, 2019, Henderson still owes Big Rivers
2 \$718,942 in accordance with the terms of the Station Two Contracts. While
3 the parties have attempted to work through their differences over the
4 appropriate application of the rates and services standards in the Station
5 Two Contracts, the parties have reached an impasse on several key issues
6 that have resulted in Big Rivers seeking the relief requested herein from the
7 Commission.

8 Because the parties have reached an impasse, which I will
9 describe in greater detail below, Big Rivers is delivering the Interim
10 Accounting Summary and an invoice to Henderson on the date Big Rivers'
11 Application is filed with the Commission, informing Henderson of its
12 calculation of the amounts due and owed by Henderson as of June 30, 2019.
13 A copy of Big Rivers' invoice to Henderson and the Interim Accounting
14 Summary accompanying the invoice are attached to the Application as
15 Exhibit 1. Upon submission of the Interim Accounting Summary to
16 Henderson, Big Rivers has satisfied all obligations to Henderson as the
17 Operator of Station Two as required by the Contracts, with the exception of
18 any ongoing obligations it may have which arise out of the decommissioning
19 provisions in the 1993 Amendments to Contracts or any ongoing obligations
20 set forth in the Joint Facilities Agreement.

21

1 **Q. If the provisions of the Station Two Contracts are not enforced, how**
2 **will the costs described in your testimony be recovered?**

3 A. Big Rivers is a Member-owned cooperative. We do not have shareholders
4 that can absorb unrecovered costs. So, if the Station Two Contracts are not
5 enforced, the costs owed to Big Rivers will have to be recovered directly from
6 Big Rivers' Members through an increase in Member rates. As a result, rates
7 paid by Big Rivers' Members will be excessive compared to the rates
8 contemplated by the Commission when it approved the Station Two
9 Contracts and the provisions in those contracts related to the division of costs
10 between Big Rivers and Henderson.

11

12 **Q. How do the rates paid by Big Rivers' Members compare to the rates**
13 **paid by Henderson's customers?**

14 A. The rates paid by Henderson's customers are significantly lower than Big
15 Rivers' Member rates. For example, a Henderson Residential customer that
16 uses 1,000 kWh per month would receive a monthly bill of \$84.90.³ In
17 comparison, a customer of one of the three Big Rivers Member distribution
18 cooperatives using the same 1,000 kWh per month would receive a
19 significantly higher monthly bill: Jackson Purchase- \$117.18 per month,⁴

³ HMP&L current Residential rates are 7.24 cents/kWh, plus a monthly customer charge of \$12.50. See Residential Rate Schedule R. A customer using 1,000 kWh/month would receive a bill for \$84.90.

⁴ Kenergy's current Residential rates are 10.2038 cents/kWh, plus a monthly customer charge of \$18.20. A customer using 1,000 kWh/month would receive a bill for \$120.24.

1 Kenergy- \$120.24 per month;⁵ and Meade County RECC- \$114.82 per month.⁶

2 This discrepancy is due in part to the fact that Big Rivers has borne costs
3 that Henderson was obligated, but refused, to pay. And the unfair result will
4 only increase if Henderson is not required to live up to its contractual
5 obligations.

6
7 **A. Excess Henderson Energy and MISO Revenues and Variable**
8 **Production Costs**

9
10 **Q. Please describe the financial dispute between Big Rivers and**
11 **Henderson related to Excess Henderson Energy.**

12 **A. Henderson has challenged Big Rivers' methodology used to calculate the EHE**
13 **amount set forth in Exhibit Smith-1, and because the parties have been**
14 **unable to agree on the ownership of EHE, the parties have likewise been**
15 **unable to agree on the amount of variable costs (including the cost of fuel and**
16 **reagent supplied by Big Rivers when Henderson failed to maintain a**
17 **sufficient amount of inventory needed to generate EHE in any given hour) as**
18 **well as MISO revenues attributable to EHE, all of which should be assigned**
19 **to Henderson.**

⁵ Jackson Purchase's current Residential rates are 10.078 cents/kWh, plus a monthly customer charge of \$16.40. A customer using 1,000 kWh/month would receive a bill for \$117.18.

⁶ Meade County RECC's current Residential rates are 9.7665 cents/kWh, plus a monthly customer charge of \$17.16 (in a 30-day month). A customer using 1,000 kWh/month would receive a bill for \$114.82.

1 Having said that, the parties were able to settle all of Henderson's
2 claims related to EHE that arose prior to January 5, 2018. That settlement
3 arose out of an arbitration proceeding filed by Big Rivers to resolve claims
4 that Henderson had alleged at the time of the Unwind Transaction in 2009
5 relating to EHE, and a related lawsuit Henderson filed seeking damages
6 from Big Rivers, although the settlement itself released any claim Henderson
7 ever had or ever will have relating to EHE. As a result of that settlement,
8 Big Rivers paid Henderson \$6,250,000. A copy of the Settlement Agreement,
9 which is dated December 15, 2017, is included with my testimony as Exhibit
10 Berry-2. Despite this settlement, Henderson claims that it continues to be
11 entitled to receive additional amounts from Big Rivers relating to EHE by
12 refusing to accept ownership of the EHE and paying the variable costs of the
13 EHE generated between June 2016 and January 4, 2018.

14
15 **Q. Please explain how Henderson's Station Two capacity reservation**
16 **impacts the determination of the quantity of Excess Henderson**
17 **Energy generated by Station Two.**

18 **A.** Section 3.2 of the Power Sales Contract required Henderson, each year, to
19 reserve a sufficient quantity of capacity from Station Two to meet its native
20 load requirements, and under Section 3.3, the remaining, surplus capacity
21 from Station Two was the capacity Big Rivers was obligated to take and pay
22 for.

1 Henderson's capacity reservation directly affects the quantity of EHE.
2 Under Section 3.8(a) of the Power Sales Contract, EHE is the difference
3 between Henderson's capacity reservation and Henderson's native load in a
4 given hour. This methodology was the subject of Case No. 2016-00278 in
5 which the Commission affirmed Big Rivers' calculation methodology, and was
6 resolved in the December 2017 Settlement Agreement.

7 Additionally, as explained in the Direct Testimonies of Mark J. Eacret
8 and Michael W. Chambliss, to satisfy its obligations under Section 3.2 of the
9 Power Sales Contract, Henderson was required under Section 2.1 of the
10 System Reserves Agreement to reserve sufficient capacity to satisfy its MISO
11 Planning Reserve Margin Requirement. For fiscal year 2018/2019,
12 Henderson attempted to reserve less than required (Henderson attempted to
13 reserve 115 MW, whereas it was required to reserve 125 MW to satisfy its
14 MISO Planning Reserve Margin Requirement). For purposes of the Interim
15 Accounting Summary, Big Rivers utilized the correct capacity reservation for
16 Henderson in accordance with the terms of the Station Two Contracts.
17 Because the allocation of many of the costs under the Station Two Contracts
18 are based on each party's capacity share, using the correct capacity
19 reservation to calculate the amount of EHE that belongs to Henderson, in
20 turn, forms the basis for quantifying how Station Two variable costs, MISO
21 revenues and coal and lime inventories are allocated between the parties.

1 **Q. Please describe any other disputes that remain unresolved with**
2 **respect to Excess Henderson Energy.**

3 A. As Mr. Smith explains in his testimony, Henderson failed to supply sufficient
4 low chlorine coal required to generate the EHE that Henderson took or the
5 other Station Two energy Henderson took to serve its native load; Henderson
6 essentially used Big Rivers' low chlorine coal to generate that energy; and
7 Henderson has failed to reimburse Big Rivers for that coal.

8 Additionally, Henderson does not believe Big Rivers' EHE calculations
9 correctly applied the provisions of Section 3.8 of the Power Sales Contract,
10 arguing that EHE revenues and related variable production costs belong to
11 Big Rivers and not to Henderson. However, that issue was decided by the
12 Commission in Case No. 2016-00278, and it is my understanding that
13 Henderson is not permitted to disregard the Commission's Order. Big Rivers
14 calculated the quantity of Excess Henderson Energy and associated variable
15 costs by applying the methodology that is described in detail in my Direct
16 Testimony in Case No. 2016-00278, to the total energy output from Station
17 Two on an hourly basis to arrive at the quantities set forth on Exhibit Smith-
18 2. This methodology was subsequently adopted by the Commission in that
19 proceeding and was found to be consistent with the clear and unambiguous
20 language in the Power Sales Contract. It is also consistent with the
21 December 2017 Settlement Agreement and the 2012 decision in the
22 arbitration proceeding. As such, Big Rivers' calculations are correct and in

1 compliance with the terms of the Station Two Contracts, the Order of the
2 Commission in Case No. 2016-00278, and the Settlement Agreement.

3

4 **Q. Please describe how this calculation relates to the parties'**
5 **disagreement related to coal and lime inventories, and related costs**
6 **associated with various shortfalls throughout the last two years.**

7 A. The Station Two Contracts require each party to supply the fuel and reagents
8 necessary to generate energy within each party's capacity allocation. In the
9 event one party fails to do so, the only way to keep the plant operational is to
10 consume the other party's fuel and reagent to generate the energy until such
11 time as it replenishes the quantity of fuel and reagent on site at the plant.
12 Because of the dispute over Henderson's fiscal year 2018/2019 reservation
13 quantity as well as the dispute as to the quantity of EHE belonging to
14 Henderson from June 2016 through January 2019, the parties have also been
15 unable to agree upon who owns the remaining coal and lime comprising the
16 Station Two inventories as of February 1, 2019.

17

18 **Q. Are Big Rivers' calculations associated with the coal and lime**
19 **inventories consistent with the terms of the Station Two Contracts?**

20 A. Yes. As I have discussed, Big Rivers complied with the terms of the Station
21 Two Contracts in calculating the coal and lime inventories of each party. As
22 described in the Direct Testimony of Paul G. Smith, Big Rivers continued to

1 track the coal and lime inventories utilizing the methodology that was
2 adopted by the Commission in its Order in Case No. 2016-00278, and which
3 is consistent with the terms of the Station Two Contracts and the December
4 2017 Settlement Agreement. Additionally, Big Rivers' calculations are based
5 upon the capacity reservation meeting the MISO Planning Reserve Margin
6 Requirement and Excess Henderson Energy quantities described above.
7 Therefore, Big Rivers' calculations and associated methodology are correct
8 and in accordance with the terms of the Station Two Contracts.

9
10 **B. Henderson's Native Load Costs**

11
12 **Q. Please describe the financial dispute between Big Rivers and**
13 **Henderson related to Henderson's native load.**

14 **A. Henderson's refusal to supply the coal (including low chlorine coal) and lime**
15 **reagent required to generate EHE belonging to Henderson also left**
16 **Henderson short of the coal (including low chlorine coal) and lime needed to**
17 **generate energy from Station Two to serve Henderson's native load. During**
18 **those shortfalls, Big Rivers was forced to use its own coal and lime for**
19 **Henderson's native load. The amounts Henderson owes Big Rivers**
20 **associated with Henderson's native load is described further by Mr. Smith**
21 **and shown on Exhibit Smith-3.**

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C. Annual Fiscal Year Settlements

Q. Please describe how Station Two fixed operating, maintenance and administrative costs are allocated between Big Rivers and Henderson pursuant to the Station Two Contracts?

A. As described in the Direct Testimony of Paul G. Smith, each year, Big Rivers prepared a Station Two budget that, when approved by the City Utility Commission, formed the basis upon which monthly payments were made to Big Rivers by Henderson throughout the fiscal year. In the event that Henderson had, in total, paid Big Rivers more throughout the year than the actual costs that were incurred by Big Rivers to fulfill its obligations under the Station Two contracts, Big Rivers was required to refund those amounts to Henderson as part of the annual settlement process. At the end of each fiscal year, the parties reconciled the monthly payments made by Henderson to Big Rivers with the actual costs incurred by Big Rivers in accordance with the Station Two Contracts. As shown on Exhibit Smith-4, for the fiscal years 2017/2018 and 2018/2019, Big Rivers owed a refund to Henderson in the amounts of about \$1.6 million and \$0.6 million, respectively.

1 **D. Allocation of Capacity and Auxiliary Power Costs for Fiscal**
2 **Year 2018/2019**

3
4 **Q. Please describe how the dispute related to Henderson’s annual**
5 **reservation from Station Two for fiscal year 2018/2019 impacted the**
6 **allocation of capacity and auxiliary power costs between Henderson**
7 **and Big Rivers for fiscal year 2018/2019.**

8 **A. Big Rivers and Henderson disagree on the Annual True-up Costs for fiscal**
9 **year 2018/2019. The primary basis for this dispute centers on the manner in**
10 **which Big Rivers has allocated Station Two fixed costs for this year between**
11 **Big Rivers and Henderson. As noted above, Henderson attempted to reserve**
12 **less capacity from Station Two for fiscal year 2018/2019 than required by the**
13 **Station Two Contracts and Henderson’s MISO Planning Reserve Margin**
14 **Requirement. I would note that the calculation of Henderson’s capacity**
15 **reservation also reduces the amount of Excess Henderson Energy, which**
16 **Henderson has steadfastly refused to accept despite the Commission’s Order**
17 **in Case No. 2016-00278.**

18 Sections 3.3 and 3.5 of the Power Sales Contract, as amended, require
19 Big Rivers to take and pay for any surplus capacity not reserved by
20 Henderson on an annual basis. Therefore, when Henderson fails to reserve
21 enough capacity to meet the needs of its inhabitants, the charges associated
22 with the surplus capacity allocated to Big Rivers increase. This will

1 ultimately increase the rates of Big Rivers' Members. Because the Power
2 Sales Contract requires Henderson to share in capacity costs, and likewise
3 auxiliary power costs, based on a reservation quantity that is sufficient to
4 meet the MISO Planning Reserve Margin Requirement, this ensures that Big
5 Rivers' Members do not subsidize the Henderson ratepayers by assuming a
6 greater portion of Station Two Capacity Charges than what Big Rivers was
7 required to take from Station Two.

8

9 **Q. Please describe how Big Rivers has addressed this issue during fiscal**
10 **year 2018/2019.**

11 **A.** As described in the Direct Testimonies of Mark J. Eacret and Paul G. Smith,
12 as part of the annual settlement process, Big Rivers allocated capacity and
13 auxiliary power costs to Henderson using the 125 MW MISO Planning
14 Reserve Margin Requirement rather than the 115 MW of capacity reservation
15 submitted to Big Rivers by Henderson. Had Big Rivers not utilized the
16 correct methodology to determine how to allocate capacity costs between
17 Henderson and Big Rivers during fiscal year 2018/2019, the net effect of
18 Henderson's failure to reserve enough capacity would have resulted in an
19 additional approximately \$0.5 million of capacity and auxiliary power costs
20 being shifted to Big Rivers' Members, and in turn, would have improperly
21 inflated the cost of capacity that Big Rivers was required to purchase from
22 Henderson to the detriment of Big Rivers' Members. The capacity costs that

1 Henderson owes Big Rivers are part of the annual fiscal year settlement
2 amount calculated in Exhibit Smith-4. The auxiliary power costs that
3 Henderson owes Big Rivers are shown by month on Exhibit Smith-4. If not
4 rectified, the failure of Henderson to satisfy its obligations under the
5 Commission approved Contracts will improperly increase the rates of Big
6 Rivers' Members.

7
8 **E. MISO Fees**

9
10 **Q. Please describe the parties' dispute related to the allocation of MISO**
11 **fees to Henderson.**

12 **A.** Since 2010, Henderson has disputed its responsibility for MISO fees incurred
13 by Big Rivers associated with ensuring that Big Rivers and Henderson
14 remain in compliance with the NERC contingency reserve requirements that
15 became effective in 2005. As described more fully in the Direct Testimony of
16 Michael W. Chambliss, Big Rivers was authorized by the Commission to join
17 MISO in order to meet the NERC contingency reserve requirements in Case
18 No. 2010-00043. In that proceeding, Big Rivers discussed in great detail the
19 legal requirements behind its request to join MISO in addition to submitting
20 a detailed analysis and testimony from Charles Rivers Associates that
21 supported Big Rivers' determination that joining MISO was the least cost
22 alternative available to Big Rivers and Henderson at the time. Additionally,

1 each year since the Commission entered its Order in Case No. 2010-00043,
2 Big Rivers has reevaluated its decision to join MISO, and has confirmed each
3 year that remaining a member of MISO continues to be the least cost
4 alternative available to the parties for meeting the NERC contingency
5 reserve requirements.

6 Mark J. Eacret and Michael W. Chambliss explain in detail in their
7 direct testimonies the MISO fees incurred by Big Rivers on account of
8 Henderson's load that Henderson has refused to reimburse Big Rivers for,
9 and the contractual basis for allocating those fees to Henderson.

10

11 **Q. Are these costs reasonable and necessary costs associated with the**
12 **operation of Station Two?**

13 **A.** Yes, they are. Because joining MISO was the least cost alternative to Big
14 Rivers associated with meeting the NERC contingency reserve requirements,
15 and due to the fact that the MISO fees being allocated to Henderson were
16 incurred by Big Rivers and are directly attributable to Henderson's load,
17 these fees constitute reasonable and necessary costs of operating Station
18 Two. Additionally, Henderson paid the MISO fees beginning in the
19 2016/2017 fiscal budget, and Henderson and Big Rivers were able to agree on
20 the annual settlement for fiscal year 2016/2017, including the MISO fees.
21 Further, subsequent to closing Station Two, Henderson voluntarily joined
22 MISO. Therefore, Big Rivers appropriately allocated these fees to Henderson

1 in accordance with the terms of the Station Two Contracts, and as such,
2 Henderson is responsible for the MISO fees as set forth in the Interim
3 Accounting Summary.

4
5 **F. Allocation of Employee Severance Costs to Henderson**

6
7 **Q. Please describe the workforce reduction that is the subject of the**
8 **dispute between Big Rivers and Henderson related to severance**
9 **costs.**

10 **A. Big Rivers was required to reduce its workforce as a result of the cessation of**
11 **operations at Station Two. In order to fulfill its obligations to Henderson**
12 **under the Station Two Contracts, Big Rivers employed 100 individuals who**
13 **provided labor for Station Two. In anticipation of the impending closure of**
14 **Station Two and in an effort to minimize the loss of jobs related to the**
15 **closure, Big Rivers delayed filling approximately 50 open positions in the**
16 **year and a half leading up to the closure of Station Two. Therefore, when the**
17 **time came to cease operations at Station Two, Big Rivers was able to offer**
18 **those positions to employees who would have otherwise been displaced by the**
19 **closure of Station Two.**

20 In order to mitigate the negative effects of the workforce reduction, Big
21 Rivers offered employees in job classifications who were going to be impacted
22 by the closure the opportunity to voluntarily surrender their employment in

1 exchange for a severance package, and 44 employees voluntarily elected to
2 take the severance and received severance benefits upon the surrender of
3 their employment with Big Rivers. As such, only 11 employees were
4 involuntarily terminated as a result of the closure of Station Two.

5

6 **Q. Please describe the costs Big Rivers has incurred related to the**
7 **workforce reduction associated with the closure of Station Two and**
8 **how those costs have been allocated to Henderson?**

9 A. Big Rivers has incurred \$3.4 million in severance costs related to the closure
10 of Station Two. Because these were reasonable labor costs necessitated by
11 the cessation of operations at Station Two, Big Rivers has allocated a portion
12 of these costs to Henderson based on the capacity split as a component of the
13 2018/2019 annual settlement.

14

15 **Q. Please describe why Henderson is disputing these costs.**

16 A. Henderson has indicated that it will not share in these costs due to the fact
17 that these employees were not employees of Henderson, but instead were
18 employees of Big Rivers. However, Henderson has always shared in Station
19 Two-related labor costs, even for Big Rivers' employees, as required by the
20 Station Two Contracts. For example, Section 13.8 of the Power Sales
21 Contract includes labor costs as a component of Total Station Two Capacity
22 costs that were allocated between the parties and formed the basis of the cost

1 Big Rivers paid for the capacity it purchased from Henderson. Moreover, the
2 Station Two-related labor costs Henderson has paid in the past were fully
3 loaded labor costs that included retirement benefits. Likewise, Big Rivers
4 paid its share of the fully loaded Station Two-related labor costs, even for
5 HMP&L employees.

6
7 **Q. Was Big Rivers under a legal obligation to pay severance benefits,**
8 **and if not, why was it reasonable for Big Rivers to do so?**

9 A. No. Big Rivers was not legally required to offer severance. However,
10 according to the U.S. Department of Labor, “Severance pay is often granted
11 to employees upon termination of employment.” While severance pay is not
12 required under the Fair Labor Standards Act (“FLSA”), it is common. Lee
13 Hecht Harrison and Compensation Resources Inc., a pay consultancy, last
14 year surveyed 350 senior HR leaders at U.S. companies. The findings were
15 detailed in the firm’s 2017-2018 Severance & Separation Benefits Benchmark
16 Study report. According to the report, 97% of all respondent companies
17 offered some sort of severance benefit through a variety of scenarios,
18 particularly when there is a facility closing or a large downsizing. They noted
19 that these findings were very consistent with the results of their 2011 study.

20 Severance pay is not a new concept to Big Rivers’ system. Severance
21 was offered by Big Rivers when the organization was preparing for the lease
22 agreement with WKE in 1997 and 1998, WKE offered severance when it

1 reduced its workforce at Big Rivers' and Henderson's facilities in 1999 and
2 2002, and Big Rivers offered severance when it idled its Coleman facility in
3 2014.

4 Because these labor costs are reasonable and were incurred as a result
5 of the cessation of operations at Station Two, Big Rivers has properly
6 allocated these expenses to Henderson.

7

8 **G. Offsetting of Amounts Due to and from Henderson**

9

10 **Q. Do the Station Two contracts contain any provisions that allow Big**
11 **Rivers to offset the amounts owed to Henderson against the amounts**
12 **Henderson owes Big Rivers?**

13 **A.** Yes. It is my understanding that Section 9.3 of the Power Sales Contract
14 provides that Big Rivers shall have the right to offset accounts payable under
15 the Power Sales Contract by any payments due it under Section 13.6 of the
16 Power Plant Construction and Operation Agreement and only then is it
17 required to pay Henderson any remaining balance.

18

19 **Q. When Big Rivers applies those offsetting account provisions in the**
20 **contract to the various amounts owed to Big Rivers by Henderson**
21 **and to Henderson by Big Rivers, what are the results?**

1 A. When the offsetting accounts provisions are applied to the outstanding
2 amounts as described herein, Henderson owes \$718,942 to Big Rivers as of
3 June 30, 2019. This is the Grand Total amount due from Henderson set forth
4 on the Interim Accounting Summary.

5

6 **Q. Does this total account for all costs associated with the
7 decommissioning of Station Two?**

8 A. No. The Interim Accounting Summary only takes into account the allocation
9 of decommissioning costs incurred as of June 30, 2019. Any decommissioning
10 costs associated with Station Two incurred on or after July 1, 2019, will be
11 regularly invoiced to Henderson.

12

13 **Q. Please describe the relief Big Rivers is seeking from the Commission
14 with respect to each of these financial disputes.**

15 A. Big Rivers is seeking an Order from the Commission enforcing the Station
16 Two Contracts by finding that the calculations set forth in the Interim
17 Accounting Summary are consistent with the terms of the Contracts and that
18 Henderson must immediately pay to Big Rivers its share of the costs set forth
19 therein, that 481 tons of lime remaining at Station Two belong to Henderson
20 as of February 1, 2019, and all coal and other lime remaining at Station Two
21 belong to Big Rivers.

1 **VI. STATION TWO DECOMMISSIONING ACTIVITIES**

2 **Q. Please describe the discussions you have had with Henderson**
3 **related to Station Two decommissioning.**

4 A. I have had numerous conversations with Mayor Steve Austin, mayor for the
5 City of Henderson, as well as Mr. Chris Heimgartner, General Manager of
6 HMP&L, in an attempt to reach an understanding with regard to what
7 constitutes decommissioning, who is responsible for performing the work
8 associated with decommissioning Station Two, what happens to the real
9 property upon which portions of Station Two were constructed, and how
10 ongoing costs, including permitting, monitoring and remediation costs, should
11 be allocated between the parties. To date, these efforts have been
12 unsuccessful, and the parties have reached an impasse on these issues.

13
14 **Q. Do the Contracts set forth Henderson's and Big Rivers' respective**
15 **responsibilities to pay decommissioning costs?**

16 A. Yes, the Contracts are very clear on this issue. Section 8 of the 1993
17 amendments to the Contracts states, "If Big Rivers exercises its option under
18 Section 1.1... to extend the life of the Contracts for the operating life of
19 Station Two... *the parties shall bear decommissioning costs of Station*
20 *Two in the proportions in which they shared capacity costs during the*
21 *life of Station Two*" (emphasis added). Big Rivers elected to exercise its
22 option under Section 1.1, and that election is reflected in the 1998

1 Amendments to the Contracts. All Station Two decommissioning costs are to
2 be split between Henderson and Big Rivers in the same proportion in which
3 they shared capacity costs while Station Two operated.

4
5 **Q. Has Big Rivers calculated each party's share of decommissioning**
6 **costs using the formula set forth in Section 8 of the 1993**
7 **Amendments?**

8 A. Yes. As discussed in the Direct Testimony of Michael T. Pullen, Henderson is
9 responsible for 22.76% of all decommissioning costs and Big Rivers is
10 responsible for 77.24% of all decommissioning costs. This calculation is
11 derived from the historical capacity split between the parties throughout the
12 operating life of Station Two using the methodology outlined in Section 8 of
13 the 1993 Amendments.

14
15 **Q. Do the Station Two Contracts provide any guidance to the parties in**
16 **terms of how the decommissioning process should take place and**
17 **who should lead that process?**

18 A. No. While the Station Two contracts clearly account for the fact that Station
19 Two will need to be decommissioned by including a provision that describes
20 how costs will be allocated, the Contracts only address the allocation of costs
21 between the parties associated with decommissioning as opposed to the
22 parties' responsibility to ensure that these activities actually occur. Big

1 Rivers is agreeable to allowing Henderson to administer the decommissioning
2 process so long as Henderson proceeds with the process as soon as reasonably
3 practical, or if Henderson prefers, Big Rivers will administer the
4 decommissioning process so long as Henderson bears its share of the
5 decommissioning costs, including Big Rivers' internal labor costs.
6

7 **Q. Has Henderson disputed the definition of decommissioning?**

8 A. Yes. Henderson has taken the position that decommissioning is equivalent to
9 the cessation of generation of electricity by the plant along with a very small
10 subset of activities associated with making the plant safe and secure.

11 However, this is not my understanding of the meaning of decommissioning.

12 As addressed in the Direct Testimony of Jeffrey T. Kopp, decommissioning is
13 the entire process associated with taking the plant out of service, demolishing
14 the plant, and restoring the site to a state that is suitable for future
15 industrial use. Decommissioning also includes all ongoing environmental
16 monitoring and any environmental remediation that may be required in the
17 future.
18

19 **Q. Is decommissioning different from retirement in place?**

20 A. Yes. As discussed in detail by Mr. Kopp, some companies elect not to fully
21 decommission their power plants immediately after retirement. Instead,
22 they retire their facilities in place temporarily. However, if the facility is

1 retired in place, there will be ongoing maintenance expenses such as security
2 costs, building maintenance costs, permitting expenses, asbestos
3 encapsulation/periodic asbestos abatement, FAA lighting compliance costs,
4 etc. But even when utilities begin by retiring a unit in place, eventually the
5 unit will have to be demolished and fully decommissioned.
6

7 **Q. Has Big Rivers made a recommendation to Henderson as to how**
8 **Station Two should be decommissioned?**

9 A. Yes. The Station Two Contracts clearly anticipate that Station Two will be
10 fully decommissioned and that the parties will share in the decommissioning
11 costs. As such, Big Rivers has recommended that the decommissioning begin
12 immediately. Henderson has refused to award contracts allowing Big Rivers
13 to proceed with decommissioning beyond the initial steps Big Rivers took
14 toward making the units dry, dark and safe; or even to obtain a contractor to
15 design specifications for the decommissioning process.
16

17 **Q. Do the Station Two Contracts require that Station Two either be**
18 **retired in place or decommissioned?**

19 A. No. The Contracts do not mandate either retirement in place or
20 decommissioning. Nevertheless, while the Station Two Contracts do not
21 directly require decommissioning, the parties clearly intended for Station
22 Two to be decommissioned at the end of its operating life. Otherwise, there

1 would have been no reason to include a provision requiring the parties to
2 share in decommissioning costs of Station Two. There is no equivalent
3 provision addressing the parties' respective costs of retirement in place.
4

5 **Q. Please describe the activities that have taken place by the parties to**
6 **decommission Station Two.**

7 A. As described in detail in the Direct Testimony of Michael T. Pullen, Big
8 Rivers and Henderson began the process of decommissioning Station Two in
9 February 2019 immediately following the retirement of Station Two. These
10 initial activities were necessary to transition the plant into a safe, dark, and
11 dry status (which is ongoing) so as to prepare the plant for additional
12 decommissioning activities, including asbestos abatement and full
13 dismantlement of Station Two. Additionally, the retirement of Station Two
14 triggered an obligation for Henderson to decommission the Station Two ash
15 pond sooner than it otherwise would have had to had Station Two continued
16 to operate. The ash pond is listed as a city-owned joint use facility under the
17 Joint Facilities Agreement currently in effect between the parties. In order
18 to remain in compliance with the federal regulations, work has begun to
19 decommission the ash pond. Because Big Rivers holds the Kentucky
20 Pollutant Discharge Elimination System ("KPDES") permit related to the ash
21 pond and is still listed as the Operator on the permit, Big Rivers has
22 continued to work with Henderson to close the ash pond subject to

1 reimbursement from Henderson for its share of decommissioning costs as
2 required by the Station Two Contracts. And although Henderson has
3 indicated it will share in the ash pond closure costs, it has yet to reimburse
4 Big Rivers for any of its costs.

5

6 **Q. Has Big Rivers recommended any other actions be taken to**
7 **accelerate the decommissioning of Station Two?**

8 A. Yes. Due to the health and safety issues that can arise from asbestos
9 becoming friable if the premises are not properly maintained in accordance
10 with prudent utility practice, Big Rivers recommended to Henderson that the
11 parties hire a contractor to immediately begin the process of abating the
12 asbestos at Station Two while the parties continued their attempts to resolve
13 their differences on the financial and other issues arising out of the Station
14 Two Contracts. In an email from Mr. Heimgartner (which is attached to the
15 Direct Testimony of Michael T. Pullen), Henderson initially acknowledged
16 that it was responsible for its share of the asbestos abatements costs and that
17 asbestos abatement was independent of the settlement discussions. And
18 during a meeting I had with Mayor Austin and Mr. Heimgartner, Mayor
19 Austin verbally agreed to Big Rivers' approach to proceed with asbestos
20 abatement and indicated he would discuss it with others. However, after
21 further discussion, Henderson ultimately declined to participate in any cost
22 sharing related to the asbestos abatement and only agreed to place the work

1 out for bid in accordance with City bidding and contracting requirements,
2 which are required due to the City's status as a municipality and due to the
3 City having ownership of Station Two. However, the City will not award a
4 contract, which is also a City bidding and contracting requirement. Instead,
5 Henderson now asserts that it has no ongoing obligations related to the
6 asbestos abatement upon the retirement of Station Two because it no longer
7 holds title to the real property upon which portions of Station Two was
8 constructed. To that end, Henderson instituted legal proceedings in the
9 Webster County Circuit Court seeking a declaratory order from the Court
10 finding that the real property conveyed by Big Rivers to Henderson in 1971
11 upon which certain portions of Station Two were constructed reverted to Big
12 Rivers on February 1, 2019. As of the date of this filing, that matter is still in
13 the discovery stage.

14
15 **Q. Is Henderson's position consistent with your understanding of the**
16 **parties' Station Two decommissioning obligations as set forth in the**
17 **Station Two Contracts?**

18 **A.** No. The Station Two decommissioning cost sharing provisions in the Station
19 Two Contracts are clear. Once Big Rivers exercised its option to extend the
20 term of the Station Two Contracts for the operating life of the units, which
21 was memorialized in the 1998 Amendments to Contracts, the parties became
22 obligated under Section 8 of the 1993 Amendments to Contracts to bear

1 decommissioning costs of Station Two in the proportions in which they
2 shared capacity costs during the life of Station Two. There is nothing in this
3 language to suggest that title to the underlying real property has any bearing
4 upon the parties' obligations to share in decommissioning costs of Station
5 Two. Therefore, regardless of who holds title to the underlying real property,
6 the parties remain obligated to share in decommissioning costs in proportion
7 to their respective usage of Station Two over the last forty plus years.
8

9 **Q. Are Big Rivers' employees or the public exposed to any risk by**
10 **leaving the asbestos in place?**

11 A. That depends. As long as the parties are staffing Station Two and
12 remediating any asbestos that may come loose and become friable in
13 accordance with the law, the facility can be maintained in a safe manner.
14 However, in my experience, that is a costly endeavor and does not make
15 sense if there is no intent to use the facility in the future as a generating
16 facility. Moreover, as of the date of this filing, Henderson has refused to
17 share in any cost to maintain the asbestos.
18

19 **Q. Please describe any decommissioning costs that Henderson has paid**
20 **as of the date of this filing.**

21 A. As stated in the Direct Testimony of Paul G. Smith, Henderson has not paid
22 any of the costs associated with making Station Two safe, dark and dry other

1 than paying the auxiliary power bills for the months of February through
2 April. Instead, Henderson consistently maintains its position that it is no
3 longer obligated for any of the ongoing costs associated with Station Two
4 under the Station Two Contracts. Moreover, in an email from Mr. Ken
5 Brooks to Big Rivers, which Mr. Pullen discusses and which is attached to his
6 testimony, Henderson indicated that after May 1, 2019, it would no longer
7 pay any costs associated with Station Two. Henderson's refusals to
8 acknowledge its responsibility for its share of decommissioning costs was one
9 of the main reasons Big Rivers filed this proceeding asking the Commission
10 to enforce the Contracts.

11
12 **Q. Does the deed that is the subject of the Webster Circuit Court**
13 **litigation that you described earlier address decommissioning costs**
14 **of Station Two?**

15 **A.** No, it does not. As I discussed earlier in my testimony, the deed that is the
16 subject of that proceeding conveyed certain real property from Big Rivers to
17 Henderson in 1971 so that Henderson would own the real property upon
18 which certain portions of Station Two were constructed. It does not address
19 the parties' obligations to share in decommissioning costs. The cost sharing
20 provisions related to decommissioning are independent obligations which
21 have no relationship to the real property issues raised by Henderson that are
22 the subject of the Webster Circuit Court proceeding.

1 Additionally, the Webster Circuit Court case only relates to the land
2 Big Rivers conveyed to Henderson in 1971. Significant portions of Station
3 Two, including the FGD, the stack, and the ash pond, are not on that land.
4

5 **Q. Does Big Rivers agree with Henderson’s position in the Webster**
6 **Circuit Court case that title to the underlying property reverted to**
7 **Big Rivers on February 1, 2019?**

8 A. No. Henderson’s position is based on a 1971 deed that states that, “upon
9 discontinuance by [Henderson] of the... operation and/or maintenance [of
10 Station Two]...and the retirement of all outstanding [Station Two Bonds
11 issued by Henderson]...title...shall revert to Big Rivers.” Big Rivers explains
12 in its Application that accompanies this testimony that there are Kentucky
13 statues that prohibit the automatic reversion of title to real property.
14 Additionally, Henderson has told me that the City still has outstanding
15 revenue bonds relating to Station Two, and Mr. Pullen explains in his
16 testimony the maintenance activities that are continuing at Station Two.
17 Finally, Big Rivers’ Application also notes that Big Rivers would likely need a
18 certificate of public convenience and necessity (“CPCN”) to acquire the
19 Station Two generating station from Henderson. Big Rivers will not seek a
20 CPCN from the Commission to acquire Station Two because doing so would
21 not be in the best interest of its Members.

1 **Q. Will there continue to be ongoing maintenance costs at Station Two**
2 **in light of the decommissioning activities that have already taken**
3 **place as described by Mr. Pullen?**

4 **A. Yes. As described in the Direct Testimony of Michael T. Pullen, and**
5 **supported by the Direct Testimony of Jeffrey T. Kopp, there will continue to**
6 **be ongoing maintenance costs associated with keeping Station Two safe and**
7 **secure, as well as legally compliant, until such time as it is fully**
8 **decommissioned. In fact, as Mr. Pullen discusses, Henderson performed an**
9 **Integrated Resource Plan in 2018 that stated that security costs alone are**
10 **anticipated to be \$775,000 per year. Additional maintenance obligations**
11 **include maintaining stack lighting; periodic walkdowns of the station and**
12 **related maintenance to prevent the structures, lagging, or other materials**
13 **from becoming a hazard; asbestos monitoring and abatement as needed; and**
14 **ongoing environmental monitoring and remediation required under various**
15 **permits related to Station Two that are currently maintained in the name of**
16 **Big Rivers due to its prior status as the Operator of Station Two. As**
17 **discussed by Mr. Kopp, delaying decommissioning only serves to increase the**
18 **overall cost of decommissioning due to these ongoing maintenance costs.**

19
20 **Q. Do the Contracts require Big Rivers to share in any ongoing**
21 **maintenance costs of this nature following the termination of the**
22 **Station Two Contracts?**

1 A. No. Except with regard to the joint use facilities that Big Rivers continues to
2 use pursuant to the Joint Facilities Agreement, and ongoing costs to
3 maintain the Station Two waste in the Big Rivers Green Station landfill
4 discussed below, Big Rivers' only obligation to share in costs related to
5 Station Two following the termination of the Station Two contracts is the
6 provision I described above related to decommissioning. Because these types
7 of costs would be ongoing maintenance costs rather than decommissioning
8 costs, they would be the sole responsibility of Henderson as the owner of
9 Station Two for so long as Henderson continued to delay full
10 decommissioning of Station Two.

11

12 **Q. Please describe the relief you are seeking from the Commission**
13 **related to decommissioning costs.**

14 A. Big Rivers requests that the Commission enter an Order that enforces
15 Section 8 of the 1993 Amendments, which requires Henderson to pay its
16 share of current and future Station Two decommissioning costs. In order to
17 enforce this provision, the Commission should find that 1) decommissioning
18 consists of the activities described by Mr. Kopp to demolish the Station Two
19 facilities and to make the Station Two site suitable for future industrial use;
20 2) the decommissioning costs that the parties are obligated to share also
21 include any ongoing environmental monitoring, remediation and permitting
22 costs relating to Station Two, including the joint use facilities, which includes

1 but is not limited to the Station Two ash pond and the ash pond dredgings in
2 the Big Rivers Green Station landfill; 3) Big Rivers' share of decommissioning
3 costs is 77.24%, and Henderson's share of decommissioning costs is 22.76%
4 per Section 8; and 4) the ongoing obligation to share in decommissioning
5 costs applies to both parties, regardless of who incurs the cost or owns the
6 real property upon which the asset is located.

7 Additionally, Big Rivers requests that the Commission find that in the
8 event Henderson elects not to cooperate in fully decommissioning any portion
9 of Station Two or not to city bid and award contracts necessary for the
10 completion of full decommissioning of Station Two, any ongoing maintenance
11 costs or other costs or liabilities that may result from those decisions are
12 solely the responsibility of Henderson, and Big Rivers shall have no
13 obligation to share in those costs or associated liability.

14
15 **VII. ONGOING LANDFILL MAINTENANCE COSTS**

16 **Q. Will there be any ongoing maintenance obligations associated with**
17 **city-owned Station Two joint use facilities that are no longer used by**
18 **Big Rivers?**

19 **A.** Yes. Of particular significance is certain city-owned waste from Station Two
20 which is listed as a city-owned joint facility in the Joint Facilities Agreement.
21 This waste is currently stored in Big Rivers' Green Station landfill, and as
22 such, Henderson is continuing to make use of the landfill to store its share of

1 the Station Two waste. Big Rivers will continue to incur ongoing capital as
2 well as maintenance costs to ensure that this waste is properly contained
3 within the landfill until such time as the landfill is decommissioned. In
4 addition to ongoing maintenance costs, a portion of those decommissioning
5 costs will then be allocated to Henderson pursuant to the Station Two
6 decommissioning cost sharing provisions at the end of the useful life of the
7 landfill.

8

9 **Q. Please describe the ongoing landfill costs as well as the applicable**
10 **provisions in the Station Two Contracts.**

11 A. Exhibit 1, Page 1 of 3, Item 15 to the Joint Facilities Agreement, as amended,
12 lists Station Two ash pond dredgings in the Green Station sludge disposal
13 landfill as a city-owned joint use facility on Big Rivers' property. Section 4.1
14 of the Joint Facilities Agreement, as amended, provides that title to joint use
15 facilities or portions thereof provided by Henderson remains with Henderson.
16 As such, Henderson's portion of Station Two waste residing in the Green
17 Station landfill still belongs to Henderson but resides on Big Rivers' property
18 and continues to cause Big Rivers to incur maintenance costs to properly
19 store the waste.

20

21 **Q. Does Big Rivers continue to use the Station Two ash pond dredgings**
22 **in the operation of its Green Station?**

1 A. No, it does not, but the dredgings continue to make use of the Big Rivers
2 landfill and continue to create maintenance costs. Therefore, Big Rivers' only
3 remaining obligations associated with those facilities is to share in the costs
4 of maintaining them until they can be fully decommissioned and to share in
5 the costs of decommissioning those facilities. Because the landfill is still
6 active, the landfill cannot be closed yet, and the Station Two waste in the
7 landfill cannot be decommissioned at this time. As such, there will continue
8 to be ongoing maintenance costs associated with maintaining the waste in
9 the landfill in such a way so as to ensure the containment of the city-owned
10 dredgings. Therefore, until such time as the landfill is closed and the
11 facilities can be fully decommissioned, Henderson is responsible for its share
12 of the costs attributable to maintaining those dredgings based Section 6.1 of
13 the Joint Facilities Agreement, which provides that Henderson is jointly and
14 severally responsible for the continued operating, maintenance, repair,
15 renewal and replacement costs of its joint use facilities.

16

17 **Q. Please describe any benefits Henderson has obtained related to the**
18 **placement of its Station Two ash pond dredgings in the Big Rivers**
19 **landfill.**

20 A. Henderson obtained the benefit of lower operating costs year over year as a
21 result of Big Rivers allowing Henderson to store the waste generated from
22 the production of electricity at Station Two in the Big Rivers landfill as

1 opposed to trucking the waste offsite and disposing of it in third party
2 landfills. Big Rivers estimates that Henderson saved over \$3.1 million since
3 2015 alone at Station Two as a result of this benefit.\

4
5 **Q. Please describe the relief you are asking the Commission to grant**
6 **Big Rivers related to the landfill.**

7 **A. As of December 31, 2018, Henderson owned 12% of the waste in the landfill.**
8 Therefore, Big Rivers is asking the Commission to enter an Order finding
9 that Henderson is obligated to share in those landfill costs that are
10 attributable to the Station Two waste in the landfill, based upon the
11 percentage of waste in the landfill attributable to Henderson's share of waste
12 generated by Station Two. In the alternative, Henderson should be required
13 to remove that waste from Big Rivers' landfill and dispose of it in an
14 alternative facility at Henderson's sole cost and expense. In addition, Big
15 Rivers is requesting an Order finding that Henderson is responsible for its
16 allocated share of the costs associated with decommissioning the Station Two
17 waste in the landfill and that Henderson is obligated to share in those
18 allocated costs based upon the decommissioning cost sharing provisions in
19 the Station Two Contracts.

1 **VIII. ONGOING USE OF CITY-OWNED JOINT USE FACILITIES**

2 **Q. Please describe Big Rivers' dispute with Henderson related to city-**
3 **owned joint use facilities that Big Rivers continues to utilize in the**
4 **operations of its Green Station.**

5 A. As described in the Direct Testimony of Michael T. Pullen, Big Rivers
6 continues to utilize certain city-owned joint facilities in the operation of its
7 Green Station pursuant to the terms of the Joint Facilities Agreement, as
8 amended, which remains in effect between the parties as recognized by the
9 Commission in Case No. 2018-00146. Despite the provisions in the Joint
10 Facilities Agreement to the contrary as described below in my testimony,
11 Henderson contends that Big Rivers does not have an ongoing right to use
12 those facilities unless it purchases those facilities from Henderson and agrees
13 to assume the full cost of decommissioning associated with those facilities.

14
15 **Q. Does the Joint Facilities Agreement, as amended, address Big Rivers'**
16 **rights to continue to use the city-owned joint use facilities following**
17 **cessation of operations at Station Two?**

18 A. Yes, it does. Section 1.5 of the Joint Facilities Agreement memorialized
19 Henderson's intent to devote the city-owned joint use facilities for the ongoing
20 use of Big Rivers for so long as Big Rivers continues to operate a generating
21 station or stations that utilize those facilities and further states that the
22 facilities are provided for the parties' joint and separate benefits. This

1 provision may also have benefitted Henderson since it would have applied if
2 Big Rivers had decided to close the Green Station while Station Two
3 continued to operate.

4
5 **Q. Are Big Rivers' rights to continue to use the city-owned joint use
6 facilities contingent upon Big Rivers purchasing these facilities?**

7 **A.** No. To the contrary, Section 4.1 of the Joint Facilities Agreement provides
8 that title to the city-owned joint use facilities remains with Henderson and
9 that the allocation for the joint use of those facilities by Henderson is
10 irrevocable and continues for so long as Big Rivers operates and/or maintains
11 a generating station in connection therewith.

12
13 **Q. Does the Joint Facilities Agreement entitle Henderson to any
14 additional compensation from Big Rivers for its continued use of
15 those facilities?**

16 **A.** No. Sections 1.3 and 1.4 of the Joint Facilities Agreement, as amended,
17 address the consideration that Henderson received in exchange for its
18 allocation of the city-owned facilities for Big Rivers' continuing use. In those
19 provisions, Henderson acknowledged that it has already benefited from its
20 allocation of the city-owned joint use facilities for Big Rivers' ongoing use by
21 achieving material economies in the construction and operation of Station
22 Two throughout the course of its operating life. In addition, Henderson

1 acknowledged that the cost of providing those facilities was proportionately
2 equal to the relative benefits derived therefrom. Therefore, Big Rivers has
3 already compensated Henderson for its ongoing use of these facilities by
4 fulfilling its obligations under the Station Two Contracts, including allowing
5 Henderson to use Big Rivers-owned joint use facilities throughout the
6 operating life of Station Two. This, in turn, allowed Henderson to achieve
7 significant cost savings throughout the operating life of Station Two by
8 avoiding the substantial costs associated with constructing its own facilities.

9
10 **Q. Please describe the relief you are seeking from the Commission**
11 **related to Big Rivers' continued use of city-owned joint use facilities**
12 **needed in the operation of its generating station.**

13 **A.** Big Rivers is seeking an Order from the Commission finding that Big Rivers
14 is entitled to continue utilizing any city-owned joint use facilities for so long
15 as Big Rivers operates and/or maintains its generating stations in connection
16 therewith without further compensation to Henderson. Title to Henderson's
17 joint use facilities shall remain with Henderson during such time of
18 continued use. At such time as Big Rivers determines that it shall no longer
19 have the need to utilize a city-owned joint use facility, Big Rivers shall notify
20 the City of same at which time the facility will be decommissioned and the
21 parties will share in the decommissioning costs in the same proportion as for
22 the other portions of Station Two.

1 **IX. CONCLUSION**

2 **Q. Does this conclude your testimony?**

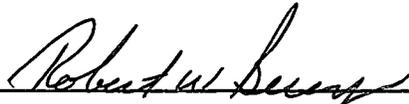
3 **A. Yes, it does.**

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR
ENFORCEMENT OF RATE AND SERVICE STANDARDS
CASE NO. 2019-00_____**

VERIFICATION

I, Robert W. ("Bob") Berry, verify, state, and affirm that I prepared or supervised the preparation of the Direct Testimony filed with this Verification, and that Direct Testimony is true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry



Robert W. ("Bob") Berry

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Robert W. ("Bob") Berry on this
the 30th day of July, 2019.



Notary Public, Kentucky State at Large
My Commission Expires 2/22/22
15.594036

Professional Summary

Robert W. Berry
President and Chief Executive Officer
Big Rivers Electric Corporation
201 Third Street
Henderson, KY 42420
Phone: 270-844-6031

Professional Experience

Big Rivers Electric Corporation

President and Chief Executive Officer – 2014 to present

Vice President, Production – 2009 to 2014

Western Kentucky Energy – 1998 to 2009

General Manager

Plant Manager, Reid/Green/HMP&L Station

Plant Manager, Coleman Station – 2000 to 2003

Maintenance Manager, Reid/Green/HMP&L Station – 1998 to 2000

Big Rivers Electric Corporation – 1981 to 1998

Maintenance Superintendent, Green Station

Maintenance Supervisor, Green Station

Various and Sundry Maintenance and Operations Positions

Education

BS Business Management

Mid-Continent University

Associate in Applied Science, Mechanical Engineering Technology

University of Kentucky Community College

System Mechanical Maintenance Apprenticeship Program

Certified by Kentucky Department of Higher Education

Management, Leadership and Communication Training

Employer-sponsored programs

SETTLEMENT AGREEMENT AND RELEASE

This full and final Settlement Agreement and Release (this "Agreement") is made this 15th day of December, 2017 (the "Effective Date"), by and among:

- (1) Big Rivers Electric Corporation ("BREC"), a rural electric cooperative corporation organized under the laws of the Commonwealth of Kentucky, and
- (2) the City of Henderson, Kentucky, a municipal corporation organized under the laws of the Commonwealth of Kentucky, and the City of Henderson Utility Commission, D/B/A Henderson Municipal Power & Light, a public body politic and corporate organized under the laws of the Commonwealth of Kentucky (collectively, "Henderson").

In this Agreement, BREC and Henderson may be referred to individually as a "Party" and collectively as the "Parties."

I. RECITALS

WHEREAS, BREC and Henderson are parties to a Power Sales Contract dated August 1, 1970, as amended from time to time ("Power Sales Contract");

WHEREAS, BREC and Henderson were parties to an arbitration regarding the interpretation of the Power Sales Contract as it relates to the rights and obligations of the parties concerning energy associated with Henderson's reserved generating capacity under the Power Sales Contract in excess of what is consumed by Henderson and its inhabitants on an hourly basis as defined, used and/or interpreted in the arbitration proceeding styled *Big Rivers Electric Corporation v. City of Henderson, Kentucky, and City of Henderson Utility Commission D/B/A Henderson Municipal Power and Light*, American Arbitration Association Case No. 52 198 00173 10 ("Arbitration Proceeding"), which Arbitration Proceeding resulted in an award that

was upheld on appeal, and in the Damages Suit, as defined below (the “Disputed Excess Energy”);

WHEREAS, BREC and Henderson are parties to a civil action styled *Big Rivers Electric Corporation v. City of Henderson, et al*, pending in Henderson Circuit Court, Civil Action No. 09-CI-000693 (the “Damages Suit”), in which Henderson seeks damages from BREC associated with “Disputed Excess Energy” under the Power Sales Contract as interpreted in the award in the Arbitration Proceeding;

WHEREAS, BREC and Western Kentucky Energy Corp. (“WKEC”) are parties to an Indemnification Agreement, dated July 16, 2009, which provides certain rights and obligations as between BREC and WKEC concerning claims asserted by Henderson relating to “Disputed Excess Energy” as defined herein;

WHEREAS, BREC and Henderson desire to resolve all aspects of their dispute regarding “Disputed Excess Energy” that were asserted or could have been asserted in the Arbitration Proceeding or the Damages Suit;

WHEREAS, BREC and Henderson desire to reach an agreement where, on the one hand, Henderson agrees that it cannot and will not assert a claim in the future against BREC regarding “Disputed Excess Energy” and, on the other hand, BREC will deliver certain energy generated from Station Two to Henderson as specified herein and will waive any right it may have to “Disputed Excess Energy”; and

WHEREAS, Henderson also desires to release WKEC of any claims it may have or have had against WKEC.

NOW, THEREFORE, in consideration of the mutual promises, covenants, and agreements contained herein, and other good and valuable consideration, the receipt and sufficiency of which are acknowledged, the Parties covenant and agree as follows:

II. PAYMENT

1. Within thirty (30) days of the execution of this Settlement Agreement, BREC shall pay to Henderson the sum of Six Million, Two Hundred Fifty Thousand dollars (\$6,250,000.00) (the "Settlement Payment").

III. DISMISSAL OF LEGAL ACTIONS

2. Within one week of the Settlement Payment, BREC and Henderson will jointly move for an agreed order of dismissal of the Damages Suit, with prejudice, each party to bear its own attorney fees and court costs.

IV. FUTURE CLAIMS OF HENDERSON REGARDING DISPUTED EXCESS ENERGY

3. Beginning on the day after the date of the Settlement Payment, BREC shall deliver daily to Henderson from the energy generated from Station Two, Disputed Excess Energy that Henderson schedules in a commercially reasonable manner. Henderson shall receive all revenue for sales of that energy, including any Midcontinent Independent System Operator (or a successor regional transmission organization, "MISO") revenue received by BREC associated with that energy, and pay all MISO expenses (whether billed to BREC or directly to Henderson) and variable costs (e.g, fuel, reagent and sludge disposal costs) associated with the production and sale of that energy. Beginning with the day after the date of the Settlement Payment, BREC waives its rights to take "Disputed Excess Energy," as defined herein.

V. RELEASE

4. In consideration of the mutual promises, covenants and agreements contained in this Agreement, the resolution and settlement of disputed claims and controversies, and other good and valuable consideration, the receipt and sufficiency of which are conclusively acknowledged, Henderson hereby releases, acquits, and forever discharges, individually and collectively, BREC and WKEC, along with their affiliates, parents, members, officers, directors, employees, agents, representatives, advisors, successors, predecessors, boards and assigns (collectively, the "Released Parties") of and from any and all manner of actions, causes of action, suits, sums of money, accountings, reckonings, covenants, controversies, agreements, promises, remedies, amounts paid in settlement, compromises, losses, rights of contribution, damages, judgments, executions, debts, obligations, liabilities, claims and demands of any nature or kind whatsoever, whether or not in contract, in equity, in tort or otherwise, which Henderson ever had, now has, may now have or may hereafter have against the Released Parties (or any of them) resulting from, arising out of or in any manner relating to: (1) the generation, production, use, sale or resale of "Disputed Excess Energy" as defined herein, or the capacity, fixed, or variable costs associated with such energy, including but not limited to those asserted or that could have been asserted in, or that were or could have been in any way connected with, the "Damages Suit" or the "Arbitration Proceeding;" and (2) any obligations, past or future, of BREC to Henderson under the Power Sales Contract or the Arbitration Proceeding related to, arising out of, or concerning "Disputed Excess Energy" as defined herein, whether known or unknown, accrued or unaccrued, asserted or unasserted, direct or indirect, fixed, contingent or otherwise (collectively referred to as the "Released Claims").

5. Henderson acknowledges that it may hereafter discover claims or facts in addition to or different from those currently known to Henderson with respect to the Release and the Released Claims. Henderson hereby expressly assumes the risk of any mistake of fact and of any facts proven to be other than or different from the facts now known to any of the Parties or believed by them to exist. Henderson intends to fully, finally and forever settle and release all Released Claims, and in furtherance of such intention, this Release shall be and remain in effect as a full and complete general release with respect to the Released Claims, notwithstanding the discovery or existence of any such additional or different claims or facts.

VI. ADDITIONAL AGREEMENTS

6. Each of the Parties understands and agrees that the Released Parties deny any and all liability concerning the Released Claims and that the payment made is not to be construed as an admission on the part of the Released Parties.

7. This Agreement is performable in and shall be construed and enforced in accordance with the laws of the Commonwealth of Kentucky and shall be binding upon the Parties and their respective successors and assigns. Any controversy or claim arising out of a breach of this agreement shall be construed in accordance with the laws of the Commonwealth of Kentucky. If any Party breaches this Agreement, the non-breaching Party is entitled to recover its reasonable attorneys' fees and costs incurred after the date of this Agreement in enforcing any rights or remedies under this Agreement, as well as to seek any other relief provided by law.

8. Each Party is responsible for its own attorneys' fees and costs as regards this settlement and the Released Claims.

9. It is expressly understood and agreed by the Parties that this Agreement contains the entire, complete, and final agreement between the Parties and that there are no other agreements, whether written or oral, express or implied, concerning the subject matter of this Agreement which are not expressly stated in this Agreement. This Agreement may not be contradicted by evidence of prior, contemporaneous, or subsequent statements, conversations or agreements of the Parties, and may be amended only by a writing executed by all Parties. The Parties further declare that they are not entering into this Agreement because of any claim, argument, statement, or representation by anyone whatsoever or for any reason other than the consideration stated.

10. Each party acknowledges that it has carefully read this Agreement and that it is executing it freely and of its own accord, without any promise or inducement not described herein, and under no duress.

11. If any provision of this Agreement shall be held to be invalid, void or unenforceable, the remaining provisions shall nevertheless survive and continue in full force and effect without being impaired or invalidated in any way.

12. The Parties agree to execute and deliver all documents and to perform all further acts as may be reasonably necessary to carry out the provisions of this Agreement.

13. This Agreement has been prepared by the joint efforts of the Parties' respective attorneys, and the Parties agree that the Agreement shall not be construed against any Party on the grounds that one Party primarily or solely prepared this Agreement.

14. No waiver or modification of the terms of this Agreement shall be valid unless it is in writing and signed by all Parties.

15. This Agreement shall be binding on and inure to the benefits of each Party and its respective successors and assigns.

16. This Agreement may be executed in counterparts, each of which shall be deemed an original and which collectively shall constitute one document. Electronic signatures are effective.

IN WITNESS WHEREOF, this Settlement Agreement is entered into by and between, and each and every term herein is agreed to by, the undersigned:

City of Henderson, Kentucky

City of Henderson Utility Commission

By: Steve Austin

By: Chris Heimgartner

Name: Steve Austin

Name: Chris Heimgartner

Title: Mayor

Title: General Manager

Date: December 15, 2017

Date: December 15, 2017

Big Rivers Electric Corporation

By: Robert W. Berry

Name: Robert W. Berry

Title: President and CEO

Date: December 18, 2017

ORIGINAL



Your Touchstone Energy® Cooperative 

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

**APPLICATION OF)
BIG RIVERS ELECTRIC CORPORATION) Case No.
FOR ENFORCEMENT OF) 2019-00 _____
RATE AND SERVICE STANDARDS)**

DIRECT TESTIMONY

OF

**PAUL G. SMITH
CHIEF FINANCIAL OFFICER**

ON BEHALF OF

BIG RIVERS ELECTRIC CORPORATION

FILED: July 31, 2019

Application Exhibit 3

**DIRECT TESTIMONY
OF
PAUL G. SMITH**

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1 **DIRECT TESTIMONY**

2 **OF**

3 **PAUL G. SMITH**

4 **I. INTRODUCTION**

5 **Q. Please state your name, business address and occupation.**

6 A. My name is Paul G. Smith, and my business address is 201 Third Street,
7 Henderson, Kentucky 42420. I am the Chief Financial Officer (“CFO”) for
8 Big Rivers Electric Corporation (“Big Rivers”).

9
10 **Q. Please summarize your education and professional experience.**

11 A. I received a Bachelor of Science degree in Industrial Management from
12 Purdue University and a Masters of Business Administration degree, with
13 honors, from the University of Chicago. I am a Certified Public Accountant
14 in the State of Ohio and a member of the American Institute of Certified
15 Public Accountants. I am a past member of the Edison Electric Institute
16 (“EEI”) Economic Regulation and Competition Committee and the EEI
17 Budgeting and Financial Forecasting Committee.

18 I began my career in 1982 as a public accountant in the Chicago office
19 of Deloitte & Touche, and from 1984 to 1987 in the Indianapolis office of
20 Crowe, Chizek & Co. Beginning in 1987, I held various analyst and
21 managerial positions with Duke Energy Corporation and its predecessor
22 companies, in Budgets and Forecasts, Rates and Regulatory Affairs, Investor

1 Relations, and the International Business Unit. Beginning in 2001, I was
2 appointed to various executive level positions, including General Manager of
3 Budgets and Forecasts with responsibility for Cinergy Corp.'s financial
4 planning and analysis department, Vice President of Rates with
5 responsibility for all state and federal regulated rate matters, including
6 revenue requirements, cost of service and rate design for Duke Energy
7 Kentucky, Inc. and Duke Energy Ohio, Inc., and Vice President of Retail
8 Marketing with responsibility for all activities related to the launch of a
9 start-up competitive retail energy business.

10 In 2012, I joined NextEra Energy Transmission, the competitive
11 transmission development subsidiary of NextEra Energy, Inc., as Senior
12 Director of Business Management. My responsibilities included managing all
13 financial activities for the competitive transmission business, including
14 accounting and financial reporting, budgeting and financial planning, and
15 corporate development analytics. In addition, I was responsible for the
16 compliance function and directing the preparation of state, Regional
17 Transmission Organization, and Federal Energy Regulatory Commission
18 ("FERC") revenue requirement filings.

19 In 2018, I accepted the position of CFO at Big Rivers.
20
21
22

1 **Q. Please summarize your duties at Big Rivers.**

2 A. As CFO, I am responsible for all financial, regulatory, strategic planning and
3 risk management activities. Such activities include accounting and financial
4 reporting, payroll, budgets, finance, tax, rates and regulatory affairs, risk
5 management and strategic planning.

6

7 **Q. Have you previously testified before the Kentucky Public Service
8 Commission (“Commission”)?**

9 A. Yes, I testified on behalf of Duke Energy Kentucky, Inc. on several occasions,
10 including Case No. 2006-00172, in which Duke sought an increase in rates,
11 and Case No. 2008-00495, in which Duke sought approval of energy efficiency
12 programs and an energy efficiency rider. I have also testified before The
13 Public Utilities Commission of Ohio, the Indiana Utility Regulatory
14 Commission, and the Federal Energy Regulatory Commission (“FERC”).

15

16 **II. PURPOSE OF TESTIMONY**

17 **Q. What is the purpose of your testimony in this proceeding?**

18 A. The purpose of my testimony is to describe and support the Interim
19 Accounting Summary of amounts owed between Big Rivers and the City of
20 Henderson and the City of Henderson Utility Commission (collectively,
21 “Henderson”), as of June 30, 2019, and the methodology that was used to
22 arrive at the calculations set forth therein. I also discuss each party’s share

1 of the coal and reagent lime inventory remaining at Station Two on February
2 1, 2019.

3
4 **Q. Are you sponsoring any Exhibits?**

5 **A.** Yes. I have prepared the following exhibits to my prepared testimony.

- 6 • Exhibit Smith-1 – Interim Accounting Summary
- 7 • Exhibit Smith-2 – Excess Henderson Energy
- 8 • Exhibit Smith-3 – Henderson Native Load
- 9 • Exhibit Smith-4 – Other Operating Costs
- 10 • Exhibit Smith-5 – Decommissioning Costs
- 11 • Exhibit Smith-6 – Professional Summary

12
13 **III. BACKGROUND**

14 **Q. Please describe the categories listed on the Interim Accounting**
15 **Summary.**

16 **A.** The Interim Accounting Summary identifies four categories of amounts that
17 represent a Big Rivers payable to, or a receivable from, Henderson:

- 18 • Excess Henderson Energy (“EHE”) – Includes the proceeds received
19 from the Midcontinent Independent System Operator, Inc. (“MISO”)
20 for the sale of EHE less the cost to reimburse Big Rivers for its
21 variable costs, such as fuel and reagent inventory, consumed by
22 Henderson to generate the EHE.

- 1 • Henderson Native Load – The reimbursement of Big Rivers’
2 variable fuel and reagent inventory consumed by Henderson to
3 produce the generation to meet Henderson’s native load.
- 4 • Other Operating Costs – Station Two operating and administrative
5 costs excluding fuel, reagents and sludge disposal.
- 6 • Decommissioning Costs – Costs incurred to cease Station Two
7 operations, to decommission the units, and to comply with ongoing
8 legally mandated environmental monitoring, remediation and
9 permitting requirements.

10

11 **Q. When were the amounts listed on the Interim Accounting Summary**
12 **owed to Big Rivers?**

13 **A. The Interim Accounting Summary includes amounts incurred, but not paid or**
14 **received, as of June 30, 2019. With the cessation of Station Two operations,**
15 **the EHE, Henderson native load, and Other Operating Cost amounts**
16 **represent final balances that will not change. The Decommissioning Cost**
17 **category will incur additional costs in the future, as further explained in the**
18 **Direct Testimonies of Robert W. Berry, Michael T. Pullen and Jeffrey T.**
19 **Kopp.**

20

21 **IV. EXCESS HENDERSON ENERGY**

22 **Q. Please explain the term “Excess Henderson Energy” or “EHE.”**

1 A. Excess Henderson Energy represents the difference between Henderson's
2 reserved capacity (125 MW as of fiscal year 2018/2019) and the amount of
3 capacity needed by Henderson to serve its native load and for sale by
4 Henderson to third parties. As further described in the Direct Testimony of
5 Robert W. Berry, this term was clarified by the Commission in Case No.
6 2016-00278 and was similarly defined in a 2012 arbitration decision.

7 In its January 5, 2018, Order in Case No. 2018-00278, the Commission
8 noted that under the Power Sales Contract between Big Rivers and
9 Henderson, as amended, Big Rivers had the right but not the obligation to
10 take and pay for any Excess Henderson Energy that it elected to take, and
11 the Commission ruled that Big Rivers was not responsible for the variable
12 production costs for any EHE that it did not elect to take.

13

14 **Q. Did Henderson have any sales to third parties during the time in**
15 **question that would impact the quantity of EHE in dispute?**

16 A. Not to my knowledge.

17

18 **Q. Please describe the methodology used to calculate the quantity of**
19 **EHE.**

20 A. Big Rivers receives hourly meter information for each of the Station Two
21 generating units as well as for the load in the Henderson service territory.
22 By analyzing the meter information and Henderson's reserve capacity,

1 Henderson's EHE and native load volumes can be quantified for each hour of
2 every day.

3
4 **Q. Please describe the methodology and the time period for which the**
5 **total EHE amount due to Henderson is calculated.**

6 A. The EHE amount only relates to EHE that was taken by Henderson from
7 January 5, 2018, through January 31, 2019. As witness Mr. Berry describes,
8 Big Rivers and Henderson entered into a December 15, 2017, Settlement
9 Agreement that resolved all of Henderson's claims relating to EHE up to
10 January 4, 2018, and under which Henderson agreed to take all EHE and to
11 pay all variable costs after January 4, 2018. From January 5, 2018, through
12 January 31, 2019, Big Rivers netted all variable production costs associated
13 with the generation and sale of EHE against the MISO revenues associated
14 with the sale of EHE. Station Two was retired on January 31, 2019, and
15 therefore, no additional EHE will be generated after that date. Big Rivers
16 has attempted to remit the net amounts to Henderson, but Henderson has
17 refused to accept those net revenues, arguing that Big Rivers should retain
18 the MISO revenues and pay all variable costs associated with EHE, an
19 argument that clearly contradicts the Settlement Agreement.

20

21

1 **Q. Please describe the detailed line items that comprise the total**
2 **amount due to or from Henderson related to EHE on Exhibit Smith-**
3 **2, what each line item represents, and how it was calculated.**

4 **A. The following is a description of amounts due to, or from, Henderson related**
5 **to EHE:**

- 6 • MISO Revenue: Represents the proceeds received from MISO for
7 the sale of EHE, net of MISO expenses related to such sales.
- 8 • Coal Shortfall Supplied by Big Rivers: Per the Commission's
9 January 5, 2018, Order in Case No. 2016-00278, and as agreed in
10 the December 15, 2017, Settlement Agreement, Henderson is
11 responsible for all variable costs associated with the production and
12 sale of EHE. However, in certain months Henderson did not
13 maintain sufficient coal inventory to support its Station Two
14 generation. During these months, Henderson essentially consumed
15 Big Rivers' coal inventory. Henderson's coal shortfall was
16 quantified monthly, assigning such shortfall first to EHE and any
17 remaining coal shortfall to Henderson's native load. Big Rivers
18 prepared and submitted to Henderson an invoice detailing the coal
19 shortage for which it was seeking reimbursement. Such
20 reimbursement was priced at Big Rivers' cost and did not include
21 any mark-up or inventory carrying charge.

- 1 • Low Chlorine Coal Shortfall Supplied by Big Rivers: Due to
2 generation issues related to the chlorine content of the primary
3 coal, Station Two required a mix of low chlorine coal. Similar to
4 other fuels, Henderson did not maintain sufficient low chlorine coal
5 inventory and therefore consumed Big Rivers' inventory in the
6 generation of EHE. Big Rivers prepared and submitted to
7 Henderson an invoice detailing the low chlorine coal shortage for
8 which it was seeking reimbursement. Such reimbursement was
9 quantified at Big Rivers' cost and did not include any mark-up or
10 inventory carrying charge.
- 11 • Fuel Oil Supplied by Big Rivers: Unlike coal and lime for which Big
12 Rivers and Henderson each maintain a separate inventory, Station
13 Two maintained a single inventory of fuel oil which was procured
14 solely by Big Rivers. At the end of each month, the volume and
15 related cost of fuel oil utilized at Station Two was allocated to
16 Henderson EHE, Henderson native load, and to Big Rivers based on
17 their respective generation usage during the month. Such allocated
18 cost did not include any mark-up.
- 19 • 2018 and 2019 Coal Survey Adjustment Supplied by Big Rivers:
20 Big Rivers performed a physical survey of the Station Two coal
21 inventory each year. To the extent the physical survey indicated
22 that an adjustment was required to increase, or decrease, the coal

1 inventory balance per the accounting records, such adjustment was
2 allocated to Henderson EHE, Henderson native load and Big Rivers
3 based on their relative generation usage since the last physical
4 survey.

5
6 **V. HENDERSON NATIVE LOAD**

7 **Q. Please explain the term “native load.”**

8 **A.** Native load is the generation required to serve the customers located in
9 Henderson’s service territory. Because of the multiple disagreements
10 between Big Rivers and Henderson regarding EHE, Big Rivers separately
11 tracked the variable costs associated with the energy that was generated and
12 consumed by Henderson to serve its native load.

13
14 **Q. Please describe the detailed line items that comprise the total**
15 **amount due from Henderson related to Henderson native load on**
16 **Exhibit Smith-3, what each line item represents, and how it was**
17 **calculated.**

18 **A.** The following is a description of the amounts due from Henderson related to
19 its native load:

- 20 • Coal Shortfall Supplied by Big Rivers: See discussion above
21 regarding “Coal Shortfall Supplied by Big Rivers” as it relates to
22 EHE.

- 1 • Low Chlorine Coal Shortfall Supplied by Big Rivers: See discussion
2 above regarding “Low Chlorine Coal Shortfall Supplied by Big
3 Rivers” as it relates to EHE.
- 4 • Lime Shortfall Supplied by Big Rivers: Reagent lime is utilized in
5 the Station Two generation process. Similar to fuel and other
6 inventoried items, during certain months Henderson did not
7 maintain sufficient inventory and effectively consumed Big Rivers’
8 reagent lime inventory.
- 9 • Fuel Oil Supplied by Big Rivers: See discussion above regarding
10 “Fuel Oil Supplied by Big Rivers” as it relates to EHE.
- 11 • 2016, 2018 and 2019 Coal Survey Adjustment Supplied by Big
12 Rivers: See discussion above regarding “Coal Survey Adjustments
13 Supplied by Big Rivers” as it relates to EHE.

14
15 **VI. COAL AND LIME INVENTORIES**

16 **Q. Please explain the parties’ disagreement over the coal and lime**
17 **inventories remaining at Station Two.**

18 **A.** As discussed above, each party was required under the Station Two
19 Contracts to provide the coal and lime reagent used to generate that party’s
20 energy from Station Two. Because Henderson disputes that EHE belongs to
21 it, it disagrees with Big Rivers’ calculations showing that Henderson’s fuel
22 and reagent was used – when it was available – to generate Henderson’s

1 EHE. Pursuant to those EHE calculations, and the coal survey adjustments,
2 Henderson had no coal remaining at Station Two on February 1, 2019.
3 Henderson had 481 tons of reagent lime remaining at Station Two on
4 February 1, 2019. All coal inventory, and the remainder of the reagent lime
5 inventory, belongs to Big Rivers as of February 1, 2019.
6

7 **VII. OTHER OPERATING COSTS**

8 **Q. Please describe the process to allocate Station Two fixed and**
9 **administrative costs between the parties on a yearly basis.**

10 **A. During the term of the Station Two Contracts, each year, Big Rivers prepared**
11 **a budget that, when approved by the City Utility Commission, formed the**
12 **basis upon which monthly payments were made to Big Rivers by Henderson**
13 **throughout the fiscal year. These payments, for the most part, represent**
14 **Henderson's share of Station Two's fixed operating, maintenance and**
15 **administrative costs, which are often referred to as Station Two Capacity**
16 **Charges. As described above, direct variable generating costs such as fuel**
17 **and reagent lime are not included in the annual fixed cost budget and**
18 **reimbursement process.**

19 Throughout each fiscal year, Big Rivers submitted a statement of
20 purchases to Henderson detailing all of the fixed costs that were incurred
21 during the month related to Station Two. To the extent that Henderson had
22 questions about those charges or disagreed with those charges, Big Rivers

1 and Henderson attempted to work through those differences. At the end of
2 each fiscal year, in the event that Henderson had, in total, paid Big Rivers
3 more throughout the year than Henderson's share of the actual costs incurred
4 by Big Rivers to fulfill its obligations under the Station Two Contracts, Big
5 Rivers would refund the overpayment amount to Henderson as part of the
6 annual settlement process. Alternatively, if Henderson had underpaid Big
7 Rivers compared to Henderson's share of actual costs Big Rivers incurred,
8 Henderson was required to pay Big Rivers the difference.

9 According to the Station Two Contracts, the annual settlement is
10 required to be finalized 120 days following the end of each fiscal year.
11 However, Big Rivers and Henderson have yet to finalize the annual
12 settlement for fiscal years 2017/2018 and 2018/2019. Fiscal year 2018/2019
13 ran through May 31, 2019, and is thus the last fiscal year of the Station Two
14 Contracts.

15
16 **Q. Please describe any key assumptions that were used in calculating**
17 **the amounts set forth in the Interim Accounting Summary.**

18 **A. The Station Two capacity split is the primary allocation factor utilized in**
19 **allocating operation and maintenance costs (which excludes variable**
20 **production costs as described previously). As detailed in the Direct**
21 **Testimony of Robert W. Berry, Henderson's Station Two capacity reservation**
22 **for fiscal year 2018/19 was assumed to be 125 MW.**

1 **Q. Please describe the detailed line items that comprise the total**
2 **amount due to Henderson related to Other Operating Costs on**
3 **Exhibit Smith-4, what the line items represent and how it was**
4 **calculated.**

5 **A. The following is a description of amounts due to, or from, Henderson related**
6 **to Other Operating Costs:**

7 • Fiscal Year 2017/2018 Settlement True-Up: This line item
8 represents the settlement true-up of Henderson monthly payments
9 as compared to Henderson's allocated share of actual Station Two
10 operating, maintenance and administrative costs during the fiscal
11 year extending from June 1, 2017, to May 31, 2018. I understand
12 this amount includes resolution of all previously disputed costs
13 included in the annual budget process.

14 • Fiscal Year 2018/2019 Settlement True-Up: Similar to the
15 description above, this amount represents the settlement true-up of
16 payments and costs during the fiscal year extending from June 1,
17 2018, to May 31, 2019. I understand there are a few minor
18 disputed costs, and Henderson is disputing that its Station Two
19 capacity reservation, and allocated share of Station Two costs,
20 should be calculated at 115 MW, not 125 MW.

21 • Auxiliary Power: Auxiliary Power represents the power purchased
22 and consumed by Station Two when one, or both, of the units is not

1 generating due to planned, forced or economic outage. Typically,
2 the power consumed by the Station Two operations is provided by
3 the generation of the two units. However, during certain hours one,
4 or both, of Station Two's units will not generate power and
5 therefore Big Rivers purchases auxiliary power from the MISO
6 market to operate certain station equipment. The auxiliary power
7 costs are shared by Big Rivers and Henderson based on the
8 percentage of capacity assigned to each party through the annual
9 reservation process. Big Rivers allocated these costs to Henderson
10 based on the capacity reserve margin requirement. Henderson
11 reimbursed Big Rivers for its allocation of auxiliary costs during the
12 months of June through September, 2018, but did not reimburse
13 Big Rivers for its allocation from October 2018 through January
14 2019 due to the dispute regarding Henderson's capacity reserve
15 margin requirement. Auxiliary power costs beginning February 1,
16 2019, are charged to decommissioning.

- 17 • MISO Fees: This line item represents the unpaid MISO fees
18 described in detail in the Direct Testimony of Mark J. Eacret.

19 20 **VIII. DECOMMISSIONING COSTS**

21 **Q. Does the Interim Accounting Summary include any costs associated**
22 **with decommissioning of Station Two?**

1 A. Yes. As summarized in Exhibit Smith-5, and as detailed in the Direct
2 Testimony of Michael T. Pullen, in 2019, Big Rivers has incurred costs
3 associated with decommissioning Station Two. In addition to the costs
4 incurred in the process to get the units in a dry, dark and safe condition,
5 decommissioning costs during the period February 1, 2019 through June 30,
6 2019 also include the cost of the Station Two auxiliary power. Henderson has
7 paid the auxiliary costs invoiced for the months of February, March, and
8 April, but is contesting that they are obligated to pay for auxiliary power
9 during the months of May or June. Pursuant to the Station Two Contracts,
10 the decommissioning costs were allocated to Henderson based on their life-of-
11 plant capacity share of 22.76%.

12
13 **Q. Will Big Rivers continue to incur decommissioning costs in the**
14 **future?**

15 A. Yes. It is my understanding based on the Direct Testimonies of Mr. Berry,
16 Mr. Pullen, and Mr. Kopp that Big Rivers will incur significant additional
17 costs until Station Two has been fully decommissioned, and subsequent costs
18 for legally mandated environmental monitoring, remediation and permitting.
19 Big Rivers will regularly invoice Henderson for such costs.

20

21

22

1 **IX. ONGOING ENFORCEMENT**

2 **Q. Does Big Rivers have a proposal to efficiently address any future**
3 **disputes that arise between Big Rivers and Henderson?**

4 **A.** Yes. Because of the history of the parties being unable to resolve their
5 differences, and the need to bring those differences to the Commission for a
6 resolution, Big Rivers believes it is necessary for the Commission to establish
7 a process for the efficient resolution of any future disputes between Big
8 Rivers and Henderson relating to the Station Two Contracts. Big Rivers
9 proposes a monthly filing of charges similar to the monthly filings Big Rivers
10 makes with respect to its fuel adjustment clause, environmental surcharge,
11 member rate stability mechanism, and non-FAC Purchased Power
12 Adjustment; along with periodic reviews of those charges. More specifically,
13 Big Rivers proposes that it will file monthly with the Commission a charge
14 representing Henderson's share (based on the percentages described in this
15 filing) all Station Two Contract costs incurred by Big Rivers; 2) after filing
16 with the Commission, the monthly charge would be submitted to Henderson
17 for payment within thirty days; and 3) the charges would be subject to
18 comprehensive Commission review, audit, true-up and refund under
19 whatever schedule the Commission deems appropriate. If Henderson fails to
20 timely pay the monthly charge, then the Commission should seek
21 enforcement of its rate order at the Franklin Circuit Court pursuant to KRS
22 278.390.

1 **X. GRAND TOTAL**

2 **Q. Please describe how Big Rivers arrived at the Grand Total Due**
3 **to/from Henderson.**

4 A. It is my understanding that the Power Sales Contract, as amended, as well as
5 the Power Plant Construction and Operation Agreement each contain
6 offsetting account provisions that allow Big Rivers and Henderson to offset
7 amounts payable by each against amounts receivable from the other. As
8 summarized on Exhibit Smith-1, after netting all of the various amounts, the
9 Grand Total amount payable from Henderson to Big Rivers is \$718,942 as of
10 June 30, 2019.

11

12 **Q. Does the Grand Total include any interest?**

13 A. No, not at this time. Big Rivers has not exercised its rights under the Station
14 Two Contracts to add interest to past due amounts owed by Henderson. But
15 Big Rivers reserves the right to do so. For example, Section 16.3 of the Power
16 Plant Construction and Operation Agreement provides:

17 If any such payment or portion thereof is not paid when due as
18 herein provided, a penalty in the amount of one per cent (1%) of the
19 unpaid amount may, at the option of Big Rivers, be added thereto
20 at the commencement of each thirty (30) day period thereafter, and
21 due and payable therewith. Provided however that in the case of a
22 bona fide dispute as to the amount of any such monthly payment,
23 then the delayed payment charge will be applicable only to that
24 unpaid portion thereof which is not reasonably in dispute.

25

1 So, although Big Rivers could have added interest based on
2 Henderson's failure to reimburse Big Rivers for costs going back as far as
3 2010, it has not yet done so.

4

5 **Q. Does this conclude your testimony?**

6 **A. Yes.**

7

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR
ENFORCEMENT OF RATE AND SERVICE STANDARDS
CASE NO. 2019-00_____**

VERIFICATION

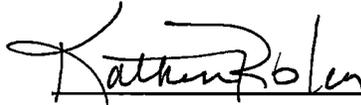
I, Paul G. Smith, verify, state, and affirm that I prepared or supervised the preparation of the Direct Testimony filed with this Verification, and that Direct Testimony is true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry



Paul G. Smith

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

none SUBSCRIBED AND SWORN TO before me by Paul G. Smith on this the
_____ day of July, 2019.



Notary Public, Kentucky State at Large

My Commission Expires

October 31, 2020



**Big Rivers Electric Corporation
Interim Accounting Summary
Amounts Due (To) / From Henderson
June 30, 2019**

<u>Description</u>	<u>Reference</u>	<u>Amount (\$) Due (To)/From</u>
Excess Henderson Energy	Exhibit Smith-2	(3,310,482)
Henderson Native Load	Exhibit Smith-3	4,693,587
Other Operating Costs	Exhibit Smith-4	(798,261)
Decommissioning Costs	Exhibit Smith-5	134,098
Total		<u>718,942</u>

**Big Rivers Electric Corporation
Amounts Due (To) / From Henderson
Excess Henderson Energy
June 30, 2019**

<u>Description</u>	<u>Amount (\$) Due (To)/From</u>
MISO Revenue	(6,259,439)
Coal Shortfall Supplied by Big Rivers	2,301,641
Low Chlorine Coal Shortfall Supplied by Big Rivers	213,023
Fuel Oil Supplied by Big Rivers	371,131
2018 Coal Survey Adjustment Supplied by Big Rivers	39,384
2019 Coal Survey Adjustment Supplied by Big Rivers	23,778
Total Excess Henderson Energy	<u><u>(3,310,482)</u></u>

Big Rivers Electric Corporation
Amounts Due (To) / From Henderson
Henderson Native Load
June 30, 2019

<u>Description</u>	<u>Amount (\$)</u> <u>Due (To)/From</u>
Coal Shortfall Supplied by Big Rivers	2,852,464
Low Chlorine Coal Shortfall Supplied by Big Rivers	273,213
Lime Shortfall Supplied by Big Rivers	145,588
Fuel Oil Supplied by Big Rivers	920,044
2016 Coal Survey Adjustment Supplied by Big Rivers	388,615
2018 Coal Survey Adjustment Supplied by Big Rivers	84,916
2019 Coal Survey Adjustment Supplied by Big Rivers	28,747
Total Henderson Native Load	<u>4,693,587</u>

**Big Rivers Electric Corporation
Amounts Due (To) / From Henderson
Other Operating Costs
June 30, 2019**

Description	Amount (\$) Due (To)/From
<u>Annual Settlement</u>	
Fiscal Year 2017 / 2018 Settlement True-up	(1,649,923)
Fiscal Year 2018 / 2019 Settlement True-up	(649,850)
<u>Auxiliary Power</u>	
October 2018 Auxiliary Power	21,155
November 2018 Auxiliary Power	17,886
December 2018 Auxiliary Power	13,815
January 2019 Auxiliary Power	25,895
<u>MISO Fees</u>	
December 2010 - May 2016	1,422,761
Total Other Operating Costs	(798,261)

**Big Rivers Electric Corporation
Amounts Due (To) / From Henderson
Decommissioning Costs
June 30, 2019**

<u>Description</u>	<u>Amount (\$) Due (To)/From</u>
<u>Decommissioning Costs</u>	
January 2019 - June 2019	134,098
	<hr/>
Total Decommissioning Costs	134,098
	<hr/> <hr/>

Professional Summary

Paul G. Smith
Vice President and Chief Financial Officer
Big Rivers Electric Corporation
201 Third Street
Henderson, KY 42420
Phone: 270-844-6194

Professional Experience

Big Rivers Electric Corporation
Vice President and Chief Financial Officer – 2018 to present

NextEra Energy Transmission
Senior Director Business Management 2012-2018

Duke Energy
Vice President Retail Marketing 2010-2011
Vice President Rates 2006-2009
General Manager Budgets & Forecasts 2001-2005
Manager UK Distribution Price Control 1998-2000
Manager Revenue Requirements 1996-1997
Various Financial Positions of increasing responsibility 1987-1995

Crowe, Chizek & Co (CPA) 1984-1986

Touche, Ross & Co (CPA) 1982 - 1983

Education

Master of Business Administration
University of Chicago

Bachelor of Science Industrial Management (Computer Science Minor)
Purdue University

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Your Touchstone Energy® Cooperative 

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

APPLICATION OF)	
BIG RIVERS ELECTRIC CORPORATION)	Case No.
FOR ENFORCEMENT OF)	2019-00 _____
RATE AND SERVICE STANDARDS)	

DIRECT TESTIMONY

OF

**MICHAEL T. PULLEN
VICE PRESIDENT OF PRODUCTION**

ON BEHALF OF

BIG RIVERS ELECTRIC CORPORATION

FILED: July 31, 2019

**DIRECT TESTIMONY
OF
MICHAEL T. PULLEN**

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1 **DIRECT TESTIMONY**

2 **OF**

3 **MICHAEL T. PULLEN**

4
5 **I. INTRODUCTION**

6 **Q. Please state your name, business address and occupation.**

7 A. My name is Michael T. Pullen. My business address is 201 Third Street,
8 Henderson, Kentucky 42420. I am the Vice President of Production for Big
9 Rivers Electric Corporation ("Big Rivers").

10

11 **Q. Please summarize your education and professional experience.**

12 A. I graduated from the University of Mississippi in 1985 with a Bachelor of
13 Science in Electrical Engineering and Murray State University in 2005 with
14 a Masters of Business Administration. I am a registered Professional
15 Engineer in the Commonwealth of Kentucky. I worked at Electric Energy,
16 Inc. from 1990 to 2014. I served in a variety of engineering, maintenance,
17 and operation roles including Group Supervisor Maintenance; Manager
18 Systems-Dispatch; Manager, Generation; and Director, Operations. I also
19 was employed by Ameren Illinois from 2014 to 2015 and served in substation
20 construction management. I assumed my current role with Big Rivers in
21 February 2015.

22

1 **Q. Please summarize your duties at Big Rivers.**

2 A. As the Vice President of Production for Big Rivers, I direct all activities
3 related to the operation and maintenance of the corporation's coal and gas-
4 fired generating facilities, including fuel procurement and management,
5 power plant engineering and construction, and environmental compliance.

6

7 **Q. Have you previously testified before the Kentucky Public Service
8 Commission ("Commission")?**

9 A. Yes. I provided written and oral testimony in Case No. 2016-00278, in which
10 Big Rivers sought and obtained an order from the Commission declaring that
11 Big Rivers was not responsible for the variable costs of any "Excess
12 Henderson Energy," that Big Rivers declined to take. I also responded to
13 requests for information in Case No. 2018-00146, in which Big Rivers sought
14 and obtained, among other things, an order from the Commission confirming
15 that the Station Two generating units that Big Rivers operated and that are
16 owned by the City of Henderson were no longer capable of normal,
17 continuous, reliable operation for the economically competitive production of
18 electricity and that the applicable contracts had terminated. The City of
19 Henderson and the City of Henderson Utility Commission (which does
20 business as Henderson Municipal Power and Light ("HMPL" or "HMP&L"))
21 are collectively referred to herein as "Henderson."

22

1 **II. PURPOSE OF TESTIMONY**

2 **Q. What is the purpose of your testimony in this proceeding?**

3 A. The purpose of my testimony is to discuss Station Two decommissioning,
4 including the decommissioning activities that have occurred at Station Two
5 since January 31, 2019. I will also discuss the ongoing maintenance
6 activities that will be required at Station Two until Station Two is fully
7 decommissioned. I will testify about the joint use facilities that are no longer
8 needed by Big Rivers in the operation of its Green generating station as well
9 as those facilities that will continue to be used by Green Station. I will
10 describe the conversations I have had with Henderson regarding the ongoing
11 maintenance and decommissioning of Station Two, and finally, I will provide
12 information about the Big Rivers landfill where Henderson's ash dredgings
13 and other waste from Station Two currently reside.

14

15 **Q. Are you sponsoring any Exhibits?**

16 A. Yes. I have prepared the following exhibits to my testimony.

- 17 • Exhibit Pullen-1 – Summary of Yearly Capacity Allocation
18 Documentation 1972-2019
19
- 20 • Exhibit Pullen-2 – Station Two Decommissioning Cost Summary
21 through June 30, 2019
22
- 23 • Exhibit Pullen-3 – Email from Chris Heimgartner dated August 10,
24 2018 re: HMPL Response
25
- 26 • Exhibit Pullen-4 – Email from Ken Brooks dated January 4, 2019 re:
27 BREC Meeting (1/3/19)

- 1 • Exhibit Pullen-5 – Email from Ken Brooks dated February 1, 2019 re:
2 H-19-101 Asbestos Abatement
3
- 4 • Exhibit Pullen-6 – Email from Chris Heimgartner dated March 1, 2019
5 re: Term Sheet
6
- 7 • Exhibit Pullen-7 – Email from Ken Brooks dated June 24, 2019 re:
8 May 2019 Auxiliary Load Invoice
9
- 10 • Exhibit Pullen-8 – Kenneth C. Coleman Station Retire in Place Cost
11 Summary
12
- 13 • Exhibit Pullen-9 – April 19, 2018 IRP Report to HMP&L page 10
14
- 15 • Exhibit Pullen-10 – Letter from Mike Pullen dated December 7, 2018
16 re: Station Two Ash Pond and Additional Compliance Activities
17
- 18 • Exhibit Pullen-11 – Estimated Ongoing Green Landfill Costs
19
- 20 • Exhibit Pullen-12 – Existing Station Two Joint Use Facilities to
21 Remain in Service
22
- 23 • Exhibit Pullen-13 – Existing Station Two Joint Use Facilities to be
24 Decommissioned
25

26 **III. STATION TWO DECOMMISSIONING AND ONGOING**

27 **MAINTENANCE OBLIGATIONS**

28 **Q. Please describe the work that has been done at Station Two since**
29 **January 31, 2019.**

30 **A.** Since the retirement of Station Two on January 31, 2019, Big Rivers has
31 performed work associated with decommissioning to get the units in a “dry,
32 dark, and safe” condition. This work includes disconnection of air, water, and
33 electrical sources to isolate much of the energy sources associated with the

1 units. In addition, chemicals and oils associated with the generating
2 equipment have been removed from site. Locks and barriers have been
3 installed where needed to improve security and limit access to the retired
4 units. Stack lighting and mooring cell lighting remains operational as
5 required by regulation until the units are fully dismantled. Daily inspections
6 are performed to ensure the asbestos insulation system remains safe until
7 approval from Henderson is obtained to allow its removal. The majority of
8 the work required to make the units dry, dark, and safe has been completed;
9 however, additional work remains, such as removing oil from transformers
10 and completing the electrical disconnect.

11

12 **Q. How have the costs of these activities been allocated between Big**
13 **Rivers and Henderson?**

14 A. As stated in the Direct Testimony of Jeffrey T. Kopp, these activities are
15 classified as decommissioning activities. The work that I have described in
16 my answer above is work that must be done as part of taking the plant out of
17 service and beginning the process of restoring the site to a brownfield, or a
18 greenfield, if applicable. Because these activities are part of the
19 decommissioning process, these costs constitute decommissioning costs and
20 are allocated between Big Rivers and Henderson based on the proportion in
21 which they shared capacity costs over the life of Station Two.

22

1 **Q. What forms the basis of your testimony that Henderson is obligated**
2 **to share in Station Two decommissioning costs?**

3 A. It is my understanding that once Big Rivers exercised its option to extend the
4 term of the Station Two Contracts for the operating life of Station Two,
5 Section 8 of the 1993 Amendments to Contracts governed the allocation of
6 decommissioning costs between the parties. That section provides:

7 **STATION TWO DECOMMISSIONING COSTS**

8 8. If Big Rivers exercises its option . . . to extend the life of
9 the Contracts for the operating life of Station Two . . . the
10 parties shall bear decommissioning costs of Station Two in the
11 proportions in which they shared capacity costs during the life of
12 Station Two.
13

14 **Q. Has Big Rivers determined the percentage of these costs to be**
15 **allocated to each party based on the capacity split over the life of**
16 **Station Two?**

17 A. Yes. As shown on Exhibit Pullen-1, Big Rivers' share of capacity costs over
18 the life of Station Two is 77.24%, and Henderson's share is 22.76%.

19
20 **Q. What are the total decommissioning costs that Big Rivers has**
21 **incurred related to Station Two?**

22 A. Exhibit Pullen-2 shows that, as of June 30, 2019, Big Rivers has incurred
23 \$631,924 in costs associated with decommissioning Station Two.

24

1 **Q. What is Henderson's share of these costs?**

2 A. Henderson owes Big Rivers 22.76% of the Station Two decommissioning costs
3 Big Rivers has incurred, or \$143,826. Of this amount, Henderson has only
4 paid \$9,728 relating to auxiliary power costs for Station Two for the months
5 of February – April, 2019, and so, Henderson still owes Big Rivers \$134,098
6 for the decommissioning costs Big Rivers has incurred through June 30,
7 2019.

8

9 **Q. Has Big Rivers incurred additional decommissioning costs since**
10 **June 30, 2019?**

11 A. Yes. Big Rivers has continued to work to make the units dry, dark and safe
12 since June 30, 2019, and Big Rivers will continue to bear ongoing
13 maintenance costs as part of the decommissioning process to maintain the
14 units in a dry, dark and safe condition until Station Two is fully
15 decommissioned, as I explain below. Big Rivers will regularly invoice
16 Henderson for its share of these additional decommissioning costs to make
17 the unit dry, dark and safe and to maintain them in that state.

18

19 **Q. Please describe the discussions that you have had with Henderson**
20 **regarding their obligations to share in the decommissioning costs of**
21 **Station Two.**

1 A. Initially, Henderson acknowledged it was responsible for at least some of the
2 Station Two decommissioning costs. Attached to my testimony as Exhibit
3 Pullen-3 is an August 10, 2018 email from HMP&L's General Manager Mr.
4 Chris Heimgartner stating that Henderson was "obligated for the long-term
5 remediation of the ash pond, and that the costs should be allocated according
6 to the capacity split (approximately 22/78 percent). We also believe that we
7 are obligated on the asbestos remediation, again on the same split."
8 Unfortunately, on January 3, 2019, I discussed with HMP&L's Director of
9 Power Supply, Mr. Ken Brooks, the need to hire an engineering consultant to
10 prepare bid specification documents for the decommissioning and
11 dismantling of Station Two. I provided Mr. Brooks a copy of the consultant's
12 proposal for his consideration. Mr. Brooks informed me via email on January
13 4, 2019, that "HMP&L will not participate or share in the cost of the
14 engineering services provided by this proposal." That email is attached to my
15 testimony as Exhibit Pullen-4. Since Station Two is owned by the City of
16 Henderson, without Henderson's approval to prepare a bid specification, Big
17 Rivers cannot comply with the municipal purchasing requirements that must
18 be followed to award a contract for the decommissioning and dismantling of
19 Station Two.

20 On January 31, 2019, Big Rivers provided Mr. Brooks a draft bid
21 specification for asbestos abatement for Station Two. On February 1, 2019,
22 Mr. Brooks provided his comments via email on the specification and also

1 stated, "I want to reiterate, HMP&L will not participate in or accept bids for,
2 asbestos abatement at Station Two." And on March 1, 2019, Mr.
3 Heimgartner sent Big Rivers an email again declining to participate in the
4 asbestos abatement. A copy of the February 1 and March 1 emails are
5 attached to my testimony as Exhibits Pullen-5 and Pullen-6, respectively.
6 Again, without Henderson's approval to proceed, Big Rivers cannot comply
7 with the municipal purchasing requirements that must be followed to award
8 a contract for the asbestos abatement of Station Two.

9
10 **Q. Has Henderson ever acknowledged its obligation to share in any**
11 **decommissioning costs of Station Two?**

12 A. Yes, but only to a certain extent. Henderson acknowledged this obligation
13 verbally and in the emails referenced above, and they also agreed to pay
14 certain costs associated with making Station Two "safe" and "secure". As
15 mentioned above, Henderson has paid certain auxiliary power costs related to
16 the energy consumed by Station Two during the decommissioning process
17 from February through April 2019. Additionally, Mr. Brooks advised me
18 that, consistent with Mr. Heimgartner's email referenced above, that
19 Henderson was going to share in the costs associated with closing the Station
20 Two ash pond, which is a city-owned joint use facility. However, to date,
21 Henderson has not reimbursed Big Rivers for any of the costs it has incurred
22 associated with the work related to closing the ash pond. Moreover, in

1 response to receiving an invoice from Big Rivers related to auxiliary power
2 consumed by Station Two for the months of May 2019 and June 2019, Mr.
3 Brooks stated in an email that Henderson was not going to pay any further
4 costs associated with Station Two incurred after May 1, 2019. I have
5 attached this email to my testimony as Exhibit Pullen-7.
6

7 **Q. What additional costs does Big Rivers anticipate incurring related to**
8 **the decommissioning of Station Two?**

9 A. As I mentioned above, Big Rivers anticipates additional costs to complete the
10 process of making the Station Two units dry, dark, and safe. In addition,
11 until Station Two is fully decommissioned, there will continue to be ongoing
12 maintenance associated with Station Two. As stated in the Direct
13 Testimony of Jeffrey T. Kopp, full decommissioning generally means
14 restoring the site to a condition suitable for industrial use. This requires
15 dismantling. Although some utilities may retire units in place temporarily,
16 eventually, the units will need to be fully decommissioned. Until Station Two
17 is fully decommissioned, routine maintenance costs such as maintaining
18 stack lighting in accordance with Federal Aviation Administration
19 regulations, providing site security, and maintaining the fire protection
20 system and the asbestos insulation will continue to be incurred indefinitely.
21 Big Rivers also anticipates incurring its share of the costs to fully
22 decommission Station Two, including its share of the costs to close the ash

1 pond and to fully decommission all other joint use facilities, either now (if Big
2 Rivers is no longer going to utilize them) or in the future (once Big Rivers
3 ceases to utilize them).

4
5 **Q. What are the estimated costs associated with the ongoing**
6 **maintenance that will be required at Station Two until it is fully**
7 **decommissioned?**

8 A. I estimate that there will be approximately [REDACTED] in annual maintenance
9 expenses on an ongoing basis until Station Two is fully decommissioned.

10 This estimate is based on the Coleman plant decommissioning study
11 performed in 2016. The Coleman units and Station Two units are similar in
12 make-up and size; however, there are three Coleman units and only two
13 Station Two units. The estimate for Station Two is based on 67% of the
14 ongoing maintenance costs that were estimated for Coleman. A table from
15 the Coleman study showing the estimated ongoing costs is attached to my
16 testimony as Exhibit Pullen-8. For comparison purposes, in its integrated
17 resource plan (“IRP”) dated April 19, 2018, Henderson estimated the ongoing
18 costs to provide site security for the Station Two units after retirement to be
19 approximately \$775,000 per year. The relevant page from Henderson’s IRP is
20 attached to my testimony as Exhibit Pullen-9.

1 **Q. What are the anticipated costs associated with decommissioning**
2 **Station Two?**

3 A. Except for the costs to abate the asbestos at Station Two, neither Big Rivers
4 nor Henderson have commissioned a decommissioning study to obtain an
5 estimate of the costs to decommission the Station Two units. However,
6 Station Two is very similar to Big Rivers' Coleman generating station. Each
7 of the Station Two units are similar in size and technology to the Coleman
8 units. In fact, Station Two boilers one and two and Coleman boiler three are
9 consecutive serial numbers from Riley, the original equipment manufacturer
10 of the boilers.

11 Using the study that was performed at Coleman, I anticipate the
12 decommissioning costs at Station Two to be in the range of [REDACTED] to [REDACTED]
13 [REDACTED]. The scope of the decommissioning estimate includes asbestos
14 removal; dismantling the boilers, steam turbine, precipitators, scrubbers,
15 selective catalytic reactors, stacks, and transformers; on-site concrete
16 crushing and disposal; debris removal; less salvage value for the scrap metal.
17 The estimate also includes decommissioning of the cooling water intake,
18 grounds, fuel oil storage, balance of plant buildings, coal handling facilities
19 and coal yard, and final grading and seeding of the site.

20

1 This estimate does not include the decommissioning costs of certain
2 joint use facilities, such as the costs to close the Station Two ash pond or
3 future costs relating to environmental monitoring costs and the costs of any
4 required environmental remediation that could be required at the ash pond.
5 In addition, this estimate does not include the ongoing costs that are
6 attributable to Henderson's use of the Big Rivers Green Station landfill,
7 which is the repository for Station Two ash pond dredgings that are owned by
8 Henderson and are listed as a joint use facility in Exhibit 1 to the 1993
9 Amendments to Contracts. Plus, like with the Station Two ash pond, there
10 will be future costs associated with the Station Two ash pond dredgings in
11 the Big Rivers landfill, such as environmental monitoring costs and the costs
12 for any required environmental remediation, as well as the costs to close the
13 landfill at the end of its life, for which Henderson will be responsible for its
14 share under the terms of the Station Two Contracts.

15
16 **Q. What estimate did Big Rivers obtain for the costs to abate the
17 asbestos at Station Two?**

18 **A. Big Rivers utilized the municipal bidding process to obtain firm price
19 proposals to remove asbestos and non-asbestos insulation from the Station
20 Two units including the main steam and cold reheat steam piping, hot reheat
21 steam piping, heater vent piping, boiler feed water piping, extraction steam**

1 piping, steam system piping, soot blowing steam piping, condensate and feed
2 water heater drain piping, condensate piping, turbine drain system piping,
3 feed water heater shells, turbine shells, #1 cooling tower and #2 cooling
4 tower. Big Rivers believes this to be a comprehensive list of all asbestos
5 containing insulation in the plant with the exception of the 4160 volt
6 electrical breakers which will remain in service until the plant is fully
7 decommissioned. The Request for Bids for asbestos abatement was
8 advertised in the May 29, 2019, edition of the local newspaper, The Gleaner.
9 A pre-bid meeting was held on May 30, 2019, and the bid proposals were
10 received on June 12, 2019. Big Rivers received two proposals for this project.
11 The proposals for the project range from approximately \$1.6 million to \$2.8
12 million. However, Henderson has refused to award the job, and therefore, the
13 asbestos insulation still remains in place on the units, requires ongoing
14 monitoring and repair, and continues to pose a health and safety issue.

15
16 **Q. Please describe the process of closing the ash pond as well as the**
17 **associated timeline.**

18 A. In a letter dated December 7, 2018, I provided Mr. Brooks with a detailed
19 summary of the compliance activities necessary for the Station Two ash
20 ponds. A copy of that letter is attached to my testimony as Exhibit Pullen-10.
21 As of February 1, 2019, Henderson, as the owner and operator of Station

1 Two, became directly responsible for taking the requisite actions to ensure
2 Station Two remains in compliance with all federal and state environmental
3 laws. To summarize, the required actions include: (1) Cease accepting
4 combustion coal residual (“CCR”) and non-CCR wastes by April 17, 2019; (2)
5 Commence closure by April 17, 2019 (this deadline has been extended to
6 October, 2020); (3) Complete closure by April 17, 2024 (this deadline has been
7 extended to October, 2025). However, Henderson has not accepted any
8 responsibility nor taken any action in order to comply with these federal
9 regulations. As a result, Big Rivers has continued to ensure the appropriate
10 actions are implemented to ensure compliance.

11

12 **Q. Please provide an estimate of the expected costs associated with**
13 **closing the ash pond.**

14 **A.** The expected costs associated with closing the ash pond are in the range of
15 [REDACTED]. In addition, there will be ongoing groundwater monitoring
16 required for thirty years, and I estimate the yearly cost of that will be
17 approximately \$10,000. Finally, to the extent groundwater impacts or
18 additional environmental impacts exist such as leachate outbreaks, there will
19 be costs associated with addressing those issues as well as any additional
20 costs that may arise as a result of future environmental regulations.

1 **Q. Please explain why Big Rivers, and not Henderson, is leading the**
2 **work associated with closing the ash pond.**

3 A. During the life of Station Two, Big Rivers held the Kentucky Pollutant
4 Discharge Elimination System (“KPDES”) permit related to the Station Two
5 ash pond as part of its agreements with Henderson related to Station Two.
6 Although Henderson owns the ash pond, because Big Rivers is listed on the
7 permit as the Operator of the ash pond, Big Rivers is obligated to take the
8 steps necessary to meet the requirements of the permit until such time as
9 Henderson assumes the obligations under the permit. Because the
10 retirement of Station Two accelerated the requirement to close the ash pond,
11 Big Rivers is taking the appropriate steps to comply with these legal
12 requirements. While Henderson has cooperated in this process up to this
13 point, Henderson has not taken any action to obtain the permit in its name,
14 and the Kentucky Energy and Environment Cabinet Division of Water will
15 not remove Big Rivers from the operating permit without another entity
16 taking over the ongoing responsibilities under the permit.

17
18 **Q. Please explain why Henderson is responsible for its share of any**
19 **ongoing costs associated with Big Rivers’ landfill.**

20 A. The Power Sales Contract, as amended, defines the term “Station Two” in
21 Section 2.2 to include city-owned joint use facilities, and Exhibit 1, Part B,

1 Item 15, to the 1993 Amendments to Contracts specifically lists the Station
2 Two ash pond dredgings in Big Rivers' Green Station landfill as a city-owned
3 joint use facility. As such, it is my understanding that the costs associated
4 with decommissioning the dredgings are subject to the cost sharing
5 provisions in the Station Two Contracts and that Henderson must share in
6 those decommissioning costs. Additionally, as explained by Mr. Kopp in his
7 direct testimony, decommissioning costs include any future costs associated
8 with environmental monitoring and remediation.

9 Finally, Section 4.1 of the Joint Facilities Agreement, as amended,
10 provides that title to city-owned joint use facilities remains with Henderson,
11 and Section 6.1 provides that Henderson is jointly and severally responsible
12 for the continued operating, maintenance, repair, renewal and replacement
13 costs of its joint use facilities. Thus, Henderson is responsible for
14 maintaining its joint use facilities until they can be decommissioned.

15 Although Big Rivers continues to use its landfill in connection with the
16 operation of its Green Station, it has no use for the Station Two dredgings in
17 the landfill. Since Big Rivers continues to use the landfill, the landfill cannot
18 be closed and the Station Two waste in the landfill cannot be
19 decommissioned. Thus, until such time as the Station Two ash pond
20 dredgings can be fully decommissioned, Henderson is contractually obligated

1 to share in the costs to maintain them in proportion to Henderson's share of
2 the waste deposited into the landfill.

3

4 **Q. Does Big Rivers have an estimate for the date and costs related to**
5 **decommissioning the Big Rivers landfill as well as the share that will**
6 **be allocated to Station Two?**

7 A. The Big Rivers landfill has approximately twenty years of remaining life
8 assuming the completion of a vertical wall expansion continues as currently
9 planned. Decommissioning and closure of the landfill will occur at the end of
10 its remaining life. At this time, we have not estimated the decommissioning
11 and closure costs for the landfill. The costs to close the landfill will be
12 allocated between Henderson and Big Rivers based on the ratio of the
13 amount of ash that was produced and subsequently stored by each party in
14 the landfill. As of December 31, 2018, the ratios are approximately 12% for
15 Henderson and 88% for Big Rivers.

16

17 **Q. Please provide an estimate of any ongoing costs Big Rivers expects**
18 **to incur related to the landfill between now and the time the landfill**
19 **will be decommissioned.**

20 A. Exhibit Pullen-11 sets forth the expected costs Big Rivers expects to incur
21 related to the landfill. Big Rivers estimates the costs for the installation of

1 two projects over the next two years to remediate seeps and leachate
2 outbreaks associated with the ash material, including the Station Two ash
3 dredgings, will be approximately \$7,500,000. In addition, groundwater
4 monitoring is required to continue for the present time and last until thirty
5 years after the closure of the landfill. This groundwater monitoring is
6 estimated to cost approximately \$10,000 per year. Because these costs are
7 attributable to the continued storage of the waste in the landfill, including
8 Henderson's share of the Station Two ash pond dredgings in the landfill,
9 Henderson is responsible to share in these costs.

10 **Q. Please describe any discussions you have had with Henderson about**
11 **sharing in the ongoing landfill costs.**

12 A. Henderson has stated that they do not intend to share in any ongoing costs,
13 or decommissioning costs, associated with the Big Rivers landfill. They have
14 stated that because they do not own the landfill, they are not obligated to
15 share in any future landfill related costs.

16

17 **IV. STATUS OF HENDERSON-OWNED JOINT USE FACILITIES**

18 **Q. What are joint use facilities?**

19 A. Joint use facilities are power production assets that are used by one or more
20 of the power plants located at the Reid-Green-Station Two complex. This

1 form of cost sharing improves efficiency and lowers costs for Big Rivers'
2 Members as well as the customers served by Henderson.

3

4 **Q. Which Henderson-owned joint use facilities will Big Rivers continue**
5 **to use in the operation of its generating stations?**

6 A. Exhibit Pullen-12 lists the Henderson-owned joint use facilities that Big
7 Rivers continues to use in the operation of its generating stations.

8

9 **Q. How have the costs associated with the joint use facilities that Big**
10 **Rivers continues to use been allocated since February 1, 2019?**

11 A. 100% of the operating and maintenance costs attributable to Big Rivers'
12 ongoing use of the joint use facilities since February 1, 2019, have been
13 allocated to Big Rivers. However, once Big Rivers no longer uses these
14 facilities, they will become subject to the Station Two decommissioning cost
15 sharing provisions contained in the Station Two Contracts.

16

17 **Q. Does Henderson agree with this approach?**

18 A. No. Henderson has stated that Big Rivers is not entitled to use the city-
19 owned joint use facilities without some additional compensation being paid to
20 Big Rivers by Henderson. In the alternative, Henderson suggested that Big
21 Rivers purchase and assume responsibility for all decommissioning costs

1 associated with any Henderson-owned joint use facilities that Big Rivers
2 wants to continue to use.

3

4 **Q. Is Henderson's position supported by the terms of the Station Two**
5 **Contracts?**

6 A. No. To the contrary, Section 4.1 of the Joint Facilities Agreement, as
7 amended, provides that Henderson will continue to own all of the joint use
8 facilities it provided. Section 4.1 also provides that those facilities were
9 "*irrevocably allocated and devoted to the continued use thereof by each of the*
10 *parties . . . for as long as either [party] shall continue to operate and/or*
11 *maintain a generating station in connection therewith.*" Likewise, Section 1.5
12 provides:

13 It is the intention of the parties, by this Agreement, each to
14 devote to the joint use of both parties, as long as they or either of
15 them . . . shall continue to operate a generation station or
16 stations in connection therewith, those joint use facilities to be
17 provided by each, and to provide for the continuous operation
18 and maintenance thereof for the parties' join and separate
19 benefits.
20

21 Section 6.1 further provides that "the parties will be severally and
22 jointly responsible of the continued operation, maintenance, repair, renewal
23 and replacements of such joint use facilities so as to assure the continuous
24 operation of the parties' respective generation station or stations served
25 thereby." And, as I mentioned above, Section 8 of the 1993 Amendments to

1 Contracts requires the parties to “bear decommissioning costs of Station Two
2 in the proportions in which they shared capacity costs during the life of
3 Station Two.”

4 Therefore, Henderson’s position is contrary to the terms of the Station
5 Two Contracts, Big Rivers is entitled to use the city-owned joint use facilities
6 for so long as it continues to operate and maintain its generating stations in
7 connection with those facilities, and Henderson is required to pay its share of
8 the costs to decommission any city-owned joint use facility once Big Rivers
9 ceases to utilize it.

10 **Q. Which Henderson-owned joint use facilities will Big Rivers no longer
11 use in the operation of its generating stations, and what is the
12 anticipated disposition of those facilities?**

13 A. Exhibit Pullen-13 lists the Henderson-owned joint use facilities that Big
14 Rivers will no longer use in the operation of its generating stations. As I
15 mentioned above, the ash pond will be closed as required by law. The
16 remaining joint use facilities listed are anticipated to be decommissioned and
17 dismantled concurrent with the decommissioning of the Station Two units.

18
19 **Q. Has Henderson agreed to share in the decommissioning costs of the
20 Henderson-owned joint use facilities?**

1 A. As I testified above, Henderson has verbally indicated a willingness to only
2 share in decommissioning costs related to closing the ash pond. However,
3 beyond that, Henderson has stated that it does not intend to share in these
4 costs nor has it paid any of the decommissioning costs Big Rivers has already
5 incurred.

6

7 V. CONCLUSION

8 Q. Do you have any additional comments?

9 A. No, I do not.

10 Q. Does this conclude your testimony?

11 A. Yes, it does.

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR
ENFORCEMENT OF RATE AND SERVICE STANDARDS
CASE NO. 2019-00_____**

VERIFICATION

I, Michael T. ("Mike") Pullen, verify, state, and affirm that I prepared or supervised the preparation of the Direct Testimony filed with this Verification, and that Direct Testimony is true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry



Michael T. ("Mike") Pullen

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

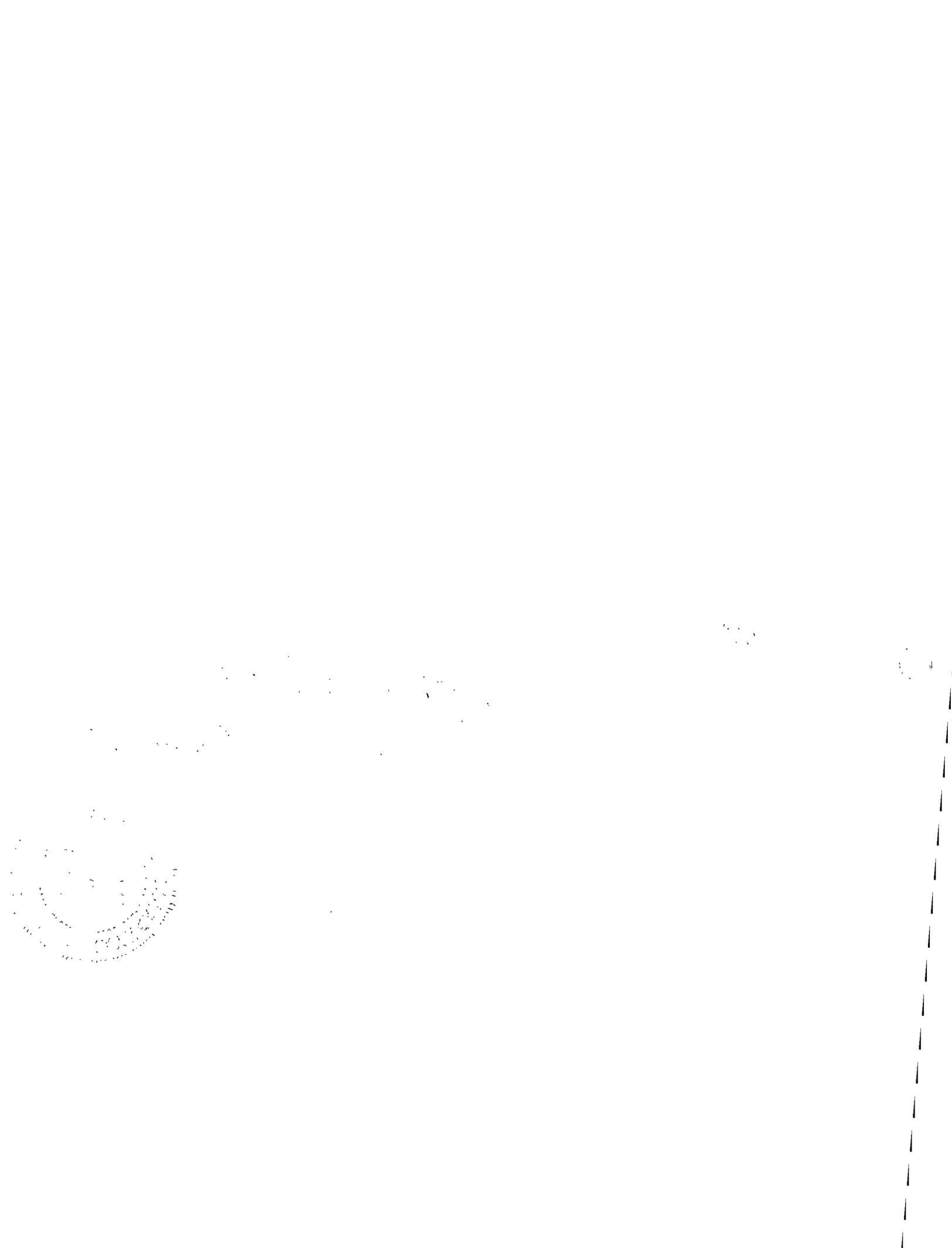
SUBSCRIBED AND SWORN TO before me by Michael T. ("Mike") Pullen on this the 30th day of July, 2019.



Notary Public, Kentucky State at Large

My Commission Expires October 30, 2020





Big Rivers Electric Corporation
Case No. 2019-00_____
Summary of Yearly Capacity Allocation
1973 - 2019

Contract Year (June 1 - May 31)	Capacity Reserved By HMPL		Surplus Capacity Allocated to Big Rivers		Net Rated Total Capacity
	MW	%	MW	%	MW
1973	13	7.43%	162	92.57%	175
1974	17	5.67%	283	94.33%	300
1975	18	6.23%	271	93.77%	289
1976	22	7.61%	267	92.39%	289
1977	27	9.34%	262	90.66%	289
1978	32	11.07%	257	88.93%	289
1979	38	13.15%	251	86.85%	289
1980	40	13.51%	256	86.49%	296
1981	43	14.53%	253	85.47%	296
1982	43	14.53%	253	85.47%	296
1983	45	14.29%	270	85.71%	315
1984	47	17.54%	268	82.46%	315
1985	44	13.97%	271	86.03%	315
1986	44	13.97%	271	86.03%	315
1987	45	14.29%	270	85.71%	315
1988	46	14.60%	269	85.40%	315
1989	51	16.19%	264	83.81%	315
1990	51	16.19%	264	83.81%	315

Big Rivers Electric Corporation
Case No. 2019-00_____
Summary of Yearly Capacity Allocation
1973 - 2019

Contract Year (June 1 - May 31)	Capacity Reserved By HMPL		Surplus Capacity Allocated to Big Rivers		Net Rated Total Capacity MW
	MW	%	MW	%	
1991	52	16.51%	263	83.49%	315
1992	53	16.83%	262	83.17%	315
1993	54	17.14%	261	82.86%	315
1994	57	18.10%	258	81.90%	315
1995	62	19.87%	250	80.13%	312
1996	62	19.87%	250	80.13%	312
1997	65	20.83%	247	79.17%	312
1998	66	21.15%	246	78.85%	312
1999	75	24.04%	237	75.96%	312
2000	87	27.88%	225	72.12%	312
2001	92	29.49%	220	70.51%	312
2002	95	30.45%	217	69.55%	312
2003	95	30.45%	217	69.55%	312
2004	95	30.45%	217	69.55%	312
2005	95	30.45%	217	69.55%	312
2006	95	30.45%	217	69.55%	312
2007	95	30.45%	217	69.55%	312
2008	95	30.45%	217	69.55%	312

Big Rivers Electric Corporation
Case No. 2019-00_____
Summary of Yearly Capacity Allocation
1973 - 2019

Contract Year (June 1 - May 31)	Capacity Reserved By HMPL		Surplus Capacity Allocated to Big Rivers		Net Rated Total Capacity
	MW	%	MW	%	MW
2009	100	32.05%	212	67.95%	312
2010	105	33.65%	207	66.35%	312
2011	110	35.26%	202	64.75%	312
2012	115	36.86%	197	63.14%	312
2013	115	36.86%	197	63.14%	312
2014	115	36.86%	197	63.14%	312
2015	115	36.86%	197	63.14%	312
2016	115	36.86%	197	63.14%	312
2017	115	36.86%	197	63.14%	312
2018	115	38.46%	197	61.54%	312
2019	125	40.07%	187	59.94%	312
Average Through 2019 Contract Year	70.23	22.76%	235.89	77.24%	

Note: 1993 Amendments to Contracts: P.13, STATION TWO DECOMMISSIONING COSTS, 8. If Big Rivers exercises its option under Section 1.1 of the May 1, 1993 Amendments to extend the life of the Contracts for the operating life of Station Two, as heretofore defined, the parties shall bear decommissioning costs of Station Two in the proportions in which they shared capacity costs during the life of Station Two.

Big Rivers Electric Corporation
Case No. 2019-00_____
HMPL Station Two Decommissioning Costs

	TOTAL (a) (a) = (b) + (c) + (d)	REID (b)	GREEN (c)	STATION TWO (d)
<u>Ramp Down</u>				
Station Two Only	\$ 412,478.57	\$ -	\$ -	\$ 412,478.57
Reid & Station Two	164,847.69	28,422.02	-	136,425.67
Reid, Green, & Station Two	259.50	20.30	141.77	97.43
Subtotal	577,585.76	28,442.32	141.77	549,001.67
<u>CCR</u>				
Station Two Only	29,046.40	-	(611.21)	29,657.61
<u>Auxiliary Power</u>				
Station Two Only - May & June	9,914.42	-	-	9,914.42
Station Two Only - Feb., Mar., & April	43,024.50	-	-	43,024.50
Subtotal	52,938.92	-	-	52,938.92
<u>Asset Sale</u>				
Station Two Only	325.80			325.80
Total Cost	\$ 659,896.88	\$ 28,442.32	\$ (469.44)	\$ 631,924.00
<u>Henderson Allocation</u>				
Percentage of Total Cost				22.76%
Henderson Allocation of Total Cost				\$ 143,825.90
<u>June 30, 2019 Amount Due from Henderson</u>				
Total Allocated Decommissioning Costs				\$ 143,825.90
Payments Received (Auxiliary Power Feb, Mar & Apr)				9,727.84
Balance Due				\$ 134,098.06

Case No. 2019-00_____

Exhibit Pullen-2

Direct Testimony of Michael T. Pullen

Page 1 of 1

Berry, Bob

From: Chris Heimgartner [REDACTED]
Sent: Friday, August 10, 2018 2:51 PM
To: Berry, Bob
Subject: RE: HMPL Response

Bob,

We do believe we are obligated for the long-term remediation of the ash pond, and that the costs should be allocated according to the capacity split (approximately 22/78 percent). We also believe that we are obligated on the asbestos remediation, again on the same split. I believe that these items should be addressed separately from our agreement to close the plant early, and purchase bridge power.

Please let me know if this helps you evaluate the offer and move forward.

Thanks,

Chris

From: Berry, Bob [REDACTED]
Sent: Wednesday, August 8, 2018 5:15 PM
To: Chris Heimgartner [REDACTED]
Subject: RE: HMPL Response

Chris, thank you for the response; however I do have one initial question. In our previous meeting you verbally agreed to pay for HMPL's share of the asbestos removal and the Ash Pond. HMPL's share was defined as the proportion in which they shared capacity costs during the life of Station Two. By striking paragraph 12 (a) and (b) does this mean you are no longer agreeing to pay those cost? Could you please let me know the answer to this question so that we can adequately evaluate this offer. Once I have your official position regarding the asbestos and ash pond cost we will respond to this offer

Thanks
Bob

From: Chris Heimgartner [REDACTED]
Sent: Wednesday, August 8, 2018 1:00 PM
To: Berry, Bob [REDACTED]
Subject: HMPL Response

Dear Bob,

In response to the latest version of the draft term sheet, received on August 3, 2018, HMPL is willing to acknowledge that both parties are reserving for later determination the issues referenced in Paragraph 12. Paragraph 12 does not deal directly with the early discontinuation of Station Two generation, and the issues referenced in in Paragraph 12(b) are not directly or imminently related to the shutdown as contemplated by the parties in the term sheet. We acknowledge that the parties are reserving their positions on these issues by deleting paragraph 12 from the term sheet, and adding the issues referenced in that paragraph to the list of issues that remain unresolved.

HMPL's approved version of the term sheet is attached for your consideration.

Sincerely,

Chris Heimgartner

Pullen, Mike

From: Ken Brooks [REDACTED]
Sent: Friday, January 04, 2019 2:04 PM
To: Pullen, Mike
Cc: Joella Wilson; Tammy Konsler; Scott, Keith; Sharon Farmer; Randall Redding
Subject: BREC Meeting (1/3/19)

Mike,

Per our meeting yesterday:

- Linebach * Funkhouser, Inc.
Proposal for Environmental and Bid Specification Services
HMP&L will not participate or share in the cost of the engineering services provided by this proposal.
- Auxiliary Power
HMP&L will not be responsible for auxiliary power effective 2/1/19..
- Coal Inventory – Since the power market looks soft for January, HMP&L is currently checking with Alliance to see if the 19,000 tons of coal ordered for January can be decreased or cancelled. If this is a problem please let me know as soon as possible.
- Making Station Two Safe after 2/1/19 – HMP&L will participate in the cost of this process at the 22.61% split. Payment for this will be by approved invoices only. May HMP&L request a copy of the scope of work, timeline and estimated cost for our review.

Thanks,
KMB

Kenneth M. Brooks
Power Supply Director
Henderson Municipal Power & Light
[REDACTED]
[REDACTED]
[REDACTED]

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Pullen, Mike

From: Ken Brooks [REDACTED]
Sent: Friday, February 01, 2019 12:00 PM
To: Holmes, Mary
Cc: Joella Wilson; Tammy Konsler; Bunch, Gary; Scott, Keith; Pullen, Mike
Subject: RE: H-19-101 Asbestos Abatement
Attachments: H-1 H-2 ASBESTOS ABATEMENT SPEC - DRAFT.docx

Mary,

HMP&L's comments are attached.

I want to reiterate, HMP&L will not participate in or accept bids for, asbestos abatement at Station Two.

KMB

From: Holmes, Mary [REDACTED]
Sent: Thursday, January 31, 2019 1:59 PM
To: Ken Brooks [REDACTED]
Cc: Bunch, Gary [REDACTED]
Subject: H-19-101 Asbestos Abatement

Ken,

Please find attached specification for the asbestos abatement. At this time, we do not have any of the dates in it but will insert once we know what they are. Please let me know if you have any questions.

Thanks,

Mary Holmes

*Procurement Agent II
Big Rivers Electric Corporation
9000 Highway 2096
Robards, KY 42452*

[REDACTED]
[REDACTED]
[REDACTED]

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Berry, Bob

From: Chris Heimgartner [REDACTED]
Sent: Friday, March 01, 2019 2:53 PM
To: Berry, Bob
Cc: Brad Bickett; Randall Redding; Steve Austin; Sharon Farmer; Barbara Moll; Ken Brooks; Christian Jolly
Subject: RE: Term Sheet

Bob,

Thank you for the information.

We are not going to separate out the Asbestos from the larger settlement. We appreciate the option, but decline.

Thanks,

Chris

From: Berry, Bob [REDACTED]
Sent: Friday, March 1, 2019 2:48 PM
To: Chris Heimgartner [REDACTED]
Cc: Brad Bickett [REDACTED]; Randall Redding [REDACTED]; Steve Austin [REDACTED]; Sharon Farmer [REDACTED]; Barbara Moll [REDACTED]; Ken Brooks [REDACTED]; Christian Jolly [REDACTED]
Subject: RE: Term Sheet

Chris, I appreciate the update. As an FYI, we received the bids for the asbestos abatement yesterday and they range from \$1.3M to \$1.8M. I am requesting that HMPL agree to go forward with the asbestos abatement irrespective of the term sheet. A comprehensive evaluation of the bids has not yet been completed; however, based on the bids, HMPLs share of the cost would be approximately \$294,000 at the \$1.3M bid (22.61%) and \$407,000 at the \$1.8M bid. As an FYI, as of February 28, all employees have been released from Station Two. My concern is that the asbestos could become a safety and an environmental issue and it needs to be abated as soon as possible to avoid any of these issues. Please let me know if you agree to share in the asbestos abatement as described above.

Thanks
Bob

From: Chris Heimgartner [REDACTED]
Sent: Friday, March 01, 2019 2:27 PM
To: Berry, Bob [REDACTED]
Cc: Brad Bickett [REDACTED]; Randall Redding [REDACTED]; Steve Austin [REDACTED]; Sharon Farmer [REDACTED]; Barbara Moll [REDACTED]; Ken Brooks [REDACTED]; Christian Jolly [REDACTED]
Subject: Term Sheet

Dear Bob,

We have been working hard on a reply to your latest term sheet and have not gotten there yet. I will be out of town and generally unavailable after today until March 14. We will probably not get a reply ready for you by the end of business today, and that will likely delay any reply until mid-March.

Just wanted to keep you posted.

Sincerely,

Chris

Pullen, Mike

From: Tutor, Elizabeth
Sent: Tuesday, July 09, 2019 10:42 AM
To: Pullen, Mike
Subject: FW: May 2019 Auxiliary Load Invoice

From: Ken Brooks [REDACTED]
Sent: Monday, June 24, 2019 1:12 PM
To: Tutor, Elizabeth [REDACTED]
Cc: Joella Wilson [REDACTED]
Subject: RE: May 2019 Auxiliary Load Invoice

Elizabeth,

As of May 1, 2019, HMP&L will no longer share the cost of auxiliary load for Station Two. HMP&L agreed to share the cost to make Station Two "safe" and "secure" after the February 2019 shutdown and to our understanding this was completed in April of this year. Any further costs for Station Two will no longer be shared or the responsibility of HMP&L.

If you have any questions please let us know.

Thanks,
KMB

From: Tutor, Elizabeth [REDACTED]
Sent: Monday, June 10, 2019 5:10 PM
To: Ken Brooks [REDACTED]; Joella Wilson [REDACTED]
Cc: Pullen, Mike [REDACTED]; Eacret, Mark [REDACTED]; Windhaus, Donna [REDACTED];
[REDACTED]; Risley, Katie [REDACTED]; Scott, Julie [REDACTED];
[REDACTED]; Howard, Daniel [REDACTED]; Hankins, Natalie [REDACTED];
[REDACTED]; Cheatham, Katie [REDACTED]
Subject: May 2019 Auxiliary Load Invoice

Ken/Joella,

Attached is the May Auxiliary Load Invoice and supporting calculation spreadsheet.

Please let us know if you have any questions.

Thank you,
Elizabeth R Tutor, MISO Settlement Supervisor, Big Rivers Corporation; 201 3rd Street Henderson, KY 42420;
[REDACTED]

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Big Rivers Electric Corporation
Case No. 2019-00_____
Coleman Retire-in-Place Cost Summary

Table A-2
Kenneth C. Coleman Station
Retire in Place Cost Summary

One Time Costs

Description	Line Item Costs
Asbestos Abatement	
Shutdown Plant Equipment and Structures	
Coal Pile Remediation	
Ash Pond Remediation*	
Other Pond Remediation	
Unit Cleanup and Disposal	
Site Security	
Credits	
Retirement in Place Subtotal	
PROJECT INDIRECTS (5%)	
CONTINGENCY (20%)	
TOTAL PROJECT COST (CREDIT)	

Ongoing Costs

Description	Line Item Costs
Asbestos Inspection	
Common Site Maintenance	
Chimney Inspection	
Site Security	
Environmental Monitoring	
Retirement in Place O&M Subtotal	
PROJECT INDIRECTS (5%)	
CONTINGENCY (20%)	
TAX LIABILITY	
INSURANCE PREMIUM	
ANNUAL O&M COST	



Table 3-5: Major Planned Capital Expenditures (Total Plant)

	Major HGS Capital Item	Cost M\$	Completion Year
1.	Turbine Overhaul – Unit 1	\$8.0 M	2019
2.	Turbine Overhaul – Unit 2	\$8.3 M	2021
3.	Dry Bottom Ash Under Boiler Conveyor	\$20.9 M	2023
4.	FGD Wastewater Installation	\$34.1 M	2023
5.	TOTAL	\$71.3 M	2023

Estimates for turbine overhaul provided by HMP&L and environmental upgrade capital cost based on 2016 B&V study estimates. All cost shown in nominal dollars and escalation based on annual inflation rate of 2.15%.

3.1.4 HGS Decommissioning Cost

In scenarios where the HGS plant is retired and HMP&L pursues alternative generation resources, the IRP study assumes that HGS is "decommissioned" and that no significant expenditures occur in shutting down the plant and the existing equipment will be abandoned. Instead, these alternative scenarios assume that HMP&L will hire a security company to maintain appropriate security personnel at the site for an annual cost of approximately \$775,000 (2020\$).

3.2 ALTERNATIVES TO HGS

The IRP supply side alternatives to HGS represent a large cross section of generation technologies that are commercially viable today and, for the most part, would be able to be sited in or around HMP&L's service territory. The alternative options also include renewable resources, and the study assumes that wind projects could be acquired via a PPA with a wind developer. More importantly, this evaluation of alternative generation resources is not meant to suggest that these are the only alternatives available to HMP&L, but instead, are meant to address whether or not there are viable generation alternatives to continuing to operate the HGS facility either in partnership with BREC or without BREC.

At a high level, the cross section of alternative generation technologies includes reciprocating engines ("RICE"), smaller gas-fired generation (both peaking and intermediate generation), renewables, and modular nuclear. The modular nuclear is just a touchpoint for evaluating "non-gas" alternative resources within the IRP. And while this study assumes specific technologies from specific vendors (e.g. GE's LM2500), several manufacturers offer similar generating technologies and the information provided should be assumed to be generally applicable to other similar generating technologies from other vendors.

In addition to the generation resources, the IRP study also assumes that HMP&L could directly interact with the MISO market and third-party suppliers and purchase spot energy as well as enter into bilateral agreements for longer term energy or capacity purchases. All scenarios have some interaction with the MISO market and several scenarios have combinations of generation resources and block purchases from a third-party supplier at a fixed price.

Table 3-6 contains key assumptions for the alternative generation resources' capital cost, FOM, VOM, and heat rates. Please note that the capital cost reflects "installed capital cost" in 2018\$ and includes Interest During Construction (IDC). Information for this table is comprised of several sources, including EIA's 2017 Annual Energy Outlook, SNL energy database (which is widely used in the energy industry and licensed for use by GDS), and other GDS client projects.



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

December 7, 2018

Mr. Ken Brooks
Power Supply Director
Henderson Municipal Power & Light
100 Fifth Street
P.O. Box 8
Henderson, KY 42419-0008

RE: STATION TWO ASH POND AND ADDITIONAL COMPLIANCE ACTIVITIES

Dear Ken:

As you know, HMP&L and Big Rivers have agreed to cease operations at Station Two effective February 1, 2019. Once Big Rivers is no longer the operator of Station Two, the City will, as the owner and operator of Station Two, become directly responsible for taking the requisite action to ensure Station Two remains in compliance with all federal and state environmental laws. To that end, I am writing to make you aware of certain obligations around the closure of the Station Two ash pond as well as corrective action that must be taken related to the detection of statistically significant groundwater exceedances detected at the Station Two ash pond.

Station Two Ash Pond Closure

As we discussed during our meeting on December 7, 2018, the HMP&L Station Two CCR surface impoundment ("ash pond") is unlined. Furthermore, as of October 17, 2018, testing at the ash pond revealed that it does not meet the aquifer separation requirement set forth in the CCR regulations nor did it pass the seismic test set forth in Section 257.63(a) of the CCR regulations. As such, these events triggered the closure requirements set forth in Section 257.101(b)(1), which when applied to Station Two, provides that within 6 months of October 17, 2018 (i.e. by April 17, 2019), the operator must cease placing CCR and non-CCR wastes in the ash pond and close the CCR Unit in accordance with the requirements of Section 257.102. While the EPA has proposed to allow an ash pond required to close under Section 257.101(b)(1) to continue to accept non-CCR waste if there is no alternative disposal capacity, there is currently no rule in place that allows for this course of action.

Big Rivers has already developed a closure plan for the HMP&L Station Two ash pond as is required by the CCR Rule. This, along with the results of the groundwater and seismic testing that has been performed, are posted on Big Rivers' Website under the

Environmental Services tab. It provides that closure will occur by dewatering and capping the unit in place. The estimated time for completing closure is five years. Section 257.102(3) provides commencement of closure occurs when:

- Any activities are taken to implement the written closure plan;
- The operator has submitted a closure permit application; or
- The operator has taken steps to comply with state standards for closure.

Therefore, HMP&L must initiate one of these actions/activities with respect to the Station Two ash pond by April 17, 2019, unless alternate disposal capacity is shown to be unavailable for non-CCR wastes AND EPA adopts the amendment for non-CCR waste as part of Section 257.103. For example, HMP&L may want to consider submittal of a closure plan to KDWM for the HMP&L Station Two ash pond by April 17, 2019. Another option HMP&L may want to consider is commencing dewatering by April 17, 2019, assuming continued disposal of non-CCR wastes is not permissible as discussed above.

Closure of the HMP&L Station Two ash pond must be completed within five years of commencement of closure unless an extension is granted. As such, closure may need to be completed as early as April 2024. An extension of up to two years for ash ponds smaller than 40 acres, such as the Station Two pond, is available if it is demonstrated that it is not feasible to complete closure within five years.

In summary, and subject to the above, below is the projected closure schedule for the HMP&L Station Two ash pond:

- Cease accepting CCR and non-CCR wastes by April 17, 2019
- Commence closure by April 17, 2019
- Complete closure by April 17, 2024

CORRECTIVE ACTION CONSIDERATION/SCHEDULE

Regardless of the closure schedule above which is triggered by the CCR Rule, there are additional actions which must be taken with respect to the Station Two ash pond as a result of statistically significant groundwater exceedances which were detected at the site of the Station Two ash pond by the October 15, 2018, trigger date. As a result, corrective measures assessment and selection of a corrective action remedy for the HMP&L Station Two ash pond groundwater exceedances under Section 257.96 through 257.98 will need to be considered and coordinated with the HMP&L Station Two ash pond closure schedule. This will be an important consideration in the event HMP&L pursues

continued use of the ash pond for non-CCR waste for a period of time, assuming EPA adopts a final rule allowing that practice. Therefore, per the CCR Rule, the projected corrective measures assessment and corrective action scheduled for the HMPL Station Two ash pond is as follows:

Assessment of Corrective Measures for Groundwater

- Initiate corrective measures assessment by January 14, 2019 (assuming non "alternate source" demonstration attempted)
- Complete corrective measures assessment by April 15, 2019 (or June 14, 2019 if 60-day extension is used)

Selection of Corrective Action Remedy

- Initiation Trigger: Completion of corrective measures assessment
- Selection Schedule: Complete the "selection" "as soon as feasible"
 - o Public notice of remedy selection 30 days in advance
 - o Final remedy selection may have to be reviewed and approved by KDEP even if WINN Act regulations have not been adopted
 - o Potential option if no WINN Act regulations are in effect is to select/confirm remedy via an Agreed Order
 - o Final remedy selection could be in mid to late 2019
- Initiation of Corrective Action: Initiate corrective action within 90 days of remedy selection (potentially late 2019 to early 2020)
- Completion Schedule: Based on remedy schedule

ONGOING ENVIRONMENTAL REPORTING

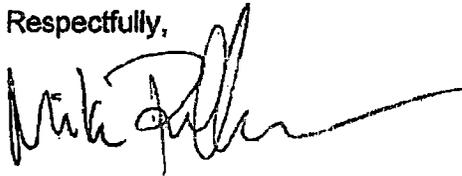
Finally, I wanted to again remind you about the ongoing environmental reporting obligations under the Title V permit as well as the KPDES Permit associated with Station Two that will need to be continued following the cessation of operations at Station Two. As was discussed with you during meetings held between you, Tom Shaw and others regarding environmental compliance at Station Two following the cessation of operations at Station Two on June 21 and 22, 2018, there will still remain various

Mr. Ken Brooks
December 7, 2018
Page Four

reports that must be filed in order to remain in compliance with environmental permits and regulations. In order to minimize those reports, I recommend that the City and Big Rivers notify the EPA that Station Two will permanently cease operations effective February 1, 2019, and request that it be removed from the Title V permit. This will minimize the amount of required reporting under that permit. In the event the City agrees with that course of action, please notify Big Rivers in writing of that agreement so that we can take the necessary action.

After you have had the opportunity to review the above, I would be happy to meet with you to go over any of these requirements and discuss coordinating the transfer to these responsibilities to HMP&L so that HMP&L will be in a position to move forward with these actions in a timely manner. As such, please contact me at your earliest convenience to so that we can set up a time to continue these discussions.

Respectfully,



Mike Pullen
Vice President Power Production
Big Rivers Electric Corporation

cc: Robert W. Berry
Tom Shaw

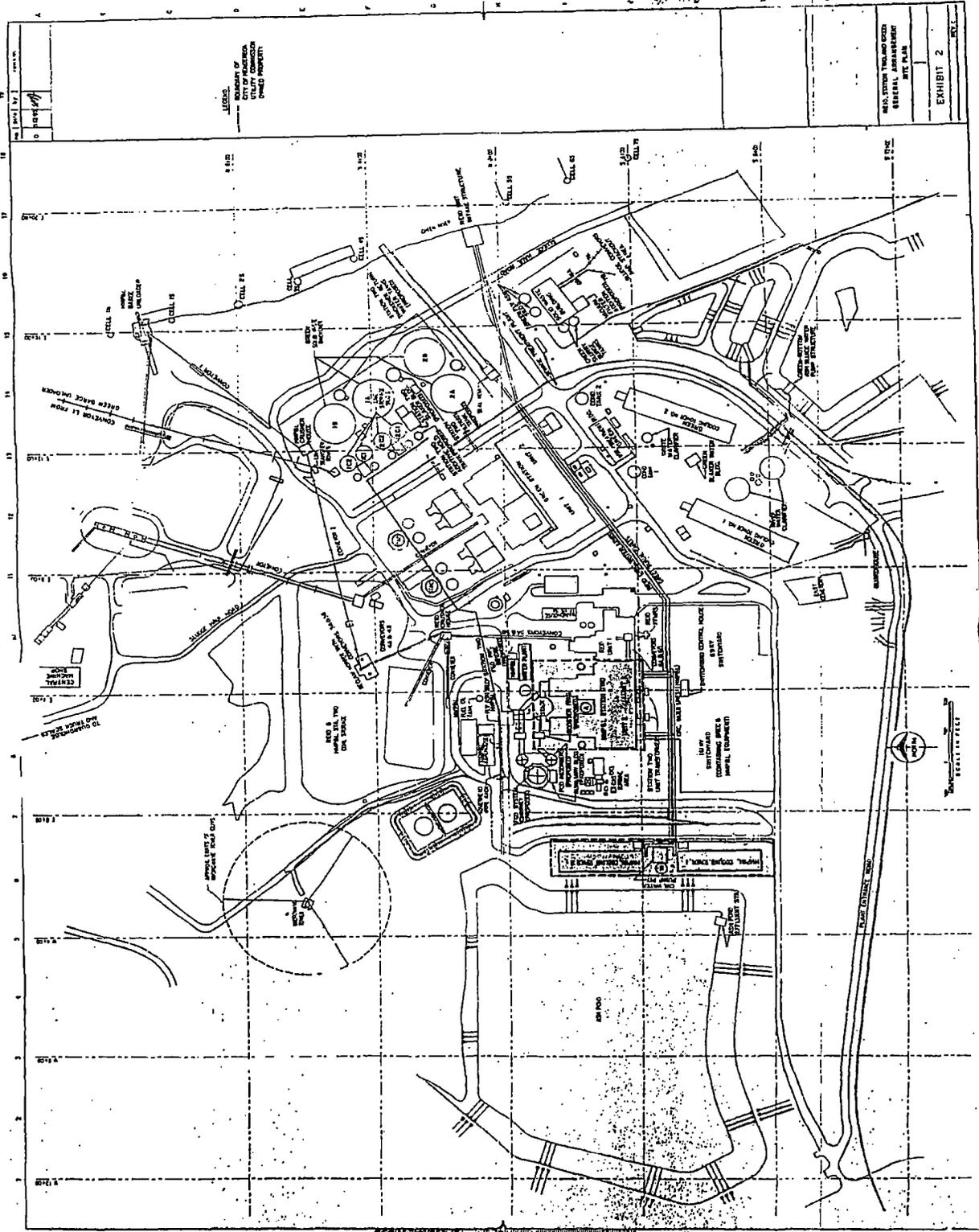
Big Rivers Electric Corporation
Case No. 2019-00_____
Green Landfill - Estimated Costs for Environmental Remediation

<u>Description</u>	<u>Cost</u>
2019 Project to install two interceptor trenches for capture of leachate and seeps	\$ 2,000,000
2020 Green Landfill perimeter seepage collection system	5,489,616
Total	<u>\$ 7,489,616</u>
 Ongoing groundwater monitoring costs (annual basis)	 \$ 10,000

Big Rivers Electric Corporation
Case No. 2019-00_____
Existing HMPL Station Two Joint Use Facilities to Remain in Service

1. Barge Mooring Cells No. 1N, 2N, 3N, 4N, 1S, 2S, 3S, & 4S as shown on Burns & Roe Drawing No. 04-3280-S3200.
2. One Coal Barge Unloader, McDowell Wellman, 1000 net ton/hr. capacity.
3. One Coal Conveyor, 1 as shown on attached Exhibit 2.
4. One Crusher House fed by Conveyor No. 1.
5. Four 161KV Oil Circuit Breakers, General Electric, S/N 0139A7206208, 0139A7206209, 0139A7206212, 0139A7206213, located in Plant Switchyard.
6. One Lot of Line Terminal Structures, Bus, Relay Panels, etc., located in Plant Switchyard as shown on attached Exhibit 2.

Big Rivers Electric Corporation
Case No. 2019-00
Existing HMPL Station Two Joint Use Facilities to Remain in Service



Big Rivers Electric Corporation
Case No. 2019-00_____

Existing HMPL Station Two Joint Use Facilities to be Decommissioned

1. Seven Coal Conveyors, 2, 3A, 3B, 4A, 4B, 5B & 6B as shown on attached Exhibit 2.
2. One Reclaim Hopper which feeds coal conveyors 4A & 4B.
3. One Water Treatment Plant with Demineralizer Building and associated equipment.
4. One 50,000-gallon capacity Fuel Oil Storage Tank & distribution system.
5. One Flyash Silo, Sump & System Components.
6. One prefab metal Warehouse adjacent to Fly Ash Silo.
7. Coal Handling Equipment as listed in Continuous Property Records.
8. One lot of Materials & Spare Parts in Big Rivers Warehouse No. 15 as defined by inventory control records.
9. One Ash Pond and Effluent Lines.
10. Circulating Water Lines as shown on attached Exhibit 2.
11. Two Step-Up Transformers, McGraw Edison, S/N C-04280-5-1, C-04280-5-2, located in Plant Switchyard.
12. Two Auxiliary Transformers, Westinghouse, S/N RCP 37261, RCP 37262, located in Plant Switchyard.
13. One Excitation Transformer, General Electric, S/N D-597562, located in Plant Switchyard.
14. One Tugboat - The "William Newman" 37 feet long, 21.27 gross tons, 14.0 net tons, coastguard capacity 350 HP. (Already decommissioned)
15. Station Two Ash Pond Dredgings in Green Station Sludge Disposal Landfill adjacent to Green River South of Green Station.
16. Two Lime Slaking Water Pumps and Lines to Slaking Building.
17. Two Pug Mill Mixers.
18. One Vacuum Filter and Associated Equipment Including Building Expansion as shown on attached Exhibit 2.
19. Two New Thickener Underflow Lines and Two Flow Monitors.
20. Two Control Systems on Big Rivers' Green Station Thickener Return Water Tanks..

ORIGINAL



Your Touchstone Energy® Cooperative 

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

**APPLICATION OF)
BIG RIVERS ELECTRIC CORPORATION) Case No.
FOR ENFORCEMENT OF) 2019-00_____
RATE AND SERVICE STANDARDS)**

DIRECT TESTIMONY

OF

**MARK J. EACRET
VICE PRESIDENT OF ENERGY SERVICES**

ON BEHALF OF

BIG RIVERS ELECTRIC CORPORATION

FILED: July 31, 2019



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1 **DIRECT TESTIMONY**

2 **OF**

3 **MARK EACRET**

4
5 **I. INTRODUCTION**

6 **Q. Please state your name, business address and occupation.**

7 **A.** My name is Mark Eacret. My business address is 201 Third Street,
8 Henderson, Kentucky 42420. I am the Vice President of Energy Services for
9 Big Rivers Electric Corporation (“Big Rivers”).

10

11 **Q. Please summarize your education and professional experience.**

12 **A.** I graduated from Indiana University – Purdue University at Indianapolis
13 with a Bachelor of Science in Accounting and Indiana University with a
14 Master of Business Administration with a concentration in Finance. I was
15 employed by Cinergy and its predecessor companies from 1980 to 1999 in
16 various roles including managing the analytical support for the company’s
17 wholesale marketing and trading functions. Between 1999 and 2014, I was
18 employed by Ameren Corporation. During that time period, my team and I
19 provided analytical support to the company’s marketing and trading
20 functions. In 2007, I assumed the additional responsibility of Controller for
21 Ameren’s merchant generation operation, Ameren Energy Resources (“AER”).
22 In 2011, I was named Controller and Vice President of Business Services at

1 AER. When Ameren sold its merchant generation function at the end of
2 2013, I moved to Sunflower Electric Power Corp in January 2014 as the
3 Senior Manager of Market Operations and Power Contracts and was part of a
4 team that transitioned the company into the Southwest Power Pool
5 Integrated Market. I assumed my current position with Big Rivers in April
6 2015 and have been employed in this capacity since that time.

7

8 **Q. Please summarize your duties at Big Rivers.**

9 A. I am primarily responsible for marketing the generation of Big Rivers not
10 needed for Member load, hedging the prices of the capacity and energy from
11 that generation, and managing the commercial aspects of the company's
12 interactions with the Midcontinent Independent System Operator, Inc.
13 ("MISO").

14

15 **Q. Have you previously testified before the Kentucky Public Service
16 Commission ("Commission")?**

17 A. Yes. I testified and sponsored responses to information requests in Big
18 Rivers' most recent fuel adjustment clause review (Case No. 2019-00007), and
19 I sponsored responses to information requests in Big Rivers' pending
20 integrated resource plan review proceeding (Case No. 2017-00384) and in the
21 proceeding Big Rivers filed last year in which the Commission issued a
22 declaratory order finding that Station Two was no longer economically viable

1 and that most of the Station Two Contracts had terminated as a result (Case
2 No. 2018-00146).

3
4 **II. PURPOSE OF TESTIMONY**

5 **Q. What is the purpose of your testimony in this proceeding?**

6 A. The purpose of my testimony is to describe the MISO fees incurred by Big
7 Rivers and owed to Big Rivers by the City of Henderson and the City of
8 Henderson Utility Commission (collectively, “Henderson”) and explain the
9 methodology used to calculate those fees. I also discuss an issue relating to
10 Henderson’s required capacity reservation for Fiscal Year 2018/2019.

11

12 **Q. Are you sponsoring any Exhibits?**

13 A. Yes. I have prepared the following exhibits to my prepared testimony.

- 14 • Exhibit Eacret-1 – Professional Summary
- 15 • Exhibit Eacret-2 – Calculation of HMPL Resource Adequacy
16 Requirement
- 17 • Exhibit Eacret-3 – Definitions of MISO Fees Due from Henderson
- 18 • Exhibit Eacret-4 – MISO Fees Due from Henderson by Type and
19 Month

20

1 **III. HENDERSON'S CAPACITY REQUIREMENT FOR FISCAL YEAR**
2 **2018/2019**

3 **Q. Please explain the issue between the parties relating to Henderson's**
4 **capacity reservation for Fiscal Year 2018/2019.**

5 A. Mr. Chambliss explains in his testimony that Big Rivers joined MISO in
6 2010 as the most economically feasible method of complying with its and
7 Henderson's NERC contingency reserve requirements, and that since Big
8 Rivers joined MISO, Big Rivers' and Henderson's NERC contingency reserve
9 requirements are based on the MISO Planning Reserve Margin Requirement
10 ("PRMR"). Under the Power Sales Contract and the System Reserves
11 Agreement, as amended, Henderson is required to reserve sufficient capacity
12 from Station Two to satisfy its PRMR. However, for Fiscal Year 2018/2019,
13 Henderson reserved less capacity than was required to satisfy its PRMR.

14
15 **Q. How is Henderson's PRMR calculated?**

16 A. Attached hereto as Exhibit Eacret-2 is the calculation that Big Rivers
17 provided to Henderson in March of 2018 showing that, for Fiscal Year
18 2018/2019, Henderson's PRMR was 125 MW.

19
20 **Q. How much capacity did Henderson attempt to reserve from Station**
21 **Two for Fiscal Year 2018/2019, and how does Henderson's attempt to**
22 **reserve less capacity than required affect Big Rivers?**

1 A. Henderson attempted to reserve only 115 MW of capacity from Station Two
2 or Fiscal Year 2018/2019. By reserving less capacity than required,
3 Henderson artificially increased Big Rivers' share of the Station Two fixed
4 costs that Big Rivers was required to pay through Station Two Capacity
5 Charges.

6
7 **Q. Did Big Rivers inform Henderson that it needed to reserve additional**
8 **capacity for Fiscal Year 2018/2019?**

9 A. Yes. And although Henderson disagreed with Big Rivers' calculation,
10 Henderson did attempt to purchase 8 MW of capacity from the MISO market
11 for the 2018/2019 MISO planning year (June 1, 2018 to May 31, 2019), but in
12 Zone 9 rather than in Zone 6 where Henderson's load is located. Big Rivers
13 rejected this attempt because by trying to purchase the capacity in the MISO
14 market rather than reserving additional capacity out of Station Two as
15 required by the Contracts, Henderson was again trying to shift additional
16 Station Two Capacity Costs onto Big Rivers and its Members.

17

18 **IV. HENDERSON'S SHARE OF MISO RELATED COSTS**

19 **Q. Please summarize the MISO fees that Big Rivers has allocated to**
20 **Henderson and that Henderson has failed to pay.**

21 A. These are fees assessed to Big Rivers by MISO resulting from the energy
22 used by Henderson to serve its native load and are associated with costs Big

1 Rivers incurred to meet Henderson's standby capacity requirements set forth
2 in accordance with Section 2.2(b) of the System Reserves Agreement, as
3 amended, and as described in detail in the Direct Testimony of Michael W.
4 Chambliss. These fees were incurred by Big Rivers between December 10,
5 2010, and May 31, 2016, and total \$1,422,761.54. The definitions of the
6 various MISO fees that make up this total are presented in Exhibit Eacret-3.
7 Exhibit Eacret-4 presents the detail of the fees by month and type.

8

9 **Q. Please describe the process by which these fees are assessed to Big**
10 **Rivers on account of the energy used by Henderson to serve its**
11 **native load.**

12 **A. Following Big Rivers' integration into the MISO Energy and Ancillary**
13 **Services market on December 1, 2010, Station Two was offered into the MISO**
14 **market per the MISO Open Access Transmission, Energy and Operating**
15 **Reserve Markets Tariff, according to the rules and processes included in the**
16 **tariff and Business Practice Manuals. As the operator of Station Two under**
17 **the Station Two Contracts, Big Rivers acted as the Market Participant for**
18 **Station Two generation and Henderson native load transactions within the**
19 **MISO market between 2010 and February 1, 2019.**

20 Upon receiving an invoice from MISO, Big Rivers allocated to
21 Henderson its share of the Charges under the Service Schedules presented in
22 Exhibit Eacret-3 based upon the ratio of Henderson load to the total of

1 Henderson and Big Rivers load. After the invoice was prepared each month,
2 which includes a Summary Bill and tabs setting out the charges associated
3 with each schedule, Big Rivers submitted those invoices to Henderson for
4 payment.

5

6 **Q. Please explain why Big Rivers has allocated these fees to Henderson.**

7 A. The types of fees being allocated to Henderson are a direct pass through of
8 those fees that are incurred by Big Rivers and are directly attributable to
9 Henderson's load obligations. Moreover, as described in the Direct Testimony
10 of Michael W. Chambliss, these fees represent costs associated with
11 Henderson's ability to maintain adequate standby capacity under Section
12 2.2(b) of the System Reserves Agreement, as amended.

13

14 **Q. Please provide a description of each of the charges under these**
15 **schedules and what they represent.**

16 A. Exhibit Eacret-3 presents the MISO definitions of each of these fee types, but
17 they fall into two categories:

- 18 • RT Regulation, RT Spinning Reserves, and RT Supplemental Reserves
19 represent charges that all load serving entities must pay to maintain
20 NERC-required operating reserves, as described in the testimony of Mr.
21 Chambliss. These fees make up about \$358,000 (25%) of the total being
22 sought here.

- 1 • The other fees (Schedules 17, 23, and 24) represent MISO’s recovery of the
2 costs of administering its various markets. These administrative fees
3 total about \$1.065 million (75%) of the fees being sought here.
4

5 **Q. Why were these fees not included as part of the Station Two**
6 **operating Budget during the fiscal years in question?**

7 A. Big Rivers originally included these fees in the Station Two operating budget
8 for the fiscal years in question. However, Henderson objected to their
9 inclusion in the budget and took the position that these fees should not be
10 allocated to Henderson because Henderson was not a member of MISO.
11 Therefore, Henderson contended that it was not responsible for these fees
12 and likewise refused to approve the Station Two Operating Budgets for those
13 years when Big Rivers included the MISO fees as part of the budget. In order
14 to reach an agreement on the operating budget for each of those years, Big
15 Rivers agreed to remove these MISO fees from the budget in order to allow
16 Henderson to approve the budget, but reserved its right to pursue collection
17 of these fees from Henderson at a later date. This occurred each fiscal year
18 between 2011/2012 and 2015/2016.

19 Beginning in Fiscal Year 2016/2017, Big Rivers no longer agreed to
20 remove the MISO fees from the annual operating budget and in 2017,
21 Henderson approved the annual operating budget which contained the MISO
22 fees and reserved its rights to later seek reimbursement from Big Rivers for

1 these fees. As such, any MISO fees of the nature described in this paragraph
2 have been offset against the monthly capacity charges paid by Henderson to
3 Big Rivers and to the extent there was a difference between the fees included
4 in the budget compared to the fees that were actually incurred, they were
5 included as part of the Annual Settlement calculation for Fiscal Years
6 2016/2017, 2017/2018, and 2018/2019. The Annual Settlement calculations
7 for Fiscal Year 2017/2018 and 2018/2019 are included as line items in the
8 Interim Accounting Summary and are explained in further detail in the
9 Direct Testimony of Paul G. Smith. I understand from Mr. Smith that
10 Henderson has accepted the Annual Settlement calculation for Fiscal Year
11 2016/2017, including the inclusion of the MISO fees.

12

13 **Q. How has Henderson served its native load since February 1, 2019?**

14 A. Henderson has joined MISO in order to serve its native load. So, Henderson
15 is now paying MISO the same fees for which it refuses to reimburse Big
16 Rivers.

17

18 **V. CONCLUSION**

19 **Q. Do you have any additional comments?**

20 A. Yes. First, I would note that invoicing these fees to Henderson does not
21 represent any sort of profit to Big Rivers. It is simply an attempt to recover a
22 cost associated with Henderson's service to its native load customers that was

1 born by the Member Owners of Big Rivers. In fact, because Big Rivers is not
2 proposing to charge Henderson interest on its past due amounts, Big Rivers
3 is actually incurring a loss and is not being made whole.

4 Second, Henderson and its native load customers have received a
5 significant benefit from Big Rivers joining MISO at a substantial savings to
6 Henderson's other options for complying with its standby capacity
7 obligations. In fact, given that this dispute over MISO fees has dragged on
8 since December of 2010, and based on the assumption that Henderson native
9 load customers consume about 625,000 MWh each year, or 52,000 MWh per
10 month, the \$1.4 million in MISO fees that Henderson has refused to
11 reimburse Big Rivers amounts to only about \$0.41/MWh for Henderson.
12 These fees are contractually Henderson's responsibility and have benefitted
13 Henderson and its native load customers, and Henderson should be required
14 to pay those fees and should not be permitted to shift its cost responsibility to
15 Big Rivers and its Member Owners, who have already paid their share of the
16 Station Two-related MISO fees.

17

18 **Q. Does this conclude your testimony?**

19 **A. Yes.**

20

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR
ENFORCEMENT OF RATE AND SERVICE STANDARDS
CASE NO. 2019-00_____**

VERIFICATION

I, Mark J. Eacret, verify, state, and affirm that I prepared or supervised the preparation of the Direct Testimony filed with this Verification, and that Direct Testimony is true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry



Mark J. Eacret

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

20th SUBSCRIBED AND SWORN TO before me by Mark J. Eacret on this the
day of July, 2019.



Notary Public, Kentucky State at Large
My Commission Expires October 30, 2020



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Professional Summary

Mark J. Eacret
Vice President Energy Services
Big Rivers Electric Corporation
201 Third Street
Henderson, KY 42420
Phone: 270-844-6126

Professional Experience

Big Rivers Electric Corporation
Vice President Energy Services – 2015 to present

Sunflower Electric Power Corporation – 2014
Senior Manager of Market Operations and Power Contracts

Ameren Energy Resources
Vice President of Business Services and Controller 2011-2013
Controller 2007-2011
Manager of Pricing and Analysis 1999-2007

Cinergy Corporation
Various Wholesale Power Analytical Positions 1991-1999
Various Accounting Positions of increasing responsibility 1980-1991

Education

Master of Business Administration with a concentration in Finance
Indiana University-Bloomington

Bachelor Degree (Accounting Major)
Indiana University – Indianapolis

Big Rivers Electric Corp
Calculation of HMPL Resource Adequacy Requirement
2018 / 2019 Planning Year

Projected HMPL NCP		107.3	
MISO Coincidence Factor		97%	
Coincident Peak		104.0	
Losses	0.017	1.8	
Planning Reserves	0.084	8.7	
HMPL ZRC Requirement		114.5	
SEPA ZRC Allocation		(10.0)	
ZRC Balance Required		104.5	
ZRC/MW Capacity		0.838	
		124.7	2018 / 2019 Reservation Capacity Requirement

	Capacity	ZRC	
Unit 1	153.0	136.2	
Unit 2	157.6	124.2	
	310.6	260.4	
		83.8%	One MW of Capacity equals .838 ZRC's.

Big Rivers Electric Corporation
Case No. 2019-00_____
Definitions of MISO Charge Types

MISO Charge Type	Definition
<p style="text-align: center;">DA Market Administration Amount-Sch 17*</p>	<p>Energy and Operating Reserve Markets Support Administrative Service (the "Service") is provided by the Transmission Provider to all Market Participants that participate in Transactions using the Transmission System or Energy and Operating Reserve Markets consistent with the terms of this Tariff or applicable Market Participant Agreement in a form provided for in this Tariff. A Market Participant acting as a Grandfathered Agreements ("GFA") Responsible Entity will be assessed Schedule 17 charges for associated injection and withdrawal schedules submitted by the Market Participant in association with service taken pursuant to Option A, Option B, Option C or Carve-Out GFA Tariff provisions as ordered by the Commission.</p> <p>This Energy and Operating Reserve Markets Support Administrative Service Cost Recovery Adder provides for the recovery of all costs incurred by the Transmission Provider in providing the Service, inclusive of all costs resulting from the assignment or allocation of costs to the Service.¹ The Transmission Provider's costs incurred in providing the Service include, but are not limited to, costs associated with: 1) market modeling and scheduling functions; 2) market bidding support; 3) locational marginal pricing support; 4) market settlements and billing; 5) market monitoring functions; and, 6) simultaneous co-optimization for the scheduling and enabling of the least-cost, security-constrained commitment and dispatch of Generation Resources to serve Load and provide Operating Reserves in the MISO Balancing Authority Areas while also establishing a spot energy market.</p>
<p style="text-align: center;">DA Schedule 24 Allocation Amount*</p>	<p>Costs To Be Recovered: Pursuant to this Schedule 24, Local Balancing Authorities shall recover their costs incurred as a result of implementing the Markets and Services pursuant to this Tariff ("Local Balancing Authority Costs"). These Local Balancing Authority Costs include daily operation and maintenance costs, administrative and general costs, capital costs, costs for systems-in-place, training of personnel, and any costs that result from the performance of obligations imposed by this Tariff on Local Balancing Authorities; provided, however, that all costs to be recovered under this Schedule must be related to Local Balancing Authority actions in performing obligations under this Tariff and in implementing this Tariff and shall not include any costs reimbursed by the Transmission Provider to Local Balancing Authorities or costs otherwise recovered under this Tarriff.</p>

Big Rivers Electric Corporation
Case No. 2019-00_____
Definitions of MISO Charge Types

MISO Charge Type	Definition
Schedule 3 RT Regulation Cost Distribution Amount**	The Real-Time Regulation Reserve Cost Distribution Amount represents the allocation by AO Load of the total cost of procurement of Regulating Reserve in the Day-Ahead and Real-Time Energy and Operating Reserve Market
Schedule 5 RT Spinning Reserve Cost Distribution Amount**	The Real-Time Spinning Reserve Cost Distribution Amount represents the allocation by AO Load of the total cost of procurement of Spinning Reserve in the Day-Ahead and Real-Time Energy and Operating Reserve Market.
Schedule 6 RT Supplemental Reserve Cost Distribution Amount**	The Real-Time Supplemental Reserve Cost Distribution Amount represents the allocation by AO Load of the total cost of procurement of Supplemental Reserve in the Day-Ahead and Real-Time Energy and Operating Reserve Market.
Schedule 23 - (Demand, Energy , & FERC)*	The purpose of this Schedule 23 is to provide a mechanism for the direct cost recovery of Transmission Provider charges applicable to services provided to customers under Carved-Out GFAs. For the purpose of this Schedule 23, the customers responsible for such charges shall be the customers of these of this Schedule 23, the Carved-Out GFAs shall be the grandfathered agreements which the Commission carved out from MISO's energy markets tariff in its September 16, 2004 order in Docket No. ER04-691 and which are listed on Attachment 1 to this Transmission Owner, including for purposes of this Schedule 23 Independent Transmission Company Participants, under the Carved-Out GFA ("Carved-Out GFA Customers"). For the purpose of this Schedule 23, the term "Transmission Owner" shall include those entities listed as Transmission Owners in Attachment 1 of this Schedule 23.

Big Rivers Electric Corporation
Case No. 2019-00_____
Definitions of MISO Charge Types

MISO Charge Type	Definition
EOY Excess Congestion Fund Allocation***	To the extent FTRs are fully funded and there is a surplus of funds in the Excess Congestion Fund, the aggregate remaining excess revenues attributable to the year-end Excess Congestion Charge Fund will be distributed to all Transmission Customers taking Network Integration Transmission Service or Firm Point-To-Point Transmission Service based on a pro rata share of their billing determinants used in calculating the Schedule 10 charges and Schedule 23 charges associated with such Transmission Service taken during the same calendar year, regardless of whether these Transmission Customers hold FTRs for their Transmission Service.

Definition Sources:

*<https://www.misoenergy.org/Library/Tariff/Pages/Tariff.aspx>

**MS-OP-029-r31 Market Settlements Calculation Guide_Clean.pdf - pg 307, 312, & 316

***<https://www.misoenergy.org/Library/Repository/Report/Transmission%20Settlements/EOY%20Excess%20Congestion%20Auction%20Residuals.pdf>

Big Rivers Electric Corporation
Case No. 2019-00_____
MISO Fees Due from Henderson
December 2010 - May 2016

Year	Month	DA Market		RT Spinning Reserve	RT Regulation	RT Supplemental	Schedule 23 -		Total
		Administration	DA Schedule 24	Cost Distribution	Cost Distribution	Reserve Cost	(Demand,	Energy,	
		Amount-Sch 17	Allocation Amount	Amount	Amount	Distribution Amount	and FERC)		
2010	December	\$ 5,214.06	\$ 630.81	\$ 1,330.23	\$ 3,860.54	\$ 819.49	\$ 8,824.65	\$ 20,679.78	
2011	January	\$ 3,945.93	\$ 607.65	\$ 2,058.92	\$ 4,363.17	\$ 823.55	\$ 10,528.83	\$ 22,328.05	
	February	\$ 4,331.60	\$ 486.20	\$ 1,296.59	\$ 2,876.07	\$ 661.29	\$ 10,361.05	\$ 20,012.81	
	March	\$ 4,128.62	\$ 507.74	\$ 2,127.61	\$ 3,214.24	\$ 813.33	\$ 9,975.40	\$ 20,766.95	
	April	\$ 4,172.23	\$ 524.15	\$ 2,557.22	\$ 3,866.14	\$ 1,081.27	\$ 10,330.31	\$ 22,531.31	
	May	\$ 3,739.55	\$ 517.31	\$ 2,238.79	\$ 3,395.26	\$ 1,177.88	\$ 13,354.27	\$ 24,423.06	
	June	\$ 6,009.21	\$ 690.90	\$ 2,345.97	\$ 3,469.97	\$ 1,153.58	\$ 13,712.47	\$ 27,382.10	
	July	\$ 4,541.15	\$ 711.72	\$ 2,484.32	\$ 4,727.96	\$ 1,433.26	\$ 12,009.47	\$ 25,907.88	
	August	\$ 4,879.77	\$ 713.67	\$ 2,674.06	\$ 4,536.00	\$ 971.64	\$ 12,870.51	\$ 26,645.65	
	September	\$ 4,007.51	\$ 625.56	\$ 1,889.64	\$ 3,546.97	\$ 1,124.28	\$ 13,653.88	\$ 24,847.84	
	October	\$ 4,672.05	\$ 637.31	\$ 2,270.38	\$ 3,788.08	\$ 907.59	\$ 10,000.50	\$ 22,275.91	
	November	\$ 5,192.42	\$ 581.80	\$ 1,109.69	\$ 2,895.17	\$ 738.63	\$ 8,338.20	\$ 18,855.91	
	December	\$ 4,041.29	\$ 569.59	\$ 1,067.81	\$ 2,378.33	\$ 724.79	\$ 11,752.40	\$ 20,534.22	
2012	January	\$ 4,574.19	\$ 600.16	\$ 980.50	\$ 2,112.63	\$ 734.67	\$ 12,891.09	\$ 21,893.25	
	February	\$ 4,860.49	\$ 601.91	\$ 1,224.71	\$ 2,191.51	\$ 731.49	\$ 11,050.99	\$ 20,661.10	
	March	\$ 4,878.81	\$ 606.46	\$ 1,251.09	\$ 2,105.88	\$ 849.51	\$ 10,720.15	\$ 20,411.90	
	April	\$ 3,565.01	\$ 565.14	\$ 1,585.84	\$ 2,510.59	\$ 603.22	\$ 12,886.11	\$ 21,715.90	
	May	\$ 3,887.56	\$ 618.98	\$ 2,108.31	\$ 2,955.25	\$ 773.05	\$ 12,398.49	\$ 22,741.63	
	June	\$ 4,556.01	\$ 742.06	\$ 2,263.03	\$ 2,860.77	\$ 1,629.67	\$ 12,209.43	\$ 24,260.97	
	July	\$ 9,073.25	\$ 759.34	\$ 6,918.73	\$ 4,091.13	\$ 899.77	\$ 9,949.69	\$ 31,691.91	
	August	\$ 3,346.39	\$ 644.88	\$ 1,732.03	\$ 3,348.62	\$ 1,446.14	\$ 12,554.67	\$ 23,072.73	
	September	\$ 3,999.67	\$ 664.17	\$ 1,512.69	\$ 2,807.37	\$ 708.58	\$ 12,905.77	\$ 22,598.24	

Case No. 2019-00_____

Exhibit Eacret-4

Direct Testimony of Mark J. Eacret

Page 1 of 4

Big Rivers Electric Corporation
Case No. 2019-00
MISO Fees Due from Henderson
December 2010 - May 2016

Year	Month	DA Market		RT Spinning Reserve	RT Regulation	RT Supplemental	Schedule 23 -		Total
		Administration Amount-Sch 17	DA Schedule 24 Allocation Amount	Cost Distribution Amount	Cost Distribution Amount	Reserve Cost Distribution Amount	(Demand, Energy, and FERC)		
	October	\$ 4,158.88	\$ 656.42	\$ 1,543.04	\$ 2,912.69	\$ 1,422.29	\$ 10,977.95	\$ 21,671.27	
	November	\$ 4,489.71	\$ 663.82	\$ 1,524.04	\$ 2,716.14	\$ 1,228.70	\$ 10,432.15	\$ 21,054.56	
	December	\$ 3,845.32	\$ 597.79	\$ 972.42	\$ 2,090.45	\$ 612.81	\$ 8,817.58	\$ 16,936.37	
2013	January	\$ 5,062.86	\$ 641.74	\$ 947.00	\$ 2,328.67	\$ 627.39	\$ 11,422.29	\$ 21,029.95	
	February	\$ 4,493.59	\$ 569.48	\$ 1,178.73	\$ 1,844.03	\$ 493.70	\$ 10,697.25	\$ 19,276.78	
	March	\$ 5,156.49	\$ 691.08	\$ 2,532.51	\$ 2,620.90	\$ 833.20	\$ 8,566.66	\$ 20,400.84	
	April	\$ 4,036.47	\$ 653.52	\$ 3,440.48	\$ 3,508.88	\$ 1,023.20	\$ 11,193.61	\$ 23,856.16	
	May	\$ 4,064.70	\$ 631.36	\$ 4,439.00	\$ 3,962.54	\$ 1,632.02	\$ 11,316.98	\$ 26,046.60	
	June	\$ 5,024.34	\$ 685.85	\$ 3,444.91	\$ 2,803.17	\$ 1,186.68	\$ 13,767.13	\$ 26,912.08	
	July	\$ 4,309.57	\$ 610.44	\$ 3,467.70	\$ 2,835.46	\$ 1,160.90	\$ 14,064.86	\$ 26,448.93	
	August	\$ 4,520.02	\$ 763.79	\$ 3,044.82	\$ 2,625.55	\$ 1,607.77	\$ 8,517.49	\$ 21,079.44	
	September	\$ 5,037.31	\$ 773.38	\$ 3,109.78	\$ 2,784.31	\$ 2,173.63	\$ 12,208.72	\$ 26,087.13	
	October	\$ 4,285.90	\$ 728.16	\$ 3,475.83	\$ 3,261.07	\$ 3,040.23	\$ 11,806.44	\$ 26,597.63	
	November	\$ 3,943.40	\$ 685.00	\$ 2,675.05	\$ 2,860.47	\$ 1,923.85	\$ 7,627.07	\$ 19,714.84	
	December	\$ 3,724.16	\$ 694.99	\$ 2,132.10	\$ 2,594.18	\$ 1,267.20	\$ 11,238.33	\$ 21,650.96	
2014	January	\$ 3,686.09	\$ 607.40	\$ 1,953.72	\$ 2,937.28	\$ (125.89)	\$ 11,767.55	\$ 20,826.15	
	February	\$ 2,764.19	\$ 566.48	\$ 2,211.96	\$ 3,588.99	\$ 755.95	\$ 11,175.38	\$ 21,062.95	
	March	\$ 3,810.57	\$ 549.32	\$ 1,986.08	\$ 3,127.76	\$ 1,089.88	\$ 12,406.90	\$ 22,970.51	
	April	\$ 3,540.48	\$ 498.72	\$ 1,923.05	\$ 2,787.55	\$ 1,069.74	\$ 9,255.75	\$ 19,075.29	
	May	\$ 3,560.55	\$ 541.16	\$ 2,221.75	\$ 3,493.27	\$ 1,406.54	\$ 7,432.97	\$ 18,656.24	
	June	\$ 3,895.75	\$ 486.29	\$ 1,516.43	\$ 2,500.98	\$ 710.44	\$ 10,719.44	\$ 19,829.33	

Case No. 2019-00

Exhibit Eacret-4

Direct Testimony of Mark J. Eacret

Page 2 of 4

Big Rivers Electric Corporation
Case No. 2019-00
MISO Fees Due from Henderson
December 2010 - May 2016

Year	Month	DA Market		RT Spinning Reserve	RT Regulation	RT Supplemental	Schedule 23 -		Total
		Administration Amount-Sch 17	DA Schedule 24 Allocation Amount	Cost Distribution Amount	Cost Distribution Amount	Reserve Cost Distribution Amount	(Demand, Energy, and FERC)		
	July	\$ 3,032.32	\$ 478.50	\$ 1,065.38	\$ 2,211.27	\$ 588.02	\$ 10,124.96	\$ 17,500.45	
	August	\$ 3,156.80	\$ 498.14	\$ 1,266.65	\$ 2,121.85	\$ 583.22	\$ 11,437.72	\$ 19,064.38	
	September	\$ 3,181.72	\$ 515.82	\$ 1,301.64	\$ 2,376.54	\$ 644.82	\$ 12,467.31	\$ 20,487.85	
	October	\$ 3,220.50	\$ 445.84	\$ 1,673.66	\$ 2,632.55	\$ 1,090.56	\$ 11,643.50	\$ 20,706.61	
	November	\$ 4,223.44	\$ 455.13	\$ 1,675.80	\$ 2,829.73	\$ 492.15	\$ 12,638.64	\$ 22,314.89	
	December	\$ 3,421.98	\$ 405.23	\$ 1,000.69	\$ 2,135.37	\$ 355.15	\$ 10,605.16	\$ 17,923.58	
2015	January	\$ 3,425.80	\$ 436.41	\$ 933.59	\$ 1,785.15	\$ 282.72	\$ 13,097.29	\$ 19,960.96	
	February	\$ 4,311.98	\$ 469.67	\$ 1,141.59	\$ 1,819.79	\$ 554.46	\$ 11,608.92	\$ 19,906.41	
	March	\$ 4,424.88	\$ 443.88	\$ 1,105.87	\$ 2,008.98	\$ 396.95	\$ 12,812.41	\$ 21,192.97	
	April	\$ 3,721.62	\$ 456.64	\$ 1,077.49	\$ 1,793.30	\$ 390.10	\$ 10,450.52	\$ 17,889.67	
	May	\$ 3,761.13	\$ 457.23	\$ 1,237.04	\$ 2,036.33	\$ 404.58	\$ 10,575.77	\$ 18,472.09	
	June	\$ 4,117.66	\$ 576.69	\$ 1,512.76	\$ 1,820.56	\$ 472.19	\$ 14,426.50	\$ 22,926.36	
	July	\$ 3,950.55	\$ 570.95	\$ 2,158.53	\$ 1,662.85	\$ 770.88	\$ 12,395.26	\$ 21,509.03	
	August	\$ 3,608.22	\$ 553.01	\$ 1,408.17	\$ 1,746.50	\$ 638.20	\$ 13,700.29	\$ 21,654.40	
	September	\$ 3,606.95	\$ 574.19	\$ 1,630.54	\$ 1,901.95	\$ 1,037.98	\$ 11,382.00	\$ 20,133.60	
	October	\$ 3,505.21	\$ 522.95	\$ 1,531.75	\$ 1,917.52	\$ 1,127.45	\$ 10,992.98	\$ 19,597.86	
	November	\$ 3,242.10	\$ 490.98	\$ 917.60	\$ 1,330.72	\$ 516.96	\$ 8,764.87	\$ 15,263.23	
	December	\$ 2,852.92	\$ 415.11	\$ 802.18	\$ 1,117.84	\$ 442.45	\$ 12,937.31	\$ 18,567.80	
2016	January	\$ 4,144.84	\$ 569.00	\$ 1,055.49	\$ 1,329.34	\$ 469.69	\$ 12,710.61	\$ 20,278.97	
	February	\$ 4,140.87	\$ 559.45	\$ 885.93	\$ 1,270.36	\$ 379.07	\$ 12,192.35	\$ 19,428.02	
	March	\$ 3,585.45	\$ 562.04	\$ 1,259.24	\$ 1,825.30	\$ 451.13	\$ 11,660.35	\$ 19,343.51	

Case No. 2019-00

Exhibit Eacret-4

Direct Testimony of Mark J. Eacret

Page 3 of 4

Big Rivers Electric Corporation
Case No. 2019-00_____
MISO Fees Due from Henderson
December 2010 - May 2016

Year	Month	DA Market Administration Amount-Sch 17	DA Schedule 24 Allocation Amount	RT Spinning Reserve Cost Distribution Amount	RT Regulation Cost Distribution Amount	RT Supplemental Reserve Cost Distribution Amount	Schedule 23 - (Demand, Energy, and FERC)	Total
	April	\$ 3,434.21	\$ 581.68	\$ 1,075.43	\$ 1,195.33	\$ 397.18	\$ 11,025.30	\$ 17,709.12
	May	\$ 3,703.69	\$ 569.80	\$ 1,816.41	\$ 1,612.63	\$ 606.09	\$ 15,198.07	\$ 23,506.68
Grand Total		\$ 272,801.97	\$ 38,512.03	\$ 124,301.99	\$ 174,567.74	\$ 59,038.89	\$ 753,538.92	\$ 1,422,761.54

ORIGINAL



Your Touchstone Energy® Cooperative 

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

APPLICATION OF)	
BIG RIVERS ELECTRIC CORPORATION)	Case No.
FOR ENFORCEMENT OF)	2019-00_____
RATE AND SERVICE STANDARDS)	

DIRECT TESTIMONY

OF

**MICHAEL W. CHAMBLISS
VICE PRESIDENT OF SYSTEM OPERATIONS**

ON BEHALF OF

BIG RIVERS ELECTRIC CORPORATION

FILED: July 31, 2019



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**DIRECT TESTIMONY
OF
MICHAEL W. CHAMBLISS**

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DIRECT TESTIMONY

OF

MICHAEL W. CHAMBLISS

I. INTRODUCTION

Q. Please state your name, business address and occupation.

A. My name is Michael W. Chambliss. My business address is 201 Third Street, Henderson, Kentucky 42420. I am the Vice President of System Operations for Big Rivers Electric Corporation (“Big Rivers”).

Q. Please summarize your education and professional experience.

A. I graduated from the University of Southern Indiana with a Bachelor of Science in Business Administration and from Oakland City University with a Master of Science in Management. In my 35-year career at Vectren Corporation, I served in various positions in the operations area, including roles in the transmission and energy delivery division of the organization, along with serving on multiple Midcontinent Independent System Operator, Inc. (“MISO”) transmission committees. I served as a District Manager, General Foreman of Substation Construction and Maintenance, Supervisor of Protective Relays and Gas Turbines, Electrical Maintenance Foreman and Director Network Operations. I have been employed by Big Rivers in my current position as Vice President of System Operations since January 2014.

1 **Q. Please summarize your duties at Big Rivers.**

2 A. I am responsible for overall direction of the planning, design, construction,
3 operation, and maintenance of Big Rivers' electric transmission system.

4

5 **Q. Have you previously testified before the Kentucky Public Service
6 Commission ("Commission")?**

7 A. Yes. I testified before the Commission in Case Nos. 2016-00117 and 2018-
8 00004. I also sponsored responses to requests for information in Case Nos.
9 2015-00051 and 2016-00278.

10

11 **II. PURPOSE OF TESTIMONY**

12 **Q. What is the purpose of your testimony in this proceeding?**

13 A. The purpose of my testimony is to describe the circumstances giving rise to
14 Big Rivers joining MISO and registering Station Two and the load of the City
15 of Henderson and the City of Henderson Utility Commission (collectively,
16 "Henderson") in the MISO market as well to provide a summary of the
17 Station Two contract provisions supporting Big Rivers' request for
18 reimbursement related to Henderson's obligation to pay its share of MISO
19 fees incurred by Big Rivers on account of Henderson's load.

20

21 **Q. Are you sponsoring any Exhibits?**

22 A. Yes. I have prepared the following exhibits to my prepared testimony.

- 1 • Exhibit Chambliss 1 – Professional Summary

2

3 **III. THE PARTIES' RESERVE OBLIGATIONS UNDER THE SYSTEM**
4 **RESERVES AGREEMENT, AS AMENDED**

5 **Q. Please describe the concept of a “reserve” within the electric**
6 **industry.**

7 A. In general, reserves relate to the amount of electric generating capacity
8 available to operators of an electric system to respond to a contingency event.
9 There are various types of reserves that are maintained by operators of
10 electric systems in order to respond to various contingencies.

11

12 **Q. Please describe the contractual provisions that were in place**
13 **between Big Rivers and Henderson that address each party's**
14 **respective reserve requirements.**

15 A. It is my understanding that Big Rivers and Henderson were parties to a
16 System Reserves Agreement, as amended, which described each party's
17 obligations to maintain certain reserves on each of their respective electric
18 systems. This agreement addressed two types of reserve requirements. The
19 first requirement relates to standby capacity, which I will commonly refer to
20 as contingency reserves, and the second requirement relates to reserve
21 generating capacity.

22

1 **IV. STANDBY CAPACITY OBLIGATIONS OF THE PARTIES**

2 **Q. Please explain how Big Rivers' and Henderson's standby capacity**
3 **requirements were originally established under the terms of the**
4 **System Reserves Agreement, as amended.**

5 A. Under the System Reserves Agreement, as amended, each party was
6 obligated to provide standby capacity (now known as contingency reserves)
7 for its portion of Station Two at its own cost. In Section 2.2(b), Henderson
8 agreed to provide standby capacity for its generating capacity reserved from
9 Station Two in an amount equal to such reserved generating capacity. At the
10 time the agreement was executed in 1998, the parties agreed that Henderson
11 could provide this out of the alternate generating unit of Station Two unless
12 it was not available. In that case, Big Rivers would provide or procure
13 standby capacity for Henderson's reserved generating capacity from Station
14 Two and would in turn be reimbursed by Henderson for the costs that it
15 incurred in providing the capacity to Henderson. In Section 3.2(a), Big Rivers
16 was required to provide standby capacity out of its own generating units or
17 by purchase or other availability from others, in an amount equal to the
18 greater of (i) the largest generating unit of Big Rivers' electric system, or (ii)
19 the largest generating unit of Station Two.

20

1 **Q. Does the System Reserves Agreement, as amended, provide a**
2 **mechanism whereby the amount of standby capacity that each party**
3 **is required to maintain can change?**

4 A. Yes. Section 2.1 of the System Reserves Agreement, as amended, states that
5 Henderson will comply with any requirements validly imposed by the North
6 American Electric Reliability Corporation (“NERC”) or any regional
7 transmission authority, such as MISO, upon Big Rivers based on Big Rivers’
8 role as control area operator (now commonly referred to as the Balancing
9 Authority) to the extent that such requirements imposed on Big Rivers are on
10 account of or due to the generation and/or load of Henderson. As I will
11 describe later in my testimony, when Big Rivers joined MISO, the MISO
12 requirements resulted in an adjustment to the amount of standby capacity
13 that each party was required to maintain under Sections 2.2(b) and 3.2(a) of
14 the System Reserves Agreement, as amended.

15
16 **Q. Please explain why it became necessary for Big Rivers to join MISO.**

17 A. In 1998, when the System Reserves Agreement was amended to incorporate
18 the language in Section 2.1, Big Rivers, as the control area operator, was
19 responsible for maintaining load-resource balance within its control area,
20 which included the collection of generation, transmission, and loads within
21 Big Rivers’ metered boundaries, which at all relevant times included Station
22 Two and Henderson’s load. In this role, Big Rivers was required to meet the

1 contingency reserve standards set forth in the NERC BAL-002 standards
2 (“Contingency Reserve Standards”). In Section 2.1 of the System Reserves
3 Agreement, as amended, Henderson also agreed to comply with the NERC
4 BAL-002 standards with respect to its portion of Station Two since that
5 standard was imposed upon Big Rivers in its role as control area operator at
6 that time. In 2009, Henderson and Big Rivers entered into a Memorandum
7 of Understanding whereby Henderson and Big Rivers memorialized
8 Henderson’s delegation of authority to Big Rivers, as the Control Area
9 Operator and operator of Station Two, to take necessary action to ensure that
10 Henderson remained in compliance with, among others, NERC BAL
11 standards applicable to Henderson. A copy of the BAL-002 standards in
12 effect at the time Big Rivers joined MISO, which have not materially
13 changed, is attached as an exhibit to Big Rivers’ Application.

14

15 **Q. Please describe the requirements of the Contingency Reserve**
16 **Standards.**

17 **A.** The Contingency Reserve Standards require a balancing authority to balance
18 supply resources and system demand within 15 minutes of an event
19 characterized as a “Reportable Disturbance” occurring due to the loss of
20 supply. Compliance with this standard also required that Big Rivers, and by
21 contract Henderson, each ensure that the system under its control
22 maintained contingency reserves sufficient to meet the largest single

1 contingency on its system in order to ensure the system's operational
2 reliability. Failure to meet these standards could result in the assessment of
3 penalties of up to \$1 million per violation per day.

4
5 **Q. Please describe the steps Big Rivers took to ensure that its control**
6 **area remained in compliance with the Contingency Reserve**
7 **Standards.**

8 A. It is my understanding that prior to 2009, Big Rivers and Henderson fulfilled
9 their Station Two contingency reserve requirements through membership in
10 different reserve sharing arrangements, including the Midwest Contingency
11 Reserve Sharing Group ("MCRSG"), as allowed by NERC Standard BAL 002.
12 However, this group was set to expire on December 31, 2009, and as such,
13 prior to its expiration, Big Rivers investigated various alternatives that
14 would allow it to continue to meet the BAL-002 standard. As part of this
15 investigation, Big Rivers analyzed other sharing arrangements, purchasing
16 power, significant demand interruptions by the largest customers on its
17 system, and operating its generating units at reduced capacity.

18
19 **Q. Please describe how Big Rivers determined the best alternative to**
20 **meeting the contingency reserve requirement.**

21 A. To assist it in its evaluation, Big Rivers commissioned Charles River
22 Associates ("CRA") to conduct an economic assessment of the options

1 available to Big Rivers for the supply of contingency reserves required by
2 NERC Standard BAL-002. The CRA Analysis concluded that Big Rivers had
3 no viable options for meeting its contingency reserve requirement other than
4 with a stand-alone self-supply plan or by joining MISO. Based on CRA's
5 analysis, joining MISO was the least costly alternative to ensure compliance
6 with the BAL-002 standard. That analysis is discussed in detail in the Direct
7 Testimony of Ralph Luciani, Vice President, Charles River Associates, which
8 was filed with Big Rivers' application in Case No. 2010-00043.

9
10 **Q. Did Big Rivers obtain approval from the Commission to join MISO?**

11 **A.** In accordance with the law, Big Rivers applied for Commission approval prior
12 to its integration into MISO. On November 1, 2010, after considering all of
13 the evidence as well as the comments of interested parties who intervened in
14 the proceeding, the Commission entered an Order in Case No. 2010-00043
15 finding that Big Rivers' request to transfer functional control of its
16 transmission system to MISO was for a proper purpose and in the public
17 interest, and authorized Big Rivers to transfer functional control of its
18 transmission system to MISO.

19
20 **Q. Please describe how Big Rivers joining MISO affected the parties'**
21 **standby capacity requirements set forth in the System Reserves**
22 **Agreement, as amended.**

1 A. MISO is NERC certified as a Balancing Authority. As a member of MISO,
2 Big Rivers was required to register Station Two and Henderson's load
3 because it was part of Big Rivers' Control Area. Once Big Rivers joined
4 MISO, Big Rivers became what is referred to in MISO as a Local Balancing
5 Authority, operating in MISO's Balancing Authority Area. Because of this,
6 the contingency reserve obligation associated with what had been the Big
7 Rivers control area was reduced substantially. Rather than each party's
8 standby capacity obligations being based on the NERC BAL-002
9 requirements as a Balancing Authority, both Henderson and Big Rivers were
10 now permitted to take advantage of the much lower obligation for Big Rivers'
11 Local Balancing Authority area that was part of the MISO Balancing
12 Authority.

13 Section 2.2 of the System Reserves Agreement, as amended, requires
14 Henderson to maintain standby capacity equal to "the amount that City's
15 load exceeds its generating capacity available from sources other than
16 Station One." Station One has been retired and decommissioned, so
17 Henderson's required standby capacity is equal to its reserved capacity from
18 Station Two. For example, for the period June 1, 2014 through May 31, 2015,
19 Henderson reserved 115 megawatts of generating capacity. For that period,
20 Henderson should also have reserved 115 megawatts of standby capacity
21 from the alternate unit. Since standby capacity must be online and unloaded
22 to respond to contingencies, Henderson would also have to bear the variable

1 cost for the spinning and unloaded alternate unit absent participating in a
2 reserve sharing group such as MISO. Likewise, Section 3.2 of the System
3 Reserves Agreement, as amended, requires Big Rivers to “provide out of its
4 own generating units or by purchase or other availability from others,
5 standby capacity equal to the greater of (i) the largest generator unit of Big
6 Rivers’ electric system at the time of execution of [that] agreement, or (ii) the
7 largest generating unit of City’s Station Two at the time of the execution of
8 [that] agreement.” Absent participating in MISO, that amount of standby
9 capacity for Big Rivers would be 417 megawatts (Wilson). MISO now
10 requires a standby for Big Rivers and Henderson combined of only 17
11 megawatts. The MISO fees associated with MISO providing standby capacity
12 are insignificant compared to the costs that would otherwise have been
13 incurred under the System Reserves Agreement, as amended, had Big Rivers
14 not joined MISO. In sum, joining MISO was a very good deal for both Big
15 Rivers and Henderson.

16
17 **Q. Are the MISO fees described by witness Mark Eacret in his direct**
18 **testimony directly related to ensuring that Henderson supplied its**
19 **required standby capacity as it was obligated to do based on Section**
20 **2.2(b) of the System Reserves Agreement, as amended?**

21 **A. Yes. The fees represent the costs incurred by Big Rivers directly on account**
22 **of Henderson’s load and represent costs associated with the standby capacity**

1 that Henderson was required to provide in accordance with the parties'
2 agreement. The System Reserves Agreement, as amended, did not require
3 Big Rivers to supply standby capacity for Henderson's share to Henderson at
4 no cost. To the contrary, Section 2.2(b) clearly provides that Henderson is
5 required to reimburse those costs to Big Rivers when Big Rivers procures
6 standby capacity on Henderson's behalf. Therefore, Henderson is
7 contractually obligated to reimburse Big Rivers for the fees it incurred in
8 procuring standby capacity on Henderson's behalf.

9
10 **V. RESERVED GENERATING CAPACITY OBLIGATIONS**

11 **Q. Please explain how the reserve generating capacity requirements of**
12 **Henderson and Big Rivers are established under the System**
13 **Reserves Agreement, as amended.**

14 **A.** It is my understanding that Section 2.1 of the System Reserves Agreement
15 was amended in 1998 and requires each party to comply with any system
16 reserve capacity requirements required or imposed at a future date
17 applicable to it by various entities, including but not limited to NERC, any
18 applicable regulatory or governmental agency, and any regional transmission
19 authority having any system reserve capacity requirements applicable to it.
20 In addition, Henderson also agreed to comply with any requirements validly
21 imposed by any of the above entities upon Big Rivers based on Big Rivers'
22 role as control area operator to the extent that such requirements imposed on

1 Big Rivers are on account of or due to the generation and/or load of
2 Henderson.

3 Since Big Rivers, in its role as control area operator, joined MISO in
4 2010 in order to remain in compliance with the NERC Contingency Reserve
5 Standards, and MISO now determines the amount of reserve generating
6 capacity Big Rivers must maintain, the reserve generating capacity
7 requirements applicable to Big Rivers under the System Reserves
8 Agreement, as amended, are now established by applying the system reserve
9 capacity requirements set forth in the MISO tariff. This is commonly
10 referred to as the MISO Planning Reserve Margin Requirement ("PRMR").

11 Because Section 2.1 of the System Reserves Agreement, as amended,
12 obligates Henderson to also comply with the system reserve capacity
13 requirements imposed by MISO on Big Rivers in its role as the control area
14 operator, Henderson's system reserve capacity requirements are also
15 determined by applying the same methodology. Witness Robert W. Berry
16 describes how Henderson attempted to reserve less capacity than required for
17 fiscal year 2018/2019, and Mr. Berry and witness Paul G. Smith explain how
18 utilizing the correct capacity amount affects the Interim Accounting
19 Summary which is Exhibit 1 to Big Rivers' Application in this case.

20

21 **Q. Do you have any additional comments?**

22 **A. No.**

1 Q. Does this conclude your testimony?

2 A. Yes, it does.

3

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR
ENFORCEMENT OF RATE AND SERVICE STANDARDS
CASE NO. 2019-00_____**

VERIFICATION

I, Michael W. ("Mike") Chambliss, verify, state, and affirm that I prepared or supervised the preparation of the Direct Testimony filed with this Verification, and that Direct Testimony is true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry



Michael W. ("Mike") Chambliss

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Michael W. ("Mike") Chambliss
on this the 30th day of July, 2019.



Notary Public, Kentucky State at Large

My Commission Expires October 31, 2020



Professional Summary

Michael W. Chambliss
Vice President System Operations
Big Rivers Electric Corporation
201 3rd Street
Henderson, Kentucky 42420
(270) 844-6205

Professional Experience

Big Rivers Electric Corporation
Vice President System Operations – 2014 to Present

Vectren Energy Delivery 2002 to 2014
Director Network Operations
Manager Energy Delivery Operations
Manager Transmission System Operations

Southern Indiana Gas & Electric Company – 1978 to 2002
District Manager North/West Districts
General Foreman Electric Substation
Supervisor Gas Turbines and Protective Relays
Foreman Electric Substations
Journeyman Electrician
Electric Line Crew

Education

Master Science, Management
Oakland City University

Bachelor Science, Business Administration
University of Southern Indiana

Associate Science, Business Administration
University of Southern Indiana

Associate Science, Indiana Vocational Technical College

Management, Leadership, Communication, and Change Management Training
Employer-sponsored programs

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Your Touchstone Energy® Cooperative 

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

**APPLICATION OF)
BIG RIVERS ELECTRIC CORPORATION) Case No.
FOR ENFORCEMENT OF) 2019-00_____
RATE AND SERVICE STANDARDS)**

DIRECT TESTIMONY

OF

JEFFREY T. KOPP

**MANAGER, UTILITY CONSULTING DEPARTMENT, BUSINESS &
TECHNOLOGY SOLUTIONS DIVISION
BURNS & MCDONNELL ENGINEERING COMPANY, INC.**

ON BEHALF OF

BIG RIVERS ELECTRIC CORPORATION

FILED: July 31, 2019

**DIRECT TESTIMONY
OF
JEFFREY T. KOPP**

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1 **DIRECT TESTIMONY**

2 **OF**

3 **JEFFREY T. KOPP**

4

5 **I. INTRODUCTION AND QUALIFICATIONS**

6 **Q. Please state your name and business address.**

7 **A.** My name is Jeffrey (Jeff) T. Kopp, and my business address is 9400 Ward
8 Parkway, Kansas City, Missouri 64114.

9

10 **Q. Briefly describe your educational background and certifications.**

11 **A.** I have a Bachelor's Degree in Civil Engineering from the University of
12 Missouri – Rolla (now the Missouri University of Science and Technology)
13 and a Masters of Business Administration from the University of Kansas. I
14 am a registered Professional Engineer in the states of Missouri, Indiana,
15 Illinois, and Florida. My resume is provided as Exhibit Kopp-1.

16

17 **Q. By whom are you employed and in what capacity?**

18 **A.** I am employed by Burns & McDonnell Engineering Company, Inc. ("BMcD")
19 as the manager of the Utility Consulting Department of the Business &
20 Technology Solutions Division. BMcD has been in business since 1898,
21 serving multiple industries, including the electric power industry. In 2018,

1 BMcD was rated No. 9 overall of the Top 500 Design Firms by the
2 Engineering News Record (“ENR”). BMcD was rated as the No. 1
3 engineering design firm in the United States serving the electric power
4 industry by ENR in 2018.

5
6 **Q. Please briefly describe your experience and duties at BMcD.**

7 A. I am a professional engineer with 19 years of experience providing consulting
8 services to electric utilities. As the manager of the Utility Consulting
9 Department of BMcD, I oversee a team of more than 70 project managers,
10 consultants, and engineers, who provide consulting services to clients
11 primarily in the electric power generation and electric power transmission
12 industries, as well as to other industrial and commercial clients. The services
13 provided by this group include decommissioning cost studies, independent
14 engineering assessments of power generation assets, economic evaluations of
15 capital expenditures, new power generation development and evaluation,
16 electric and water rate analysis, electric transmission planning, generation
17 resource planning, renewable power development, and other related
18 engineering and economic assessments.

19 In my role as a group manager, project manager, and project engineer,
20 I have worked on and have overseen consulting activities for coal, natural
21 gas, wind, solar, hydroelectric, and biomass power generation facilities. I

1 have been involved in numerous decommissioning studies and served as
2 project manager on the majority of them. I have helped prepare
3 decommissioning studies on all types of power plants utilizing various
4 technologies and fuels. These decommissioning studies have been utilized in
5 rate cases, have been used to estimate the liability associated with site
6 demolition and retirement at the end of the facilities' useful lives, to satisfy
7 Financial Accounting Standard ("FAS") 143 (accounting for asset retirement),
8 or utilized for actual asset demolition planning.
9

10 **Q. Have you previously testified before the Kentucky Public Service**
11 **Commission?**

12 A. Yes, I have previously testified before the Kentucky Public Service
13 Commission ("Commission") in Case No. 2017-00321.
14

15 **Q. Have you previously testified before any other regulatory**
16 **commission regarding decommissioning costs?**

17 A. Yes, I have provided testimony regarding power plant decommissioning costs
18 as part of the development of depreciation rates to the following
19 Commissions, the details of which are provided in my resume, Exhibit Kopp-
20 1.

- 21 • Florida Public Service Commission

- 1 • Public Utilities Commission of the State of Colorado
- 2 • North Carolina Utilities Commission
- 3 • Oklahoma Corporation Commission
- 4 • Regulatory Commission of Alaska
- 5 • New Mexico Public Regulation Commission
- 6 • Indiana Utility Regulatory Commission

7

8 **Q. On whose behalf are you testifying in the proceeding?**

9 A. I am filing testimony on behalf of Big Rivers Electric Corporation (“Big
10 Rivers”).

11

12 **Q. What is the purpose of your direct testimony?**

13 A. The purpose of my testimony is to outline prudent decommissioning activities
14 and to describe the decommissioning process as it relates to decommissioning
15 obligations associated with Henderson Station Two.

16

17 **Q. What recommendation are you making in your testimony?**

18 A. I recommend that the Commission find the decommissioning obligation of
19 Henderson Station Two includes activities performed to date to place the
20 units in a retired-in-place condition as well as future full demolition
21 obligations.

1 **II. DECOMMISSIONING STUDY METHODOLOGY**

2 **Q. Generally describe the process of decommissioning as it pertains to**
3 **generation plants.**

4 A. Decommissioning is a process of removing a unit from service. There are
5 multiple steps in this process including shutting the unit down, removing
6 chemicals and consumables, deenergizing equipment, and finally full
7 demolition of equipment and structures as well as site remediation activities.

8

9 **Q. Are all of the activities you described required to fully decommission**
10 **a unit?**

11 A. Yes. Eventually full demolition and site remediation are required to return a
12 site to a safe and usable condition.

13

14 **Q. Have you assisted clients in evaluating different levels of**
15 **decommissioning?**

16 A. Yes. We have typically considered three options for decommissioning,
17 including mothballing, retiring in place, and full demolition. Mothballing
18 consists of removing the unit from service but maintaining it in a state
19 suitable for restarting at a later date. Retiring in place consists of removing
20 the unit from service and performing activities to place the unit in a “cold,
21 dark, and safe” condition, without maintaining it in a state suitable for

1 restarting at a later date. The third option includes fully demolishing
2 equipment and structures as well as site remediation activities. For both the
3 mothballing and retire-in-place scenarios the equipment and facilities would
4 still need to be fully demolished at a later date.

5
6 **Q. Do all three of these options apply to this scenario?**

7 A. No. In this scenario, mothballing was not considered as an option, because
8 neither party intends to operate Henderson Station Two at a later date.

9
10 **Q. For the retire-in-place scenario, please describe what you mean by**
11 **“cold, dark, and safe.”**

12 A. This includes, but is not limited to, activities such as removing any chemicals
13 and consumables, draining oils, encapsulating or remediating friable
14 asbestos, deenergizing all equipment, securing areas that no longer need to
15 be accessed, and other activities deemed necessary for the unit to remain in
16 this condition for an extended period of time with minimal maintenance.

17
18 **Q. Please describe friable and non-friable asbestos.**

19 A. Friable Asbestos Containing Materials (“ACM”) are materials that when dry
20 can be crumbled, pulverized, or reduced to powder by hand pressure. Non-
21 friable ACM, on the other hand, can only be pulverized or reduced to powder

1 during machining, cutting, drilling or other abrasive procedures. As such,
2 Friable ACM are more likely to release fibers into the air when disturbed or
3 damaged.

4

5 **Q. Explain the options for addressing asbestos for the retire in place**
6 **scenario.**

7 A. In a Retire-in-Place scenario, Friable ACM is a concern, because of the
8 higher likelihood of releasing fibers. For this reason, to place a unit in a
9 “cold, dark, and safe” state these Friable ACM must be addressed either
10 through remediation or encapsulation to reduce the risk of asbestos fibers
11 being released into the environment. Encapsulation entails installing a
12 coating or some other physical barrier to prevent the release of asbestos
13 fibers in areas that do not already have a physical barrier in place.
14 Encapsulation would require additional monitoring and would also require
15 eventual remediation prior to demolition. During a Retire-in-Place scenario,
16 monitoring would not be required for non-friable asbestos or friable asbestos
17 that was remediated.

18

19 **Q. Are there additional costs associated with retiring a unit in place?**

20 A. Yes, there are carrying costs for the duration of the time the unit is in a
21 retired in place condition.

1 **Q. What type of carrying costs would be associated with a retire-in-**
2 **place scenario?**

3 A. Some examples of carrying costs include, but are not limited to, maintaining
4 operation of Federal Aviation Administration (“FAA”) warning lights on
5 stacks, site security, maintaining liability insurance and environmental
6 permits, structural inspections of stacks, and monitoring and maintenance of
7 any encapsulated friable ACM (if not remediated). All of these costs would be
8 necessary to maintain a safe site and be in compliance with applicable
9 regulations.

10

11 **Q. Does retiring a unit in place eliminate the need for full demolition?**

12 A. No. Fully demolishing equipment and structures as well as site remediation
13 activities will still need to be performed at some point in the future.

14

15 **Q. Why is full demolition required after a unit is retired in place?**

16 A. There are multiple reasons the equipment and structures will need to be fully
17 demolished and site remediation activities performed. During the time a unit
18 is in a retired in place condition, in addition to carrying costs there are
19 liabilities that need to be managed, including but not limited to, integrity of
20 structures, personnel safety, site access, and scrap theft. It is not realistic to
21 manage these liabilities in perpetuity.

1 **Q. Is retiring in place a cost-effective alternative to full demolition?**

2 A. No. In my experience I have found that retiring in place is not a cost-
3 effective long-term scenario when the carrying costs are taken into account.
4 When we have prepared cost estimates to evaluate these options, we have
5 found that typically in five to seven years more money will be spent on
6 carrying costs during the time a unit is in a retired in place condition than
7 would be have been spent to fully demolish equipment and structures and
8 perform site remediation activities. Furthermore, the equipment and
9 structures cannot remain in perpetuity and will be required to be torn down
10 at a future date as they reach end of life.

11

12 **Q. Why is the retire-in-place scenario considered as an option?**

13 A. Some plant owners have considered a retire-in-place option when they
14 needed to delay full demolition for one reason or another. The most common
15 reason for considering a retire in place option is as a temporary condition
16 when adjacent units remain in operation making demolition difficult and
17 more costly. However, when the last unit at a site is taken offline full
18 demolition of all units is typically performed.

19

20 **Q. What is your experience with allocating decommissioning costs**
21 **considering these options?**

1 A. In my experience in supporting rate cases for regulated utilities, full
2 demolition has been the basis of end of life costs used in depreciation
3 calculations for setting electric rates. Even when clients needed to place units
4 in a retired in place condition, the cost of future full demolition was still
5 accounted for in the depreciation calculations.

6

7 **Q. Why is full demolition an appropriate basis for determining end of**
8 **life costs?**

9 A. For all the reasons I have previously stated, eventually the asset has to be
10 fully demolished and my experience with rate cases has been that rates are
11 set based on the full life cycle costs of the assets, including these end-of-life
12 costs.

13

14 **Q. To what level is full demolition and site remediation usually**
15 **assumed?**

16 A. Full demolition and site remediation generally include restoring the site to a
17 condition suitable for industrial use.

18

19 **Q. What does restoring the site for industrial use require?**

20 A. To restore a site to industrial use, the site will have all above grade
21 structures and equipment removed, foundations removed to a specified depth

1 below grade, be rough graded, and seeded. Restoring a site to the standard of
2 industrial use allows flexibility regarding the potential future use of the site.
3 Restoring a site to the standard of industrial use is a common practice,
4 removes liabilities, and avoids future carrying costs associated with
5 maintaining or insuring the remaining facilities that could at some point
6 exceed the cost of demolition, while maintaining flexibility of future site use.
7 For example, restoring the site in this manner enables the site to be reused
8 for another power plant, to be redeveloped for industrial use, or to be sold for
9 similar uses. The site can alternately remain in this condition in perpetuity.

10

11 **Q. Generally explain the type of costs incurred in decommissioning.**

12 A. Decommissioning costs generally include direct costs associated with
13 decommissioning the plant equipment and structures and restoring the sites
14 to a suitable condition. This includes activities for taking the units offline,
15 removing chemicals, and removing consumables. The direct costs also
16 include environmental remediation costs for asbestos removal and other
17 hazardous material handling and disposal, as well as costs for removing and
18 disposing of contaminated soil. These activities accounted for in the direct
19 costs could be part of a retire in place or full demolition. Direct cost would
20 also include demolishing equipment and structures, disposing of debris,
21 recycling scrap metal, and site restoration activities such as grading and

1 seeding the sites. In addition to these direct costs, decommissioning costs
2 also generally consist of indirect costs to be incurred during dismantling as
3 well as contingency costs.
4

5 **Q. What approach do you typically use to develop direct cost estimates?**

6 A. Direct costs are those that I would expect an outside contractor, selected
7 through a competitive bidding process, to charge to decommission a project,
8 including, dismantling all equipment, addressing environmental issues, and
9 restoring the site to a condition suitable for industrial use, based on
10 performing known decommissioning tasks under ideal conditions. To develop
11 direct costs I have used a “bottom-up” cost estimating approach, preparing
12 cost estimates from scratch by developing site-specific quantity estimates
13 and applying unit pricing to quantity estimates such as tons of steel; pounds
14 of other metals such as copper and stainless steel; tons of debris; cubic yards
15 of concrete; linear feet of asbestos pipe insulation; square feet of asbestos
16 boiler insulation; cubic yards of site grading; acres of seeding; and the labor
17 hours required to complete the decommissioning activities. To develop direct
18 costs, I generally use labor rates, equipment costs, and disposal costs specific
19 to the locations in which work is to be performed. I apply these rates to the
20 quantities associated with the generation asset to determine the total cost of

1 fully demolishing equipment and structures in addition to site remediation
2 activities.

3

4 **Q. What is typically included in indirect costs in a decommissioning
5 study?**

6 A. Indirect costs include those costs expected to be incurred during the
7 decommissioning process and are in addition to the direct costs paid to
8 demolition contractors. This includes the costs for staff providing oversight
9 during demolition activities, inspections, and testing to confirm that
10 remediation has been completed, as well as overhead, general, and
11 administrative costs.

12

13 **Q. Are all potential future costs avoided by performing a full
14 demolition?**

15 A. No. Even after a full demolition is performed, there still may be potential
16 future costs. These costs could include, but are not limited to, costs to meet
17 new environmental regulations and costs for environmental monitoring. For
18 example, there is a 30-year requirement to perform post-closure
19 groundwater monitoring on the ash pond for Henderson Station Two.

20

1 **Q. What is typically included in contingency costs in a decommissioning**
2 **cost estimate?**

3 A. A contingency cost includes unspecified but reasonably expected additional
4 costs to be incurred during the execution of decommissioning activities. For
5 decommissioning projects, there is some uncertainty associated with work
6 conditions, the scope of work, and how the work will be performed. There
7 also is some uncertainty associated with estimating the quantities for
8 dismantlement of facilities. These uncertainties result from the age and
9 limits on drawings available, as well as the absence of testing results for
10 environmental contamination prior to preparation of these types of studies.
11 Contingency costs account for these unspecified but expected costs and are in
12 addition to the direct costs associated with the base decommissioning costs
13 for known scope items.

14
15 **Q. Are contingency costs a necessary component of decommissioning**
16 **cost estimates?**

17 A. Yes. Contingency costs are a critical component for estimating the cost of
18 almost any large construction project. They account for the potential
19 circumstances that can result in an increase in costs over the direct costs for
20 known scope items under ideal conditions. Some of these costs cannot be
21 determined until the dismantlement process has begun. Therefore,

1 contingency is applied on top of the base estimated cost in order to formulate
2 a reasonable estimate to dismantle the generating facilities.

3

4 **Q. Are contingency costs standard industry practice?**

5 A. Yes. The application of contingency is not only appropriate, but also
6 standard industry practice. Even on a project where firm pricing has been
7 agreed upon with a successful bidder, it is typical that a client carry some
8 level of contingency to cover potential change orders.

9

10 **III. PLANT DESCRIPTION**

11 **Q. Please describe Henderson Station Two.**

12 A. Henderson Station Two is a coal-fired, steam electric generating station with
13 two units and is located near Henderson Kentucky. The two units were
14 brought online in 1973 and 1974 and have capacities of 165 MW and 172
15 MW.

16 The primary fuel used by Henderson Station Two was bituminous coal,
17 and the secondary fuel included distillate fuel oil. These Units utilized
18 pulverized coal boilers as well as other generating equipment including a
19 condenser, steam turbine generator, and all supporting systems such as the
20 circulating water system, coal pulverizers, water treatment, and other
21 balance of plant systems. The Plant is equipped with Riley Stoker low NO_x

1 burners, Wheelabrator Air Pollution Control FGD, a selective catalytic
2 reactor (“SCR”), and an electrostatic precipitator.

3 The Henderson Station Two facility includes a significant amount of
4 balance-of-plant infrastructure to support plant operations. The facility has
5 two cooling towers, an ash pond, a site drainage pond, coal unloading and
6 handling equipment, and numerous administrative, maintenance, and
7 warehouse buildings.

8

9 **Q. Does Henderson Station Two share a site or facilities with other**
10 **units?**

11 A. Yes, Henderson Station Two is located adjacent to Reid Unit 1 and has a
12 common basement. Henderson Station Two also shares certain facilities with
13 Green Station; however, it is my understanding from Big Rivers that the
14 contracts between Big Rivers and Henderson allow Big Rivers to continue use
15 of those facilities, if needed for the operation of Green Station, so they will
16 remain in operation.

17

18 **Q. Is Henderson Station Two still in service?**

19 A. No, the units at Henderson Station Two were shut down in February of 2019.

20

1 **Q. What decommissioning activities have been performed on Henderson**
2 **Station Two?**

3 A. Since February 2019, Big Rivers has begun (but not completed) ramp down
4 activities, including disconnecting major power supplies, partial removal of
5 oil from equipment, removing chemicals, and removing water treatment. Big
6 Rivers has also installed site security, installed locks on doors that did not
7 previously lock, and removed the first landing of stairs. Big Rivers has also
8 installed a temporary wall to restrict access to the retired units.

9

10 **IV. DECOMMISSIONING COSTS**

11 **Q. How do the options you outlined above apply to Henderson Station**
12 **Two?**

13 A. Big Rivers has already performed several activities associated with retiring
14 Henderson Station Two in place; however, not all activities required to place
15 the plant in a “cold, dark, and safe” condition had been completed as of the
16 date of this testimony. Plus, Big Rivers and Henderson still have
17 outstanding liabilities for full demolition at a later date, and future costs for
18 environmental monitoring and any required site remediation.

19

20 **Q. Why do Big Rivers and Henderson still have a decommissioning**
21 **liability?**

1 A. As previously stated, the equipment and structures at Henderson Station
2 Two will need to be fully demolished and site remediation activities
3 performed at some future date, similar to other units we have evaluated.

4

5 **Q. As a basis for decommissioning costs, have others considered**
6 **retiring a unit in place with full demolition taking place at a later**
7 **date?**

8 A. Yes. In my experience, I have prepared studies for units similar to
9 Henderson Station Two that had to be retired in place with full demolition
10 occurring at a later date. In these instances, the combined costs of both
11 retiring in place and performing full demolition were used as the basis for
12 decommissioning costs.

13

14 **V. CONCLUSION**

15 **Q. Are the costs that Big Rivers has incurred to place Henderson**
16 **Station Two in a retire-in-place condition, prudent**
17 **decommissioning costs?**

18 A. Yes.

19

20 **Q. Are there additional prudent decommissioning costs that still need**
21 **to be accounted for by Big Rivers?**

1 A. Yes. As of the date of my testimony, only partial costs have been incurred to
2 place the plant in a “cold, dark, and safe” condition. Throughout my
3 testimony, I have discussed some of the additional prudent costs that Big
4 Rivers will need to account for, including those associated with completing
5 the conversion to a “cold, dark, and safe” condition. In addition, future full
6 demolition is prudent and still needs to be accounted for by Big Rivers. And
7 even after demolition, there will be ongoing costs for environmental
8 monitoring and any site remediation required in the future.

9

10 **Q. Does this conclude your direct testimony?**

11 A. Yes.

BIG RIVERS ELECTRIC CORPORATION

**APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR
ENFORCEMENT OF RATE AND SERVICE STANDARDS
CASE NO. 2019-00 _____**

VERIFICATION

I, Jeffrey T. ("Jeff") Kopp, verify, state, and affirm that I prepared or supervised the preparation of the Direct Testimony filed with this Verification, and that Direct Testimony is true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry

Jeffrey T. Kopp

Jeffrey T. ("Jeff") Kopp

STATE OF MISSOURI)
COUNTY OF JACKSON)

SUBSCRIBED AND SWORN TO before me by Jeffrey T. ("Jeff") Kopp on this
the 30th day of July, 2019.

AMANDA L. G. DUNN
Notary Public - Notary Seal
STATE OF MISSOURI
Jackson County
My Commission Expires Sep. 15, 2020
Commission # 16012249

Amanda L. G. Dunn

Notary Public, State of Missouri

My Commission Expires Sept. 15, 2020

JEFFREY T. KOPP, PE

Manager, Utility Consulting

Jeff is the Utility Consulting Department Manager at Burns & McDonnell, specializing in consulting services for power generation and transmission and distribution projects. This includes energy project development, due diligence reviews, resource planning, renewable project development, rate studies and analysis, power plant decommissioning studies, and transmission planning.

EDUCATION

- ▶ BS, Civil Engineering
- ▶ MBA, Business Administration

REGISTRATIONS

- ▶ Professional Engineer (FL, IL, IN, MO)

18 YEARS WITH BURNS & MCDONNELL

19 YEARS OF EXPERIENCE

Testimony Experience

Utility Company	Regulatory Agency	Docket No.	Client Represented	Subject
Duke Energy Indiana	Indiana Utility Regulatory Commission	Cause No. 45253	Duke Energy Indiana	Rate Case – Decommissioning Costs
Xcel Energy	New Mexico Public Regulation Commission	Case No. 19-00170-UT	Southwestern Public Service Company	Rate Case – Decommissioning Costs
Calpine	New York State Board on Electric Generation Siting and The Environment	Case No. 16-F-0559	Bluestone Wind, LLC	Application for a Certificate under Article 10 of the Public Service Law
Oklahoma Gas and Electric	The Corporation Commission of the State of Oklahoma	PUD 201800140	Oklahoma Gas and Electric	Rate Case – Decommissioning Costs
Golden Valley Electric Association	The Regulatory Commission of Alaska	U-18-010	Golden Valley Electric Association	Retirement Report for Healy Unit 1 – Decommissioning Costs
Xcel Energy	Public Utilities Commission of the State of Colorado	14AL-0660E	Public Service Company of Colorado	Rate Case – Decommissioning Costs
Xcel Energy	Public Utilities Commission of the State of Colorado	16A-0231E	Public Service Company of Colorado	2016 Revised Depreciation Rates
Florida Power & Light Company	Florida Public Service Commission	160021-EI; 160062-EI	Florida Power & Light Company	Rate Case – Decommissioning Costs

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Duke Energy Kentucky	Kentucky Public Service Commission	2017-00321	Duke Energy Kentucky	Rate Case – Decommissioning Costs
Duke Energy Progress	North Carolina Utilities Commission	Docket No. E-2, Sub 1142	Duke Energy Progress	Rate Case – Decommissioning Costs
Duke Energy Carolinas	North Carolina Utilities Commission	Docket No. E-7, Sub 1146	Duke Energy Carolinas	Rate Case – Decommissioning Costs
Oklahoma Gas and Electric	Corporation Commission of Oklahoma	Cause No. PUD 201700496	Oklahoma Gas and Electric	Rate Case – Decommissioning Costs
Progress Energy Florida	Florida Public Service Commission	090079-EI	Progress Energy Florida	Rate Case – Decommissioning Costs
Otter Tail Power Company	Minnesota Public Utilities Commission	E017/M-10-1082	Otter Tail Power Company	Advanced Determination of Prudence – AQCS Upgrades
Otter Tail Power Company	Public Service Commission of the State of North Dakota	PU-11-165	Otter Tail Power Company	Advanced Determination of Prudence – AQCS Upgrades

Decommissioning Study | Calpine New York | 2018

Jeff served as the Burns & McDonnell project manager on a decommissioning study for a wind farm being developed in New York. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life to support Calpine’s application to construct a major electric generating facility under Article 10 of the New York Public Service Law. Subsequent to the study, Jeff will be available to provide written testimony in the Article 10 public hearings in regards to the study findings.

Decommissioning Study | Southwestern Public Service Texas, New Mexico | 2018

Jeff is currently serving as the Burns & McDonnell project manager on a decommissioning study for the entire fleet of power generating facilities owned by Southwestern Public Service. The evaluation is being performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation includes coal-fired plants, natural gas-fired simple cycle units, and gas fired boiler projects. The report and results are being used in

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support of depreciation rates as part of the rate case filing. Jeff is currently providing support through the regulatory process with written and oral testimony in Southwestern Public Service's rate hearing in regards to the study findings.

Decommissioning Study | Duke Energy

Indiana | 2018

Jeff served as the Burns & McDonnell project manager on a decommissioning study for the entire fleet of power generating facilities owned by Duke Energy Indiana. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included coal-fired plants, natural gas-fired simple and combined cycle units, solar projects, and a hydro-electric plant. Jeff is currently providing support through the regulatory process with written and oral testimony in Duke Energy Indiana's rate hearing in regards to the study findings.

Decommissioning Study | Golden Valley Electric Association

Alaska | 2018

Jeff served as the Burns & McDonnell project manager on a decommissioning study for the entire fleet of power generating facilities owned by Golden Valley Electric Association. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included a coal-fired plant, diesel and naphtha fired combustion turbine units, a battery energy storage facility, and a wind farm. Jeff provided written testimony in Golden Valley's Compliance Hearing regarding the retirement of their Healy Unit 1 project. Jeff also will be available to provide written and oral testimony in Golden Valley's rate hearing in regards to the study findings.

Decommissioning Study | Owensboro Municipal Utilities

Kentucky | 2018

Jeff served as the Burns & McDonnell project manager on a decommissioning study for coal fired generating facility owned by Owensboro Municipal Utilities. The evaluation was performed to determine the options for retiring the plant and associated costs. Options evaluated included placing one of the units into layup with the potential to restart at a later date, retirement in place, or full demolition and site restoration.

Decommissioning Study | Duke Energy

Florida | 2018

Jeff served as the Burns & McDonnell project manager on a decommissioning study for the entire fleet of power generating facilities owned by Duke Energy Florida. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included a coal-fired plant, natural gas-fired simple and combined cycle units, and solar projects. Subsequent to the study, Jeff will be available to provide written and oral testimony in Duke Energy Florida's rate hearing in regards to the study findings.

Decommissioning Study | Tucson Electric Power

Arizona | 2018

Jeff served as the Burns & McDonnell project manager on a decommissioning study for the entire fleet of power generating facilities owned by Tucson Electric Power. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included a coal-fired plant, natural gas-fired simple and combined cycle units, and solar projects. Subsequent to the study, Jeff will be available to provide written and oral testimony in Tucson Electric Powers's rate hearing in regards to the study findings.

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Decommissioning Study | Public Service of New Mexico New Mexico | 2018

Jeff served as the Burns & McDonnell project manager on a decommissioning study for the entire fleet of power generating facilities owned by Duke Energy Florida. The evaluation is being performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation includes a coal-fired plant, natural gas-fired simple and combined cycle units, and solar projects.

Decommissioning Study | Capital Power Illinois | 2018

Jeff served as the Burns & McDonnell project manager on a decommissioning study for a wind farm being developed in Illinois. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life to support the county zoning application. Subsequent to the study, Jeff will be available to provide written and oral testimony in the county zoning hearings in regards to the study findings.

Decommissioning Study | Calpine New York | 2018

Jeff served as the Burns & McDonnell project manager on a decommissioning study for a wind farm being developed in New York. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life to support Calpine's application to construct a major electric generating facility under Article 10 of the New York Public Service Law. Subsequent to the study, Jeff provided written testimony in the Article 10 public hearings in regards to the study findings.

Decommissioning Study | Tradewind Energy Illinois | 2018

Jeff served as the Burns & McDonnell project manager on a decommissioning study for a wind being developed in Illinois. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life to support the county zoning application. Subsequent to the study, Jeff will be available to provide written and oral testimony in the county zoning hearings in regards to the study findings.

Decommissioning Study | Hawaii Electric Company Hawaii | 2018

Jeff served as the Burns & McDonnell project manager on a decommissioning study for a reciprocating engine plant that was under construction for Hawaii Electric Company. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life.

Decommissioning Study | EDP Renewables Indiana | 2018

Jeff served as the Burns & McDonnell project manager on a decommissioning study for a wind farm being developed in Indiana. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life to support the county zoning application. Subsequent to the study, Jeff will be available to provide written and oral testimony in the county zoning hearings in regards to the study findings.

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(continued)

Decommissioning Study | EDP Renewables

Illinois | 2018

Jeff served as the Burns & McDonnell project manager on a decommissioning study for a wind farm being developed in Illinois. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life to support the county zoning application. Subsequent to the study, Jeff provided oral testimony in the county zoning hearings in regards to the study findings.

Due Diligence | Centerpoint Energy

Indiana | 2017

Jeff served as the project manager for a due diligence evaluation of Vectren's fleet of power plants being considered as part of a potential full acquisition of Vectren by Centerpoint. The evaluation included a technical, environmental, and contractual review of the coal, simple cycle, and wind farm facilities. As part of the project, Jeff presented the results of the study to CenterPoint's board of directors to support their decision making process for the acquisition.

Due Diligence | PKA AIP

Michigan | 2017

Jeff served as the project manager for a due diligence evaluation of a combined cycle power plant being considered for potential equity investment by PKA AIP. The evaluation included a technical, environmental, and contractual review of the plant.

Decommissioning Study | Tampa Electric Company

Florida | 2017

Jeff served as the Burns & McDonnell project manager on a decommissioning study for the entire fleet of power generating facilities owned by Tampa Electric. The evaluation is being performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation includes a coal-fired plant, natural gas-fired simple and combined cycle units, and solar projects. Subsequent to the study, Jeff will be available to provide written and oral testimony in Tampa Electric's rate hearing in regards to the study findings.

Decommissioning Asset Retirement Obligation Study | NRG Energy

Various US Locations | 2017

Jeff served as the Burns & McDonnell project manager on a decommissioning study to evaluate the asset retirement obligation costs for numerous renewable energy facilities owned by NRG Energy throughout the United States. The evaluation was performed to determine the costs for any obligations to remove and/or demolish the facilities and equipment and perform environmental remediation and site restoration activities. The study was performed to support compliance with FAS 143 requirements.

Due Diligence | Confidential Client

Northwest | 2017

Jeff is served as the project manager for a due diligence evaluation of three natural gas fired combine cycle power plants being considered for potential acquisition. The evaluation included a technical, environmental, and contractual review of the facilities.

JEFFREY T. KOPP, PE

(continued)

Decommissioning Study | Confidential Client

Illinois | 2017

Jeff served as the project manager for a site retirement evaluation to help determine the cost to retire a 600 MW coal-fired project in Illinois at the end of its useful life. Estimates for demolition and site restoration were included in the evaluation. Jeff previously prepared decommissioning study estimates for this plant with the updated study being performed to reflect current pricing and changes in regulations.

Decommissioning Study |AEP

Ohio, Indiana | 2017

Jeff served as the Burns & McDonnell project manager on a decommissioning study for two coal fired power plants owned by Ohio Valley Electric Company and Indiana Kentucky Electric Company, both of which AEP is the largest shareholder. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives for purposes of accruing the costs over the life of the plants.

Decommissioning Study |OGE Energy Corp.

Oklahoma | 2017

Jeff served as the Burns & McDonnell project manager on a decommissioning study for the entire fleet of power generating facilities owned by OGE Energy in Oklahoma. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support depreciation rates. The evaluation included several coal-fired plants, natural gas fired boilers, natural gas-fired simple and combined cycle units, and a wind farm. Subsequent to the study, Jeff provided written testimony, and is currently providing support in replying to discovery requests. Jeff will be available to provide oral testimony in OGE Energy's rate hearing in regards to the study findings.

Decommissioning Study |Duke Energy

North Carolina, South Carolina, Kentucky | 2017

Jeff served as the Burns & McDonnell project manager on a decommissioning study for the entire fleet of power generating facilities owned by three Duke Energy Utilities, including Duke Energy Carolinas, Duke Energy Progress, and Duke Energy Kentucky. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included several coal-fired plants, natural gas fired boilers, natural gas-fired simple and combined cycle units, hydroelectric plants, and solar projects. Subsequent to the study, Jeff provided written and oral testimony in Duke Energy Carolinas, Duke Energy Progress, and Duke Energy Kentucky's rate hearing in regards to the study findings.

Useful Life Assessment | Confidential Client

Southeast | 2017

Jeff served as the Burns & McDonnell project manager on a useful life assessment for a combined cycle power plant for a confidential client. The evaluation was performed to determine the anticipated life of the facility and associated costs to achieve that life. The study supported financial modeling of the facility as part of the utility's portfolio of assets.

JEFFREY T. KOPP, PE

(continued)

Useful Life Assessment | Confidential Client Southeast | 2017

Jeff served as the Burns & McDonnell project manager on a useful life assessment for a combined cycle power plant for a confidential client. The evaluation was performed to determine the anticipated life of the facility and associated costs to achieve that life. The study supported financial modeling of the facility as part of the utility's portfolio of assets.

Decommissioning Study | FPL Energy Florida | 2015

Jeff served as the Burns & McDonnell project manager on a decommissioning study for the entire fleet of power generating facilities owned by FPL Energy in the State of Florida. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included several coal-fired plants, natural gas-fired simple and combined cycle units, solar generating facilities. Subsequent to the study, Jeff provided written and oral testimony in FPL Energy's rate case hearing in regards to the study findings.

Decommissioning Study | Xcel Energy Colorado | 2014

Jeff served as the Burns & McDonnell project manager on a decommissioning study for the entire fleet of power generating facilities owned by Xcel Energy in the State of Colorado. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included several coal-fired plants, natural gas-fired simple and combined cycle units, hydroelectric plants, and a wind farm. Subsequent to the study, Jeff is provided written and oral testimony in Xcel Energy's rate hearing in regards to the study findings.

Decommissioning Cost Evaluation | Progress Energy Florida Florida | 2008-2009

Jeff served as the Burns & McDonnell project manager on a site retirement cost evaluation for all the fossil fuel-fired power generating facilities owned by Progress Energy in the state of Florida. The evaluation was performed to determine the costs to demolish the units and restore the sites and included a natural gas-fired steam plants, fuel oil-fired steam plants, natural gas-fired combustion turbines, coal-fired facilities, and combined cycle generating facilities. Subsequent to the study, Jeff provided direct testimony in Progress Energy Florida's rate case in regards to the study findings.

Decommissioning Asset Retirement Obligation Study | NRG Energy California | 2016

Jeff served as the Burns & McDonnell project manager on a decommissioning study to evaluate the asset retirement obligation costs for all the fossil fuel-fired power generating facilities owned by NRG Energy in the state of California. The evaluation was performed to determine the costs for any legally obligations to demolish facilities and equipment and perform environmental remediation and site restoration activities. The facilities included a natural gas and fuel oil fired plants consisting of boilers, combustion turbines, and combined cycle generating facilities.

Due Diligence | Confidential Client Northeast | 2016

Jeff served as the project manager for a due diligence evaluation of a portfolio of power generation assets. The assets included gas and oil fired boilers, combined cycle combustion turbines, and simple cycle combustion turbines. The client

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was considering acquiring an equity stake in the facilities. The evaluation included a technical, environmental, and contractual review of the facilities. The review primarily focused on evaluation of recent repairs to the facilities, remaining life of the equipment, and potential large capital cost requirements to identify key risks or fatal flaws.

Due Diligence | Confidential Client Northeast | 2016

Jeff served as the project manager for a due diligence evaluation of a coal fired power generating facility that was being offered for sale. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the facilities. The review primarily focused on evaluation of the condition of the equipment and facilities, upgrades required to comply with environmental regulations, and other major capital or O&M projects to identify key risks or fatal flaws.

Due Diligence | Confidential Client Northeast | 2016

Jeff served as the project manager for a due diligence evaluation of a combined cycle generating facility under development. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility. The review primarily focused on evaluation of the project costs, schedule, permitting, and other development activities to determine any development risks or fatal flaws.

Decommissioning Study | PacifiCorp Oregon, Washington, Wyoming | 2016

Jeff served as the BMcD project manager on a decommissioning study for three wind farms owned by PacifiCorp. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives in support of determining depreciation rates.

Due Diligence | Confidential Client Northeast | 2016

Jeff served as the project manager for a due diligence evaluation of a combined cycle generating facility under development. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility. The review primarily focused on evaluation of the project costs, schedule, permitting, EPC contract, equipment contracts, and other development activities to determine any development risks or fatal flaws.

Due Diligence | Confidential Client Southwest | 2016

Jeff served as the project manager for a due diligence evaluation of a natural gas fired combined cycle power generating facility that was being offered for sale. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the facility. The review primarily focused on evaluation of the condition of the equipment, sufficiency of contractual arrangements, and environmental compliance to identify key risks or fatal flaws.

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Decommissioning Study | Big Rivers Electric Cooperative Kentucky | 2016

Jeff served as the BMcD project manager on a decommissioning study for two coal-fired power generating facilities owned by Big Rivers Electric Cooperative. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives.

Due Diligence | Confidential Client Northeast | 2016

Jeff served as the project manager for a due diligence evaluation of a natural gas fired combined cycle power generating facility that was being offered for sale. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the facility. The review primarily focused on evaluation of the condition of the equipment, sufficiency of contractual arrangements, design issues surrounding recent plant performance challenges, and environmental compliance to identify key risks or fatal flaws.

Useful Life Assessment | Confidential Client Southeast | 2015

Jeff served as the Burns & McDonnell project manager on a useful life assessment for a combined cycle power plant for a confidential client. The evaluation was performed to determine the anticipated life of the facility to support financing of the project associated with acquisition of the facility.

Decommissioning Study | Nebraska Public Power District Nebraska | 2015

Jeff served as the Burns & McDonnell project manager on a decommissioning study for five power generating facilities owned by Nebraska Public Power District. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives. The evaluation included two coal-fired plants, a natural gas-fired boiler plant, a combined cycle plant, and a wind farm.

Decommissioning Study | Lafayette Utilities System Louisiana | 2015

Jeff served as the Burns & McDonnell project manager on a decommissioning study for a coal fired generating facility in the state of Louisiana. The evaluation was performed to determine the costs for options to retire the units in place or demolish the units and restore the site now that the units are no longer operating. The costs are being used for planning purposes by the client, to determine the preferred decommissioning plan for the plant.

Decommissioning Study | Colstrip Energy Montana | 2015

Jeff served as the Burns & McDonnell project manager on a decommissioning study for a coal fired generating facility in the state of Montana. The evaluation was performed to determine the costs to demolish the unit and restore the site at the end of its useful life. The costs were used for planning purposes by the client, to determine the decommissioning funds that need to be accrued throughout the operating life of the facility.

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Due Diligence | Confidential Client Northeast | 2015

Jeff served as the project manager for a due diligence evaluation of a combined cycle generating facility under development. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility. The review primarily focused on evaluation of the project costs, schedule, permitting, and other development activities to determine whether the project was economically attractive and determine any development risks or fatal flaws.

Decommissioning Study | Apex Clean Energy Various Locations | 2015

Jeff served as the Burns & McDonnell project manager for a site retirement cost evaluation for three proposed wind energy facilities under development. The evaluation was performed to support permitting activities on the facilities.

Decommissioning Study | Oklahoma Gas & Electric Oklahoma | 2014

Jeff served as the Burns & McDonnell project manager on a decommissioning study for a power generating facility in the Midwest. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life. The plant was expected to retire within a year or two of the study, and the costs were used for planning purposes by the client.

Decommissioning Study | Basin Electric Cooperative North Dakota & Wyoming | 2014

Jeff served as the Burns & McDonnell project manager on a decommissioning study for five power generating facilities in the North Dakota and Wyoming. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful life. The costs are being used for planning purposes by the client.

Coal Plant Layup | Hoosier Energy Indiana | 2014

Jeff served as the Burns & McDonnell project manager on the preparation of a plan to place a coal fired generating facility in long term layup reserve status. The project included preparation of three manuals for the implementation of the layup plan, maintaining the plant during the layup period, and reactivating the plant at the end of the layup period.

Decommissioning Study | Apex Clean Energy Illinois | 2014

Jeff served as the Burns & McDonnell project manager for a site retirement cost evaluation for a proposed wind energy facility under development. The evaluation was performed to support permitting activities on the facility.

Due Diligence | Confidential Client Midwest | 2014

Jeff served as the project manager for a due diligence evaluation of a combined cycle generating facility under development. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility. The review primarily focused on evaluation of the project

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costs, schedule, permitting, and other development activities to determine whether the project was economically attractive and determine any development risks or fatal flaws.

Due Diligence | Duke Energy Florida | 2014

Jeff served as the project manager for a due diligence evaluation of the Osprey Energy Center combined cycle generating facility being offered for sale. Duke Energy was considering acquiring the facility from the current owner. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility. Duke successfully acquired the facility and utilized the Independent Engineer's Report prepared by Burns & McDonnell to support the regulatory process through acquisition of the facility.

Due Diligence | Confidential Client Southeast | 2014

Jeff served as the project manager for a due diligence evaluation of a cogeneration facility being offered for sale. The client was considering acquiring the facility from the current owner. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility, including a review of potential modifications to the facility due to the loss of the steam host and associated costs.

Due Diligence | Indiana Municipal Power Agency Indiana | 2014

Jeff served as the project manager for a due diligence evaluation of a coal-fired generating facility being offered for sale. The client was considering acquiring the assets from the current owner. The evaluation includes a technical, environmental, and contractual review of the coal fired generation facility.

Due Diligence | Kansas Municipal Power Agency Missouri | 2014

Jeff served as the project manager for a due diligence evaluation of a combined cycle generating facility being offered for sale. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility.

Strategic Site Selection Study | Confidential Client Midwest | 2013

Jeff served as the Burns & McDonnell lead on site selection study for a new natural gas fired combined cycle generating resource in the Midwest. The study included evaluating greenfield and brownfield sites to determine the most attractive sites and the limiting factors to development at each site.

Strategic Site Selection Study | Confidential Client Northeast | 2013

Jeff served as the Burns & McDonnell lead on site selection study for a new gas processing facility in the northeast. The study included evaluating potential greenfield locations for a cryogenic gas processing plant to handle wet and dry gas from the Utica and Marcellus Shale areas.

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Site Evaluations | Confidential Client Southeast | 2013

Jeff served as the Burns & McDonnell lead on the evaluation of three potential sites for a new natural gas fired combined cycle generating facility in the Southeast. The study included reviewing three sites previously selected by the client and ranking those sites relative to one another to determine their suitability for the natural gas-fired generation options under consideration.

Decommissioning Study | Arizona Public Service Arizona | 2013

Jeff served as the Burns & McDonnell project manager on a decommissioning study for a four steam electric generating facilities in the southwest. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives. The evaluation included two coal-fired plants, and two natural gas and fuel oil fired boilers.

Decommissioning Study | Confidential Client Texas | 2013

Jeff served as the Burns & McDonnell lead on a decommissioning study for a coal fired generating facility in Texas. The study included evaluating options to place the plant in reserve shutdown status or completely retire the plant and perform full plant demolition.

Decommissioning Study | Confidential Client Upper Midwest | 2013

Jeff served as the Burns & McDonnell project manager on a decommissioning study for a coal fired generating facility in the upper Midwest. The study included phasing the retirement dates of portions of the facility and performing selective demolition as appropriate with full demolition to be complete at the end of useful life of the entire facility. The study also included evaluating potential value of equipment for sale on the secondary market.

Decommissioning Study | Confidential Client Ohio River Valley | 2013

Jeff served as the Burns & McDonnell project manager on a decommissioning study for two coal fired generating facilities in the Ohio River Valley. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful life. The costs are being used for planning purposes by the client.

Decommissioning Study | EDP Renewables Illinois | 2013

Jeff served as the Burns & McDonnell project manager for a site retirement cost evaluation for a proposed wind energy facility under development. The evaluation was performed to support permitting activities on the facility.

Strategic Site Selection Study | Confidential Client Western Kansas | 2012

Jeff served as the Burns & McDonnell lead on a strategic site selection study for a new natural gas fired generation resource in the state of Kansas. The study resulted in the identification of multiple viable site alternatives to support the natural gas-fired generation options under consideration.

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Due Diligence | Confidential Client Northeast | 2012

Jeff served as the project manager for a due diligence evaluation of a coal-fired generating facility being offered for sale. The client was considering acquiring the assets from the current owner. The evaluation includes a technical, environmental, and contractual review of the coal fired generation facility.

Due Diligence | Old Dominion Electric Cooperative Pennsylvania | 2012

Jeff provided support for a due diligence evaluation of a facility under development, that included a 2-on-1 combined cycle power block, being offered for sale. The client was considering acquiring the site from the current owner. The evaluation included a technical, environmental, and contractual review of the combined cycle generation facility. The evaluation included a review of existing agreements and permits in place to facilitate development of the generation resource. The project also included a review of the project capital costs to determine whether the costs were reasonable, and to identify any gaps that may increase the overall project cost.

Due Diligence | Old Dominion Electric Cooperative New Jersey | 2012

Jeff served as the project manager for a due diligence evaluation of a facility that was under construction at the time, and was being offered for sale. The client was considering acquiring the 2-on-1 combined cycle power generating facility, from the current owner. The evaluation included a technical, environmental, and contractual review of the including a review of existing agreements and permits in place. The project also included a review of the project capital costs to determine whether the costs were reasonable, and to identify any gaps that may increase the overall project cost.

Due Diligence | Old Dominion Electric Cooperative Virginia | 2012

Jeff served as the project manager for a due diligence evaluation of a facility under development, that included a 2-on-1 combined cycle power block, being offered for sale. The client was considering acquiring the site from the current owner. The evaluation included a technical, environmental, and contractual review of the combined cycle generation facility. The evaluation included a review of existing agreements and permits in place to facilitate development of the generation resource. The project also included a review of the project capital costs to determine whether the costs were reasonable, and to identify any gaps that may increase the overall project cost.

Due Diligence | Confidential Client Southeast | 2012

Jeff assisted with a due diligence evaluation of a facility that includes two, 2-on-1 combined cycle power blocks, being offered for sale. The client was considering acquiring the assets from the current owner. The evaluation included a technical, environmental, and contractual review of the combined cycle generation facility.

Development Assistance | Tenaska Ohio | 2012

Jeff served as the Burns & McDonnell project manager assisting a client with the preparation of a Certificate of Environmental Compatibility and Public Need for conversion of an existing simple cycle facility to combined cycle. The

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facility includes five combustion turbines, four of which will be converted to two, 2-on-1 combined cycle power blocks. The project includes full preparation of the Certificate of Environmental Compatibility and Public Need application, as well as public meeting support.

Repower Assessment | Confidential Client

North Dakota | 2011

Jeff assisted a client with an evaluation comparing the economic viability of retrofitting an existing coal-fired power plant with air quality control system equipment in comparison to replacing the plant with new natural gas fired generation. The project includes preparing capital cost estimates; operating and maintenance cost estimates, and determining the net present value of each alternative evaluate the relative economic attractiveness of each alternative.

Decommissioning Study | Progress Energy

North Carolina & South Carolina | 2011

Jeff served as the Burns & McDonnell project manager on a decommissioning study for the entire fleet of power generating facilities owned by Progress Energy Carolinas. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives. The evaluation included several coal-fired plants, as well as several natural gas-fired and fuel oil-fired units.

Decommissioning Study | Minnesota Power

Minnesota | 2011

Jeff served as the Burns & McDonnell project manager on a decommissioning study for several power generating facilities owned by Minnesota Power. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives. The evaluation included three coal-fired plants and a biomass fired facility.

Strategic Site Selection Study | Old Dominion Electric Cooperative

Virginia, Maryland, Pennsylvania, Delaware | 2011

Jeff served as the Burns & McDonnell project manager on a strategic site selection study for a 750 MW combined cycle facility. The study resulted in the identification of multiple viable site alternatives to support the natural gas-fired generation option under consideration.

Due Diligence Evaluation | Old Dominion Electric Cooperative

Pennsylvania | 2011

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation of a 2-on-1 combined cycle facility being offered for sale by Liberty Electric in Pennsylvania. The client was considering acquiring the assets from the current owner. The evaluation included a technical, environmental, and contractual review of the combined cycle generation facility.

Due Diligence Evaluation | Tyr Energy

Florida | 2011

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation of a biomass power generating facility under development by American Renewables. The client was considering an equity investment in the facility. The evaluation included a 100 MW bubbling fluidized bed boiler and steam turbine.

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Due Diligence Evaluation | Old Dominion Electric Cooperative Maryland | 2011

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation of a combined cycle facility under development in Maryland. The client was considering acquiring the site and all the development rights for installation of a 2-on-1 combined cycle facility. The evaluation included a review of existing agreements and permits in place to facilitate development of the generation resource.

Decommissioning Study | Tampa Electric Co. Florida | 2011

Jeff served as the Burns & McDonnell project manager on a decommissioning study for the power generating facilities owned by Tampa Electric Company. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives. The evaluation included a coal-fired plant, an integrated gasification combined cycle plant, and several natural gas-fired units.

Decommissioning Study | Confidential Client Illinois | 2011

Jeff served as the project manager for a site retirement evaluation to help determine the cost to retire a 600 MW coal-fired project in Illinois at the end of its useful life. Estimates for demolition and site restoration were included in the evaluation.

Repower Assessment | Confidential Client Minnesota | 2010

Jeff assisted a client with an evaluation comparing the economic viability of retrofitting an existing coal-fired power plant with air quality control system equipment in comparison to replacing the plant with new natural gas fired generation. The project includes preparing capital cost estimates; operating and maintenance cost estimates, and determining the net present value of each alternative evaluate the relative economic attractiveness of each alternative.

Biomass Plant Site Selection Study | Confidential Client Texas | 2010

Jeff served as the project manager for a Site Selection Study for a Biomass project to be located in Texas. The project included ranking of candidate sites to determine a preferred site for development of a 20 MW biomass power generating facility.

Due Diligence Evaluation | Tyr Energy Multiple Locations | 2010

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for several natural gas-fired facilities being offered for sale by Tenaska. The client was considering an equity investment in the facilities. The evaluation included four combined cycle facilities and one simple cycle facility.

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Power Plant Valuation Assessment | Basin Electric Power Cooperative North Dakota | 2010

Jeff served as the Burns & McDonnell project manager to provide a valuation assessment of the Antelope Valley Station Unit 2, which is being considered for purchase by Basin Electric Power Cooperative. The project includes valuing the 25 year old 450 MW coal fired unit in current dollars and at specified dates in the future.

Wind Farm Evaluation | Minnesota Power North Dakota | 2010

Jeff served as the Burns & McDonnell project manager to provide an evaluation of a proposed wind farm development in central North Dakota. The project includes wind resource assessments, conceptual engineering design, capital cost estimates, and estimated busbar costs for development of wind farm project in phases on the land currently under contract.

Decommissioning Cost Evaluations | Horizon Wind Energy Midwest | 2008-2010

Jeff served as the Burns & McDonnell project manager on multiple site retirement cost evaluations for several proposed wind energy facilities under development by Horizon Wind Energy. The evaluations were performed to support permitting activities on the facilities.

Due Diligence Evaluation | Tyr Energy Hawaii | 2010

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for a biomass gasification generating facility under development in Hawaii. The client was considering the facility for investment. The evaluation included a Primenergy gasifier with a net plant output of approximately 12 MW.

Project Development Assistance | Tradewind Energy Kansas | 2009-2010

Jeff served as the Burns & McDonnell project manager to provide development assistance on a wind farm facility in Southern Kansas. The development assistance includes support on land acquisition efforts for the project, transmission line routing and preliminary design, power collection system preliminary design, and general project development assistance.

Project Development Assistance | Tradewind Energy Missouri | 2007-2010

Jeff served as the Burns & McDonnell project manager to provide development assistance on two wind turbine facilities in Northern Missouri. The development assistance includes support on land acquisition efforts for the project, transmission line routing and preliminary design, power collection system preliminary design, and general project development assistance.

Decommissioning Cost Evaluation | Northern Indiana Public Service Co. Indiana | 2008

Jeff served as the Burns & McDonnell project manager on a site retirement cost evaluation for several generating facilities owned by NIPSCO. The evaluation was performed to determine the costs to demolish the units and restore the sites and included several coal-fired facilities and a combined cycle generating facility.

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Due Diligence Evaluation | Grays Harbor Public Utility District Washington | 2008

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for a biomass-fired cogeneration facility being offered for sale in Washington. The facility evaluated was a paper mill that had been shutdown for several years. The facility included a wood waste fired boiler that provided steam to a steam turbine for electric power generation as well as providing plant process steam.

Due Diligence Evaluation | Tyr Energy New Mexico | 2008

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for a natural gas-fired power generating facility being offered for sale in New Mexico. The evaluation included two Mitsubishi 501F combustion turbines operating in combined cycle mode.

Decommissioning Cost Evaluation | Horizon Wind Energy Illinois | 2008

Jeff served as the Burns & McDonnell project manager on a site retirement cost evaluation for a wind farm being proposed by Horizon Wind Energy in Illinois. The evaluation was performed to determine the costs to demolish the units and restore the sites to meet the county zoning requirements.

Due Diligence Evaluation | Tyr Energy Western U.S. | 2008

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for several natural gas-fired power generating facilities being offered for sale throughout the western United States. The evaluation included several GE LM6000 combustion turbines operating in simple cycle mode, several GE LM6000 combustion turbines operating in combined cycle mode, one GE 7EA combustion turbine operating in combined cycle mode, and one GE 7FA combustion turbine operating in simple cycle mode.

Due Diligence Evaluation | Tyr Energy Virginia | 2007

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for a generating facility being offered for sale in Virginia. The evaluation included 7 GE LM6000 fuel oil fired combustion turbines operating in simple cycle mode.

Due Diligence Evaluation | Tyr Energy Colorado | 2007

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for 5 GE LM6000 combustion turbines operating in combined cycle cogeneration mode with 2 steam turbines. The facility includes a greenhouse that serves as the plant's thermal host for cogeneration operations.

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Project Development Assistance | Mesa Wind Power Texas | 2007

Jeff provided development assistance on a 4,000 MW wind turbine facility located in the panhandle of Texas. The development assistance includes pro forma economic modeling of the project.

Due Diligence Evaluation | Kelson Energy Ohio | 2007

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for a generating facility being offered for sale in Ohio. The evaluation included a partially constructed 2x1 Siemens Westinghouse 7FA combined cycle generating facility.

Due Diligence Evaluation | Grand River Dam Authority Oklahoma | 2007

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for a generating facility being offered for sale in Oklahoma. The evaluation included a 4x2 GE 7FA combined cycle generating facility.

Due Diligence Evaluation | Brazos Electric Power Cooperative Texas | 2007

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for the purchase of an equity share of a generating facility being constructed in Texas. The evaluation included an 890 MW supercritical pulverized coal fired generating facility.

Due Diligence Evaluation | Tyr Energy Florida | 2007

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for a generating facility being offered for sale in Florida. The evaluation included 3 GE 7FA combustion turbines operating in simple cycle mode.

Cost Estimate Preparation | Direct Energy Texas | 2007

Jeff served as the Burns & McDonnell project manager for the preparation of planning level cost estimates for a new combined cycle facility to be constructed in Texas.

Due Diligence Evaluation | Tyr Energy Various U.S. Locations | 2007

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for several generating facilities being offered for sale throughout the U.S. The evaluation included a coal, natural gas, and wind power facilities.

Owner's Engineer Services | Grays Harbor PUD Washington | 2007

Jeff served as the Burns & McDonnell project manager on an owner's engineer project to evaluate the plans for installation of a refurbished steam turbine at a paper mill. The evaluation included the review of the design for the installation of a 7 MW steam turbine.

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Decommissioning Cost Evaluation | Tyr Energy

Various U.S. Locations | 2007

Jeff served as the Burns & McDonnell project manager on a site retirement cost evaluation for several generating facilities owned by Tyr Energy. The evaluation was performed to satisfy FASB 143 accounting standards and included a simple cycle and combined cycle generating facilities.

Due Diligence Evaluation | Tyr Energy

Virginia | 2006-2007

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for a generating facility being offered for sale in Virginia. The evaluation included a 240 MW subcritical pulverized coal fired facility.

Due Diligence Evaluation | Brazos Electric Power Cooperative

Texas | 2006

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for a generating facility being offered for sale in Texas. The evaluation included a 1x1 GE 7FA combined cycle generating facility and 2 GE 7FA combustion turbines operating in simple cycle mode.

Generation Alternatives Study | Ottertail Power Company

North Dakota | 2006

Jeff served as the Burns & McDonnell project manager on a Generation Alternatives Study for the addition of a new 600 MW coal fired unit at an existing coal fired facility. The study includes a pro forma analysis of the technologies considered.

Technology Assessment | Minnesota Power

South Dakota | 2006

Jeff assisted with a technology assessment for the addition of a new 500 MW coal fired unit at an existing coal fired facility. The study includes a pro forma analysis of the technologies considered.

Technology Assessment & Feasibility Study | Ottertail Power Co.

Minnesota | 2006

Jeff served as the Burns & McDonnell project manager on a feasibility study and technology assessment for the addition of a new 500 MW coal fired unit at an existing coal fired facility. The study includes conceptual site layouts, cost estimates, performance estimates, and water balances.

Project Development Assistance | Tradewind Energy

Kansas | 2005-2006

Jeff served as the Burns & McDonnell project manager to provide development assistance on a 250MW wind turbine facility in Central Kansas. The development assistance includes conceptual design and technical support for the development phase of the project.

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Siting Study & Technology Assessment | Arizona Public Service

Arizona/New Mexico | 2005-2006

Jeff assisted with a siting study and technology assessment for a 1,800 MW coal fired facility in Arizona and Northwestern New Mexico. Development resulted in the identification of multiple viable site alternatives to support coal-fired generation options.

Due Diligence Evaluation | Tyr Energy

California | 2005-2006

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for four generating facilities being offered for sale in California. The evaluation included simple cycle facilities consisting of Pratt & Whitney FT8 Twinpacs.
Professional Services: 2005-2006

Waste-to-Energy Feasibility Study | CPS Energy

Texas | 2005

Jeff assisted with a feasibility study for a new waste-to-energy facility in the State of Texas. The study included a pro forma analysis of the facility considered.

Due Diligence Evaluation | Tyr Energy

Oklahoma | 2006

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for a generating facility being offered for sale in Oklahoma. The evaluation included a simple cycle facility consisting of four General Electric 7EA turbines.

Due Diligence Evaluation | Cinergy

Indiana | 2005

Jeff served as the Burns & McDonnell project manager on a due diligence evaluation for a generating facility being offered for sale in Indiana. The evaluation included a simple cycle facility consisting of four Siemens Westinghouse 501D5A turbines.

Due Diligence Evaluation | kRoad Power

Various Locations | 2003-2004

Jeff served as the Burns & McDonnell project manager on due diligence evaluations for several generating facilities being offered for sale throughout the United States. The evaluations included four combined cycle plants utilizing Siemens Westinghouse 501G turbines.

Due Diligence Evaluation | kRoad Power

Various Locations | 2003

Jeff served as the Burns & McDonnell project manager on due diligence evaluations for several generating facilities being offered for sale by Duke Energy. The evaluations included two combined cycle plants and one simple cycle plant utilizing General Electric 7FA turbines and General Electric 7EA turbines respectively.

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Decommissioning Cost Evaluation | Old Dominion Electric Cooperative Maryland/Virginia | 2002-2004

Jeff served as the Burns & McDonnell project manager on several site retirement evaluations to help determine the cost to retire the facilities at the end of their useful life. The evaluations included simple cycle plants utilizing General Electric 7FA turbines and Caterpillar Diesel Gensets. Estimates for demolition and site restoration were included.

Decommissioning Cost Evaluation | Western Farmers Electric Cooperative Oklahoma | 2004

Jeff served as the Burns & McDonnell project manager on a site retirement evaluation to determine the approximate cost to retire the facilities, prepare demolition contract documents, and evaluate bids. The evaluation included a dual fuel genset site.

Decommissioning Cost Evaluation | Panda Energy North Carolina | 2003

Jeff served as the Burns & McDonnell project manager on a site retirement evaluation to help determine the cost to retire the Panda-Rosemary Project at the end of its useful life. The evaluation included a combined cycle cogeneration facility in Roanoke Rapids, North Carolina. Estimates for demolition and site restoration were included in the evaluation.

Independent Engineer's Report | Panda Energy North Carolina | 2003-2004

Jeff produced an Independent Engineer's Report for the Panda-Rosemary Project. The report included a due diligence evaluation of plant performance and financial assessment of a combined cycle cogeneration facility in Roanoke Rapids, North Carolina.

Decommissioning Cost Evaluation | Sempra Energy Arizona | 2003

Jeff provided a site retirement evaluation to help determine the cost to retire the Mesquite Energy Generating Facility at the end of its useful life. The evaluation included a combined cycle plant near Phoenix, Arizona. Estimates for demolition and site restoration were included in the evaluation.

Feasibility Study | Northeast Utility Service Corp. New Hampshire | 2004

Jeff assisted with a feasibility study to replace an existing coal-fired unit with a new coal fired unit. The study included the installation of a single 600 MW unit in New Hampshire. A pro forma analysis of the new unit was prepared and benchmarked against a pro forma analysis for the existing unit.

Technology Assessment & Feasibility Study | Ottertail Power Corp South Dakota | 2006

Jeff assisted with a technology assessment and feasibility study for a new coal-fired generation facility in South Dakota. The study included a pro forma analysis of the alternative technologies considered.

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Technology Assessment & Feasibility Study | Progress Energy

Florida | 2004

Mr. Kopp assisted with a technology assessment and feasibility study for new solid fuel fired generation in the State of Florida. The study included a pro forma analysis of the alternative technologies considered.

Resources Corporation Project Development Assistance | Peoples Energy

Oregon | 2001-2004

Mr. Kopp provided project development assistance for a 1,200 MW combined cycle power plant in Oregon. Mr. Kopp assisted in the preparation of an Energy Facility Site Certificate including preliminary engineering design, preparation and review of written exhibits, and public presentation support.

Project Development Assistance | Peoples Energy Resources Corporation

New Mexico | 2001-2004

Mr. Kopp provided project development assistance for a simple cycle power plant in New Mexico. Mr. Kopp provided preliminary engineering design and project development assistance. This included preparing preliminary site design drawings that were approved by the county zoning commission during the site design review process as well as public presentation support.

POWER SALES CONTRACT
BETWEEN
CITY OF HENDERSON, KENTUCKY
and
BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION

August 1, 1970

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POWER SALES CONTRACT

THIS AGREEMENT made and entered into as of August 1, 1970 by and between CITY OF HENDERSON, KENTUCKY, hereinafter referred to as CITY, and BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION, a Kentucky Corporation with principal offices in Henderson, Kentucky, hereinafter referred to as BIG RIVERS.

WITNESSETH THAT:

PART I

STIPULATIONS AND DEFINITIONS

SECTION 1 - STIPULATIONS

1.1 City will construct as an addition to its municipal electric system two 175-megawatt coal-fired, steam-electric generators with all necessary auxiliary facilities at a site on the Green River in Henderson County, Kentucky with which it will provide the immediate and future needs of City and its inhabitants for electric power and energy. Such generating station shall be hereinafter referred to as Station Two.

1.2 Upon the completion of Station Two City will have electric power and energy surplus to the immediate needs of City and its inhabitants, which surplus power and energy can, pursuant to the authority of KRS 96.520 as amended, be sold to other public utilities in this state whose rates and services are regulated by the Kentucky Public Service Commission.

1.3 Big Rivers, which is a public utility in this state whose rates and services are regulated by the Kentucky Public Service Commission, is desirous of purchasing the surplus power and energy from time to time available from City's municipal electric system, including its proposed Station Two, and is willing to execute and fulfill the terms of this Agreement entitling it to take, and obligating it to pay for such surplus electric power and energy, subject to the terms and conditions recited herein.

1.4 By its addition of Station Two, City will be able to provide more economical and reliable electric service to itself and its inhabitants, and through its sales of surplus electric power and energy to Big Rivers, as provided by this Agreement, City can assure the economic feasibility of such addition.

SECTION 2 - DEFINITIONS

2.1 Existing System: The electric utility system by which City serves the needs of City and its inhabitants (and some non-inhabitants) at the time of the execution of this Agreement, and all additions, expansions and improvements thereto and renewals and replacements thereof hereafter made, other than Station Two.

2.2 Station Two: City's proposed 350-megawatt generating station and all auxiliary facilities, joint use facilities (provided by City) and other related facilities to be constructed at a site on Green River in Henderson County, Kentucky together with all additions, expansions and improvements thereto and

~~renewals and replacements thereof (which shall not include the City Transmission and Transformation Facilities as herein defined).~~

2.3 Auxiliary Facilities: Power plant facilities which are physically separated from the steam generators, turbines and electric generators comprising the generating station, and which are required for the operation, maintenance and/or control thereof, and/or the delivery of power and energy therefrom, but excluding the City Transmission and Transformation Facilities.

2.4 Joint Use Facilities: Auxiliary facilities which are so constructed and/or arranged as to be useful to City and Big Rivers in the operation, maintenance and control of their respective generating stations.

2.5 Date of Commercial Operation: The date upon which the first unit of City's Station Two has been placed in normal continuous operation so as to produce power and energy in a commercially acceptable manner.

2.6 Contract Year: With respect to the first contract year, the period from Date of Commercial Operation or June 30, 1974, whichever shall first occur, to and including the next succeeding December 31, and thereafter, the successive twelve-month periods beginning January 1 and ending December 31.

2.7 Monthly Billing Period: Each calendar month of any Contract Year.

2.8 Bond Ordinance: The Electric Light & Power Revenue Bond Ordinance adopted by City authorizing the issuance of Station

Two Bonds, together with ordinances supplemental thereto or amendatory thereof.

2.9 Station Two Bonds (the Bonds): The Electric Light & Power Revenue Bonds authorized, sold and issued by City pursuant to the Bond Ordinance, to provide for the costs of acquisition, construction and start-up of City's Station Two and shall include: (i) the Electric Light & Power Revenue Bonds, Station Two Series authorized and issued under the Bond Ordinance; (ii) additional Bonds, if any, authorized and issued under the Bond Ordinance to provide for such costs of Station Two in excess of original estimates; and (iii) subject to the written approval of Big Rivers, additional Bonds, if any, authorized and issued under the Bond Ordinance to finance any Additional Project (as defined in the Bond Ordinance) for Station Two.

2.10 City Transmission and Transformation Facilities: The transmission and transformation facilities to be provided by City connecting Station Two to City's Existing System.

2.11 Trustee: The Trustee appointed pursuant to the Bond Ordinance.

PART II

PLANT CAPACITY AND OUTPUT

SECTION 3 - ALLOCATION OF CAPACITY

3.1 Subject to the allocation of surplus capacity to Big

Rivers as hereinafter provided, the total capacity and output of City's Station Two shall be reserved to and available for use by City for the purpose of supplying the needs of City and its inhabitants for electric power and energy in excess of the capabilities, from time to time, of its Existing System.

3.2 The "needs of City and its inhabitants" as used herein shall mean the needs of City for electric power and energy necessary in the operation of its governmental and proprietary facilities, and the retail sales of electric power and energy by City's Existing System to City's inhabitants, present and future, and those non-inhabitants which City is serving at the time of the execution of this Agreement.

3.3 The surplus capacity of City's Station Two will be allotted to Big Rivers on the basis of five years' advance written notice from City, and Big Rivers shall have the right to receive, and the obligation to take and pay for the capacity of City's Station Two so allotted to it in the manner herein provided. Upon the execution and approval of this Agreement, City will designate in writing Big Rivers' capacity allocation from Station Two for the Contract Years or portions thereof occurring too soon to permit five years' advance notice as hereinabove provided.

3.4 City agrees that it will not, after the execution and approval of this Agreement, (1) make any dispositions to others for resale of its generating capacity, except for the purpose of disposing of any surpluses resulting from good faith

over-estimates of its needs, or (2) add any commercial or industrial customers in excess of ten (10) megawatts each to its electric system, if to do either (1) or (2), as the case may be, would require the withdrawal of additional capacity from its Existing System and/or from Units One and Two of its Station Two. Expansions in the ordinary course of business of any commercial or industrial plants being served by City at the time of the execution of this Agreement shall not be considered added commercial or industrial customers for the purposes of this Agreement. Surplus capacity as referred to in (1) above shall be first offered to Big Rivers at City's cost.

3.5 Big Rivers shall have the right to receive, and the obligation to take and pay for the surplus capacity of City's Station Two allotted to it at any particular date as herein provided. Surplus capacity as herein used shall mean the Total Capacity of City's Station Two as then determined under Section 3.6, less that amount of such capacity at the time reserved to City as herein provided.

3.6 The Total Capacity of Station Two as referred to herein shall be the total continuous net send-out capability of all generating units in Station Two as determined by annual tests, made in the month of August, of at least twenty-four hours' duration under actual load carrying condition, when the equipment is operated at rated pressure and temperature with all auxiliary equipment in service, and at a power factor of

approximately ninety per cent (90%). The measurements will be made at the 161 KV metering points of the Station Two Switchyard.

3.7 The total continuous net send-out capability of each new unit of Station Two shall be tested on or before the Date of Commercial Operation thereof, if operationally possible, and the capacity as thus determined will remain the established Total Capacity of such unit until the first annual August test thereof, but shall not exceed a rating of 175 megawatts. If such test of any unit is deferred, the Total Capacity of such unit will be considered 175 megawatts until such test is made. As of June 30, 1974 the Total Capacity of Station Two shall be considered as 350 megawatts unless otherwise established by actual test with both units operational.

SECTION 4 - ALLOCATION OF ENERGY

4.1 Big Rivers shall be entitled at all times to take from Station Two energy associated with its allotted net capacity. Each party will be charged with its proportionate share of Station Two capacity required to operate Station Two auxiliary facilities.

SECTION 5 - STANDBY CAPACITY

5.1 Big Rivers' right to the use of surplus capacity of City's Station Two as provided in this Agreement shall be subject to the prior right of City to take its reserved capacity.

from either generating unit of its Station Two, and in the event of an emergency or maintenance outage of either generating unit of City's Station Two, City's right to receive its reserved capacity from Station Two shall have priority.

SECTION 6 - PAYMENT FOR CAPACITY; FUEL REQUIREMENTS

6.1 Commencing with the Date of Commercial Operation or June 30, 1974, whichever shall first occur, Big Rivers shall pay to the Trustee, capacity charges as hereinafter defined on the surplus capacity of Station Two allotted to it as provided in Section 3, Allocation of Capacity.

6.2 Capacity charges to Big Rivers for any Monthly Billing Period shall be the same proportion of the total capacity costs of City's Station Two for such Monthly Billing Period as Big Rivers' allocation of surplus capacity of Station Two during such Monthly Billing Period bears to the total capacity of City's Station Two for such Monthly Billing Period as established pursuant to Section 3 of this Agreement.

6.3 The total capacity costs of City's Station Two for each Monthly Billing Period shall be City's total costs resulting from the ownership, operation and maintenance of, and renewals and replacements to its Station Two, except costs of fuels for Station Two. Such costs shall include, but are not limited to:

- (a) Debt Service (as defined in the Bond Ordinance) for such Monthly Billing Period with respect to the Station Two Bonds.
- (b) One-twelfth (1/12) of all costs associated with the

operation and maintenance of Station Two during such Contract Year, including, without limitation, all costs properly chargeable to F.P.C. Accounts 408, 500, 502, 505, 506, 510, 511, 512, 513, 514 and 924, and fiscal agency costs and expenses allocable to Station Two.

(c) The amount which City is required under the Bond Ordinance to pay during such Monthly Billing Period into (i) the Station Two Account in the Operation and Maintenance Fund (Station Two O. & M. Account), so as to restore the minimum balance required to be maintained therein, and (ii) the Station Two Account in the Renewals and Replacements Fund (Station Two R. & R. Account) so as to restore the minimum balance required to be maintained therein.

(d) Costs of renewals, replacements and additions (when such additions are agreed to by Big Rivers) which are not provided for through (i) funds available in the Station Two R. & R. Account in the Renewals and Replacements Fund, (ii) proceeds of insurance, or (iii) funds available from proceeds of bonds.

(e) One-twelfth (1/12) of all costs of administration and general expense for Station Two during such Contract Year, and including, but not limited to, costs properly includible in F.P.C. Accounts 920, 921, 923, 924, 925, 926, 928 and 930.

(f) Any amounts paid or payable to Big Rivers for such Monthly Billing Period under terms of the parties' Power Plant Construction and Operation Agreement (except any delayed payment penalties as therein provided) not included in the foregoing.

(g) Any other costs associated with Station Two which are not included in Paragraphs (a) through (f) hereof.

In the event any Contract Year shall embrace eleven or fewer months the fraction expressed in the foregoing paragraphs (b) and (e) shall be adjusted by substituting a denominator equal to such number of months.

For the purposes of paragraph (a) of this Section, Station Two Bonds shall not include that principal amount of Bonds determined by the Consulting Engineer under the Bond Ordinance on or prior to the beginning of the first Contract Year to be attributable to the costs of the City's Transmission or Transformation Facilities and other improvements of City's Existing System. The Principal Installments due for any year of such Bonds so excluded shall be deemed to be that amount of the Principal Installments of the Electric Light & Power Revenue Bonds, Station Two Series, due for such year which bears the same proportion to said Principal Installments for the Electric Light & Power Revenue Bonds, Station Two Series, as the principal amount of such Bonds so excluded bears to the aggregate principal amount of Electric Light & Power Revenue Bonds, Station Two Series.

6.4 Net interest earned on the following funds under the Bond Ordinance and paid into the Electric Revenue Fund thereunder shall be applied as an offset to Capacity Costs:

(i) amounts shown in the Debt Service Account in the Debt Service Fund and applicable to the Station Two Bonds; (ii) amounts shown in the Debt Reserve Account in the Debt Service Fund as the

required reserve with respect to the Station Two Bonds, and amounts in the Station Two Accounts in the Operating & Maintenance Fund, Renewals & Replacements Fund, and the General Reserve Fund; (iii) insurance proceeds pending application with respect to Station Two.

6.5 Any tax lawfully imposed upon City in connection with the allocation of Station Two capacity and/or associated energy to Big Rivers shall be paid in its entirety by Big Rivers in addition to the capacity charges hereinabove referred to.

6.6 Additional Payments: In addition to the payments agreed to be made by Big Rivers to City under the terms and provisions of this Agreement, in consideration for City's allocation to Big Rivers of the surplus capacity and energy of City's Station Two as provided in Section 3 hereof, Big Rivers covenants and agrees that during the original term only of this Agreement it will pay monthly to City, to the account of City's Existing System additional sums, based upon the amount of net capacity from time to time allocated from City's Station Two to Big Rivers, as follows:

(a) for each Monthly Billing Period during which Big Rivers' allocation of net capacity from City's Station Two is equal to or exceeds 250 megawatts, a sum of Eight Thousand Three Hundred Thirty-Three Dollars and Thirty-Three Cents (\$8,333.33).

(b) for each Monthly Billing Period during which Big Rivers' allocation of net capacity from City's Station Two is

less than 250 megawatts and is equal to or exceeds 150 megawatts, a sum of Five Thousand Five Hundred Fifty-Five Dollars and Fifty-Six Cents (\$5,555.56).

(c) for each Monthly Billing Period during which Big Rivers' allocation of net capacity from City's Station Two is less than 150 megawatts and is equal to or exceeds 50 megawatts, a sum of Two Thousand Seven Hundred Seventy-Seven Dollars and Seventy-Eight Cents (\$2,777.78).

6.7 Fuel Requirements: Big Rivers and City shall each provide, at its own cost, the full replacement of all fuels consumed from the Station Two fuel reserve for the production of electric energy used by it during each month. If at any time during the term of this Contract the Station Two coal reserve shall fall below a full thirty (30) days' supply, then upon written demand by either party or the Consulting Engineer under the Bond Ordinance, both parties shall increase their respective monthly additions to the coal reserve by five per cent (5%) until the coal reserve is restored to the amount specified in such demand, not to exceed forty-five (45) days' supply for City's Station Two. Fuel consumption by each party will be determined on the basis of measured quantities, adjusted for heat content, and attributed to the parties on the basis of their respective uses of electric energy from City's Station Two during each month.

SECTION 7 - CHARACTER OF SERVICE

7.1 Service to Big Rivers from City's Station Two shall

be at 161 KV, 3 phase 60 cycles, unless otherwise agreed upon by the parties.

SECTION 8 - METERING, METER TESTING AND BILLING ADJUSTMENT

8.1 Printing Demand Meters, or equivalent meters, with a sixty (60) minute demand interval, which will meter kilowatts, and suitable watthour meters which will meter kilowatt hours, shall be used to meter the delivery of power and energy from City's Station Two. The metered kilowatt demand of City, Big Rivers and others from City's Station Two shall be the means of measuring the capacity of City's Station Two used by each. The metered kilowatt hours of energy used by City, Big Rivers and others from City's Station Two shall be the basis for fuel replacements to the Station Two fuel reserve as provided in Section 6.7 hereof.

8.2 The meters will be arranged so as to provide a total measurement of kilowatt demand and a total measurement of kilowatt hours delivered to City, Big Rivers and others from City's Station Two.

8.3 Tests and inspections of said meters shall be made as may be necessary to maintain them at the highest practical commercial standard of accuracy, with tests performed at intervals of not more than twelve months. Big Rivers will be advised promptly of the results of all such tests. Big Rivers will be given prior notice of and may have representatives present at such tests and inspections. Additional tests of said meters

will be made at the reasonable request of Big Rivers and in the presence of its representatives.

8.4 If such periodic or additional tests show that a meter used for recording capacity and/or energy uses is accurate within one per cent (1%) slow or fast, no correction shall be made in such recordings. If any such tests show that such meter is inaccurate by more than one per cent (1%) slow or fast, correction shall be made in such recordings for the period during which the parties agree that the inaccuracy existed.

8.5 City's kilowatt demand and energy uses from its Station Two shall be metered at the following points:

(a) at point of City's Station Two switchyard where delivery is taken over City Transmission and Transformation Facilities.

(b) at point of City's Existing System substations where delivery is taken over Big Rivers' transmission system, with appropriate additions for ordinary transmission losses.

8.6 All of City's metering points shall be hourly summarized so as to determine City's aggregate hourly kilowatt demand and total energy uses from Station Two.

8.7 Big Rivers' kilowatt demand and energy uses from City's Station Two shall be metered at point of City's Station Two switchyard.

8.8 All meter readings and/or recordings necessary to provide an accurate report of kilowatt demand and electric energy uses from City's Station Two during each Monthly Billing Period

shall be promptly made. At the end of each Monthly Billing Period a report shall be promptly made to Big Rivers of the kilowatt demand and electric energy uses from City's Station Two by City, Big Rivers and others during such Monthly Billing Period.

SECTION 9 - BILLING AND PAYMENTS

9.1 On or before the twentieth day of each calendar month during each Contract Year Big Rivers shall pay to City's Trustee, appointed under the Bond Ordinance, all capacity charges due from it in accordance with Section 6 hereof for its allotted Station Two capacity during the current Monthly Billing Period. Such payments shall be made on the basis of the Annual Budget in effect for the applicable Monthly Billing Period. Payments shall be deemed complete upon the posting thereof in the regular United States mail, properly addressed and affixed with postage.

9.2 If any such payment or portion thereof is not paid when due as herein provided, a penalty in the amount of one per cent (1%) of the unpaid amount may, at the option of City, be added thereto at the commencement of each thirty-day period thereafter, and due and payable therewith. Provided however, that in the case of a bona fide dispute as to the amount of any such payment, the delayed payment penalty will be applicable only to that unpaid portion of the invoice which is not reasonably in dispute.

9.3 Off-Setting Accounts: Big Rivers shall have the right to off-set accounts payable under this Agreement by any payments due it under Section 13.6 of the parties' Power Plant Construction and Operation Agreement of even date herewith and thereupon shall pay to the Trustee under the Bond Ordinance any remaining balance of the off-set account. Off-setting of accounts shall be employed in determining any delayed payment charges as provided herein.

9.4 On or before one hundred twenty (120) days after the end of each Contract Year there shall be submitted to Big Rivers a detailed statement of the actual capacity costs for all Monthly Billing Periods of such Contract Year, based on the annual audit of accounts provided for in Section 11. If, on the basis of such statement the actual aggregate capacity costs for said Contract Year exceeded the estimate thereof in the Annual Budget on the basis of which Big Rivers has made payments, Big Rivers shall pay promptly to the Trustee appointed under the Bond Ordinance the additional amount to which the City is entitled. If, on the basis of such statement the actual aggregate capacity costs for said Contract Year are less than the estimate thereof in the Annual Budget on the basis of which Big Rivers has made payments, such excess shall be credited against Big Rivers' next monthly payment or payments hereunder, or paid to Big Rivers if no such payments are due from Big Rivers.

SECTION 10 - OBLIGATIONS OF THE PARTIES

10.1 All obligations of City under the terms and provisions of this Agreement shall be the sole obligations of City's

electric utility system, including its Existing System, its Station Two generating plant and such other additions, extensions and facilities that it may from time to time own and/or operate. No debt or obligation of City under this Agreement shall constitute a general obligation of the City.

10.2 City covenants that it will, subject to the approval of any regulatory bodies having jurisdiction thereof, at all times maintain rates for services rendered by its electric utility system which will be sufficient to adequately meet the costs of proper operation and maintenance thereof, to provide for the depreciation thereof through renewals and replacements, or otherwise, and to provide for the full and prompt payment of all obligations of City on all of its outstanding Electric Revenue Bonds, including without limitation its Station Two Bonds.

10.3 All obligations and sums payable by Big Rivers under the terms and provisions of this Agreement shall constitute a general obligation of Big Rivers, and Big Rivers covenants that it will, subject to the approval of any regulatory bodies having jurisdiction thereof, at all times maintain rates for services rendered by its electric utility systems and such other business activities in which it shall engage for compensation, which will be sufficient to adequately make the full and prompt payment and performance of all its obligations to the Trustee for the Bonds under the terms and provisions of this Agreement.

~~SECTION 11 - ANNUAL AUDIT~~

11.1 An annual audit of the financial accounts of the City's Station Two shall be made in accordance with the provisions of the Bond Ordinance. Big Rivers shall be entitled to timely receipt of copies of the annual audit report.

11.2 Big Rivers shall have the right, at all reasonable times, to examine the books, accounts and records of City's Station Two in order to determine the accuracy of charges being made to it under the provisions of this Agreement.

PART III

GENERAL PROVISIONS

SECTION 12 - OPERATING STANDARDS

12.1 City will operate and maintain, under the provisions of the Power Plant Construction and Operation Agreement, the generating station, auxiliary facilities, joint use facilities and other related facilities comprising its Station Two, in accordance with standards and specifications equal to those provided by the National Electric Safety Code of the United States Bureau of Standards, and as required by any regulatory authority having jurisdiction thereof.

SECTION 13 - UNCONTROLLABLE FORCES - CONTINUING OBLIGATION FOR PAYMENTS

13.1 Neither party hereto shall be considered in default or breach with respect to any obligation under this

Agreement if prevented from fulfilling such obligation by reason of an Uncontrollable Force. Any party unable to fulfill any obligation by reason of Uncontrollable Forces shall exercise due diligence to remove such disability as soon as reasonably possible.

13.2 The term "Uncontrollable Force" shall mean any force which is not within the control of any party to this Agreement, and which by exercise of due diligence and foresight could not reasonably have been avoided, including, but not limited to, an act of God, fire, flood, earthquake, explosion, strike, sabotage, an act of the public enemy, civil or military authority, including court orders, injunctions, and orders of government agencies having proper jurisdiction, insurrection or riot, an act of the elements, failure of equipment, or inability to obtain or ship materials or equipment because of the effect of similar causes on suppliers or carriers.

13.3 Anything to the contrary in this Contract notwithstanding, Big Rivers shall have a continuing obligation to make payments for capacity as provided in this Agreement, whether or not City's Station Two is inoperable or the operation thereof is interrupted, suspended or interfered with in whole or in part for any cause whatsoever, including Uncontrollable Forces.

SECTION 14 - ARBITRATION

14.1 Any controversy or claim arising out of, or relating to this Agreement or the breach thereof, including disagreements

between the Trustee and either or both parties to this Agreement, may be submitted to Arbitration at the time, in the manner and upon the terms agreed upon by the parties.

14.2 Arbitration shall not be considered the sole or exclusive means of settling controversies which may arise under the terms and provisions of this Agreement, nor shall arbitration be considered a condition precedent to any action in court of law or equity or proceedings before any governmental agency or regulatory body having jurisdiction thereof.

SECTION 15 - DEFAULT

15.1 In the event of a default by either party to this Agreement in the performance of any one or more of the provisions hereof, the aggrieved party or parties shall, in addition to the remedies specified in this Agreement, have the right to use and employ all remedies available through courts of law and/or equity, governmental agencies and/or ~~regulatory bodies having jurisdiction thereof.~~

SECTION 16 - WAIVER

16.1 The failure of either party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of such provisions or the relinquishment of any such rights, but the same shall continue and remain in full force and effect.

SECTION 17 - NOTICES

17.1 Any payment, written notice, demand or request required or permitted under this Agreement shall be deemed properly given to or served upon the recipient when posted through the regular United States mail, properly addressed, and affixed with postage as follows:

to City:

General Manager
Municipal Power and Light
P.O. Box 8
Henderson, Kentucky 42420

to Big Rivers:

Manager
Big Rivers RECC
P.O. Box 24
Henderson, Kentucky 42420

to the Trustee:

as established by the Bond Ordinance.

17.2 The designation of the person to be notified, or the addresses of such persons, may be changed at any time upon written notice to the other parties.

PART IV

OTHER PROVISIONS

SECTION 18 - COMPLIANCE WITH BOND ORDINANCE

18.1 This Agreement shall be subject to the terms and provisions of the Bond Ordinance. City and Big Rivers agree that they will not amend, modify or otherwise alter this Agreement in any manner that will impair or adversely affect the security

afforded by the provisions of this Agreement to the holders of the City's Electric Revenue Bonds, including Station Two Bonds, for the payment of principal, interest and premium, if any, thereon, so long as any of such Bonds are outstanding and unpaid, or until provision is irrevocably made for the payment thereof.

SECTION 19 - MAINTENANCE OF RESERVES:

19.1 City covenants and agrees that during the term of this Agreement, and any renewals or extensions thereof, it will continue to keep and maintain, in the manner provided in the Bond Ordinance and the supplemental ordinance providing for the Station Two Bonds, as operating facilities of its Station Two, the Station Two O. & N. Account, the Station Two R. & R. Account and the Station Two fuel reserve, all as provided under the terms of this Agreement and the parties' Power Plant Construction and Operation Agreement of even date herewith.

SECTION 20 - CITY INCLUDES UTILITY COMMISSION

20.1 It is recognized by the parties that the City operates, manages and controls its electric utility system through its City of Henderson Utility Commission, appointed pursuant to KRS 96.530. All references to City under the terms and provisions of this Agreement shall include its City of Henderson Utility Commission to the extent applicable.

20.2 The parties agree that all rights and obligations of City under the terms and provisions of this Agreement shall also constitute rights and obligations of the City of Henderson.

Utility Commission. By its execution of this Agreement the City of Henderson Utility Commission covenants and agrees that all references to City under the terms and provisions of this Agreement shall include the City of Henderson Utility Commission, and that it shall be obligated under this Agreement accordingly.

SECTION ~~21~~² - TERM AND TERMINATION

~~21~~².1 The term of this Agreement shall commence upon the execution hereof by City and Big Rivers and shall terminate on October 31, 2003 unless otherwise terminated as hereinafter provided.

~~21~~².2 Big Rivers shall have the option of extending the term of this Agreement for two successive five-year terms provided that at least five years' advance written notice of each such extension is given to City. Such extension or extensions shall be upon the same terms and conditions applicable to the original term of this Agreement, except as otherwise provided in Section 6.6 hereof.

~~21~~².3 Notwithstanding the provisions of Sections 21.1 and 21.2, this Agreement and any options herein granted shall terminate as soon as Big Rivers' allocation of capacity from City's Station Two shall be zero.

SECTION ~~22~~³ - AMENDMENTS

~~22~~³.1 No amendments of this Agreement shall be effective unless reduced to writing and executed by all parties hereto.

³22.2 It is understood that Big Rivers may not agree to any amendment, modification or alteration of this Agreement without first obtaining approval of the Administrator of the Rural Electrification Administration.

⁴SECTION 23 - SEVERABILITY

⁴23.1 In the event that any part of this Agreement is declared illegal or no longer in force by reason of an order issued by a court or regulatory body of competent jurisdiction, all remaining portions of this Agreement which are not affected by such order shall continue in full force and effect.

⁵SECTION 24 - ASSIGNMENT

⁵24.1 This Agreement shall be binding upon the parties hereto, their respective successors and assigns. Provided however, that this Agreement shall not be assigned by either party (except for an assignment by Big Rivers to the United States of America) without the written consent of the other party.

⁴SECTION 25 - APPROVAL

⁴25.1 This Agreement shall be subject to the approval of all local, state or federal regulatory bodies having jurisdiction thereof and shall become effective only upon the execution thereof by the parties and approval by the Administrator of the Rural Electrification Administration.

SECTION 2⁶ - CONDITIONS PRECEDENT

2⁶.1 This Agreement in its entirety is entered into subject to the following express conditions precedent:

(a) That the parties shall enter into and execute the Power Plant Construction and Operation Agreement, the real estate Purchase-Sale Agreement and the Joint Facilities Agreement, all of even date herewith.

(b) That the parties shall be able to obtain all approvals and authorizations from public authorities and the Administrator of the Rural Electrification Administration necessary to enable them lawfully to enter into and carry out this Agreement.

(c) That the City shall be able to issue and sell its Station Two Bonds with rates of interest and schedule of maturities acceptable to City and Big Rivers, with a final maturity of not less than thirty years from date of issuance, in the principal sum of \$76,000,000.00.

2⁶.2 If all of the said conditions precedent do not occur within one year from the date hereof, this Agreement shall be void and all rights hereunder shall terminate unless the parties agree in writing to extend the time for the happening of said conditions precedent.

SECTION 2⁷ - AUTHORITY TO EXECUTE

2⁷.1 This Agreement is executed by the duly authorized officers or representatives of the parties pursuant to authority granted to each of them by the lawful action of their respective official commissions or boards.

Executed at Henderson, Kentucky this _____ day of _____, 19____.

CITY OF HENDERSON, KENTUCKY

BY William L. Newman
William L. Newman, Mayor

ATTEST:

Deena Crafton
City Clerk
(City Seal)

CITY OF HENDERSON UTILITY COMMISSION

BY Louis Hatchett
Louis Hatchett, Chairman

ATTEST:

Dudley H. Everson
Secretary

BIG RIVERS RURAL ELECTRIC
CO-OPERATIVE CORPORATION

BY Robert Reid Sr.
Robert Reid, Sr., President

ATTEST:

D. B. Wilson
D. B. Wilson, Secretary

This instrument prepared by:

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~~File~~ : 116.0.3

POWER PLANT CONSTRUCTION AND OPERATION AGREEMENT
BETWEEN
CITY OF HENDERSON, KENTUCKY
and
BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION

August 1, 1970

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POWER PLANT CONSTRUCTION AND OPERATION AGREEMENT

THIS AGREEMENT made and entered into as of August 1, 1970 by and between CITY OF HENDERSON, KENTUCKY, hereinafter referred to as CITY, and BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION, a Kentucky Corporation with principal offices in Henderson, Kentucky, hereinafter referred to as BIG RIVERS.

WITNESSETH THAT:

PART I

STIPULATIONS AND DEFINITIONS

SECTION 1 - STIPULATIONS

1.1 City owns and operates an electric generating and distribution system (Municipal Electric Light & Power System) with total generating capability of forty-eight thousand (48,000) kilowatts and firm system capacity of twenty-two thousand (22,000) kilowatts, with which it serves the needs of City and its inhabitants for electric power and energy.

1.2 Big Rivers owns and operates electric generating stations and related transmission facilities with present generating capacity (including capacity under construction) of five hundred ninety thousand (590,000) kilowatts with which it supplies power and energy to its member Rural Electric Co-operative Corporations, which in turn serve the local consumers in their respective service areas.

See 1993 Amendments
tab 15

1.3 The electric systems of City, Big Rivers, Southern Illinois Power Co-operative, an Illinois Corporation, and Hoosier Energy Division of Indiana Statewide Rural Electric, Inc., an Indiana Corporation, are interconnected to form what is known as the KII Pool under provisions of an interconnection agreement of April 1, 1968.

1.4 City's present system load is in excess of the firm capacity of its Municipal Power & Light System and it provides its deficient needs through the provisions of the KII Pool Agreement.

1.5 City is presently planning a comprehensive annexation program whereby the area of its corporate limits will be increased by approximately three-fold.

1.6 City's consulting engineers have determined that City will require additional generating capabilities by the year 1973 in order to provide for the needs of its electric consumers. Said engineers have further determined and recommended to City that the most feasible and economical plan for providing the City's present and anticipated electric generation needs is the construction by City of a relatively large and more efficient generating station, whereby City can provide adequate, low-cost power and energy for the present and future needs of its Municipal Electric Light & Power System, with interim sales of surplus power and energy: (a) to Big Rivers as provided in the parties' Power Sales Agreement of even date herewith; (b) through the provisions of the KII Pool Agreement; (c) or otherwise.

1.7 City's consulting engineers have reported that the site of City's present generating plant is inadequate for the addition of the required generating facilities and that

space requirements and the growing need and public demand for control of the urban environment make the selection of a remote, rural site most desirable.

1.8 City's consulting engineers have determined and recommended to City that the most feasible and economical plan for the City's addition of such generating station is the establishment of a new generating station, presently consisting of two, one hundred seventy-five (175) megawatt, coal-fired, steam-electric generators, with provisions for the future addition of other generating units, at a site on the Green River in Henderson County Kentucky, adjacent to the Reid Station of Big Rivers, and so arranged as to provide for the joint utilization by City and Big Rivers of auxiliary facilities and operating personnel in such manner as to achieve optimum economies in construction and operation, all as authorized by KRS 96.520, as amended. The addition of such generating station to City's electric facilities would provide City a firm system capacity of two hundred twenty-three thousand (223,000) kilowatts, which is estimated to meet City's needs for electric power and energy for an additional twenty (20) years.

1.9 Big Rivers has agreed, subject to the terms of this Agreement that it will sell and convey such site and all required easements to City, that it will permit City to construct its generating station in the manner so recommended by its consulting engineers, and that it will enter into a power sales agreement with City for the purchase of all surplus capacity and related.

energy available from time to time from said generating station.

1.10 City has accepted the determinations and recommendations of its consulting engineers and has determined to proceed with the design, construction, start-up and operation of such electric generating station (hereinafter referred to as Station Two) subject to the terms and provisions of this Agreement and other Agreements referred to herein.

1.11 City has employed the services of a nationally recognized engineering firm to design and supervise construction of its Station Two; has employed the services of financial advisers to assist in the sale of sufficient revenue bonds with which to finance the acquisition, construction and start-up of said Station Two and has employed the services of nationally recognized bond counsel. Upon the execution and approval of this Agreement City will direct its said employees to proceed with the performance of such services.

SECTION 2 - DEFINITIONS

2.1 Existing System: The electric utility system by which City serves the needs of City and its inhabitants (and some non-inhabitants) at the time of the execution of this Agreement, and all additions, expansions and improvements thereto and renewals and replacements thereof hereafter made, other than Station Two.

2.2 Station Two: City's proposed 350-megawatt generating station and all auxiliary facilities, joint use facilities

(provided by City) and other related facilities to be constructed at a site on Green River in Henderson County, Kentucky, together with all additions, expansions and improvements thereto and renewals and replacements thereof (which shall not include the City Transmission and Transformation Facilities as herein defined).

2.3 Auxiliary Facilities: Power plant facilities which are physically separated from the steam generators, turbines and electric generators comprising the generating station, and which are required for the operation, maintenance and/or control thereof, and/or the delivery of power and energy therefrom, but excluding the City Transmission and Transformation Facilities.

2.4 Joint Use Facilities: Auxiliary facilities which are so constructed and/or arranged as to be useful to City and Big Rivers in the operation, maintenance and control of their respective generating stations.

2.5 Date of Commercial Operation: The date upon which the first unit of City's Station Two has been placed in normal continuous operation so as to produce power and energy in a commercially acceptable manner.

2.6 Contract Year: With respect to the first contract year, the period from Date of Commercial Operation or June 30, 1974, whichever shall first occur, to and including the next succeeding December 31, and thereafter, the successive twelve-month periods beginning January 1 and ending December 31.

2.7 Monthly Billing Period: Each calendar month of any Contract Year.

2.8 Bond Ordinance: The Electric Light & Power Revenue Bond Ordinance adopted by City authorizing the issuance of Station Two Bonds, together with ordinances supplemental thereto

All also 2002 Amendments Section 107

Section 103
or amendatory thereof.

2.9
2.9

2.9 Station Two Bonds (the Bonds): The Electric Light & Power Revenue Bonds authorized, sold and issued by City pursuant to the Bond Ordinance, to provide for the costs of acquisition, construction and start-up of City Station Two and shall include: (i) the Electric Light & Power Revenue Bonds, Station Two Series authorized and issued under the Bond Ordinance; and (ii) additional Bonds, if any, authorized and issued under the Bond Ordinance to provide for such costs of Station Two in excess of original estimates.

2.10 City Transmission and Transformation Facilities: The transmission and transformation facilities to be provided by City connecting Station Two to City's Existing System.

2.11 Trustee: The Trustee appointed pursuant to the Bond Ordinance.

2.12 (new in 2002 Amends. Section 104)
↓
2.33

PART II
FACILITIES

SECTION 3 - ACQUISITION OF SITE

3.1 Big Rivers agrees to sell and convey to City a site and necessary easements and rights-of-way for City's construction and operation of its Station Two, all in accordance with the parties Purchase-Sale Agreement of even date herewith.

3.2 Such site, easements and rights-of-way shall be conveyed and/or granted to City free and clear of any encumbrances whatsoever which would have priority over the rights of the holders of City's Electric Revenue Bonds.

3.3 (new in 2002 Amends. Section 201)

SECTION 4 - CONSTRUCTION OF PLANT

*See 1992 Amendments
Page 15*

4.1 City will direct its employed engineering firm to proceed immediately with the design and development of plans and specifications for the construction of Station Two, consisting of two, one hundred seventy-five (175) megawatt coal-fired, steam-electric generating units, with all necessary auxiliary facilities, with such arrangement as will provide for the joint use by City and Big Rivers of auxiliary facilities and operating personnel so as to result in optimum economies of construction and operation. Such plans and specifications shall be subject to prior approval by City and, to the extent that Big Rivers' Reid Station is affected thereby, by Big Rivers.

4.2 City agrees to obtain all necessary permits for the construction and operation of its Station Two, moorage and associated facilities and further agrees to use its best efforts to cause any and all of such permits to extend for a term equal to the term of this Agreement, or to obtain any new or additional permits required to enable it to operate and maintain its Station Two for such term.

4.3 Upon completion by the engineers of such plans and specifications, and upon approval thereof by City and Big Rivers, as hereinabove provided, City will diligently proceed with the construction of Station Two in the most economical and efficient manner, consistent with good utility practices, and in such manner as to least interfere with the continued operation by Big Rivers of its Reid Station during the period of construction and the start-up of such facilities.

4.4 Big Rivers will provide construction assistance to City during the design, construction and start-up of City's Station Two in accordance with the provisions of Section 11, Construction Assistance, of this Agreement.

new 4.5 >
then 4.11

See Amendments 1993 Tab 15

new 4.12 - 4.21
(see 2002 Amendments)
Section 302

SECTION 5 - TRANSMISSION AND TRANSFORMATION FACILITIES

5.1 Adequate switchyard and 161 KV step-up transformers will be provided by City as a part of Station Two.

5.2 City will provide, at its own cost, one 69 KV transmission line and related transformation facilities connecting its Station Two to its Existing System (herein referred to as City Transmission and Transformation Facilities), with provision for increasing of transmission capacity to meet City's future needs.

5.3 Big Rivers will maintain at all times and provide for City's use, at no cost to City, surplus capacity on its two existing 69 KV transmission lines from point of City's Station Two switchyard to points of substations of City's Existing System, and will likewise provide for City's use any surplus capacity on additional transmission facilities which Big Rivers may hereafter construct in such a manner as to permit the transmission of electric energy from City's Station Two to its Existing System. In its use of such transmission facilities, City will not, in any manner, disrupt or adversely affect Big Rivers' service to its own customers.

5.4 Any transmission facilities required by City in addition to those provided as hereinabove recited, shall be provided by City at its own cost.

SECTION 6 - JOINT USE FACILITIES

6.1 City and Big Rivers mutually agree that they will each provide such joint use facilities as are determined by the City's employed engineering firm (and approved by City and Big Rivers) to be furnished by each, respectively, and will each provide, on a best efforts basis, for the continued operation and maintenance thereof for the joint use and benefit of the parties, all as provided in the parties' Joint Facilities Agreement of even date herewith.

SECTION 7 - FUEL SUPPLY

7.1 An initial coal supply will be established out of the proceeds of the Station Two Bonds as a facility of City's Station Two. Bond proceeds in the amount of \$465,000 will be allotted therefore.

7.2 Such coal supply will be maintained as a fuel reserve throughout the term of this Agreement through the addition of replacement fuels as such reserve is from time to time, consumed in the operation of City's Station Two.

7.3 Start-up fuels will be supplied by Big Rivers as provided in Section 12, Start-Up Assistance.

SECTION 8 - GENERAL PLANT EQUIPMENT

8.1 City will acquire out of the proceeds of the Station Two Bonds, as part of the initial facilities of Station Two, general plant equipment sufficient to efficiently operate and maintain Station Two.

SECTION 9 - CAPITAL FUNDS AND ACCOUNTS

*Check all
2002 Renewals
Section 203*

9.1 The following capital funds and accounts (among others) will be established out of the proceeds of the Station Two Bonds as facilities of City's Station Two:

*Station Two
19a*

(a) a Station Two Account in the Operating & Maintenance Fund (hereinafter referred to as the Station Two Operating & Maintenance Account) in the amount of \$500,000.00.

Item 7

(b) a Debt Reserve Account in the amount required therefore under provisions of the Bond Ordinance, hereinafter referred to as the Station Two Debt Reserve Account.

(c) a Station Two Account in the Renewals and Replacements Fund (hereinafter referred to as the Station Two R. & R. Account) in the amount of \$750,000.00.

9.2 Such accounts and funds shall be held, managed, controlled, invested, expended, applied and maintained as provided by the Bond Ordinance and the parties' Power Sales Contract of even date herewith.

SECTION 10 - SALE OF BONDS

10.1 City will authorize, sell and issue its Station Two Bonds bearing an average interest rate and maturity schedule acceptable to City with final maturity of not less than thirty (30) years from date of issuance, in a principal amount of \$76,000,000. The City shall also use its best efforts to sell and issue any additional Bonds required to provide for costs of Station Two in excess of original estimates.

10.2 The proceeds of such Bonds will be held, managed, controlled, invested, expended and applied as provided by the

Bond Ordinance.

PART III

CONSTRUCTION, START-UP AND OPERATION

SECTION 11 - CONSTRUCTION ASSISTANCE

11.1 In connection with the acquisition and construction of City's Station Two, Big Rivers will provide to City, at the costs hereinafter recited, construction services and facilities as follows:

(a) advice on the selection of the most economical and feasible power plant design.

(b) review and recommendation on approval of plans and specifications.

(c) evaluation of all construction and equipment bids and proposals; recommendation on contract awards and purchases.

(d) coordination and supervision of all contractors and/or suppliers engaged in the actual construction of Station Two.

(e) complete accounting services for all phases of acquisition and construction of Station Two.

(f) compilation of a complete and accurate record of all drawings, specifications, contracts, reports, test results, correspondence and other written materials pertinent to the acquisition and construction of Station Two.

(g) witnessing of all testing of materials and/or equipment incorporated into Station Two.

(h) providing water and electric service required in the construction of Station Two.

(i) furnishing, at no charge, space in Big Rivers Regd 15 of 42

Station for City's consulting and construction engineers.

(j) providing such other assistance, services and/or facilities in connection with the acquisition and construction of Station Two as may from time to time be agreed upon by the parties.

11.2. City will reimburse Big Rivers for all its reasonable out-of-pocket expenses in providing the services and facilities enumerated in Section 11.1, plus an additional overhead allowance in the amount of twenty per cent (20%) on all such labor costs and ten per cent (10%) on all such materials and supplies. Such costs will be paid from the proceeds of Station Two Bonds.

11.3 It is understood that the services to be performed by Big Rivers under the provisions of this Section 11 are on an advisory basis, and that City has the right to make all final determinations in connection therewith. However, to the extent that the design and/or construction of Station Two shall have a material effect upon the economical and/or continuous operation of Big Rivers Reid generating plant, Big Rivers shall have the right of approval or disapproval of such determinations by City.

11.4 City will provide adequate Builders Risk Insurance covering the complete construction and installation of its Station Two and shall further provide adequate insurance for protection of Big Rivers Reid Station and related facilities against damages from construction operations. The costs of such insurance will be paid out of the proceeds of the Station Two Bonds.

SECTION 12 - START-UP ASSISTANCE

12.1 Big Rivers will provide to City, at the costs hereinafter recited; technical skills, labor, fuels, materials and other services required for starting up and placing into commercial operation City's Station Two.

12.2 Operating tests of all equipment and auxiliary facilities of Station Two will be performed by or under the direction of Big Rivers, and suitable reports thereof will be made to City. Big Rivers will direct City's engineers, contractors and suppliers in the making of all changes, adjustments, repairs, replacements, alterations or additions required in order to place City's Station Two and its various components into commercial operation and in compliance with the plans and specifications therefore adopted by City. Big Rivers will place Station Two into commercial operation as soon as reasonably possible and will immediately notify City thereof.

12.3 City will reimburse Big Rivers for its reasonable out-of-pocket expenses in providing the start-up assistance, services and/or materials referred to in this Section 12, plus an additional overhead allowance in the amount of twenty per cent (20%) on all such labor costs and ten per cent (10%) on all such materials, except fuels. Fuels will be furnished at cost. Such costs will be paid from the proceeds of the Station Two Bonds.

12.4 Electric energy produced from each unit of City's Station Two during start-up and prior to the Date of Commercial Operation shall be marketed wherever and whenever possible.

All amounts received from such sales of energy shall be for the account of City and shall be applied to the costs of construction of City's Station Two.

SECTION 13 - OPERATION, MAINTENANCE AND CONTROL

13.1 Except as otherwise provided herein, City shall have full ownership, management, operation and control of its Station Two.

13.2 Subject to City's ownership, management and control, during the term of this Agreement Big Rivers will provide, as an independent contractor, all operating personnel, materials, supplies and technical services required for the continuous operation of City's Station Two so as to fulfill City's obligations (a) to provide the needs of City and its inhabitants as defined in the Power Sales Contract, (b) to Big Rivers as provided in the Power Sales Contract, (c) to the KII Pool members, as provided in the KII Pool Agreement and (d) to others to whom City may, from time to time, become contractually obligated in connection with its Station Two.

13.3 Purchases of materials and supplies required in the operation and maintenance of City's Station Two shall be made for City's account, subject to approval and acceptance by City and in compliance with all laws applicable thereto.

13.4 Big Rivers covenants and agrees that during the term of this Agreement it will at all times operate City's Station Two on a best efforts basis, in an efficient and economical manner, and will maintain, preserve and keep said Station Two and every

part and parcel thereof in good repair, working order and condition, and will, from time to time, make all necessary and proper repairs, renewals and replacements thereto so that at all times the business to be carried on by City in connection therewith shall be properly and efficiently conducted.

13.5 Big Rivers will keep and maintain complete and accurate records of its operation and maintenance of City's Station Two, including without limitation: (a) the continued output of Station Two and the uses thereof by City, Big Rivers and others, (b) the continued input of labor, materials, supplies and services to Station Two, (c) records of all maintenance and repairs to Station Two, (d) records of all renewals and replacements of Station Two, (e) records of Station Two fuel consumptions, replacements and reserves, (f) current inventories of all supplies, equipment and replacement parts maintained in connection with Station Two, (g) such other records as shall be of assistance to City in the ownership, operation, maintenance, management and control of Station Two.

13.6 City will pay Big Rivers, on a monthly basis, its reasonable expenditures incurred in the operation and maintenance of City's Station Two under the terms of this Agreement, as defined and allocated to City's Station Two under the provisions of Section 13.8 - Allocation of Costs, plus an additional payment of fourteen and one-half (14 1/2) cents per month, per kilowatt of the total capacity of Station Two, as such total capacity is from time to time determined and established as provided in the parties Power Sales Contract of even date herewith.

13.7 Such payments to Big Rivers by City shall be made monthly on the basis of the Annual Budget then in effect, and in accordance with the provisions of Sections 14 and 18 of this Agreement.

13.8 Allocation of Costs:

It is recognized that Big Rivers will operate and maintain its Reid Generating Station with the same operating personnel and facilities as it will use for the operation of City's Station Two. For purposes of defining and allocating the costs thereof the parties agree as follows:

(a) the following costs of operation and maintenance will be allocated to the particular generating station to which they are applied, and will be charged directly to such generating station:

(1) Costs of materials, supplies and fuels attributable directly to a generating plant.

(2) Costs of repairs, maintenance and spare parts attributable directly to a generating plant.

(3) Costs of renewals, replacements and additions attributable directly to a generating plant.

(4) Costs of emergency and/or maintenance capacity and energy attributable directly to a generating plant.

(5) Property taxes validly imposed upon each party's plant and related facilities.

(6) Costs of insurance attributable to a generating plant.

(b) The following costs of operation and maintenance will be allocated between Big Rivers Reid Station and City's Station

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Two on the basis of each generating station's total capacity
as related to the sum of such total capacities:

- (1) All operating labor and fuel handling labor.
- (2) All maintenance labor common to both plants.
- (3) All supplies common to both plants.
- (4) All maintenance materials common to both plants.
- (5) All costs of operation, maintenance, repair, addition, renewal and replacement of joint use facilities as described in Section 6 of this Agreement.

(6) All applicable taxes except property taxes on plant and taxes directly attributable to cost of fuels and/or sales of power and energy.

(7) All administrative costs.

(8) Costs of professional services.

(9) All costs of accounting and records keeping.

(10) All remaining costs of insurance.

(11) All other costs of operation and maintenance not otherwise allocated under the provisions of this Section 13.

(c) Each party will provide its own fuels for the operation of City's Station Two.

(d) Each party will bear its own costs for construction, operation, maintenance and repair of its transmission and transformation facilities beyond points of delivery from the Station Two Switchyard. Big Rivers will make no charge to City for the use of Big Rivers' transmission facilities from point of City's Station Two switchyard to the several substations of City's Existing System.

(e) Big Rivers will keep adequate records of the costs of operating and maintaining City's Station Two and its Reid Station, and the allocation of such costs to City's Station Two, and will make such records available to City and its representatives at all reasonable times and places.

13.9 Right to Intervene

Should Big Rivers at any time during the term of this Agreement fail, for any reason whatsoever, to provide, on a best efforts basis, the continuous and economical operation of City's Station Two as provided in this Agreement, then City shall have the right to immediately take over the complete operation and maintenance of its Station Two and all auxiliary facilities and joint use facilities required in the operation thereof, and to continue the operation and maintenance thereof under the terms and provisions of this Agreement until it shall be determined that Big Rivers is able to properly resume such operation and maintenance in the manner provided in this Agreement.

13.10 Each of the parties hereby grants to the other all reasonable rights of access, ingress and egress to the generating plant, joint use facilities, auxiliary facilities, related facilities, transmission and transformation facilities and such other lands, properties and/or facilities as shall be necessary, advisable or convenient in order to efficiently and continuously carry on the operation of City's Station Two and Big Rivers' Reid Station under the terms and provisions of this Agreement.

PART IV

BUDGETING, ACCOUNTING AND BILLING

SECTION 14 - BUDGETING

14.1 Prior to the commencement of each Contract Year and so as to comply with the provisions of the Bond Ordinance there shall be prepared by Big Rivers and submitted to City a proposed operating budget for such Contract Year. Big Rivers will provide therewith all data and information necessary or convenient for City's review and evaluation of such proposed operating budget.

14.2 The proposed operating budget and all supporting data and information will be reviewed by City and upon approval thereof, including any amendments thereof or additions thereto, by City, City will adopt such budget as the Annual Budget for the coming Contract Year.

14.3 Upon its adoption by City, and its approval by Big Rivers, the Annual Budget will become the basis for payments to Big Rivers for the operating and maintenance of City's Station Two during the Contract Year for which it is adopted.

14.4 The Annual Budget may be amended by the parties as provided in the Bond Ordinance.

*also see
2002 Amendments
Section 204*

SECTION 15 - ACCOUNTING AND AUDITING

15.1 Big Rivers will keep and maintain complete and accurate books, records and accounts of its operation and maintenance of City's Station Two all in accordance with the rules and regulations prescribed by any governmental agency having jurisdiction thereof, the provisions of the Bond Ordinance relating thereto, and in accordance with the uniform system of

accounts prescribed by the Federal Power Commission. All such records shall be available for inspection and utilization by City and its representatives at all reasonable times and places.

15.2 Such books, records and accounts shall be subject to annual audit as provided in the Bond Ordinance.

*All 2002 Amendments
Section 2.05*

SECTION 16 - BILLING AND PAYMENTS

16.1 On or before the twentieth day of each calendar month of the Contract Year Big Rivers will present to City a statement of payment due covering the operation and maintenance of City's Station Two for the Monthly Billing Period just ended, such statement showing in detail the costs and charges included therein, with proper vouchers substantiating such charges. Such statements, when approved by the City, will become the basis for actual charges by Big Rivers to City for the operation and maintenance of City's Station Two for such Monthly Billing Period and shall be the basis for adjustments, if any, as provided in Section 16.6 hereof.

16.2 Monthly payments to Big Rivers for the operation and maintenance of City's Station Two shall be made on the basis of the Annual Budget then in effect, and shall be due and payable currently, for each Monthly Billing Period on or before the twentieth day of such month. Payments shall be deemed complete upon the posting thereof in the regular United States Mail, properly addressed and affixed with postage.

16.3 If any such payment or portion thereof is not paid when due as herein provided, a penalty in the amount of one per

cent (1%) of the unpaid amount may, at the option of Big Rivers, be added thereto at the commencement of each thirty (30) day period thereafter, and due and payable therewith. Provided however that in the case of a bona fide dispute as to the amount of any such monthly payment, then the delayed payment charge will be applicable only to that unpaid portion thereof which is not reasonably in dispute.

16.4 Off-Setting Accounts

The City shall have the right to off-set accounts payable to Big Rivers against accounts receivable from Big Rivers under the provisions of the parties Power Sales Contract, or otherwise. Off-setting of accounts shall be employed in determining any delayed payment charges as provided herein.

16.5 Big Rivers shall have the right at any time, and from time to time, to require City to give bond (either cash or with corporate surety acceptable to Big Rivers) for the payment to Big Rivers of operating and maintenance charges as provided in this Agreement, less the amount of any off-setting payments due from Big Rivers to City under the provisions of the parties' Power Sales Contract, for a period of time not exceeding two Monthly Billing Periods during any Contract Year. The amount of any such bond shall be adjusted in order to be applicable to the current Contract Year. The cost of any such surety bond shall be charged as a Station Two operating expense.

16.6 On or before one hundred twenty (120) days after the end of each Contract Year, Big Rivers shall submit to City

a detailed summary of its monthly statements for payment for the operation and maintenance of City's Station Two, showing the actual charges due to be paid to Big Rivers by City for the entire Contract Year based upon the annual audit of accounts provided for in Section 15.2. If, on the basis of such summary the actual aggregate operation and maintenance charges for such Contract Year exceeded the amounts paid to Big Rivers under the Annual Budget, or otherwise, then City shall pay to Big Rivers promptly the amount to which Big Rivers is so entitled. If, on the basis of such summary, the actual aggregate payments made to Big Rivers for operation and maintenance of City's Station Two under provisions of the Annual Budget, or otherwise, exceeded the actual amount due therefore, then such excess shall be credited against City's next monthly payment or payments to Big Rivers due hereunder, or paid to City if no such payments are due to Big Rivers.

SECTION 17 - METERING, METER TESTING AND BILLING ADJUSTMENTS

17.1 Printing Demand Meters, or equivalent meters, with a sixty (60) minute demand interval, which will meter kilowatts, and suitable watthour meters which will meter kilowatt hours shall be used to meter the delivery of power and energy from City's Station Two. The metered kilowatt demand of City, Big Rivers and others from City's Station Two shall be the means of measuring the capacity of City's Station Two used by each. The metered kilowatt hours of energy used by City, Big Rivers and others from City's Station Two shall be the basis for fuel replacements to the Station Two fuel reserve as provided in Section 7 hereof.

17.2 The meters will be arranged so as to provide

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total measurement of kilowatt demand and a total measurement of kilowatt hours delivered to City and others from City's Station Two.

17.3 Big Rivers will make such tests and inspections of said meters as may be necessary to maintain them at the highest practical commercial standard of accuracy, with tests performed at intervals of not more than twelve months. Big Rivers will advise City promptly of the results of all such tests. City will be given prior notice of and may have representatives present at such tests and inspections. Big Rivers will make additional tests of said meters at the reasonable request of City and in the presence of City's representatives.

17.4 Big Rivers will make all meter readings and/or recordings necessary to provide an accurate report of the kilowatt demand and consumption of electric energy by City, Big Rivers and others from City's Station Two during each Monthly Billing Period, and at the end of each Monthly Billing Period will promptly report to City thereon.

17.5 The metered kilowatt hours of energy used by City, Big Rivers and others from City's Station Two shall be the basis for fuel replacements to the Station Two fuel reserve. Big Rivers shall at all times accurately measure and record the heat content and quantity of all fuels consumed in the operation of Section Two, and shall properly allocate and report to City at the end of each Monthly Billing Period the fuels consumed by City, Big Rivers and others through their respective uses of electric energy from City's Station Two.

SECTION 18 - INSURANCE

18.1 Except to the extent that City's Station Two is insured during construction, installation and other acquisition thereof by City, its contractors and/or suppliers, at all times during the term of this Agreement City shall maintain at least the following insurance on its Station Two, the costs thereof prior to Date of Commercial Operation to be paid as a construction cost, and thereafter as an operating expense:

(a) fire, extended coverage and vandalism, broad form, in an amount at least equal to ninety per cent (90%) of the full insurable value of City's Station Two, Twenty-Five Thousand Dollars (\$25,000) deductible, against loss or damage from fire, lightening, tornado, windstorm, flood or wavewash, hail, explosion, riot, riot attending a strike, civil commotion, vandalism and malicious mischief, aircraft, vehicles and smoke. In determining the full insurable value recognition of risks applicable to individual coverages shall be taken into consideration and such value with respect thereto shall be established as would be carried in accordance with sound business practices for electric utilities.

(b) A standard form of comprehensive general liability insurance against claims for personal injury (including wrongful death) and property damage with minimum limits as follows:

- (1) personal injury, \$1,000,000 each person
\$1,000,000 each occurrence
- (2) property damage, \$1,000,000 each occurrence

(c) A standard form of comprehensive automobile liability insurance with minimum limits as follows:

- (1) personal injury, \$ 500,000 each person
\$1,000,000 each occurrence
- (2) property damage, \$ 100,000 each occurrence
100,000 aggregate

(d) Workmen's Compensation Insurance as required by the laws of Kentucky.

(e) Prior to the initial firing of the boiler, broad form boiler and machinery breakdown, in the minimum amount of \$7,000,000 for Unit One and an additional \$7,000,000 for Unit Two, \$200,000 deductible.

(f) Inland Marine Insurance on all off-highway vehicles and Marine Insurance on docks, barges, work boats and other marine items, in amounts equal to maximum insurable values.

18.2 Such insurance shall provide coverage for City, and for Big Rivers to the extent that risk of loss shall be imposed on Big Rivers through the provisions of this Agreement and other agreements herein referred to.

18.3 Such insurance will be obtained by Big Rivers for the account of City, subject to approval and acceptance by City.

18.4 During the term of this Agreement all insurance proceeds from policies obtained pursuant to this Section shall be paid and applied by the City, Big Rivers and/or the insurance company or companies providing same in accordance with the provisions of the Bond Ordinance.

*also All
2002 Amendments
section 206*

18.5 In case of any damage, destruction, accident, occurrence or other loss covered in part or in full by any such insurance policy or policies, Big Rivers shall give prompt notice thereof to City, the Trustee, and the insurance company or companies providing coverage therefore.

PART V
GENERAL PROVISIONS

SECTION 19 - CONSTRUCTION AND OPERATING STANDARDS

19.1 City's Station Two and its auxiliary facilities, joint use facilities and other related facilities which are the subject of this Agreement shall be constructed, operated and maintained in accordance with standards and specifications equal to those provided by the National Electric Safety Code of the United States Bureau of Standards, and as required by any regulatory authority having jurisdiction thereof.

SECTION 20 - INSPECTIONS, RIGHT OF ACCESS

20.1 Each party hereto shall permit the duly authorized representatives and employees of the other party to enter upon its premises for the purpose of reading or checking meters, inspecting, testing, repairing, renewing or replacing any or all of the facilities and equipment owned by the other party located on such premises, or for the purpose of performing any other work necessary in order to carry out the provisions of this Agreement. Such inspections shall be conducted so as not to interfere with the scheduled operation of such plants

20.2 Each party shall be responsible for the safety of its own representatives and employees when on the premises of the other pursuant to the right of access granted in this Agreement, and shall hold harmless and indemnify the party granting access from any loss or damage whatsoever by reason of any injury, including death, of such representatives and/or employees, unless the same shall be due to the negligence or willful misconduct of the party granting such access or its authorized agents or employees.

SECTION 21 - RELATIONSHIP OF THE PARTIES

21.1 Except as otherwise specifically provided herein, the terms of this Agreement shall not be construed as an agreement for partnership, joint venture, association, or other relationship whereby either party shall be responsible for the obligations and/or liabilities of the other party hereto.

21.2 Except as otherwise specifically provided herein, neither party to this Agreement shall be liable for any act, omission or legal obligation of the other party hereto with respect to: (a) the parties to this Agreement, (b) the agents, servants and/or employees of the parties to this Agreement, or (c) any persons, corporations or other entities not a party to this Agreement.

21.3 Except as otherwise specifically provided herein, neither party to this Agreement shall, by reason of the provisions hereof, be deemed a principal, agent, sub-contractor or employee

of the other party hereto, nor shall either party to this Agreement have the authority to bind the other party to this Agreement to any contract or any other obligation, without specific written authority therefore.

SECTION 22 - INDEMNIFICATION

22.1 Big Rivers, as operator of City's Station Two assumes full responsibility and liability for the maintenance and operation of the same, on a best efforts basis, and shall indemnify and save harmless the City from all liability and expense on account of any and all damages, claims or actions, including injury to or death of persons or damage to property arising from any act or accident in connection with the operation and maintenance of City's Station Two and all facilities related thereto, caused by the negligence or any malfeasance or nonfeasance of Big Rivers, its agents, servants and/or employees; and the City shall indemnify and save harmless Big Rivers from all liability and expense on account of any damages, claims or actions including injury to or death of persons or property arising from any act or accident caused by the negligence or any malfeasance or nonfeasance of the City, its agents, servants and/or employees.

SECTION 23 - UNCONTROLLABLE FORCES:

23.1 Neither party hereto shall be considered in default or breach with respect to any obligation under this Agreement if prevented from fulfilling such obligation by

reason of an Uncontrollable Force. Any party unable to fulfill any obligation by reason of Uncontrollable Forces shall exercise due diligence to remove such disability as soon as reasonably possible.

23.2 The term "Uncontrollable Force" shall mean any force which is not within the control of any party to this Agreement, and which by exercise of due diligence and foresight could not reasonably have been avoided, including, but not limited to; an act of God, fire, flood, earthquake, explosion, strike, sabotage, an act of the public enemy, civil or military authority, including court orders, injunctions, and orders of government agencies having proper jurisdiction, insurrection or riot, an act of the elements, failure of equipment, or inability to obtain or ship materials or equipment because of the effect of similar causes on suppliers or carriers.

SECTION 24 - ARBITRATION

24.1 Any controversy or claim arising out of, or relating to this Agreement or the breach thereof, including disagreements between the Trustee and either or both parties to this Agreement, may be submitted to Arbitration at the time, in the manner and upon the terms agreed upon by the parties.

24.2 Arbitrations shall not be considered the sole or exclusive means of settling controversies which may arise under the terms and provisions of this Agreement, nor shall Arbitration be considered a condition precedent to any action in court of law or equity or proceedings before any governmental agency or regulatory body having jurisdiction thereof.

SECTION 25 - DEFAULT

25.1 In the event of a default by either party in the performance of any one or more of the provisions of this Agreement, the aggrieved party shall, in addition to the remedies specified in this Agreement, have the right to use and employ all rights and remedies available through courts of law and/or equity, governmental agencies and/or regulatory bodies having jurisdiction thereof.

SECTION 26 - WAIVER

26.1 The failure of either party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights, but the same shall continue and remain in full force and effect.

SECTION 27 - NOTICES

27.1 Any payment, written notice, demand or request required or permitted under this Agreement shall be deemed properly given to or served upon the recipient when posted through the regular United States mail, properly addressed, and affixed with postage as follows:

to City:	General Manager, Municipal Power & Light P.O. Box 8 Henderson, Kentucky 42420
to Big Rivers:	Manager, Big Rivers R.E.C.C. P.O. Box 24 Henderson, Kentucky 42420

to the Trustee: as established pursuant to the Bond Ordinance.

27.2 The designation of the person to be notified, or the addresses of such persons, may be changed at any time upon written notice to the other parties.

PART VI
OTHER PROVISIONS

SECTION 28 - COMPLIANCE WITH BOND ORDINANCE

28.1 This Agreement shall be subject to the terms and provisions of the Bond Ordinance. City and Big Rivers agree that they will not amend, modify or otherwise alter this Agreement in any manner that will conflict with the provisions of the Bond Ordinance as the same may, from time to time, exist.

*also see
2002
Amenda
Section 207*

SECTION 29 - ADDITIONAL GENERATING UNITS

29.1 It is understood and agreed that, space being available, additional generating units may be added to City's Station Two during the term of this Agreement in order to provide for the future and expanding needs of City and its inhabitants for electric power and energy with sales of surplus power and energy to Big Rivers, subject to mutual agreement of the parties as to the terms and conditions applicable thereto.

SECTION 30 - COMPLIANCE WITH GOVERNMENTAL REGULATIONS

30.1 City and Big Rivers will, at all times, faithfully obey and comply with existing and future laws, rules and reg-

ulations of federal, state or local governmental bodies lawfully affecting the operations and activities of and in connection with City's Station Two.

SECTION 31 - OBLIGATIONS OF THE PARTIES

31.1. All sums payable by the City under the terms and provisions of this Agreement shall be payable and borne solely from the revenues of City's electric utility system, including its Existing System, its Station Two generating plant and such other additions, extensions or facilities as it may from time to time own and/or operate, and from the proceeds of its Electric Revenue Bonds. No debt or obligation of City under this Agreement shall constitute a general obligation of the City.

31.2 City covenants that it will, subject to the approval of any regulatory bodies having jurisdiction thereof, at all times maintain rates for services rendered by its electric utility system which will be sufficient to adequately meet the costs of ownership, proper operation and maintenance thereof, including the costs of operation and maintenance of its Station Two, as provided in this Agreement.

SECTION 32 - CITY INCLUDES UTILITY COMMISSION

32.2 It is recognized by the parties that the City operates, manages and controls its electric utility system through its City of Henderson Utility Commission, appointed pursuant to KRS. 96.530. All references to City under the terms and provisions of this Agreement shall include its City of Henderson Utility Commission to the extent applicable.

32.2 The parties agree that all rights and obligations of City under the terms and provisions of this Agreement shall also constitute rights and obligations of the City of Henderson Utility Commission. By its execution of this Agreement the City of Henderson Utility Commission covenants and agrees that all references to City under the terms and provisions of this Agreement shall include the City of Henderson Utility Commission, and that it shall be obligated under this Agreement accordingly.

SECTION 33 - TERM AND TERMINATION

33.1 The term of this Agreement shall commence upon the execution hereof by City and Big Rivers and shall terminate on October 31, in the year Two Thousand and Three (2003) unless otherwise terminated as hereinafter provided.

33.2 Notwithstanding the provision of Section 33.1, this Agreement shall terminate in event of the termination of the parties Power Sales Agreement of even date herewith, as provided therein.

SECTION 34 - SALE OR OTHER DISPOSITION OF PLANT.

34.1 City and Big Rivers mutually agree that neither will sell or otherwise dispose of its electric generating plant and auxiliary facilities (referring to City's Station Two, Big Rivers' Reid Station, all auxiliary facilities, joint use facilities and alterations and additions thereof) unless the same has been

*see 1992
Amend.
Tab 15
sect 1
see
1998
Amend.
sect. 1*

offered to the other party hereto in writing, and such other party has failed, for a period of one year, after receipt of such offer to accept same and pay the purchase price or other agreed consideration therefor. After such one-year period, or upon written refusal of said offer, whichever first occurs, the selling party may proceed to make such sale or other disposition to others not a party to this Agreement upon at least equal terms or conditions. Provided however, that if such sale or disposition to others, not a party to this Agreement, shall not have occurred within the one-year period immediately following termination of the other parties right to accept said offer, no such sale or other disposition shall thereafter be made by the selling party without again first offering same to the other party to this Agreement as above provided.

34.2 Any sale, assignment or other disposition by either party to others not a party to this Agreement shall be made subject to all of the rights, obligations, terms and conditions of this Agreement, the Joint Facilities Agreement, the parties Power Sales Contract, the parties real estate Purchase-Sale Agreement and any amendments or additions thereto which are then applicable, and it shall be a condition of such sale or other disposition that the purchaser or acquirer thereof assume all of the obligations of the disposing party under the terms of said Agreements.

34.3 The provisions of this Section 34 pertaining to City's sale or other disposition of its Station Two and other facilities mentioned herein shall be subject to all laws applicable thereto.

SECTION 35 - AMENDMENTS

35.1 No amendments of this Agreement shall be effective unless reduced to writing and executed by all parties hereto.

35.2 It is understood that Big Rivers may not agree to any amendment, modification or alteration of this Agreement without first obtaining approval of the Administrator of the Rural Electrification Administration.

SECTION 36 - SEVERABILITY

36.1 In the event that any part of this Agreement is declared illegal or no longer in force by reason of an order issued by a court or regulatory body of competent jurisdiction, all remaining portions of this Agreement which are not affected by such order shall continue in full force and effect.

SECTION 37 - ASSIGNMENT

37.1 This Agreement shall be binding upon the parties hereto, their respective successors and assigns. Provided however, that this Agreement shall not be assigned by either party (except for an assignment by Big Rivers to the United States of America) without the written consent of the other party, and any such assignment shall be subject to the provisions of Section 34.2 of this Agreement.

SECTION 38 - APPROVAL

38.1 This Agreement shall be subject to the approval

of all local, state or federal regulatory bodies having jurisdiction thereof and shall become effective only upon the execution thereof by the parties and approval by the Administrator of the Rural Electrification Administration.

SECTION 39 - CONDITIONS PRECEDENT

39.1 This Agreement in its entirety is entered into subject to the following express conditions precedent:

(a) That the parties shall enter into and execute the Power Sales Contract, the real estate Purchase-Sale Agreement and the Joint Facilities Agreement which are referred to in this Agreement.

(b) That the parties shall be able to obtain all approvals and authorizations from public authorities and the Administrator of the Rural Electrification Administration necessary to enable them lawfully to enter into and carry out this Agreement, and other Agreements referred to in Section 39.1 (a).

(c) That the City shall be able to issue and sell its Station Two Bonds bearing a rate of interest and maturity schedule acceptable to City, with a final maturity of not less than thirty years from date of issuance, in the principal sum of \$76,000,000.

(d) That all conditions precedent recited in the parties Power Sales Contract, the real estate Purchase-Sale Agreement and the Joint Facilities Agreement have occurred.

39.2 If all of the said conditions precedent do not occur within one year from the date hereof, this Agreement shall

be void and all rights hereunder shall terminate unless the parties agree in writing to extend the time for the happening of said conditions precedent.

SECTION 40 - AUTHORITY TO EXECUTE

40.1 This Agreement is executed by the duly authorized officers or representatives of the parties pursuant to authority granted to each of them by the lawful action of their respective official commissions or boards.

Executed at Henderson, Kentucky this ____ day of _____, 19 ____.

CITY OF HENDERSON, KENTUCKY

BY William L. Newman
William L. Newman, Mayor

ATTEST:

Theresa Crotter
City Clerk
(City Seal)

CITY OF HENDERSON UTILITY COMMISSION

BY Louis Hatchett
Louis Hatchett

ATTEST:

Dudley H. Emerson
Secretary

BIG RIVERS RURAL ELECTRIC CO-OPERATIVE
CORPORATION

BY Robert Reid Sr.
Robert Reid, Sr., President

ATTEST:

D.B. Wilson
D.B. Wilson, Secretary

This instrument prepared by:

of WEST MARKWELL & BRYANT
Suite 320 - Imperial Building
110 Third Street
Henderson, Kentucky 42420

116.0.4

JOINT FACILITIES AGREEMENT

BETWEEN

CITY OF HENDERSON, KENTUCKY

and

BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION

August 1, 1970

APPENDIX A

Tab 4

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JOINT FACILITIES AGREEMENT

THIS AGREEMENT made and entered into as of August 1, 1970 by and between CITY OF HENDERSON, KENTUCKY, a Municipal Corporation of the third class, hereinafter referred to as CITY, and BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION, a Kentucky Corporation with principal offices in Henderson, Kentucky, hereinafter referred to as BIG RIVERS.

WITNESSETH THAT:

SECTION 1 - STIPULATIONS

1.1 City and Big Rivers have entered into an Agreement of even date herewith providing for City's construction of an electric generating station (referred to as Station Two) at a site on the Green River in Henderson County, Kentucky, adjacent to the Reid Station of Big Rivers, and so arranged as to provide for the joint utilization by City and Big Rivers of certain auxiliary facilities and operating personnel, and providing for the operation of such Station Two by Big Rivers on an independent contractor basis.

1.2 A nationally recognized engineering firm has been employed by City to develop plans and specifications for the construction of City's Station Two and its related facilities, including such facilities as are to be used jointly by City and Big Rivers in the operation of their respective generating stations, which plans and specifications shall be subject to approval by Big Rivers insofar as its Reid Station will be

affected thereby.

1.3 It is recognized by the parties that material economies in construction and operation can be achieved through the joint use by both parties of certain operating facilities which serve as auxiliaries of their respective generating stations.

1.4 The costs of the joint use facilities to be provided by each of the parties under the terms of this Agreement and in accordance with City's plans and specifications are proportionately equal to the relative benefits to be derived therefrom by each.

1.5 It is the intention of the parties, by this Agreement, each to devote to the joint use of both parties, as long as they or either of them, or their respective successors or assigns, shall continue to operate a generating station or stations in connection therewith, those joint use facilities to be provided by each, and to provide for the continuous operation and maintenance thereof for the parties' joint and separate benefits.

SECTION 2 - DEFINITIONS

2.1 The words, phrases, and terms used in this Agreement shall have the same definitions as recited in the parties' Power Plant Construction and Operation Agreement of even date herewith.

SECTION 3 - ALLOCATION OF FACILITIES

3.1 Big Rivers will allocate for the continuing joint use of the parties in the operation of their respective generating

plants those of its existing auxiliary facilities as are determined by City's employed engineering firm (and approved by Big Rivers) to be allocated for such joint use, and will permit City to make such modifications thereof as are provided by the plans and specifications for City's Station II.

3.2 City will acquire and allocate for the continuing joint use of the parties in the operation of their respective generating plants those additional auxiliary facilities (not provided by Big Rivers) designated on City's plans and specifications for such joint use.

SECTION 4 - TITLE TO JOINT USE FACILITIES

4.1 Title to those joint use facilities or portions thereof provided by City will remain in City, and all such facilities will be clearly and permanently marked as the property of City. Title to those joint use facilities or portions thereof provided by Big Rivers will remain in Big Rivers, and all such facilities will be clearly and permanently marked as the property of Big Rivers. All such joint use facilities shall be, and with the execution and approval of this Contract are irrevocably allocated and devoted to the continued use thereof by each of the parties, their respective successors or assigns, as long as either of them shall continue to operate and/or maintain a generating station in connection therewith.

SECTION 5 - COSTS

5.1 The costs of providing City's joint use facilities and of modifying Big Rivers' joint use facilities as provided herein will be paid out of the proceeds of the Station Two Bonds. The costs of operating, maintaining, repairing, renewing, replacing and adding to such joint use facilities shall be allotted to the parties' respective generating stations as provided in Section 13 of the parties' Power Plant Construction and Operation Agreement.

SECTION 6 - OPERATION AND MAINTENANCE

6.1 Except as otherwise provided in the parties' Power Plant Construction and Operation Agreement, the parties will be severally and jointly responsible for the continued operation, maintenance, repair, renewal and replacements of such joint use facilities so as to assure the continuous operation of the parties' respective generating station or stations served thereby.

SECTION 7 - ACCESS

7.1 Each party hereby grants to the other the free and uninterrupted access to, and right of ingress and egress to and from such joint use facilities and any portions thereof as may be necessary or convenient so as to provide for the continuous operation and maintenance thereof.

SECTION 8 - TERM

8.1 Unless otherwise terminated by mutual agreement of the parties, the terms and provisions of this Agreement shall

continue in full force and effect as to each joint use facility as long as either party, or its successors or assigns, shall continue to operate or maintain a generating station which is served by any such joint use facility, and will not be terminated by reason of the termination of any other agreement or contract between the parties.

SECTION 9 - OPERATING STANDARDS.

9.1 The joint use facilities which are the subject of this Agreement shall be constructed, operated and maintained in accordance with standards and specifications equal to those provided by the National Electric Safety Code of the United States Bureau of Standards, and as required by any regulatory authority having jurisdiction thereof.

SECTION 10 - UNCONTROLLABLE FORCES

10.1 Neither party hereto shall be considered in default or breach with respect to any obligation under this Agreement if prevented from fulfilling such obligation by reason of an Uncontrollable Force. Any party unable to fulfill any obligation by reason of Uncontrollable Forces shall exercise due diligence to remove such disability as soon as reasonably possible.

10.2 The term "Uncontrollable Force" shall mean any force which is not within the control of any party to this Agreement, and which by exercise of due diligence and foresight could not reasonably have been avoided, including, but not limited to, an act of God, fire, flood, earthquake, explosion, strike, sabotage, an act of the public enemy, civil or military authority,

including court orders, injunctions, and orders of government agencies having proper jurisdiction, insurrection or riot, an act of the elements, failure of equipment, or inability to obtain or ship materials or equipment because of the effect of similar causes on suppliers or carriers.

SECTION 11 - OBLIGATIONS OF CITY

11.1 The obligations of City under the terms and provisions of this Agreement shall be the sole obligation of the City's electric utility system, including its Existing System, its Station Two generating plant and such other additions, extensions, or related facilities that it may from time to time own and/or operate. No obligation of City under this Agreement shall constitute a general obligation of the City.

SECTION 12 - CITY INCLUDES UTILITY COMMISSION

12.1 It is recognized by the parties that the City operates, manages and controls its electric utility system through its City of Henderson Utility Commission, appointed pursuant to KRS 96.530. All references to City under the terms and provisions of this Agreement shall include its City of Henderson Utility Commission to the extent applicable.

12.2 The parties agree that all rights and obligations of City under the terms and provisions of this Agreement shall also constitute rights and obligations of the City of Henderson Utility Commission. By its execution of this Agreement the City of Henderson Utility Commission covenants and agrees that all references to City under the terms and provisions of this

Agreement shall include the City of Henderson Utility Commission, and that it shall be obligated under this Agreement accordingly.

SECTION 13 - AMENDMENTS

13.1 No amendments of this Agreement shall be effective unless reduced to writing and executed by all parties hereto.

13.2 It is understood that Big Rivers may not agree to any amendment, modification or alteration of this Agreement without first obtaining approval of the Administrator of the Rural Electrification Administration.

SECTION 14 - SUBJECT TO POWER PLANT CONSTRUCTION AND OPERATION AGREEMENT

14.1 This Agreement is subject to any and all provisions of the parties' Power Plant Construction and Operation Agreement which relate to joint use facilities.

SECTION 15 - ASSIGNMENT

15.1 This Agreement shall be binding upon the parties hereto, their respective successors and assigns. Provided however, that this Agreement shall not be assigned by either party (except for an assignment by Big Rivers to the United States of America) without the written consent of the other party.

SECTION 16 - CONDITIONS PRECEDENT

16.1 This Agreement is entered into subject to the

following express conditions precedent:

(a) That all conditions precedent recited in the parties' Power Plant Construction and Operation Agreement shall have occurred.

SECTION 17 - AUTHORITY TO EXECUTE

17.1 This Agreement is executed by the duly authorized officers or representatives of the parties pursuant to authority granted to each of them by the lawful action of their respective official commissions or boards.

Executed at Henderson, Kentucky this 27 day of August, 19 70.

CITY OF HENDERSON, KENTUCKY

BY William L. Newman
William L. Newman, Mayor

ATTEST:

Kelusa Crafton
City Clerk

(City Seal)

CITY OF HENDERSON UTILITY COMMISSION

BY Louis Hatchett
Louis Hatchett, Chairman

ATTEST:

Dudley H. Emerson
Secretary

BIG RIVERS RURAL ELECTRIC
CO-OPERATIVE CORPORATION

BY Robert Reid Sr.
Robert Reid, Sr., President

ATTEST:

D. B. Wilson
D. B. Wilson, Secretary

This instrument prepared by:

Harb B. West
of WEST MARKWELL & BRYANT
Suite 320 - Imperial Building
110 Third Street
Henderson, Kentucky 42420

SYSTEM RESERVES AGREEMENT

THIS AGREEMENT made and entered into as of January 1, 1974, by and between CITY OF HENDERSON UTILITY COMMISSION (CITY), and BIG RIVERS ELECTRIC CORPORATION (BIG RIVERS), both having offices in Henderson, Kentucky.

WITNESSETH:

WHEREAS, the parties' electric systems are physically interconnected pursuant to the provisions of certain agreements dated September 1, 1965, April 1, 1968, August 1, 1970, and June 1, 1972, through which interconnections the parties operate their respective electric systems on an interconnected basis and transact power and energy exchanges as provided by such agreements, and

WHEREAS, by the provisions of said agreements each of the parties is required to maintain adequate reserve generating capacity on its system so as not to impose disproportionate demands upon the other for assistance in meeting the normal contingencies of operating its power system, and

WHEREAS, the parties desire to fix their responsibilities for providing reserve generating capacities and standby capacity for their respective electric systems for such time as their electric systems shall remain interconnected, or until the provisions of this agreement shall be amended or terminated as hereinafter provided.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements herein made, it is stipulated, covenanted and agreed by and between the parties as follows:

1. TERM:

1.1 This agreement shall become effective upon its execution by the parties, subject to approval of the Administrator of the Rural Electrification Administration as to BIG RIVERS' execution thereof, and shall continue thereafter, from year to year (each period from November 1 through October 31 being considered a contract year) until termination of the parties' agreements of September 1, 1965, April 1, 1968, August 1, 1970, and June 1, 1972, respectively.

2. CITY'S ELECTRIC SYSTEM:

2.1 CITY agrees during the term of this agreement to provide for its electric system, at all times during each contract year, a minimum generating capacity equal to its system peak load during such contract year plus fifteen per cent (15%). Such generating capacity shall be provided through (a) installed

*see 1998 Records
Vol II Tab
37.*

and operable generation at CITY's Station One, (b) reserved generation from CITY's Station Two, and/or (c) firm capacity purchased or otherwise available from others.

2.2 Standby capacity for CITY's generating capacity (as generating capacity is defined in paragraph 2.1) shall be provided as follows:

(a) BIG RIVERS shall provide standby capacity for CITY's Station One in an amount equal to the lesser of (i) the maximum net send-out capacity of all operable generating units in Station One, or (ii) the amount that CITY's load exceeds its generating capacity available from sources other than its Station One.

(b) CITY shall provide standby capacity for its generating capacity reserved from Station Two in an amount equal to such reserved generating capacity. The standby capacity referred to in this subparagraph shall be provided out of the alternate generating unit of Station Two as provided in Section 5 of the parties' Power Sales

Contract dated August 1, 1970. In the event that the alternate generating unit of Station Two is unavailable for standby service by reason of scheduled or unscheduled outage, BIG RIVERS will, on a best efforts basis, provide or procure standby capacity for CITY's reserved generating capacity from Station Two, subject to the provisions of paragraph 4.3 of this agreement.

3. BIG RIVERS ELECTRIC SYSTEM:

3.1 BIG RIVERS agrees during the term of this agreement to provide for its electric system at all times during each contract year a minimum generating capacity equal to its system peak load during such contract year plus fifteen per cent (15%). Such generating capacity shall be provided through (a) installed and operable generation at BIG RIVERS' generating stations, (b) generating capacity purchased from CITY's Station Two pursuant to the parties' Power Sales Contract dated August 1, 1970, and/or (c) firm capacity purchased or otherwise available from others.

3.2 Standby capacity for BIG RIVERS' generating capacity (as generating capacity is defined in paragraph 3.1 hereof) shall be provided as

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follows:

(a) BIG RIVERS shall provide out of its own generating units or by purchase or other availability from others, standby capacity equal to the greater of (i) the largest generating unit of BIG RIVERS' electric system at the time of execution of this agreement, or (ii) the largest generating unit of CITY's Station Two at the time of execution of this agreement.

(b) BIG RIVERS' generating capacity purchased or otherwise available from others shall be firm capacity with adequate standby being provided by the supplier.

4. PAYMENTS:

4.1 There shall be no capacity charge for standby service to be provided CITY by BIG RIVERS under the terms of this agreement.

4.2 Electric energy delivered under this agreement shall be settled for by the return of the equivalent energy or, at the option of the supplying party, by payment. If the equivalent energy is returned, it shall be returned at times when load conditions of the receiving party are substantially

equivalent to the load conditions of such party at the time it delivered the energy; or, if such party elects to have equivalent energy returned under different conditions, it shall be returned in such amounts as will compensate for the difference in conditions.

If payment is made as herein provided, it shall be made on the basis of out-of-pocket costs as set forth in Exhibit "A" hereof plus ten per cent (10%) of such out-of-pocket costs.

4.3 If the energy requested by CITY under this agreement is not available from BIG RIVERS' generating capacity for reasons beyond BIG RIVERS' reasonable control, but is available from other sources, BIG RIVERS will purchase the energy from such other sources in order to make the delivery to CITY, in which event the costs to the CITY for such energy shall be the actual, out-of-pocket purchase costs to BIG RIVERS for making such delivery, plus an adjustment for losses incurred over BIG RIVERS' electric system.

5. GENERAL PROVISIONS:

5.1 This agreement shall be subject to and governed by the terms and provisions of the parties' Interconnection Agreement dated

June 1, 1972, the terms and provisions of which are incorporated herein by this reference.

5.2 IF there is any conflict between the terms and provisions of this agreement and the terms and provisions of the parties' Interconnection Agreement dated June 1, 1972, then the terms of this agreement shall prevail to the extent of such conflict.

6. AMENDMENTS:

6.1 This agreement may be amended only by written amendment executed by both parties hereto, which execution on the part of BIG RIVERS shall be subject to approval of the Administrator of the Rural Electrification Administration.

7. PARTIES BOUND:

7.1 This agreement shall be binding upon the parties hereto, their respective successors and assigns.

7.2 Any sale or other disposition of either party's electric system, or any portion or portions thereof which shall affect the terms and provisions of this agreement, shall be made subject to the terms and provisions of this agreement.

IN WITNESS WHEREOF the parties have caused this agreement to be executed by their respective officers, duly authorized therefor, this the day and year first above written.

CITY OF HENDERSON UTILITY COMMISSION
CITY OF HENDERSON, KENTUCKY

By *John P. Waterhouse*
Chairman

ATTEST:

Dudley A. Everson
Secretary

BIG RIVERS ELECTRIC CORPORATION

By *Robert D. Green*
President

ATTEST:

Loyal Brooks
Secretary

This Instrument Prepared By

WEST AND TERNES, CHARTERED
Attorneys at Law
Suite 380 Imperial Building
110 Third Street
Henderson, Kentucky 42420

EXHIBIT "A"

Out-of-Pocket Costs

DATE: June 1, 1972

FIRST PARTY: BIG RIVERS RECC

SECOND PARTY: CITY OF HENDERSON, KY.

For purposes of this agreement and the schedules attached hereto "out-of-pocket costs" shall mean the cost of fuels in the generating station or stations of the supplying party plus one mil per kwh, plus losses to point of delivery and plus any applicable startup charges. Cost of fuels as used herein shall include all fuel costs, handling charges and associated fuel charges includable within FPC Account 501.

IN WITNESS WHEREOF the parties have caused this schedule to be executed by their duly authorized officers on the date above referred to.

FIRST PARTY: BIG RIVERS RURAL ELECTRIC COOPERATIVE CORPORATION

By: Robert D. Green

Title: President

ATTEST:

By: Lloyd Brooks

Title: Secretary

SECOND PARTY: CITY OF HENDERSON UTILITY COMMISSIO CITY OF HENDERSON, KENTUCKY

By: L. B. H. H. H.

Title: Chairman

AMENDMENTS TO CONTRACTS
AMONG CITY OF HENDERSON, KENTUCKY
CITY OF HENDERSON UTILITY COMMISSION
AND BIG RIVERS ELECTRIC CORPORATION

These Amendments entered into as of May 1, 1993 (the "May 1, 1993 Amendments") by and between City of Henderson, Kentucky, a municipal corporation and city of the second class organized under the laws of Kentucky, of 222 First Street, Henderson, KY 42420, City of Henderson Utility Commission, a public body politic and corporate organized under Kentucky Revised Statutes 96.520 and related statutes, of 100 Fifth Street, Henderson, KY 42420, the said City and Commission being referred to herein collectively as "City", and Big Rivers Electric Corporation, a rural electric cooperative corporation organized under Chapter 279 of the Kentucky Revised Statutes, P.O. Box 24, 201 Third Street, Henderson, KY 42420, known as "Big Rivers" herein.

WITNESSETH:

WHEREAS, the parties hereto are parties to a Power Sales Contract, a Power Plant Construction and Operation Agreement and a Joint Facilities Agreement all dated August 1, 1970 and Big Rivers and City of Henderson Utility Commission are parties to an Agreement For Transmission and Transformation Capacity dated April 11, 1975, the Spare Transformer Agreement dated July 11, 1972, the System Reserves Agreement dated January 1, 1974, the Agreement of April 8, 1980 regarding O&M and R&R Funds, and the Agreement of February 15, 1991 concerning Administrative and General Costs, all of such contracts and agreements as amended being known herein as the "Contracts" and incorporated herein by reference, and

WHEREAS, pursuant to the Contracts, and to ordinances of the City of Henderson, Kentucky providing for the sale of its electric revenue bonds, an electric generating station consisting of generating Units 1 and 2, each described in the Contracts as having 175-megawatt capacity, and related facilities all known herein as "Station Two", were constructed and are now owned by the City of Henderson, Kentucky and operated under the Contracts with Big Rivers, and

WHEREAS, City and Big Rivers have agreed that Station Two must be equipped with a Flue Gas Desulfurization System ("known herein as the "Station Two FGD System") to comply with the 1990 Amendments to the Clean Air Act (Acid Rain Act), and

WHEREAS, certain facilities now owned by Big Rivers subject to certain mortgage liens, and used in operating the FGD System of Big Rivers' Green Generating Station, can be used jointly by the Green Station and by Station Two, thus greatly reducing the cost of the Station Two FGD System, and

WHEREAS, the Station Two FGD System will require financing in whole or in part by sale of emission allowances granted under the Acid Rain Act, funds from the Station Two Renewal and Replacement Fund and the Station Two Operations and Maintenance Fund, and revenues from the respective electric utility systems of the parties hereto.

NOW, THEREFORE, in order to comply with the Acid Rain Act, and provide for the financing, construction, and operation of the Station Two FGD System as a part of Station Two, and in

consideration of the mutual covenants herein contained, it is covenanted and agreed among the parties hereto as follows:

ALL CONTRACTS

1. The terms of all of the Contracts except the Joint Facilities Agreement and the Agreement for Transmission and Transformation Capacity shall terminate on October 31, 2003, unless otherwise terminated, or extended, as herein provided. Unless otherwise terminated, or extended, as herein provided, the Joint Facilities Agreement shall terminate in accordance with Section 8 of said Agreement, and the Agreement for Transmission and Transformation Capacity shall terminate in accordance with Section 7.2 of said Agreement.

Big Rivers shall have three options for extending the terms of the Contracts, as amended, on the same terms and conditions thereof, as follows:

1.1 By written notice to City on or before October 31, 1998, to extend the terms for the operating life of Station Two, the operating life of which shall be considered to continue for so long as Unit One and Unit Two, or either of them, is operated, or is capable of normal, continuous, reliable operation for the economically competitive production of electricity, temporary outages excepted.

1.2 If Big Rivers does not exercise the option granted in subparagraph 1.1, by written notice to City on or before October 31, 1998, Big Rivers may extend the terms for five years from October 31, 2003 to October 31, 2008.

1.3 If Big Rivers exercises the option granted in 1.2, by written notice to City on or before October 31, 2003, Big Rivers may extend the terms for an additional five year term from October 31, 2008 to October 31, 2013.

1.4 Notwithstanding any other provision in the Contracts, (a) all of them, except the Joint Facilities Agreement and the Agreement for Transmission and Transformation Capacity, and any options for their renewal, shall terminate 90 days after Big Rivers allocation of capacity from City's Station Two shall be zero, and (b) the terms of all of the Contracts shall be extended automatically until all Station Two revenue bonds of the City of Henderson which have been approved by Big Rivers have been paid.

2. The Contract Year of all of the Contracts shall commence on June 1 and end on May 31 of each year to conform to City's fiscal year, except that the Contract Year for the last year of the Contracts shall end on the last day of the term then in effect.

3. The effective date of these May 1, 1993 Amendments shall be the date following their execution upon which the last of all required approvals and creditors' lien subordinations or accommodations satisfactory to the parties hereof have been obtained, including approvals of the Rural Electrification Administration, the Kentucky Public Service Commission, and any other public regulatory body whose approval is required, provided, however, that the effective date shall then be retroactive to February 1, 1993.

4. Nothing herein contained shall constitute general

obligations of the City of Henderson within Kentucky Constitutional restrictions on such obligations. The obligations herein imposed on City of Henderson shall be borne entirely from revenues or other legally available funds of City's electric light and power system.

POWER SALES CONTRACT

5. THE POWER SALES CONTRACT OF AUGUST 1, 1970, AS HERETOFORE AMENDED, IS FURTHER AMENDED AS FOLLOWS:

5.1 SECTION 2.2 IS AMENDED TO READ AS FOLLOWS:

Station Two: City's 350-megawatt generating station (now rated at 315 MW net send out capacity), located at a site on Green River in Henderson County, Kentucky, and, to the extent furnished and owned by City, all auxiliary facilities, joint use facilities and related facilities, additions, expansions and improvements thereto, including the Station Two FGD System added thereto, and renewals and replacements, but excluding the City Transmission and Transformation Facilities as herein defined, and excluding facilities furnished and owned by Big Rivers. The ownership and location of Station Two, and auxiliary, joint use and related facilities thereon as owned or to be owned by City, and those furnished and owned or to be owned by Big Rivers are shown in Exhibits 1 and 2 hereto.

5.2 SECTION 3.3 IS AMENDED TO READ AS FOLLOWS:

The capacity of the Station Two which is surplus to the City's needs will be allotted to Big Rivers on the basis of five years advance written notice from the City, and Big Rivers shall have the right to receive, and the obligation to take and pay for the capacity of Station Two so allotted to it in the manner herein provided. City may adjust its five year projection of capacity needs in an amount not to exceed five (5) megawatts in any one contract year. Any capacity not utilized by City may be used by Big Rivers. The present allocation of Station Two capacity is 82.86% to Big Rivers and 17.14% to City.

5.3 SECTION 3.6 AS AMENDED BY AMENDMENT NUMBER ONE OF MARCH 2, 1971 IS AMENDED TO READ AS FOLLOWS:

The Total Capacity of Station Two as referred to herein shall be the average of the total continuous net send-out

capability of all generating units in Station Two. The parties agree that the present total capacity is 315-megawatts. The parties recognize that Station Two capacity will be reduced by the power required to operate the Station Two FGD System. Either party hereto may request tests from time to time on thirty days prior notice to determine the current Total Capacity. Such tests shall be of at least twenty-four hours duration under actual load carrying conditions, when the equipment is operated at rated pressure and temperature with all auxiliary equipment in service, and at a power factor of approximately ninety percent (90%). The measurement will be made at the 161 KV metering points at the Station Two Switch Yard.

5.4 SECTION 3.7 IS AMENDED TO READ AS FOLLOWS:

The total continuous net send-out capability of any new unit of Station Two shall be tested on or before the date of commercial operation thereof, and the capacity as thus determined will remain the established Total Capacity of such unit until changed by tests requested by either party.

5.5 SECTION 6.2 IS AMENDED TO READ AS FOLLOWS:

Capacity charges to Big Rivers for any Monthly Billing Period shall be the same proportion of the Total Capacity costs of Station Two for such Monthly Billing Period as Big Rivers allocation of surplus net send-out capacity of Station Two during such Monthly Billing Period bears to the total net send-out capacity of Station Two for such Monthly Billing Period as established pursuant to Section 3 of this Agreement.

5.6 SECTION 6.6 IS AMENDED BY ADDING SUBPARAGRAPH (d)

THERE TO AS FOLLOWS:

(d) The additional payments described in this Section 6.6 and the fourteen and one-half cents per month per kilowatt of the Total Capacity of Station Two charged to the City as described in Section 13.6 of the Power Plant Construction and Operation Agreement between the parties of August 1, 1970, shall both terminate on October 31, 2003, despite changes in the terms of the Contracts.

5.7 THE FIRST SENTENCE OF SECTION 9.4 IS AMENDED TO READ

AS FOLLOWS:

As quickly as is reasonably possible, but in no event later than one hundred twenty (120) days after the end of each Contract Year Big Rivers shall submit to City a detailed statement of the actual capacity costs for all Monthly Billing Periods of such Contract Year, based on the annual audit of accounts provided for in Section 11.

5.8 SECTION 15 IS AMENDED BY ADDING THERETO THE

FOLLOWING:

15.2 In addition to and not in substitution for the other remedies of the City provided under this Agreement, or by other legal, equitable, or administrative remedies, if Big Rivers shall default in making any payment properly owing under this Agreement and (a) such default continues for sixty days following written notice thereof by the City to Big Rivers or (b) if an Event of Default occurs under the RESTRUCTURING AGREEMENT dated August 31, 1987 among Big Rivers, the United States of America, acting through the Administrator of Rural Electrification Administration, Manufacturers Hanover Trust Company and Irving Trust Company, and their successors and assigns by reason of which any or all of the creditors therein described declare all debts owing to one or more of such creditors to be due and payable, the City may at any time thereafter have the following additional rights and remedies:

- (1) on 5 days prior written notice to Big Rivers, City may, until such default is corrected, make sales to others of power generated by Station Two and allocated hereunder to Big Rivers and shall collect the proceeds from such sales and, subject to the provisions of the Bond Ordinance, shall apply them as a credit to capacity charges owing by Big Rivers to the City, then to payments to Big Rivers on Big Rivers' cost of operation and maintenance of Station Two, including its fuel and lime costs and any excess to Big Rivers until Big Rivers' payment default is corrected.
- (2) On thirty days written notice by City to Big Rivers, and if Big Rivers defaults to City have not been corrected, City may terminate all contracts with Big Rivers with respect to Station Two and assume immediate possession and operation of Station Two and sell and subject to the crediting procedure of

subparagraph (3), retain the proceeds of all sales of power generated by Station Two thereafter; provided that no such sales shall replace sales made by Big Rivers and/or its distribution co-op members under then existing contracts.

- (3) No rights exercised by City under subparagraphs (1) and (2), or either of them, shall relieve Big Rivers of its continuing obligations to pay that portion of the debt service costs which are allocated to it when such rights were first exercised by City, credited in the case of sales under subparagraph (1) by any revenues provided from the sale of Big Rivers allocated capacity as provided in subparagraph (1) above, and credited in the case of sales under subparagraph (2) by any revenues received from the sale of Big Rivers prior allocation in excess of operation and maintenance costs of Station Two, including fuel and lime costs.
- (4) In the exercise of its rights under the preceding subparagraphs (1) and (2), City shall have the right (a) to use Big Rivers transmission system for transmitting power in performance of off system power sales made by City from Station Two at fair market wheeling charges then prevailing in Indiana and Kentucky and (b) continue the use of Joint Use Facilities by bearing the costs thereof calculated according to the Joint Facilities Agreement.
- (5) City shall make no sales under the preceding subparagraph (1) on any term or condition which would adversely affect the rights or security of holders of Station Two bonds, or impair or adversely affect the eligibility for tax exemption of interest on such bonds or, if notified by Big Rivers prior to any agreement to make such sales, adversely affect the rights, or security of holders of notes of Big Rivers secured by Big Rivers' interest in the Joint Use Facilities or in the Reid and Green Stations. City shall give Big Rivers written notice five (5) business days prior to entering into any agreement for such sales.

15.3 In addition to, and not in substitution for, the other remedies of Big Rivers provided under this

Agreement, or by any other legal, equitable or administrative remedies, if City defaults in making any payments properly owing under the Contracts and such default continues for 60 days following written notice thereof by Big Rivers to City. Big Rivers may at any time thereafter, if all Station Two Revenue Bonds approved by Big Rivers have been paid, on 30 days written notice by Big Rivers to City, and if City's defaults to Big Rivers have not been corrected, then Big Rivers may terminate all contracts with City with respect to Station Two, in which event Big Rivers shall have the continued right to use of Joint Use Facilities by paying the capacity costs thereof calculated in accordance with the Joint Facilities Agreement.

5.10 SECTION 21.1 AS RENUMBERED TO 22.1 IN THE MARCH 2, 1971 AMENDMENT IS AMENDED AS PROVIDED IN SECTION 1 OF THE MAY 1, 1993 AMENDMENTS.

POWER PLANT CONSTRUCTION AND OPERATION AGREEMENT

6. THE POWER PLANT CONSTRUCTION AND OPERATION AGREEMENT OF AUGUST 1, 1970, AS AMENDED, IS FURTHER AMENDED AS FOLLOWS:

6.1 SECTION 1.3 IS AMENDED BY ADDING THERETO THE FOLLOWING:

Such Interconnection Agreement was supplemented and amended by an Amended Agreement dated October 13, 1981 and by a "FIRST AMENDMENT" dated January 10, 1989 which are in effect.

6.2 SECTION 4 IS AMENDED BY ADDING THE FOLLOWING:

4.5 City, with the approval of Big Rivers, has entered into a Contract dated February 5, 1993 with Wheelabrator Air Pollution Control Inc. for the construction and installation of a portion of the Station Two FGD System. City will enter into such further contracts as are necessary, and as are approved by Big Rivers which approval shall not be unreasonably withheld, to complete the design, construction, installation and operation of the Station Two System. City and Big Rivers shall each immediately seek such permits and approvals as are required of each of them.

- 4.6 Big Rivers shall provide one engineering representative and one clerk to work with the engineering firm employed by the City as the owner's representative on the Station Two FGD System project. City will provide one representative already assigned to Station Two. The cost of these three representatives, including salaries, benefits and out-of-pocket expenses, shall be considered capital costs of the project.
- 4.7 All proceeds from the sale of SO₂ allowances allocated to Station Two, from whatsoever source, in excess of those needed for Station Two operation shall be divided between City and Big Rivers in the proportions of 17.14% to City and 82.86% to Big Rivers. The sale of all Station Two allowances shall be approved by the City and Big Rivers.
- 4.8 Until such time as a sum equal to the net proceeds of the sale of Station Two SO₂ allowances has been paid on the costs of the Station Two FGD System, the parties hereto shall bear such scrubber costs in the proportions of 17.14% to the City and 82.86% to Big Rivers. Thereafter costs of the Station Two FGD System shall be borne in the proportion of capacity allocation established under Section 5.2 of the May 1, 1993 Amendments.
- 4.9 Except as otherwise agreed by the parties, all invoices for the design, construction and installation of the Station Two FGD System shall be issued to City and paid by City pursuant to Section 4.11 hereof. City shall bill Big Rivers monthly for its share of such costs as determined by Section 4.8 hereof and Big Rivers shall pay such share pursuant to Section 4.10 hereof.
- 4.10 Big Rivers shall pay the amounts billed to it by City under Section 4.9 hereof to the Trustee from time to time in sufficient amounts to satisfy progress payments required on contracts executed by City for the design, construction and installation of said FGD System. City's remaining portion of the costs for the Station Two FGD System shall be paid by City from time to time in sufficient amounts to satisfy progress payments required on said contracts.
- 4.11 City shall instruct the Trustee to remit all sums paid under Section 4.10 hereof for the design, construction, and installation of the Station Two FGD System to City for deposit into the Station Two

account in the Renewals and Replacement Fund, out of which City shall timely pay all costs due on the Station Two FGD System.

JOINT FACILITIES AGREEMENT

7. THE JOINT FACILITIES AGREEMENT IS AMENDED AS FOLLOWS:

7.1 SECTION 3.1 IS AMENDED BY ADDING THE FOLLOWING:

3.1(a) Big Rivers has heretofore allocated for the continuing joint use of the parties the facilities listed on Exhibit 1, Page 2, Part C hereto.

7.2 SECTION 3.2 IS AMENDED BY ADDING THE FOLLOWING AT

THE END THEREOF:

The auxiliary facilities which City has previously allocated for the joint use of the parties are listed in Exhibit 1, Pages 1 and 2, Part B.

7.3 NEW SUBPARAGRAPHS SHALL BE ADDED TO SECTION 3 AS

FOLLOWS:

3.3 Big Rivers will allocate for the continuing joint use of the parties in the operation of their respective generating stations (Big Rivers Green Station and City's Station Two) those Green Station FGD System Facilities described in Exhibit 1, Page 3, Part C hereto. For such use, Big Rivers shall be paid by City a prorated share of the annual carrying costs, calculated as:

$$\frac{\text{Station Two net capacity}}{\text{Station Two plus Green Station net capacities}}$$

Currently $\frac{315 \text{ MW}}{755 \text{ MW}}$

times the net book value of those facilities as of December 31, 1994, i.e. \$21,675,601.32, further multiplied by a capital carrying charge rate of 11.5 percent.

City's payment to Big Rivers shall be included as a cost under Paragraph (g) of Section 6.3 of the Power Sales Contract between the parties.

3.4 The costs of operating and maintaining the FGD

Joint Facilities described in Exhibit 1, Page 3, Parts B and C hereto, and the cost of sludge stackout and disposal (including haulage and deposit in appropriate landfills) therefrom, shall be allocated to the Green Station and Station Two (except for the cost of coal and lime which shall be provided by each party for its own use) in the proportions in which the stations put sulfur through the Green and Station Two FGD systems, based upon the tonnage of lime and coal and the sulfur and BTU content of the coal, and calculated as shown in the following example:

REAGENT PREPARATION¹

1) Assume lime, power, maintenance and labor costs = \$10,000,000/yr.

2) From additive feed flowmeters - 70,000 Tons Per Year (TPY) of lime went to Green absorbers and 45,000 TPY went to Station Two absorbers.

3) The Station Two portion of the "reagent prep" O&M costs:

$$\$10,000,000 \times \left[\frac{45,000}{70,000 + 45,000} \right] = \$3,913,000/\text{yr}$$

4) Assume BREC coal to Station Two is 4% sulfur and 11,200 BTU/lb. HMPL coal to Station Two is 2.6% sulfur and 12,000 BTU/lb.

$$\frac{4 (19,500)}{11,200} = 6.96 \text{ lb. SO}_2/\text{mmBTU}$$

$$\frac{2.6 (19,500)}{12,000} = 4.22 \text{ lbs. SO}_2/\text{mmBTU}$$

Where 19,500 is the conversion factor for 2 lbs. of SO₂ per lb. of sulfur, assuming 97.5% of the sulfur in the coal is captured in the flue gas stream.

5) The HMPL portion of Station Two "reagent prep" O & M would be:

$$\$3,913,000 \times \left[\frac{(4.22) \times (\text{HMPL coal BTU burn})}{[(4.22) \times (\text{HMPL coal BTU burn}) + (6.96) \times (\text{BREC coal BTU burn})]} \right]$$

¹ The reagent preparation facilities and the waste treatment facilities are located in separate areas.

if for example: the HMPL coal BTU burn were: $2,977,555 \times 10^6$
the BREC coal BTU burn were: $11,143,418 \times 10^6$

then the HMPL portion comes to \$546,200/yr.

WASTE TREATMENT

The "waste treatment" area power, maintenance and labor costs and the scrubber sludge disposal and storage costs would be split similarly, except that Green and HMPL bleed flowmeters would be used to calculate TPY of waste to be treated and stored. The TPY of waste treated would be used in step (2) instead of TPY lime.

7.4 THE SECOND SENTENCE OF SECTION 4.1 IS AMENDED TO READ AS FOLLOWS:

Title to those joint use facilities or portions thereof provided by Big Rivers, including the FGD Joint Facilities, will remain in Big Rivers, and all such facilities will be clearly and permanently marked as the property of Big Rivers.

7.5 SECTION 5.1 IS AMENDED TO READ AS FOLLOWS:

5.1 The costs of providing City's joint use facilities and of modifying Big Rivers' joint use facilities (other than the FGD Scrubber facilities) as provided herein have been paid out of the proceeds of the Station Two Bonds. The cost of modifying the Joint Use Facilities described in Exhibit 1, Page 3, Parts B & C for use by Big Rivers' Green Station and the City's Station Two shall be allocated to Station Two. The cost of additional modifications shall be allocated between Big Rivers' Green Station and the City's Station Two using the methodology provided in Section 13.8 of the Power Plant Construction and Operation Agreement. The amounts so allocated to City's Station Two shall be further allocated between Big Rivers and City in the proportion of capacity allocation established under Section 5.2 of the May 1, 1993 Amendments. Subject to the provisions of Sections 3.3 and 3.4 of this Agreement, the costs of operating, maintaining, repairing, renewing, replacing, and adding to such joint use facilities shall be allocated to the parties' respective generating stations as provided in Section 13 of the parties' Power Plant Construction and Operation Agreement.

STATION TWO DECOMMISSIONING COSTS

8. If Big Rivers exercises its option under Section 1.1 of

the May 1, 1993 Amendments to extend the life of the Contracts for the operating life of Station Two, as heretofore defined, the parties shall bear decommissioning costs of Station Two in the proportions in which they shared capacity costs during the life of Station Two.

IN TESTIMONY WHEREOF, the parties hereto have executed this Agreement in multiple counterparts as of the date first herein written.

This 29th day of June, 1993.

CITY OF HENDERSON, KENTUCKY

By William L. Newman
William L. Newman, Mayor

ATTEST:

Joann Roberts
City Clerk
(City Seal)

CITY OF HENDERSON UTILITY COMMISSION

By B.E. Higgins
Chairman

ATTEST:

Dudley H. Emerson
Secretary

BIG RIVERS ELECTRIC CORPORATION

By Morton Henshaw
Morton Henshaw, President

ATTEST:

William B. Briscoe
William Briscoe, Secretary

D Blackburn

BIG RIVERS ELECTRIC CORPORATION

(Add in To file)

June 25, 1993

Kendel Bryan, General Manager
City of Henderson Utility Commission
P.O. Box 8, 100 5th Street
Henderson, KY 42420

Dear Kendel:

In accordance with your message to Travis Housley, and in lieu of amending Exhibit 1 to the May 1, 1993 Amendments, this letter is to confirm that the following three items are included within the Etc., Part B, Item 20, as "Joint Use Facilities provided by and owned by the City but located on Big Rivers property":

1. Unit heat and air conditioner units for the substation control building;
2. Outdoor substation lighting and control building lighting; and
3. Prefabricated metal control building, with reinforced concrete foundation.

If this conforms to your understanding, please sign both copies of this letter, keep one for your files and return one to me for my file.

Sincerely yours,

BIG RIVERS ELECTRIC CORPORATION

By: *P.A. Schmitz*
P.A. Schmitz, General Manager

This letter correctly states our understanding and agreement.

Dated this 30 day of June, 1993.

CITY OF HENDERSON UTILITY COMMISSION

By: *Kendel D. Bryan*
Kendel Bryan, General Manager

Case No. 2019-00
Application Exhibit 12

EXISTING HMP&L STATION TWO FACILITIES

PART A. All Station Two facilities located on City property are owned by the City of Henderson Utility Commission except the BTG control board for Big Rivers' Reid Unit 1. This property is indicated as areas A and B on Exhibit 2. The Reid control board is now located in the Station Two control room. The Station Two facilities are:

1. Two Cooling Towers, Ecodyne Model 670-2-71011, S/N E-70-12783 and E-70-12784
2. Four Circulating Water Pumps, Byron Jackson Model 57RXM S/N 711-C-1621, 711-C-1622, 711-C-1623, and 711-C-1624
3. One Turbine Building including Control Room, Switchgear, Fans, Pumps, Motors, Coal Pulverizers and Other Plant Auxiliary Equipment.
4. Two Steam Generators, Riley Stoker, National Board Nos. 2292 (repair no. 390) and 2379, S/N 3576 and 3675.
5. Two Turbine Generators, One General Electric S/N 178863, One Westinghouse S/N 13A43311/43321
6. Two Electrostatic Precipitators, Research Cottrell, Model No. B11LC52F9X30
7. One Chimney, 350 feet tall, concrete shell with brick liner, serving both units

PART B. Joint Use Facilities Provided By and Owned By the City But Located on Big Rivers' Property.

1. Barge Mooring Cells Nos. 1N, 2N, 3N, 4N, 1S, 2S, 3S and 4S as shown on Burns & Roe Drawing No. 04-3280-S3200
2. One Coal Barge Unloader, McDowell Wellman, 1000 net ton/hr capacity
3. Eight Coal Conveyors 1, 2, 3A, 3B, 4A, 4B, 5B and 6B, as shown on attached Exhibit 2
4. One Reclaim Hopper which feeds coal conveyors 4A and 4B
5. One Crusher House fed by conveyor No. 1
6. One Tugboat - The "William Newman" 37 feet long, 21.27 gross tons, 14.0 net tons, coastguard capacity 350 HP
7. One Water Treatment Plant With Demineralizer Building and associated equipment
8. One 50,000 Gallon Capacity Fuel Oil Storage Tank & Distribution System
9. One Flyash Silo, Sump & System Components
10. One Prefab Metal Warehouse adjacent to Fly Ash Silo
11. Coal Handling Equipment As Listed In Continuous Property Records
12. One Lot of Materials & Spare Parts in Big Rivers Warehouse No. 15 as defined by inventory control records
13. One Ash Pond and Effluent Lines
14. Circulating Water Lines as shown on attached Exhibit 2
15. Station Two Ash Pond Dredgings in Green Station Sludge Disposal Landfill adjacent to Green River south of Green Station
16. Four 161KV Oil Circuit Breakers, General Electric, S/N 0139A7206208, 0139A7206209, 0139A7206212, 0139A7206213, located in Plant Switchyard.
17. Two Step-up Transformers, McGraw Edison, S/N C-04280-5-1, C-04280-5-2, located in Plant Switchyard.
18. Two Auxiliary Transformers, Westinghouse, S/N RCP 37261, RCP 37262, located in Plant Switchyard.

19. One Excitation Transformer; General Electric, S/N D-597562, located in Plant Switchyard.
20. One Lot of Line Terminal Structures, Bus, Relay Panels, Etc., located in Plant Switchyard as shown on attached Exhibit 2

PART C. Joint Use Facilities Owned by Big Rivers and located on Big Rivers property

1. Reid Intake Structure, Two Pumps, and Circulating Water System to serve Reid Unit 1
2. Coal System Crusher Tower supplied by coal conveyors 4A and 4B
3. Coal Conveyors Number 5A and 6A as shown on attached Exhibit 2
4. Plant Entrance Roads from highways 2096 and 2097 and Two Concrete Block Guardhouses
5. Reid Office Building and Maintenance Shop
6. Reid Grounding Transformer Eastern S/N PMR427988
7. Sewage Treatment Facility for Reid, Green and HMP&L Station Two power plants
8. Fire Water System for Reid Station
9. Switchyard Control House for Breaker Controls as shown on attached Exhibit 2

PART D. Other Facilities Owned by the City of Henderson Utility Commission But Not Classified as Joint Use Facilities, a portion or all of which is located on Big Rivers property

1. One 161KV Line from Reid EHV Substation to City Substation No. 4.
2. One Line Terminal Bay and Associated Equipment in Reid EHV Substation for City 161KV Line to City Substation No. 4.
3. Fifty Percent (50%) Ownership of 161/69 KV Transformer G1, Westinghouse, S/N RLP 15941) at Henderson County Substation, and related substation facilities.
4. Ten Percent (10%) Ownership of Big Rivers 161KV Line from Station Two Switchyard to Henderson County Substation.
5. Forty Percent (40%) Ownership of Spare Step Up Transformer (General Electric S/N K 547026) & Railcar (No. BREX 242).
6. One 69KV Transmission Line from plant switchyard to City Substation No. 2

**PROPOSED HMP&L STATION TWO
FACILITIES FOR FGD SCRUBBER SYSTEM**

PART A. Station Two FGD Facilities To Be Owned by City of Henderson on Big Rivers Property

1. FGD System Chimney, 350' Tall
2. Two Wheelabrator Absorber Modules, Building & Associated Equipment
3. Two Booster Fans
4. Auxiliary Building as shown on attached Exhibit 2 containing Controls and Electrical Equipment, Maintenance, Locker and Shower Facilities
5. One Station Two Slaker Building Enclosing Three Slaking Tanks & Equipment
6. One Station Two Additive Hold Tank
7. Two Lime Feed Conveyors from Big Rivers' Green Station Lime Storage Silos 2C1 & 2C2
8. Two Additive Feed Systems; Station Two Scrubber System Includes Pipe & Pipe Rack
9. Two Bleed Slurry Systems to Big Rivers' Green Station Primary Dewatering System Including Pipe, Pipe Rack & Splitter Boxes
10. Two New Thickener Return Water Tanks & Controls
11. One New Filtrate Surge Tank and Controls
12. One Electrical Power Supply for FGD System, with redundant feeds including power transformer, bus work, relay panels and metering equipment

PART B. FGD Joint Use Facilities To Be Owned by City of Henderson on Big Rivers Property

1. Two Lime Slaking Water Pumps and Lines to Slaking Building
2. Two Pug Mill Mixers (Listed Manufacturer and Serial Nos. when known)
3. One Vacuum Filter and Associated Equipment Including Building Expansion as shown on attached Exhibit 2
4. Two New Thickener Underflow Lines and Two Flow Monitors
5. Two Control Systems on Big Rivers' Green Station Thickener Return Water Tanks

PART C. Existing Facilities Owned By Big Rivers Electric For Green Station FGD System As Shown On Attached Exhibit 2 Which Will Be Jointly Used By Green Station and HMP&L Station Two And Which Are Located On Big Rivers Property

1. One Lime Barge Unloader, Dravo Wellman 200/400 Net Ton/Hr Capacity For Lime, 1500 Net Ton/Hr Capacity For Coal
2. One Lime Conveyor L1 and Transfer Tower As Shown On Exhibit 2
3. Two Lime Silos: 2C1 and 2C2 As Shown On Exhibit 2, and Six Lime Screw Conveyors: 2CW-LFC, 2CE-LFC, 2C1-SC, 2C2-SC, 1CW-LFC, 1CE-LFC
4. Four Thickeners for Primary Dewatering of Bleed Slurry: 1A, 1B, 2A, 2B, Including Tunnels, Pumps, and Ventilation Systems
5. One Secondary Dewatering System and Sludge Stackout System, Including Solid Waste Building and Sludge Stackout Area as Shown on Exhibit 2; Three Vacuum Filters with Feed Systems: FL-1A, FL-1B, FL-1C; Eleven Filter Cake Conveyors and Radial Stackers: CO-1A, CO-1B, CO-1C, CO-2A, CO-2B, CO-3A, CO-3B, CO-6A, CO-6B, CO-7A, CO-7B; and Four Fly-Ash Screw Conveyors
6. Two Ash Silos and Pneumatic Transfer System
7. Two Green Station River Water Clarifiers: CL-101 and CL-102, with Three Slaker Water Pumps: 1A, 1B and 2A
8. One Solid Waste Loader, Hitachi S/N 171-0373
9. One Sludge Haul Road and Two Truck Scales



HMP&L facilities owned by the City located on City property



City owned joint use facilities located on Big Rivers property



Big Rivers owned joint use facilities on Big Rivers property *



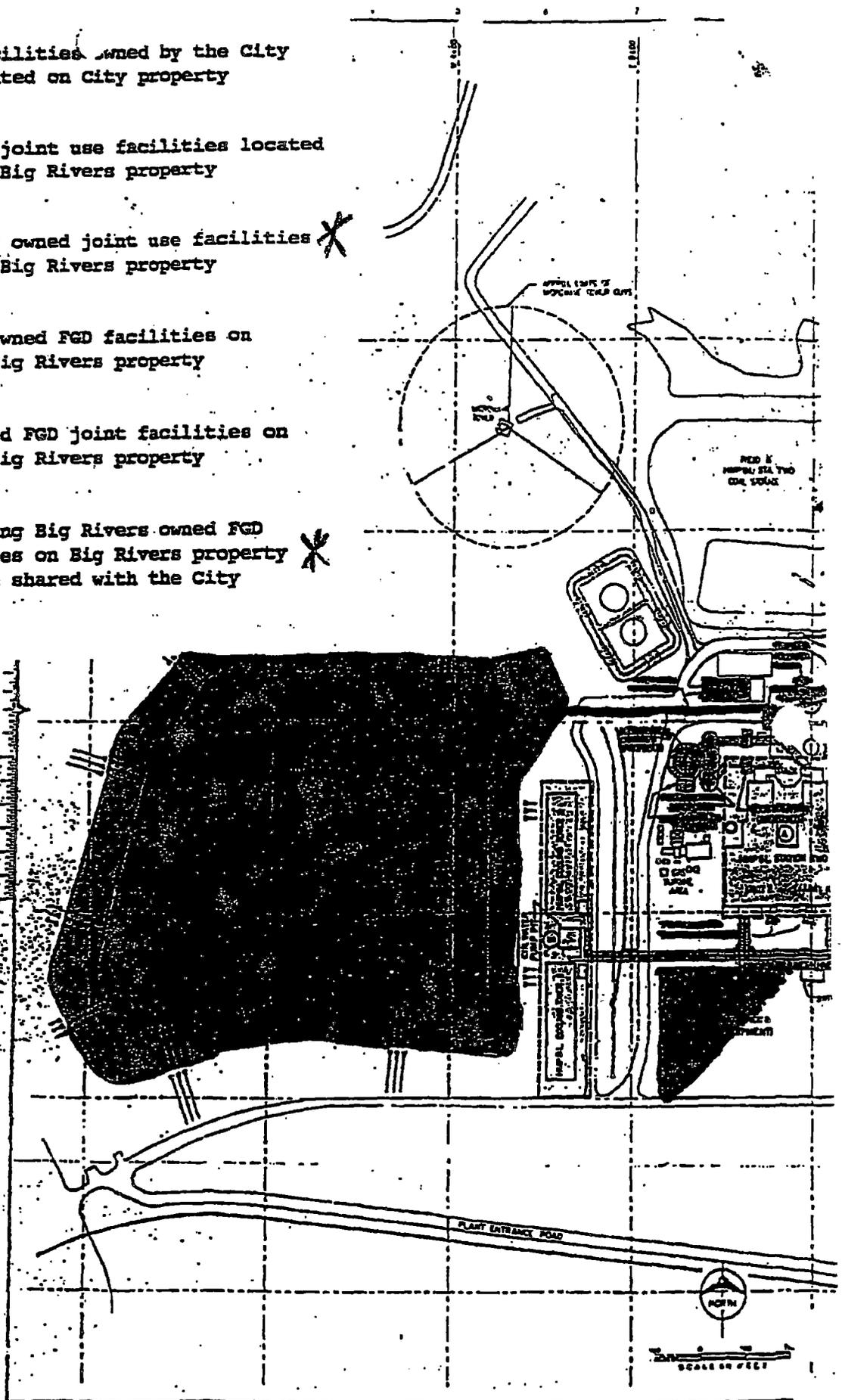
City owned FGD facilities on Big Rivers property



City owned FGD joint facilities on Big Rivers property



Existing Big Rivers owned FGD facilities on Big Rivers property to be shared with the City *



**AMENDMENTS TO CONTRACTS
AMONG CITY OF HENDERSON, KENTUCKY
CITY OF HENDERSON UTILITY COMMISSION
AND BIG RIVERS ELECTRIC CORPORATION**

These Amendments entered into and effective as of July 15, 1998 (the "1998 Amendments") by and between City of Henderson, Kentucky, a municipal corporation and City of the third class organized under the laws of the Commonwealth of Kentucky, of 222 First Street, Henderson, KY 42420, City of Henderson Utility Commission, a public body politic and corporate organized under Kentucky Revised Statutes 96.520 and related statutes, of 100 Fifth Street, Henderson, KY 42420, the said City and Commission being referred to herein collectively as "City," and Big Rivers Electric Corporation, a rural electric cooperative corporation organized under Chapter 279 of the Kentucky Revised Statutes, P.O. Box 24, 201 Third Street, Henderson, KY 42420, known as "Big Rivers" herein.

WITNESSETH:

WHEREAS, the parties hereto are parties to a Power Sales Contract, a Power Plant Construction and Operation Agreement and a Joint Facilities Agreement all dated August 1, 1970 and Big Rivers and City of Henderson Utility Commission are parties to an Agreement for Transmission and Transformation Capacity dated April 11, 1975, the Spare Transformer Agreement dated July 11, 1972, the Systems Reserves Agreement dated January 1, 1974, the Agreement of April 8, 1980 regarding O&M and R&R Funds, and the Agreement of February 15, 1991 concerning Administrative and General Costs, and Amendments to such contracts dated May 1, 1993, all of such contracts and agreements as amended being known herein as the "Contracts" and incorporated herein by reference, and

WHEREAS, pursuant to the Contracts, and to ordinances of the City of Henderson, Kentucky providing for the sale of its electric revenue bonds, an electric generating station consisting of generating Units 1 and 2, each described in the Contracts as having a 175-megawatt capacity, and related facilities all known herein as "Station Two," were constructed and are now owned by the City of Henderson and operated by Big Rivers under the Contracts with Big Rivers, and

WHEREAS, City and Big Rivers now seek to amend the Contracts to reflect new understandings between the parties regarding the Contracts and the business relationship between City and Big Rivers.

NOW THEREFORE, in consideration of the mutual covenants herein contained, it is covenanted and agreed among the parties hereto as follows:

ALL CONTRACTS

1. The terms of all the Contracts except the Joint Facilities Agreement shall be extended for the operating life of Station Two, the operating life of which shall be considered to continue for so long as Unit 1 and Unit 2, or either of them, is operated, or is capable of normal, continuous, reliable operation for the economically competitive production of electricity, temporary outages excepted. Notwithstanding any other provision in the Contracts, all of the Contracts, except the Joint Facilities Agreement and the System Reserves Agreement, shall terminate 90 days after Big Rivers' allocation of capacity from City's Station Two shall be zero; provided, however, that the terms of all the Contracts shall be extended until all Station Two bonds of the City of Henderson which have been approved by Big Rivers have been paid.

Notwithstanding the above, the Joint Facilities Agreement shall terminate in accordance with

Section 8 of said Agreement. This section expressly replaces the provisions of Section 1 of the May 1993 Amendments in their entirety.

2. The effective date of these 1998 Amendments shall be the date following their execution upon which the last of the following approvals of the 1998 Amendments is obtained:

2.1 Approval of the Rural Utilities Service; and

2.2 Approval of the Kentucky Public Service Commission.

3. Nothing herein contained shall constitute general obligations of the City of Henderson within Kentucky Constitutional restrictions on such obligations. The obligations herein imposed on City of Henderson shall be borne entirely from revenues or other legally available funds of City's electric light and power system.

POWER SALES CONTRACT

4. The Power Sales Contract of August 1, 1970, as heretofore amended, is further amended as follows:

(a) **SECTION 3.4 IS HEREBY AMENDED TO BE AND READ IN ITS ENTIRETY AS FOLLOWS:**

3.4 City agrees that it will not, after the execution and approval of this Agreement, (1) make any dispositions to others for resale of its generating capacity, other than pursuant to Section 3.8 added by these 1998 Amendments, except for the purpose of disposing of any surpluses resulting from good faith over-estimates of its needs, or (2) add any commercial or industrial customers in excess of thirty (30) megawatts each to its electric system, if to do either (1) or (2), as the case may be, would require the withdrawal of additional capacity from its Existing System and/or from Units One and Two of its Station Two. Expansions in the ordinary course of business of any commercial or industrial plants being served by City at the time of the execution of these 1998 Amendments shall not be considered added commercial or industrial customers subject to the 30 megawatt size limitation for the purposes of this Agreement. Surplus capacity resulting from good faith over estimates as referred to in (1) above shall be first offered to Big Rivers at City's

cost. Big Rivers and City understand that City shall be entitled to meet (in increasing incremental amounts, as necessary) the load of any new commercial or industrial customer (which shall not exceed the 30 megawatt cap per customer established above) through its annual adjustment to its five year capacity reservation forecasts in amounts not exceeding five (5) megawatts per Contract Year (as described in Section 3.3 of this Agreement) and its subsequent capacity reservation forecasts under this Agreement.

(b) A NEW SECTION 28 TO POWER SALES CONTRACT IS HEREBY CREATED AND INCLUDED AS FOLLOWS:

28.1 City shall have the right (subject to the further limitations and provisions of this Section 28) to utilize within the City's service territory as of the date of these 1998 Amendments, including all areas within the existing City limits, capacity and energy from Station Two in excess of its reserved capacity allocations, as adjusted under Section 3.3 of this Agreement (such excess capacity and energy being referred to herein as "Station Two Economic Development Power"), to serve up to 50% of Economic Development Loads (defined below) of customers to the extent such customers are not otherwise served as of the date of commencement of the proposed service by City from reserved capacity allocations under this Agreement (each an "Economic Development Opportunity"); provided, however, that the maximum amount of Station Two Economic Development Power that may be utilized by City at any time shall not exceed 25 megawatts in the aggregate for all such Economic Development Opportunities, collectively. City's right to utilize Station Two Economic Development Power with respect to any Economic Development Opportunity is further conditioned upon City having made a binding written offer to purchase from Big Rivers, at the applicable rate set forth in Exhibit 1, the capacity and energy requirements of such Economic Development Opportunity not supplied by City with its reserved capacity or with Station Two Economic Development Power to meet such Economic Development Load. For purposes hereof, "Economic Development Load" means the demand for capacity and associated energy of (i) a new customer of City within City's service territory (as described above) or (ii) an existing customer of City in that service territory (as described above) created by a substantial expansion of such customer's plant or facility (defined as a projected annual increase in kWh consumption or kW demand of such customer of 20% or more as a result of a plant expansion). Upon utilization by City of Station Two Economic Development Power, such power shall be treated for

purposes of this Agreement, except Section 3.3 and clause (2) of Section 3.4 of this Agreement, as capacity of Station Two reserved to the City hereunder.

28.2 For any Economic Development Opportunity of City as to which City exercises its right under Section 28.1 to retain and utilize Station Two Economic Development Power by providing Big Rivers with a binding written offer to purchase, at the applicable rate set forth in Exhibit 1, the capacity and energy in the aggregate required by City for such Economic Development Opportunity in addition to the City's reserved capacity and Station Two Economic Development Power available under Section 28.1, City hereby agrees that Big Rivers shall have a period of fifteen days following receipt of City's written offer to accept the terms of such offer and to agree to supply the power at the applicable rate in Exhibit 1, over an agreed upon term. If Big Rivers rejects such offer or fails to accept such offer within such fifteen-day period, City shall be entitled to retain and utilize Station Two Economic Development Power in accordance with Section 28.1, and shall be entitled to negotiate with third-party suppliers to provide the remainder of the capacity and energy required to serve the Economic Development Load. Prior to entering into a binding contract with any such third-party supplier, City agrees to offer Big Rivers the right to match the price offered by such third-party supplier over the term offered by such third-party supplier, which right Big Rivers must exercise within five days of receipt of such third-party offer from City. If Big Rivers rejects such offer or fails to accept such offer within such five day period, City shall be free to execute a contract with such third-party supplier, provided, however, that if City shall not have contracted for the purchase of such capacity and energy with such third-party supplier within thirty-days after the expiration of that five-day period, no such contract shall be entered into without again first offering Big Rivers the opportunity to serve such remaining Economic Development Load upon the terms described in the preceding sentence.

28.3 In the event that Big Rivers fails to provide that portion of capacity and energy required to supply an Economic Development Opportunity that it has agreed to supply from Big Rivers' resources, whether at the specified prices contained in Exhibit 1, or upon terms matching those of a third-party supplier in accordance with Section 28.2, as the case may be, City shall be entitled to take from Station Two capacity and energy, in addition to the Station Two Economic Development Power to which City is already entitled, in such amounts as were to have been provided by Big

Rivers, with subsequent adjustments to the allocation of costs in accordance with this Agreement.

28.4 Big Rivers and City agree that the specified rates for capacity and energy contained in Exhibit 1 shall be fixed for a period of seven years after the date these 1998 Amendments become effective. Rates for periods after the date seven years after these 1998 Amendments become effective shall be subject to future negotiation.

(c) **A NEW SECTION 3.8 TO POWER SALES CONTRACT IS HEREBY CREATED AND INCLUDED AS FOLLOWS:**

3.8 Big Rivers and City hereby agree that the following provisions shall apply to energy from capacity not utilized by City or from capacity in excess of the capacity calculated in accordance with Section 3.6 of this Agreement.

(a) In the event that at any time and from time to time City does not take the full amount of energy associated with its reserved capacity from Station Two (determined in accordance with this Agreement), Big Rivers may, at its discretion, take and utilize all such energy (or any portion thereof designated by Big Rivers) not scheduled or taken by City (the "Excess Henderson Energy"), in accordance with Section 3.8(c).

(b) If at any time Station Two capacity is generated in excess of the Total Capacity of Station Two determined in accordance with Section 3.6 of this Agreement ("Excess Henderson Capacity"), Big Rivers shall take and utilize all energy associated with such Excess Henderson Capacity, unless otherwise agreed to by Big Rivers and City, in accordance with Section 3.8(c).

(c) Following the end of each calendar month, Big Rivers shall notify City of the amount of Excess Henderson Energy and energy associated with Excess Henderson Capacity, if any, taken by Big Rivers during the previous month, and Big Rivers shall pay City prior to the 25th day of the then current month for the amount of Excess Henderson Energy and energy associated with the Excess Henderson Capacity so taken by it at a rate equal to \$1.50 per mWh. In addition, Big Rivers shall provide, at its own cost, the full replacement of all fuels and reagents consumed from the

Station Two fuel and reagent reserves for the production of the Excess Henderson Energy and energy associated with the Excess Henderson Capacity so taken by it. Further, Big Rivers shall pay the portion of sludge disposal costs attributable to the Excess Henderson Energy and energy associated with Excess Henderson Capacity, as calculated in accordance with Section 3.4 of the Joint Facilities Agreement.

- (d) City agrees that Big Rivers, as operator, shall be allowed, but shall not be required, to operate Station Two to obtain capacity above the Total Capacity of Station Two determined in accordance with Section 3.6 of this Agreement. City further agrees that it shall not at any time be permitted to sell or commit to any person other than Big Rivers any Excess Henderson Energy without having first offered Big Rivers the opportunity to purchase such Excess Henderson Energy. Big Rivers shall have a reasonable period of time after submission of the City's scheduled energy requirements to decide whether to purchase any Excess Henderson Energy not scheduled by City. Big Rivers agrees to notify City thereafter if it does not intend to purchase such energy, and agrees to give City a response within a reasonable time so that City may take efforts to resell this power to third-parties. City agrees to compensate Big Rivers according to Big Rivers' Open Access Transmission Tariff to the extent City utilizes any transmission on Big Rivers' transmission system in marketing Excess Henderson Energy.

(d) A NEW SECTION 19.2 TO POWER SALES CONTRACT IS HEREBY CREATED AND INCLUDED AS FOLLOWS:

19.2 Big Rivers and City agree that on or before the date on which the Station Two Bonds are retired, and the remaining balance of monies contained in the Station Two Account in the Renewals and Replacements Fund in accordance with Section 1 of the Agreement dated April 8, 1980 between Big Rivers and City shall have been disbursed, the following shall occur:

- (a) Big Rivers shall establish a new Big Rivers Station Two Renewals and Replacements Fund and shall deposit immediately available funds in the amount of \$600,000. Thereafter, Big Rivers agrees that each month it shall make levelized payments into the Big Rivers Station Two Renewals and Replacements Fund, not to exceed \$50,000 each month, so as to restore a minimum balance of \$600,000. All interest on such amounts shall be repaid to Big Rivers at the end of each calendar year, and all amounts in such

fund shall be paid to Big Rivers upon termination or expiration of this Agreement. Amounts from this Fund shall be withdrawn in accordance with Section 19.2(c); and

(b) City shall establish a new Henderson Station Two Renewals and Replacements Fund and shall deposit immediately available funds in the amount of \$150,000. Thereafter, City agrees that each month it shall make levelized payments into the Henderson Station Two Renewals and Replacements Fund, not to exceed \$12,500, so as to restore a minimum balance of \$150,000. All interest on such amounts shall be repaid to Henderson at the end of each calendar year and all amounts in such fund shall be paid to City upon termination or expiration of this Agreement. Amounts from this fund shall be withdrawn in accordance with Section 19.2(c).

(c) All required expenditures for renewals and replacements shall be made from the Big Rivers Station Two Renewals and Replacements Fund and the Henderson Station Two Renewals and Replacements Fund in proportion to their effective allocation of Station Two capacity between City and Big Rivers, in accordance with Section 3 of this Agreement. No expenditures shall be made from these accounts other than for renewals and replacements that would have been permitted under the Bond Ordinance.

(d) **A NEW SECTION 19.3 TO POWER SALES CONTRACT IS HEREBY CREATED AND INCLUDED AS FOLLOWS:**

19.3 Big Rivers and City agree that on or before the date on which the Station Two Bonds are retired, and the remaining balance of monies contained in the Station Two Account in the Operation and Maintenance Fund in accordance with Section 1 of the Agreement dated April 8, 1980 between Big Rivers and City shall have been disbursed, the following shall occur:

(a) Big Rivers shall establish a new Big Rivers Station Two O&M Fund and shall deposit immediately available funds in the amount of \$400,000. Thereafter, Big Rivers agrees that each month it shall make levelized payments into the Big Rivers Station Two O&M Fund, not to exceed \$33,300 each month, so as to restore a minimum balance of \$400,000. All interest on such amounts shall be repaid to Big Rivers at the end of each calendar year, and all amounts in such fund shall be paid to Big Rivers upon termination.

or expiration of this Agreement. Amounts from this Fund shall be withdrawn in accordance with Section 19.3(c); and

- (b) City shall establish a new Henderson Station Two O&M Fund and shall deposit immediately available funds in the amount of \$100,000. Thereafter, City agrees that each month it shall make levelized payments into the Henderson Station Two O&M Fund, not to exceed \$8,300, so as to restore a minimum balance of \$100,000. All interest on such amounts shall be repaid to Henderson at the end of each calendar year and all amounts in such fund shall be paid to City upon termination or expiration of this Agreement. Amounts from this fund shall be withdrawn in accordance with Section 19.3(c).
- (c) All required expenditures for operation and maintenance shall be made from the Big Rivers Station Two O&M Fund and the Henderson Station Two O&M Fund in proportion to the then effective allocation of Station Two capacity between City and Big Rivers, in accordance with Section 3 of this Agreement. No expenditures shall be made from these accounts other than for operation and maintenance expenses that would have been permitted to be paid as "Operating Expenses" under the Bond Ordinance.

JOINT FACILITIES AGREEMENT

- 4. The Joint Facilities Agreement, as heretofore amended by the May 1, 1993

Amendments, is further amended as follows:

SECTION 3.3 IS AMENDED TO READ AS FOLLOWS:

- 3.3 Big Rivers will allocate for the continuing joint use of the parties in the operation of their respective generating stations (Big Rivers' Green Station and City's Station Two) those Green Station FGD System Facilities described in Exhibit 1, Page 3, Part C hereto. For such use, Big Rivers shall be paid by City a prorated share of the annual carrying costs, calculated as:

Station Two net capacity
Station Two plus Green Station net capacities

Currently 312 MW
766 MW

times the then net book value of those facilities, further multiplied by a capital carrying charge rate of 11.5 percent. Big Rivers' net book value shall be determined by taking the net book value of those facilities as of December 31, 1994, i.e. \$21,675,601.32, adjusting them annually for depreciation (according to the depreciation methodology set forth in Exhibit 2), and taking into account additional costs resulting from renewals and replacements thereof. Big Rivers authorizes City to inspect Big Rivers' books to verify the original cost of these facilities, annual depreciations thereto, and the costs of any renewals and replacements thereof. All inspections by City of Big Rivers shall be at mutually agreeable times determined in advance after written request from City.

SYSTEM RESERVES AGREEMENT

5. The System Reserves Agreement of January 1, 1974 is hereby amended as follows:

SECTIONS 2.1 AND 3.1 ARE DELETED AND REPLACED BY A NEW SECTION 2.1 TO READ AS FOLLOWS:

- 2.1 The City and Big Rivers covenant and agree that each will comply with any system reserve capacity requirements now required or imposed at a future date applicable to it (as such requirements may be modified from time to time and as such requirements apply to it given its respective operational characteristics) by NERC, ECAR, any successor organizations to NERC and ECAR (as applicable), any applicable regulatory or governmental agency, and any regional transmission authority, reliability council or like organization, in each case having any system reserve capacity requirements applicable to it. Absent such a requirement, neither City nor Big Rivers shall have any obligation pursuant to this Agreement to maintain system reserves. Notwithstanding the above limitations, City agrees to comply with any requirements validly imposed by any of the above entities upon Big Rivers based on Big Rivers' role as control area operator, but only if and to the extent that such requirements imposed on Big Rivers are on account of or due to the generation and/or load of the City.

6. Except as specifically modified above, the Contracts remain in full force and effect and are not altered by this Agreement.

IN TESTIMONY WHEREOF, the parties hereto have executed this Agreement in multiple counterparts as of the date first herein written.

This 15th day of July, 1998.

CITY OF HENDERSON, KENTUCKY

By: [Signature]

ATTEST:

[Signature: Joann Roberts]

CITY OF HENDERSON UTILITY COMMISSION

By: [Signature]
Chairman

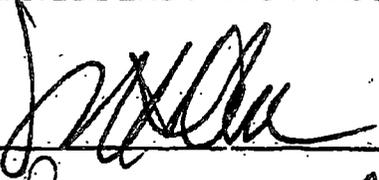
ATTEST:

[Signature: W. Keith Ferguson]

BIG RIVERS ELECTRIC CORPORATION

By: _____

Title: _____



President and CEO

ATTEST:



Exhibit 1

**BIG RIVERS - CITY OF HENDERSON
ECONOMIC DEVELOPMENT RATES**

1. Big Rivers will sell power to City of Henderson according to the following rate schedule (subject to the conditions of Section 28.2 of the Agreement) per mWh:

Year 1	\$20.00
Year 2	\$20.00
Year 3	\$20.00
Year 4 (1st six months)	\$20.00
Year 4 (following six months)	\$21.00
Year 5	\$21.00
Year 6	\$21.00
Year 7	\$21.00
Year 8 and thereafter	to be negotiated

Year 1 shall commence on the first day of the month in which the 1998 Amendments become effective, and Year 2 and following years shall each commence on the anniversary of the first day of that month.

2. The Economic Development Rates offered by Big Rivers are for power only and are exclusive of any transmission charges Big Rivers is required to pay or charge itself to deliver this power to City on Big Rivers' transmission system. Except as otherwise provided below, Big Rivers will charge the City those transmission rates that Big Rivers is required by FERC to charge itself for delivery of such power. To the extent Big Rivers, in supplying this capacity and energy uses only transmission facilities for which City has already established transmission rights, Big Rivers will not charge an additional transmission fee. In the event Big Rivers obtains Economic Development Power from systems other than that of Big Rivers, Big Rivers shall not charge City an additional charge required to wheel such power to Big Rivers' transmission system.

Exhibit 2

**JOINT FACILITIES AGREEMENT
DEPRECIATION METHODOLOGY**

For purposes of Section 3.3 of the Joint Facilities Agreement and the calculation thereunder of the annual capital carrying costs for the Green Station FGD System Facilities (the "FGD Facilities"), the following depreciation methods and accounting practices shall be used:

1. Existing FGD Facilities: The FGD Facilities, as such facilities shall exist as of the date of execution of the 1998 Amendments to Contracts among the City of Henderson, Kentucky ("City"), the City of Henderson Utility Commission ("HUC") (the City and HUC being sometimes collectively referred to herein as "Henderson") and Big Rivers Electric Corporation ("Big Rivers"), shall be depreciated on a straight-line basis over an agreed useful life of 25 years, with depreciation commencing as of June 1, 1995 and expiring May 31, 2020. The net book value of those facilities as of June 1, 1995 shall be \$21,675,601 for purposes of this Agreement. Notwithstanding the above described language, Big Rivers, City, and HUC agree that the above-described depreciation methodology and its effect upon payments due by any party shall be prospective only and shall have no effect relating to any payments made prior to the date of execution of the 1998 Amendments to Contracts.

2. Additions to the FGD Facilities. All additions, betterments, improvements and replacements to the FGD Facilities shall be capitalized in accordance with the prevailing Capitalization Guidelines approved by HUC and the operator of Big Rivers' Green generating station as of the date of such addition, betterment or improvement is placed in service. On the date hereof and until otherwise agreed, the "Capitalization Guidelines" shall be the capitalization guidelines attached hereto. Those additions, betterments, improvements or replacements which are capitalized under the Capitalization Guidelines (the "Capital Asset") shall, for purposes of the determination of the annual carrying costs of the FGD Facilities, be depreciated on a straight-line basis over the useful life of the Capital Asset (which useful life must be agreed upon by the parties prior to installation of the Capital Asset); provided that such useful life shall in no event exceed the useful life of the FGD Facilities as set forth in the most recently completed Depreciation Study for that facility or a Depreciation Study for the FGD Facilities which is commissioned by the Parties, upon the reasonable request of a Party, immediately following the installation of such addition, betterment, improvement or replacement.

3. Retirement from Service. If any Capital Asset that is a component of the FGD Facilities is disposed of, removed or otherwise retired from service as a consequence of the installation of a new Capital Asset, then, for purposes of the determination of the annual capital carrying costs of the FGD Facilities, the net book value of such retired asset, determined as of the date the new Capital Asset is placed in service, shall be subtracted from the net book value of the FGD Facilities as of such date.

Attached hereto is a depreciation schedule for illustration purposes only. The attached schedule illustrates the application of the depreciation methodology provided for herein to a hypothetical set of facts and is not intended to establish the actual depreciation schedule for the FGD Facilities, nor is it to be interpreted to establish the actual depreciation schedule for the FGD Facilities, nor is it to be interpreted to establish the annual capital carrying costs for the FGD Facilities allocable to Station Two.

**Station 2 FGD Amortization
Depreciating Value**

In-Service Date 6/1/95
Useful Life 25 Years
Original Cost \$ 21,675,000

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Beginning Balance	\$ 21,675,000	\$ 21,169,017	\$ 20,702,013	\$ 19,435,709	\$ 18,568,760	\$ 17,701,741	\$ 16,834,717	\$ 15,967,693	\$ 15,100,669
Depreciation	505,764	567,824	567,824	567,824	557,824	547,824	537,824	527,824	517,824
Net Book Value	\$ 21,169,236	\$ 20,601,193	\$ 20,134,189	\$ 18,867,885	\$ 18,010,936	\$ 17,163,917	\$ 16,326,893	\$ 15,439,869	\$ 14,582,845
Section 2 % of Beginning Balance (212 / 766)				\$ 7,914,405	\$ 7,561,237	\$ 7,210,109	\$ 6,856,960	\$ 6,503,812	\$ 6,150,664
Rate				11.5%	11.9%	11.9%	11.9%	11.9%	11.9%
Reimbursement Amount				\$ 932,387	\$ 849,775	\$ 829,163	\$ 788,830	\$ 747,978	\$ 707,326

Useful Life 19.22 Years
Capital Improvements \$ 5,000,000

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Beginning Balance							\$ 5,000,000	\$ 4,744,637	\$ 4,489,275
Depreciation							255,363	255,363	255,363
Net Book Value							\$ 4,744,637	\$ 4,489,275	\$ 4,233,912
Section 2 % of Beginning Balance (212 / 766)							\$ 2,034,554	\$ 1,972,542	\$ 1,834,530
Rate							11.5%	11.9%	11.5%
Reimbursement Amount							\$ 334,284	\$ 232,342	\$ 239,251

Remaining Period 19.20 Years
Retirements (NBV) \$ (1,000,000)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Beginning Net Book Value							\$ (2,000,000)	\$ (1,897,855)	\$ (1,795,710)
Depreciation Effect							(102,143)	(102,143)	(102,143)
Net Book Value							\$ (1,897,855)	\$ (1,795,710)	\$ (1,697,853)
Section 2 % of Beginning Net Book Value (212 / 766)							\$ (814,431)	\$ (773,017)	\$ (731,432)
Rate							11.5%	11.9%	11.5%
Reimbursement Effect							\$ (93,641)	\$ (88,897)	\$ (84,112)

Total Reimbursement Amount \$ 910,387 \$ 869,775 \$ 829,163 \$ 929,873 \$ 881,284 \$ 833,895

Station 1 PCH Amortization
Depreciating Value

In-Service Date **4/1/95**
 Useful Life **25 Years**
 Original Cost **\$ 21,673,061**

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Beginning Balance	\$ 110,763,349	\$ 9,899,525	\$ 9,031,501	\$ 8,160,476	\$ 7,297,452	\$ 6,430,428	\$ 5,563,404	\$ 4,696,380	\$ 3,829,356
Depreciation	867,824	867,824	867,824	867,824	867,824	867,824	867,824	867,824	867,824
Net Book Value	\$ 9,898,525	\$ 9,031,501	\$ 8,160,476	\$ 7,297,452	\$ 6,430,428	\$ 5,563,404	\$ 4,696,380	\$ 3,829,356	\$ 2,962,332
Station 2 % of Beginning Balance (312 / 766)	\$ 4,384,923	\$ 4,031,775	\$ 3,676,627	\$ 3,323,479	\$ 2,972,330	\$ 2,619,182	\$ 2,266,034	\$ 1,912,886	\$ 1,559,738
Rate	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%
Reimbursement Amount	\$ 964,266	\$ 463,484	\$ 433,843	\$ 383,438	\$ 343,233	\$ 303,228	\$ 263,223	\$ 223,218	\$ 173,213

Useful Life **19.58 Years**
 Capital Improvements **\$ 5,988,000**

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Beginning Balance	\$ 2,212,462	\$ 2,957,099	\$ 2,701,736	\$ 2,446,374	\$ 2,191,011	\$ 1,935,649	\$ 1,680,286	\$ 1,424,923	\$ 1,169,561
Depreciation	253,363	253,363	253,363	253,363	253,363	253,363	253,363	253,363	253,363
Net Book Value	\$ 2,957,099	\$ 2,701,736	\$ 2,446,374	\$ 2,191,011	\$ 1,935,649	\$ 1,680,286	\$ 1,424,923	\$ 1,169,561	\$ 914,198
Station 2 % of Beginning Balance (312 / 766)	\$ 1,308,470	\$ 1,204,458	\$ 1,100,446	\$ 996,434	\$ 892,422	\$ 788,410	\$ 684,398	\$ 580,387	\$ 476,375
Rate	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%
Reimbursement Amount	\$ 158,474	\$ 136,613	\$ 124,651	\$ 114,500	\$ 103,429	\$ 93,067	\$ 83,220	\$ 73,364	\$ 64,283

Remaining Period **11.58 Years**
 Retirements (NBV) **\$ (2,000,000)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Beginning Net Book Value	\$ (1,284,988)	\$ (1,182,847)	\$ (1,080,695)	\$ (978,550)	\$ (876,404)	\$ (774,259)	\$ (672,114)	\$ (569,969)	\$ (467,824)
Depreciation Effect	(182,143)	(182,143)	(182,143)	(182,143)	(182,143)	(182,143)	(182,143)	(182,143)	(182,143)
Net Book Value	\$ (1,182,847)	\$ (1,080,695)	\$ (978,550)	\$ (876,404)	\$ (774,259)	\$ (672,114)	\$ (569,969)	\$ (467,824)	\$ (365,679)
Station 2 % of Beginning Net Book Value (312 / 76)	\$ (523,288)	\$ (481,783)	\$ (440,178)	\$ (398,574)	\$ (356,969)	\$ (315,364)	\$ (273,759)	\$ (232,153)	\$ (190,548)
Rate	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%
Reimbursement Effect	\$ (68,198)	\$ (55,485)	\$ (42,811)	\$ (30,306)	\$ (18,011)	\$ (6,287)	\$ (23,293)	\$ (26,488)	\$ (21,813)
Total Reimbursement Amount	\$ 594,531	\$ 546,762	\$ 492,973	\$ 431,284	\$ 363,395	\$ 285,404	\$ 215,731	\$ 140,829	\$ 212,260

Capitilization Guidelines

The Parties hereby agree that these Capitalization Guidelines together with the attached Company Policy Number 10 of Big Rivers, Capitalization of Expenditures, dated November 30, 1993 shall constitute the "Capitalization Guidelines" identified in Exhibit 2 to the 1998 Amendments and shall serve as the Capitalization Guidelines for the purposes of Exhibit 2. These Capitalization Guidelines (including without limitation, the attached Company Policy No. 10) may not be amended, modified or supplemented following the Execution Date without the prior written consent of each of the Parties.

The Parties agree that the attached Company Policy No. 10 of Big Rivers (which is incorporated by reference herein) shall serve to amend and supplement the RUS Uniform System of Accounts Bulletin 1767B for purposes of the Accounting Practices, and for purposes of any determination of whether an expenditure shall be a Capital Asset for the purpose of Exhibit 2.

SUBJECT Capitalization of Expenditures
PAGE 1 of 2
RE-ISSUE DATE 11/30/93

Approved by *[Signature]*

SCOPE: Determining when to capitalize an expenditure to "Electric Plant in Service" account 101.000 as opposed to expense in accordance with REA Bulletin 181-1.

POLICY: To be capitalized, an item of property must be covered by one of the following classifications:

- (A) New Retirement Unit
- (B) Retirement Unit Replacement
- (C) Retirement System Addition
- (D) Retirement System Replacement
- (E) New Minor Property Item
- (F) Minor Property Item Replacement with Betterment
- (G) Computer Software and Software Upgrades

RULES: See the corresponding lettered paragraph below for rules governing each case. Stated dollar values are after consideration of freight, sales tax, discount, etc.

(A) New Retirement Unit

1. Cost more than \$1,000 in boiler or turbogenerator plant or \$500 in other accounts, and
2. Be readily separable and separately useable, and
3. Have an expected useful life of more than one year. Valves that are requisitioned, including those inventoried, which cost more than \$1,000 and are over 2" in size and are not replacements for an existing system are to be capitalized. (System valve replacements are to be charged to maintenance.)

(B) Retirement Unit Replacement

1. Cost more than \$1,000 in boiler or turbogenerator plant or \$500 in other accounts, and
2. Be a replacement of a similar retirement unit or consist of replacing minor property items that total to more than 50% of the existing retirement unit cost. If the 50% test is met, it is assumed a new retirement unit has been created. Retire 100% of the old unit and recapitalize the salvageable portion along with the new minor property item(s). (The replacement of existing minor property items costing 50% or less of the original retirement unit is to be charged to maintenance.)

(C) Retirement System Addition

1. Be an addition to or an expansion of a system, and
2. Cost more than \$1,000 in boiler or turbogenerator plant or \$500 in other accounts, and
3. Be of permanent nature, and
4. Be an integral part of an existing system. (A system is a grouping of generic or interacting items forming a unified whole. Classification as a system is for accounting convenience and enables an efficient and methodical means to account for a grouping of items which are frequently changing as a result of additions and replacements. Classification as a system may be appropriate where specific item identity is difficult to ascertain. Financial Services will make all system determinations. When it is evident that multiple items are purchased on multiple requisitions, possibly on different dates, for the same system project, the capitalization decision shall be based on the total project cost.)

SUBJECT Capitalization of Expenditures
PAGE 2 of 2
RE-ISSUE DATE 11/30/93

Approved by *B.A. Smith*

(D) Retirement System Replacement

1. Be an integral part of an existing system, and
2. Be of permanent nature, and
3. Cost more than 50% of the existing retirement system. If the 50% test is met, it is assumed a new retirement system has been created. Retire 100% of the old system and recapitalize the salvageable portion along with the new replacement cost. (Replacement of an existing system costing 50% or less of the original system is to be charged to maintenance.)

(E) New Minor Property Item

1. Minor Property item not previously existing, and
2. Be of a permanent nature, and
3. Cost exceeds 25% of the retirement unit of which it will become a part or \$10,000, the smaller of the two. (Otherwise, the addition of minor property items is to be charged to operations.)

(F) Minor Property Item Replacement with Betterment

1. Be of a permanent nature, and
2. Result in a substantial betterment with the primary aim of making the property affected more useful, more efficient, more durable, or capable of greater capacity. Capitalize the cost in accordance with the NOTE 1, below.

(G) Computer Software and Software Upgrades

1. Capitalize any new software purchase of \$1,000 or more if used with a boiler or turbogenerator computer or \$500 or more if used for any other computer, as long as the new software has a useful life of more than one year.
2. Any software upgrade should be capitalized if the cost of the upgrade exceeds 25% of the software which it will become a part or \$10,000, the smaller of the two. The 25% must be \$1,000 or more if used with a boiler or turbogenerator computer or \$500 or more if used for any other computer. The software upgrade must have a life of more than one year.

NOTE 1:

In all cases above except (E), the amount capitalized is governed by standard accounting principles. For (E) above, the amount capitalized is equal to the difference between the cost of the new minor property item and the cost of replacement without betterment at today's prices. The remaining dollars are to be charged to maintenance.

NOTE 2:

A work order is required when constructing, fabricating, modifying, installing, or removing capital facilities or equipment. See Estimate Construction Work Order procedure number 011.210.08 for details.

REFERENCES:

Excerpts taken from REA Bulletin 181-1 (Page 101-13) and 181-2 (Page 1.)

2005 AMENDMENTS TO CONTRACTS

DATED AS OF APRIL 1, 2005

BY AND AMONG

CITY OF HENDERSON, KENTUCKY,

CITY OF HENDERSON UTILITY COMMISSION,

BIG RIVERS ELECTRIC CORPORATION,

WKE STATION TWO INC.,

AND

LG&E ENERGY MARKETING INC.

**2005 AMENDMENTS TO CONTRACTS AMONG
CITY OF HENDERSON, KENTUCKY,
CITY OF HENDERSON UTILITY COMMISSION,
BIG RIVERS ELECTRIC CORPORATION,
WKE STATION TWO INC. AND
LG&E ENERGY MARKETING INC.**

These 2005 AMENDMENTS are entered into as of April 1, 2005, (the "2005 Amendments to Contracts") by and among the City of Henderson, Kentucky, a municipal corporation and a city of the second class organized under the laws of the Commonwealth of Kentucky, of 222 First Street, Henderson Kentucky, 42420, City of Henderson Utility Commission, a public body politic and corporate, organized under Kentucky Revised Statutes, Section 96.530 and related statutes, of 100 Fifth Street, Henderson, Kentucky 42420 (said City and Commission being referred to collectively as "City"), Big Rivers Electric Corporation, a rural electric cooperative corporation organized under Chapter 279 of the Kentucky Revised Statutes, P.O. Box 24, 201 Third Street, Henderson, Kentucky 42420 ("Big Rivers"), WKE Station Two Inc., a Kentucky corporation of 145 North Main Street, Henderson, Kentucky 42420 ("WKE"), and LG&E Energy Marketing Inc., an Oklahoma corporation of 220 West Main Street, Louisville, Kentucky 40202 ("LEM") (collectively, the "Parties").

WITNESSETH

WHEREAS, (a) the City, Big Rivers, WKE (as assignee of Big Rivers) and LEM (as assignee of WKE) are parties to a Power Sales Contract, as amended (the "Power Sales Contract") (WKE and LEM being parties with joint rights, interests and obligations under the Power Sales Contract are referred to jointly herein as WKE/LEM), the City, Big Rivers and WKE (as assignee of Big Rivers) are parties to a Power Plant Construction and Operation Agreement, as amended (the "Construction and Operation Agreement") and the City, Big Rivers

and WKE (as assignee of Big Rivers) are parties to a Joint Facilities Agreement, as amended (the "Joint Facilities Agreement"), each dated as of August 1, 1970, (the "Power Sales Contract", the "Construction and Operation Agreement" and the "Joint Facilities Agreement" collectively referred to as the "Agreements"); (b) the Parties are also among the parties to the Station Two Agreement (as hereinafter defined); and (c) certain of the Parties are also parties to various other agreements relating to the City's Station Two Electric Generating Plant ("Station Two", as hereinafter defined) located at a site on the Green River in Henderson County, Kentucky;

WHEREAS, pursuant to the Station Two Agreement, Big Rivers assigned to WKE certain of its rights, title and interests under the Agreements and WKE assumed certain of the obligations of Big Rivers under the Agreements, and pursuant to an Assignment and Assumption Agreement and Bill of Sale (the "Assignment and Assumption Agreement"), dated as of July 14, 1998 (but effective upon the "Closing" on the "Effective Date", each as defined in the Station Two Agreement), WKE assigned and transferred to LEM and LEM accepted and assumed, the rights and obligations of WKE under the Power Sales Contract and certain of the rights and obligations of WKE under the Station Two Agreement;

WHEREAS, the Parties agreed that Station Two should be equipped with a selective catalytic reduction system by May, 2004 so as to comply with applicable provisions of the Federal Environmental Protection Agency's 1998 NOx SIP Call (63 Fed. Reg. 57356), which was promulgated pursuant to Section 110 of the Clean Air Act, 42 U.S.C. 7410, and implemented in Kentucky by Regulation 401 KAR 51:160 (such NOx SIP Call, as implemented in Kentucky and in effect on the date of these 2005 Amendments to Contracts, being herein referred to as the "Current NOx SIP Regulations");

WHEREAS, the City engaged the services of Burns & McDonnell Engineering Company ("Burns & McDonnell") of Kansas City, Missouri to provide consulting engineering services in connection with the selective catalytic reduction system, including assisting the City in the preparation of bidding specifications so as to facilitate the City's receipt of public bids for the design, acquisition, construction, installation, start-up and testing of the selective catalytic reduction system, and has engaged legal counsel and financial advisors to assist the City in obtaining financing for its share of the costs of design, acquisition, construction, installation, start-up and testing of such system;

WHEREAS, WKE and/or LEM intend to fund its share (determined as hereinafter provided) of the costs and expenses associated with the design, acquisition, construction, installation, start-up and testing of the selective catalytic reduction system;

WHEREAS, Burns & McDonnell determined that in order to meet the aforementioned Federal and Kentucky regulations for NOx removal at Unit 6 of the City's Station One Power Plant ("City's Station One Power Plant", as hereinafter defined) and Station Two without modifying Unit 6 of the City's Station One Power Plant and without purchasing NOx allowances or credits, the City would be required to install at Station Two a selective catalytic reduction system capable of removing 75% of the NOx emissions from the Station Two boilers;

WHEREAS, at the request of WKE and Big Rivers, the City has installed a selective catalytic reduction system at Station Two having 90% NOx removal capability (the "Station Two SCR System" as hereinafter defined), whereby WKE and Big Rivers can utilize the NOx removal capability of the Station Two SCR System in excess of that required for

compliance by Station Two and Unit 6 of the City's Station One Power Plant (subject to the limitations on the City's Station One Power Plant provided for herein) in order to meet WKE's and Big Rivers' NOx removal requirements for their other power plants, and WKE/LEM and Big Rivers are willing to pay for the incremental capital, operating and maintenance and renewal and replacement costs to be incurred so as to provide and operate and maintain the Station Two SCR System at a 90% removal efficiency rather than a 75% removal efficiency (in the case of WKE/LEM, until the expiration or termination of the Station Two Agreement), upon and subject to the terms and conditions set forth in these 2005 Amendments to Contracts and in the "Amendatory Station Two Agreement" as hereinafter defined;

WHEREAS, the Parties (other than Big Rivers), together with certain other affiliates of WKE, have entered into the Agreement for Interim Funding Station Two SCR System, dated May 7, 2002, as amended by the First Amendment to Agreement for Interim Funding Station Two SCR System dated as of April 1, 2005 (the "Interim Funding Agreement") in order to provide for the funding of SCR Capital Costs and certain operations and maintenance costs and expenses associated with the Station Two SCR System, in each case pending the completion, execution, delivery and effectiveness of these 2005 Amendments to Contracts and of the Amendatory Station Two Agreement; and

WHEREAS, the Parties hereto desire to amend the Power Sales Contract, the Construction and Operation Agreement and the Joint Facilities Agreement, as herein provided, in order to accommodate the design, acquisition, construction, installation, start-up, testing, use, operation, maintenance and funding of the Station Two SCR System, and in order to implement an equitable allocation of the Allotted Allowances in light of the parties' respective contributions toward the costs of the Station Two SCR System.

NOW, THEREFORE, in order to comply with the Current NOx SIP Regulations by providing for the funding, design, acquisition, construction, installation, operation and maintenance of the Station Two SCR System as a part of Station Two, and to provide for certain other matters related to Station Two, and in consideration of the mutual covenants herein contained, it is stipulated, covenanted and agreed by and among the Parties hereto that the Agreements shall be amended and supplemented as follows effective as and when expressly provided in Section 601 of these 2005 Amendments to Contracts (but not before).

I. CERTAIN DEFINED TERMS IN THE AGREEMENTS

Section 101 "Station Two" as defined in Section 2.2 of the Power Sales Contract and Section 2.2 of the Construction and Operation Agreement and as used in the Joint Facilities Agreement is redefined to read as follows:

"Station Two: City's 350-megawatt generating station (rated on the date of the 2005 Amendments to Contracts at 312 MW net send out capability), located at a site on the Green River in Henderson County, Kentucky, and, to the extent furnished and owned by City, all auxiliary facilities, joint use facilities and related facilities, renewals, replacements, additions, expansions and improvements thereto, including the Station Two FGD System added thereto and the Station Two SCR System, but excluding the City's Transmission and Transformation Facilities as herein defined, and excluding facilities furnished and owned by Big Rivers. The location of Station Two, including the Station Two SCR System, is

shown in Exhibit A1 to the Power Sales Contract and the Construction and Operation Agreement (as added by the 2005 Amendments to Contracts) attached hereto and reference is made to Exhibits 1 and 2 of the Cross-Grants of Rights of Access and Easements, dated July 20, 1993, by the City and Big Rivers for the location of the Station Two FGD System and the joint use and related facilities with respect to Station Two as owned by the City, and those furnished and owned by Big Rivers.

Section 102 The terms "Station Two Bonds" or "Bonds" as used in the Agreements and defined in Section 2.9 of the Power Sales Contract and Section 2.9 of the Construction and Operation Agreement are redefined to read as follows:

"Station Two Bonds" or "Bonds" shall mean bonds, if any, authorized and issued by the City subsequent to the date of the 2005 Amendments to Contracts, with the prior written approval of Big Rivers (and, during the term of the Station Two Agreement, of WKE and LEM), in order to finance any major repairs, renewals or replacements of Station Two or major additions or improvements thereto; provided, that the Station Two Bonds or Bonds shall not be deemed to include: (a) the City's Electric Light and Power Refunding Revenue Bonds, Station Two Series, Dated as of March 1, 1973 (which bonds have been paid, defeased or redeemed prior to the date hereof); or (b) any other bonds or other evidences of indebtedness issued by or for the City, or otherwise guaranteed or

secured by the City or its assets or properties, including its municipal electric system, for the purpose of financing or funding only the City's share or any portion thereof of any costs or expenses associated with the Station Two SCR System or Station Two.

Section 103 "Bond Ordinance" as defined in Section 2.8 of the Construction and Operation Agreement and Section 2.8 of the Power Sales Contract is redefined to read as follows:

"Bond Ordinance" shall mean any bond ordinance or any supplements or amendments to a bond ordinance, adopted by the City subsequent to the date of the 2005 Amendments to Contracts authorizing any Station Two Bonds, which ordinance and each such supplement and amendment shall have received the written approval of Big Rivers (and, if adopted during the term of the Station Two Agreement, WKE and LEM).

Section 104 Section 2 of the Power Sales Contract and Section 2 of the Construction and Operation Agreement are amended by adding thereto the following:

"2.12 "Actual Station Two Generation Share" shall mean, for a NOx Season (or a portion thereof), with respect to the City or Big Rivers (or WKE/LEM as assignee of Big Rivers), respectively, the net energy (MW hrs) actually generated by Station Two and taken by the City or Big Rivers (or WKE/LEM, as assignee of Big

Rivers), as the case may be, for such NOx Season (or portion thereof) divided by the Actual Net Station Two Generation for such NOx Season (or portion thereof).

2.13 "Actual Hours In NOx Season" shall mean, for a NOx Season (or a portion thereof), the product of the number of days in such NOx Season (or portion thereof) multiplied by 24.

2.14 "Actual Net Station Two Generation" shall mean, for a NOx Season (or a portion thereof), the total amount of net energy (MW hrs) actually generated by both generating units of Station Two during such NOx Season (or portion thereof).

"2.15 "Allocable SCR Costs" shall mean, (A) with respect to capacity charges for a Monthly Billing Period payable by Big Rivers (or by WKE/LEM as Big Rivers' assignee) pursuant to Section 6 of the Power Sales Contract: (i) the SCR Ammonia Costs for such Monthly Billing Period as allocated to Big Rivers (or WKE/LEM as Big Rivers' assignee) in accordance with Section 6.2 (a) of the Power Sales Contract, and (ii) the portion of the SCR Catalyst Acquisition Costs for such Monthly Billing Period as allocated to Big Rivers in accordance with Section 6.2(b) of the Power Sales Contract, or (B) with respect to the capacity charges for a Contract Year, the aggregate of the SCR Ammonia Costs for such Contract Year and the SCR Catalyst Acquisition Costs with

respect to a Catalyst Layer acquired during such Contract Year.
Allocable SCR Costs shall not include any SCR Capital Costs.

2.16 "Allotted Allowances" shall mean, for a NOx Season, the NOx allowances and emission credits allotted to Station Two pursuant to the applicable Federal and Kentucky NOx Regulations for such NOx Season.

2.17 "Alternate Fuel" shall mean, with respect to a particular Catalyst Layer, fuel that (a) does not qualify as Base Coal, (b) is designated by a Party to be used in connection with such Catalyst Layer as provided in the contract with the vendor of such Catalyst Layer, and (c) is permitted to be used by that Party without rendering ineffective (in whole or in part) or materially adversely affecting the vendor's guarantee or warranty with respect to that Catalyst Layer set forth in such vendor contract.

2.18 "Alternate Fuel Differential Amount" shall mean, with respect to a particular Catalyst Layer, the amount of the differential with respect to the purchase price of such Catalyst Layer, as set forth in the successful bid by the vendor of such Catalyst Layer, attributable to any designation by Big Rivers (or WKE/LEM as Big Rivers' assignee) or the City of its use of Alternate Fuel with respect to such Catalyst Layer.

2.19 "Amendatory Station Two Agreement" shall mean the

Amendatory Agreement, dated as of April 1, 2005, among the City, Big Rivers, WKE, LEM, Western Kentucky Energy Corp. and WKE Corp., but only to the extent that agreement shall have become effective and enforceable in accordance with its terms.

2.20 "Average Station Two Capacity Share" shall mean, for a NOx Season, with respect to the City or Big Rivers (or WKE/LEM as assignee of Big Rivers), respectively, (i) in the event that the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, share of Total Capacity (determined as provided in Section 3 of the Power Sales Contract) changes during such NOx Season, the decimal share (rounded to 4 places) of Total Capacity obtained by dividing (A) the sum of (x) the product obtained by multiplying the number of MWs of the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, share of such Total Capacity by the number of days in the period of such NOx Season during which such share shall be in effect and (y) the product obtained by multiplying the number of MWs of the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, share of such Total Capacity in effect for the other period of such NOx Season by the number of days in such period, by (B) the product obtained by multiplying the number of MWs of the Total Capacity for such NOx Season by the number of days in such NOx Season; or (ii) in

the event that the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, share of Total Capacity (determined as provided in Section 3 of the Power Sales Contract) does not change during such NOx Season, the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, decimal share of such Total Capacity for such NOx Season.

2.21 "Base Coal" shall mean coal having specifications falling within the ranges set forth on Exhibit A2 attached hereto.

2.22 "Base NOx Removal" shall mean, for a NOx Season, a removal of 75% of the Station Two SCR Inlet NOx Tons during such NOx Season through the use of the Station Two SCR System.

2.23 "Big Rivers' Creditors' Subordination Agreement" shall mean the Agreement dated as of April 1, 2005, among Big Rivers and the United States of America, acting through the Administrator of the Rural Utilities Service, Ambac Assurance Corporation, the National Rural Utilities Cooperative Finance Corporation, Credit Suisse First Boston, acting by and through its New York Branch, US Bank National Association, as trustee under the Trust Indenture dated as of August 1, 2001, Ambac Credit Products, LLC, Bluegrass Leasing, Fleet Real Estate, Inc., AME Investments, LLC, CoBank, ACB, AME Asset Funding, LLC, AMBAC Credit

Products, LLC, the City of Henderson, Kentucky, the City of Henderson Utility Commission, Western Kentucky Energy Corp., WKE Station Two, Inc., LG&E Energy Marketing Inc., WKE Corp., and PBR-1 Statutory Trust, PBR-2 Statutory Trust, PBR-3 Statutory Trust, FBR-1 Statutory Trust, FBR-2 Statutory Trust, PBR-1 OP Statutory Trust, PBR-2 OP Statutory Trust, PBR-3 OP Statutory Trust, FBR-1 OP Statutory Trust and FBR-2 OP Statutory Trust, in each case, acting through State Street Bank and Trust Company, National Association as the same may be amended in accordance with its terms.

2.24 "Big Rivers' Easement" shall mean the Grant of Rights and of Easements, dated as of April 1, 2005, between and among Big Rivers, Western Kentucky Energy Corp. and the City as the same may be amended in accordance with its terms.

2.25 "Catalyst Failure" shall mean, with respect to a particular Catalyst Layer, the failure of such Catalyst Layer to meet the Guaranteed Life Cycle (as defined in Exhibit E to the Power Sales Contract as added by the 2005 Amendments to Contracts and attached hereto) thereof due to the use of fuel having characteristics not permitted to be used without rendering ineffective (in whole or in part) or materially adversely affecting the guarantee or warranty of the vendor of such Catalyst Layer.

2.26 "Catalyst Layer" shall mean the initial third layer of catalyst to be installed in the Station Two SCR System at a time subsequent to the effectiveness of all provisions of the 2005 Amendments to Contracts, and each replacement layer of catalyst to be installed in the Station Two SCR System.

2.27 "Catalyst Refund Payment" shall mean, with respect to a Party and a particular Catalyst Layer, the refund payment by such Party with respect to such Catalyst Layer provided for in Section IV of Exhibit E to the Power Sales Contract (as added by the 2005 Amendments to Contracts and attached hereto) and payable in accordance with Section 6.8 of the Power Sales Contract.

2.28 "City Actual Load Factor" shall mean, for a NOx Season, the net energy (in MWh) actually generated by Station Two and taken by the City for such NOx Season, divided by the product obtained by multiplying (i) the Actual Hours In NOx Season for such NOx Season by (ii) the product of the Total Capacity multiplied by the City's Average Station Two Capacity Share for such NOx Season.

Does this include steam energy?

2.29 "City Excess Allowances" shall mean, for any NOx Season with respect to which there shall be a City Reduction Generation Amount (it being understood that there shall be no City Excess Allowances in the event there is no City Reduction Generation Amount for the relevant NOx Season), the product obtained by

the City Actual Load Factor is less than the City Standard Load Factor for such NOx Season, an amount of Station Two generation (MW hrs) equal to (i) 85% of the maximum amount of generation (MW hrs) associated with the City's Average Station Two Capacity Share of the Total Capacity for such NOx Season multiplied by (ii) the decimal obtained by dividing the difference between the City Standard Load Factor for such NOx Season and the City Actual Load Factor for such NOx Season, by (y) the City Standard Load Factor for such NOx Season.

2.31 "City's Station One Power Plant" shall mean the City's Station One Electric Generating Plant located on a site on the Ohio River in Henderson, Kentucky, consisting of Unit 1 with a nameplate rating of 1,230 kW; Unit 2 with a nameplate rating of 1,230 kW; Unit 3 with a nameplate rating of 5,000 kW; Unit 4 with a nameplate rating of 5,000 kW; Unit 5 with a nameplate rating of 12,650 kW; and Unit 6 with a nameplate rating of 29,091 kW (and for purposes of the 2005 Amendments to Contracts, a rated net capacity (after station use) of 26 MW.

2.32 "City's Station One Rated Capacity" shall mean the rated net capacity (after station use) of Unit 6 of the City's Station One Power Plant as of the date of the 2005 Amendments to Contracts, which the Parties agree is 26MW, together with the energy associated with such rated capacity.

2.33 "City Standard Load Factor" shall mean, for any NOx Season, 85%.

2.34 "Construction and Operation Agreement" shall mean the Power Plant Construction and Operation Agreement, dated August 1, 1970, as amended, among the City, Big Rivers and WKE (as assignee of Big Rivers).

2.35 "Federal and Kentucky NOx Regulations" shall mean the Current NOx SIP Regulations, as the same may be hereafter approved, modified or supplemented by regulations or other action of the Federal Environmental Protection Agency, including, without limitation, any modification that results in a reduction or an increase in the NOx allowances or emission credits allotted to Station Two or Unit 6 of the City's Station One Power Plant, or otherwise amended, modified or supplemented, and shall include any laws, rules or regulations enacted, issued or adopted in lieu of any of the foregoing, but only to the extent they regulate or restrict NOx emissions.

2.36 "Guarantor's Consent and Acknowledgement" shall mean the Consent and Acknowledgement dated as of April 1, 2005, by LG&E Energy LLC (successor by merger with LG&E Energy Corp.), as Guarantor under the Guarantee Agreement [Station Two Obligations], dated July 15, 1998, by and among LG&E

Energy LLC., the City of Henderson and the City of Henderson Utility Commission.

2.37 "Index Rate" shall mean 5%.

2.38 "NOx Season" shall mean that period during each year that is defined as the "NOx Season" for such year under applicable Federal and Kentucky NOx Regulations and shall be deemed to include any applicable portion of a NOx Season. Reference to a NOx Season for a Contract Year shall mean the period consisting of those months of the Contract Year included within such NOx Season, and in the event that a Contract Year includes portions of two separate NOx Seasons, shall mean the periods that consist of those months of the Contract Year within each such portion of each NOx Season within such Contract Year.

2.39 "Outstanding" as used with respect to any Station Two Bonds, shall have the same meaning as set forth for such term in the Bond Ordinance authorizing such Station Two Bonds.

2.40 "Reagents" shall mean (i) the lime used in operation of the Station Two Flue Gas Desulfurization System and (ii) such other minerals, materials, supplies or substances for Station Two that the parties to the Power Sales Contract may determine to constitute a "Reagent", such determination to be evidenced by a written instrument which shall set forth the basis on which Big Rivers and

the City (or WKE/LEM as applicable) shall each supply such Reagent.

2.41 "SCR Ammonia Costs" shall mean, (A) with respect to capacity charges for a Monthly Billing Period payable by Big Rivers (or WKE/LEM as Big Rivers' assignee) pursuant to Section 6 of the Power Sales Contract, the costs of the ammonia used in the operation of the Station Two SCR System as allocated to Big Rivers (or WKE/LEM as Big Rivers' assignee) in accordance with Section 6.2(a) of the Power Sales Contract for such Monthly Billing Period (other than costs for ammonia for the initial start-up and testing of the Station Two SCR System, which are treated as SCR Capital Costs), including, without limitation, storage and handling costs allocable to such ammonia, or (B) with respect to capacity charges for a Contract Year, the aggregate of such costs of the ammonia used in the operation of the Station Two SCR System during such Contract Year.

2.42 "SCR Amortized Capital Cost per MW" shall mean, for the initial Contract Year beginning June 1, 2004 and for each of the next nineteen (19) Contract Years following such initial Contract Year, (i) an amount equal to the annual debt service that would accrue during such Contract Year with respect to a bond issue in a principal amount equal to the total amount of SCR Capital Costs (exclusive of the SCR Capital Overcontrol Amount and the amount

of \$123,584 attributable to the use of Alternate Fuel with respect to the two initial catalyst layers of the Station Two SCR System by WKE/LEM or Big Rivers) bearing interest at a rate equal to the Index Rate, payable over 20 years with level annual debt service, divided by (ii) the number of MWs of the Total Capacity of Station Two as determined for such Contract Year pursuant to Section 3.6 of the Power Sales Contract.

2.43 "SCR Capital Costs" shall mean all capitalized costs and expenses associated with the original design, acquisition, construction, installation, start-up and testing of the Station Two SCR System (exclusive of the SCR Capital Overcontrol Amount and the amount of \$123,584 attributable to the use of Alternate Fuel with respect to the two initial catalyst layers of the Station Two SCR System by WKE/LEM or Big Rivers), including applicable out-of-pocket costs of the Parties as provided in Section 4.20(e) of the Construction and Operation Agreement, and including the costs thereof payable pursuant to the Interim Funding Agreement, whether funded by the City, Big Rivers or WKE, and including the costs of the catalyst initially installed with respect to the Station Two SCR System and the ammonia supplies required for initial start-up and testing of the Station Two SCR System.

2.44 "SCR Capital Cost Share" shall mean, in the case of Big Rivers (or WKE as Big Rivers' assignee) 0.6955 and, in the case of

the City, 0.3045.

2.45 "SCR Capital Overcontrol Amount" shall mean the difference (which the Parties agree is \$778,435), based on the public bids received by the City with respect to the SCR Contract for the design, acquisition, construction, installation, start-up and testing of the Station Two SCR System, between (i) the amount of the lowest bid acceptable to the Parties for the components of a selective catalytic reduction system of Station Two capable of removing 75% of the Station Two NOx emissions assuming the use of Base Coal, and (ii) the amount of the bid in fact accepted by the City with the consent of the other Parties for the components of the Station Two SCR System capable of removing 90% of the Station Two NOx emissions assuming the use of Base Coal, as such difference (that is, the \$778,435) shall be adjusted to give effect to any change orders approved by the Parties and provided to the contractor under the SCR Contract, assuming that the amount of each such change order shall be allocated to the 75% NOx removal capability system and the Station Two SCR System, respectively, in the same proportion as (x) the amount of such bid acceptable with respect to the 75% NOx removal system bears to (y) the amount of such bid in fact accepted with respect to the Station Two SCR System (it being agreed by the Parties that in the case of each change order such adjustment (whether an increase or

a decrease) to the "SCR Capital Overcontrol Amount" shall be equal to 2.22% of the increase or decrease in the contract price given effect by such change order).

2.46 "SCR Catalyst Acquisition Costs" shall mean, with respect to a Catalyst Layer, (A) with respect to capacity charges for any Monthly Billing Period payable by Big Rivers (or WKE/LEM as Big Rivers' assignee) pursuant to Section 6 of the Power Sales Contract, the portion of the purchase price for such Catalyst Layer, the relevant Alternate Fuel Differential Amount (if any) with respect to that Catalyst Layer, and the portion of the cost of materials and labor associated with the installation of such Catalyst Layer and the costs of removal and disposal of the catalyst layer being replaced by such Catalyst Layer (if any), provided that such removal and disposal costs shall be offset as provided in Section 6.9 of the Power Sales Contract (as added by the 2005 Amendments to Contracts) by any amount received in connection with the sale or disposal of such catalyst layer being replaced, in each case as allocated for such Monthly Billing Period to Big Rivers (or WKE/LEM as assignee of Big Rivers) pursuant to Section 6.2(b) of the Power Sales Contract, or (B) with respect to capacity charges for a Contract Year, the aggregate of the purchase price for such Catalyst Layer, any Alternate Fuel Differential Amount (regardless of the Party responsible for the

same) and the other costs of such Catalyst Layer, including the costs of removal and disposal of the catalyst layer being replaced, as incurred during such Contract Year, provided that such removal and disposal costs shall be offset as provided in Section 6.9 of the Power Sales Contract (as added by the 2005 Amendments to Contracts) by any amount received in connection with the sale or disposal of such catalyst layer being replaced. SCR Catalyst Acquisition Costs shall not include costs of operation or maintenance of an installed Catalyst Layer or, except as otherwise provided in Section IV(D) of Exhibit E to the Power Sales Contract (as added by the 2005 Amendments to Contracts and attached hereto), costs of a Catalyst Dispute Resolution Procedure (as defined in the aforesaid Exhibit E), all of which costs shall constitute costs associated with the operation and maintenance of Station Two under Section 6.3 of the Power Sales Contract. SCR Catalyst Acquisition Costs shall not include any SCR Capital Costs.

2.47 "SCR Contract" shall mean the (i) Contract SCR-01 SCR Equipment and Erection, dated as of July 9, 2002, entered into by the City with the successful bidder, as the same may be amended with the prior written consent of Big Rivers and, during the term of the Station Two Agreement, WKE, and (ii) the Contract SCR-02 Foundation, dated October 7, 2002, entered into by the City and

the successful bidder, as the same may be amended with the prior written consent of Big Rivers and, during the term of the Station Two Agreement, WKE.

2.48 "SCR Design NOx Removal" shall mean .90.

2.49 "Station One Unit 6 Allotted Allowance" shall mean, for a NOx Season, the NOx allowances and emissions credits allotted to Unit 6 of the City's Station One Power Plant pursuant to the applicable Federal and Kentucky NOx Regulations for such NOx Season.

2.50 "Station One Unit 6 Stack NOx Emissions" shall mean, for a NOx Season, the amount of NOx emissions from Unit 6 of the City's Station One Power Plant corresponding with the actual generation of energy by Unit 6 during such NOx Season (but in no event greater than the NOx emissions associated with the use and operation of Unit 6 of the City's Station One Power Plant at the City's Station One Power Plant Rated Capacity plus three (3) MWs of station use), as measured by the Station One Unit 6 Certified Continuous Emissions Monitoring System.

2.51 "Station Two Agreement" shall mean the Agreement and Amendments to Agreements, dated as of July 15, 1998, among the City, Big Rivers, WKE, LEM, Western Kentucky Energy Corp. and WKE Corp., as heretofore amended and as amended by the

Amendatory Station Two Agreement, and as may hereafter be amended in accordance with its terms,

2.52 "Station Two Allocated Allowances" shall mean, for a NOx Season, the number of Allotted Allowances required for the Station Two Stack NOx Emissions during such NOx Season to be in compliance with the applicable Federal and Kentucky NOx Regulations.

2.53 "Station Two SCR Inlet NOx Tons" shall mean, for a NOx Season, the Station Two SCR inlet NOx tons for such NOx Season as measured by the inlet NOx duct monitors or calculated by mutual agreement in the event the inlet NOx duct monitors are not monitoring or functioning properly or sufficiently to calculate to Station Two SCR Inlet NOx Tons.

2.54 "Station Two SCR System" shall mean the selective catalytic reduction system purchased by the City and constructed and installed at, and operated solely in connection with, Station Two, designed to provide at least a 90% continuous NOx removal capability during normal uses, and meeting design specifications, cost criteria and other criteria that are reasonably satisfactory to the Parties, which system shall include at the time of its initial commercial operation, among other related or supporting components and facilities, the equipment and components identified on Exhibit B to the Power Sales Contract and the Construction and Operation Agreement (as added by the 2005 Amendments to Contracts) attached hereto and made a part hereof.

2.55 "Station Two Stack NOx Emissions" shall mean, for a NOx Season, the amount of the Station Two NOx emissions as measured by the Station Two Certified Continuous Emissions Monitoring Systems pursuant to the applicable Federal and Kentucky NOx Regulations.

2.56 "Station Two Standard SCR Inlet NOx Tons" shall mean, for a NOx Season, 2,800 NOx tons.

2.57 "Total Capacity" shall mean, with respect to Station Two, the Total Capacity as defined in Section 3.6 of the Power Sales Contract.

II. CONSTRUCTION AND OPERATION AGREEMENT

Section 201 Section 3 of the Construction and Operation Agreement is amended by adding thereto the following:

"3.3 Big Rivers will transfer and convey to the City easements on land lying adjacent to the Station Two plant site in order to permit the construction, operation and maintenance thereon of certain portions of the Station Two SCR System, including the SCR reactors and the ammonia storage facility, and the auxiliary building, together with any additional rights and easements to the City required for the construction, operation, maintenance and removal of auxiliary facilities required in connection therewith and for access thereto, all in accordance with the Big Rivers'

Easement.

Section 202 Section 4 of the Construction and Operation Agreement is amended by adding thereto the following:

“4.12 The City, with the approval of Big Rivers (and WKE, as assignee of Big Rivers), awarded the SCR Contract and such other contracts with the selected contractors or vendors of the Station Two SCR System as are necessary for the design, acquisition, construction, installation, startup and testing of the Station Two SCR System, and will diligently pursue under the terms of such contracts such design, acquisition, construction, installation, startup and testing of the Station Two SCR System consistent with prudent utility practices and will perform and discharge its obligations under such contracts. Big Rivers (and WKE, as assignee of Big Rivers) and the City agree to coordinate their respective use, operation and maintenance of Station Two so as to reasonably facilitate any remaining design, acquisition, construction, installation, start-up or testing of the Station Two SCR System that may be required following the effectiveness of all provisions of the 2005 Amendments to Contracts. The City agrees to use its commercially reasonable efforts to cause its vendors and contractors to undertake such work in a manner consistent with the contracts therefor that minimizes any adverse effects on the use, operation and maintenance of Station Two. SCR Capital Costs

shall be funded by the City and WKE (and Big Rivers in the event the Station Two Agreement is terminated, subject to the limitations set forth in the Agreements), in the manner set forth in Section 4.20 of the Construction and Operation Agreement. The City shall use its commercially reasonable efforts to obtain and maintain the necessary permits and other governmental and third-party approvals for the design, acquisition, construction, installation, start-up, testing, use, operation and maintenance of the Station Two SCR System, and Big Rivers (and WKE, as assignee of Big Rivers) shall seek any such additional permits and approvals as are required of it. The Parties hereto agree that they shall use their commercially reasonable efforts to operate and maintain Station Two so as to comply with the vendor's recommendations provided in the SCR Contract as to the Station Two SCR System, or as provided in the successful bid for the design, acquisition, construction, installation, start-up and testing of the Station Two SCR System, in either case with respect to meeting its performance guarantees and warranties, except to the extent emergency conditions exist which require the operation or maintenance of Station Two in a contrary manner. WKE will obtain and maintain adequate builder's risk insurance, boiler and machinery and other insurance required to be maintained by the City under the SCR Contract, and the City, Big Rivers and WKE shall be named as

additional insureds or loss payees (as their interest may appear) as provided in the SCR Contract covering the complete construction and installation of the Station Two SCR System. Any additional cost of such insurance shall be included as part of SCR Capital Costs. The City agrees to afford Big Rivers and WKE reasonable access to all plans, specifications and contracts for and to furnish copies of any required or permitted notices to or from any contractor or vendor relating to the design, construction, acquisition, installation, start-up, testing, operation and maintenance of the Station Two SCR System. The City shall obtain the prior written approval of Big Rivers and WKE (which approval shall not be unreasonably withheld, conditioned or delayed) regarding any material changes to such plans, specifications or contracts and for the approval or acceptance by the City pursuant to such contracts of the completion or commercial operation of any material component or aspect of the Station Two SCR System, and shall generally consult with Big Rivers and WKE and allow them to reasonably participate in all meetings, inspections, tests and audits with such contractors and vendors with respect to the design, construction, acquisition, installation, start-up and testing of the Station Two SCR System. The City shall also obtain the written approval of WKE and Big Rivers (such approval not to be unreasonably withheld,

conditioned or delayed) prior to any exercise by the City of any right that it may have to terminate or suspend any contract with any such vendor or contractor relative to the Station Two SCR System or to undertake to correct or repair any defective or non-conforming work or components thereof that may have been undertaken or performed by any vendor or contractor or to complete any uncompleted work by such vendor or contractor with respect to the Station Two SCR System.

4.13 The City has employed the services of Burns & McDonnell to provide consulting services during the design, acquisition, construction, installation, start-up and testing of the Station Two SCR System. The City agrees to promptly provide to Big Rivers and WKE copies of all reports, analyses and other information that may be generated or provided by Burns & McDonnell to the City in connection with their consulting services with respect to the Station Two SCR System (including, without limitation, those generated or provided prior to the effective date of all provisions of the 2005 Amendments to Contracts) and agrees to cause such consultants to afford Big Rivers and WKE reasonable access to their relevant representatives for the purpose of obtaining follow-up or additional information regarding their services, the results thereof and the Station Two SCR System generally.

4.14. SCR Ammonia Costs and SCR Catalyst Acquisition Costs

will be recorded by Big Rivers (or WKE as assignee of Big Rivers) so as to identify those Costs on a Contract Year and a month by month basis, separate and apart from the other costs and expenses incurred in the operation and maintenance of Station Two.

4.15 The City, WKE and Big Rivers have used their respective commercially reasonable efforts, consistent with their respective obligations under the 2005 Amendments to Contracts, so that the design, acquisition, construction, installation, start-up and testing of the Station Two SCR System met the compliance dates with respect to NOx emissions required by the Federal and Kentucky NOx Regulations applicable thereto, and the reasonable costs of such actions (except as otherwise provided in Section 4.20(e) below) shall constitute SCR Capital Costs.

4.16 [Reserved]

4.17 The Parties agree that all Allotted Allowances for a NOx Season (as prorated for any applicable portion of a NOx Season) shall be allocated and applied in order of priority as follows (absent the written agreement of the City, WKE, LEM and Big Rivers to the contrary), and no Party shall be entitled to use (or claim any right to use) such Allotted Allowances in a manner contrary to such allocation and application nor shall any Party cause or instruct the Station Two Designated Representative to use

such Allotted Allowances in a manner contrary to such allocation and application:

(a) Such Allotted Allowances shall first be allocated for the benefit of the City, WKE and, following the expiration or termination of the Station Two Agreement, Big Rivers and applied to Station Two Stack NOx Emissions for such NOx Season in an amount equal to the Station Two Allocated Allowances for such NOx Season.

(b) Such Allotted Allowances shall next be allocated, but only to the extent of the amount remaining after the allocation thereof in the amounts provided pursuant to subsection (a) above, to and become the property of the City in an amount equal to the City Excess Allowances, if any, for such NOx Season. The City shall be entitled to use, apply, allocate or dispose of the City Excess Allowances allocated pursuant to this subsection (b) in any manner and for any purpose deemed appropriate by it (and permissible under applicable laws, rules and regulations), without accounting for the same to any other Party.

(c) Such Allotted Allowances shall next be allocated, but only to the extent of the amount remaining after the allocation thereof in the amounts provided pursuant to subsection (a) above and in the amounts, if any, provided pursuant to subsection (b)

above, and applied to the Station One Unit 6 Stack NOx Emissions so that, after the application by the City to the Station One Unit 6 Stack NOx Emissions of an amount of NOx allowances or emission credits (from whatever source, but excluding Allotted Allowances other than City Excess Allowances) equal to the Station One Unit 6 Allotted Allowances for such NOx Season, the Station One Unit 6 Stack NOx Emissions for such NOx Season will be in compliance with the applicable Federal and Kentucky NOx Regulations (it being understood that for the purpose of determining the Allotted Allowances (if any) to be allocated pursuant to this subsection (c), an amount of NOx allowances and emissions credits (from whatever source, but excluding Allotted Allowances other than City Excess Allowances) equal to the Station One Unit 6 Allotted Allowances for that NOx Season shall be deemed to have been first applied to the Station One Unit 6 Stack NOx Emissions, whether or not the Station One Unit 6 Allotted Allowances or any other NOx allowances and emissions credits are in fact applied to the Station One Unit 6 Stack NOx Emissions); provided that the Allotted Allowances allocated pursuant to this subsection (c) shall not exceed 40 allowances or emissions credits (it being understood and agreed by the Parties that the portion of such 40 allowances or emissions credits not so required for the compliance of the Station One Unit 6 Stack NOx

Emissions for such NOx Season, after the application of an amount of NOx allowances or emissions credits equal to the Station One Unit 6 Allotted Allowances for such NOx Season, shall be available to WKE or Big Rivers (as applicable) pursuant to Subsection (d) below).

(d) Such Allotted Allowances shall next be allocated, but only to the extent of the amount remaining after allocation thereof in the amounts provided pursuant to subsection (a) above, and in the amounts, if any, provided pursuant to subsections (b) and (c) above, to and become property of WKE and, following the term of the Station Two Agreement (and as prorated for any applicable portion of a NOx Season), shall be allocated to and become the property of Big Rivers. WKE or Big Rivers, as applicable, shall be entitled to use, apply, allocate or dispose of such Allotted Allowances allocated as provided in this subsection (d) in any manner or for any purpose deemed appropriate by it (and permissible under applicable laws, rules or regulations), without accounting for the same to any other Party, including without limitation, using or applying the same in connection with or in support of the use or operation of any other power generation facilities that are owned or operated by WKE or Big Rivers, as applicable, except as otherwise provided in the Amendatory Station Two Agreement. The Parties acknowledge that WKE's

right to receive or utilize such Allotted Allowances for NOx Seasons (or portions thereof) following the term of the Station Two Agreement shall cease upon the expiration or termination of the Station Two Agreement, and that Big Rivers' right to receive and utilize the same shall thereafter continue throughout the term of the Construction and Operation Agreement.

(e) Exhibit C to the Construction and Operation Agreement (as added by the 2005 Amendments to Contracts) attached hereto sets forth an example of the calculations pertaining to the allocation and application of Allotted Allowances for an assumed year in accordance with subsections (a), (b), (c) and (d) above.

(f) It is understood that in the event Big Rivers (or WKE or LEM, as assignee of Big Rivers) exercises its right under Section 3.8 of the Power Sales Contract to purchase Excess Henderson Energy or energy associated with Excess Henderson Capacity during any NOx Season, Big Rivers (or WKE or LEM, as assignee of Big Rivers) shall furnish from its own sources (which may include its Allotted Allowances allocated pursuant to subsection (d) above) the emission allowances or credits required so that when applied to the Station Two Stack NOx Emissions resulting from the generation of such Excess Henderson Energy or energy associated with such Excess Henderson Capacity, such Station

Two Stack NOx Emissions comply with the applicable Federal and Kentucky NOx Regulations. It is further understood that in the event the Allotted Allowances for a NOx Season, when first allocated to the Station Two Stack NOx Emissions for such NOx Season as contemplated above, are not sufficient to cause all such Station Two Stack NOx Emissions to be in compliance with the applicable Federal and Kentucky NOx Regulations, the City and Big Rivers (or WKE/LEM, as assignee of Big Rivers) shall be responsible for furnishing, in proportion to their respective Actual Station Two Generation Shares of the Actual Station Two Generation for that NOx Season, the additional NOx emissions allowances or credits required so that their remaining Station Two Stack NOx Emissions are in compliance with applicable Federal and Kentucky NOx Regulations.

(g) Big Rivers, the City and WKE agree to cooperate with one another and to use their respective commercially reasonable efforts (in the case of WKE, during the term of the Station Two Agreement only) to effect and implement the allocations contemplated above, and to otherwise carry out the intents and purposes of this Section 4.17, including without limitation, by instructing the Station Two Designated Representative to hold, allocate and/or use all Allotted Allowances in a manner consistent with the foregoing. To the extent required under the

circumstances, a Party shall execute and deliver to the other relevant Party one or more documents of title reasonably required to reflect that Party's ownership of the relevant Allotted Allowances as contemplated above, upon the written request of that Party. To the extent the City acquires title to or control over any Allotted Allowances for a NOx Season in excess of those allocated as contemplated in subsections (a), (b) and (c) above, it shall assign and transfer (or direct the Station Two Designated Representative to assign and transfer) such title to or control over the same to WKE or, for any NOx Season (or portion thereof) following the expiration or termination of the Station Two Agreement, to Big Rivers, without any additional consideration and free and clear of all liens and encumbrances of any nature. The City shall not attempt to make any forward sale or other conveyance of any Allotted Allowances (other than any City Excess Allowances allocated to it pursuant to subsection (b) above), it being understood that all such Allotted Allowances shall be used by the City solely in connection with Station Two NOx Stack Emissions and the Station One Unit 6 Stack NOx Emissions as contemplated in (a), (b) or (c), as applicable, above or shall be allocated to WKE or Big Rivers as contemplated in subsection (d) above.

(h) The City agrees to maintain complete and accurate

records regarding the allotment under the Federal and Kentucky NOx Regulations of NOx allowances and emissions credits to the City's Station One Power Plant, the use of any Allotted Allowances for the City's Station One Power Plant as provided in subsection (c) of this Section 4.17, and the City Excess Allowances, if any, as allocated pursuant to subsection (b) of this Section 4.17. The City agrees to give WKE, Big Rivers and their respective representatives reasonable access from time to time to all such records and to furnish the following information for each NOx Season to WKE and Big Rivers, as applicable: (i) on or prior to March 1 of each year following each NOx Season, a copy of the annual report made by the City's Station One Power Plant Designated Representative to environmental regulatory authorities regarding the receipt and disposition of NOx allowances or emissions credits pertaining to Unit 6 of the City's Station One Power Plant for such prior NOx Season; and (ii) on or prior to January 31 of each year following each NOx Season, the following information: (x) the number of the NOx allowances or emissions credits allotted to Unit 6 of the City's Station One Power Plant for such NOx Season under applicable Federal and Kentucky NOx Regulations, (y) the energy (MWh) generated (including energy for station use) by Unit 6 of the City's Station One Power Plant during such NOx Season and (z) the total Station One Unit 6 Stack

NOx Emissions during such NOx Season. The City further agrees to furnish WKE and Big Rivers, as applicable, copies of any such quarterly reports required to be filed by the City's Station One Power Plant Designated Representative with environmental regulatory authorities, as well as monthly reports tracking the NOx allowance and emissions credit consumption of Unit 6 of the City's Station One Power Plant. The City also agrees to cooperate and use its best commercial efforts to provide to WKE and Big Rivers, as applicable, and the Station Two Designated Representative, as soon as practicable but in any event in a timely manner, any information set forth in the second sentence of this subsection that is required for the Station Two Designated Representative to prepare and file the annual report with environmental regulatory authorities regarding the receipt and disposition of Allotted Allowances.

(i) Big Rivers and, during the term of the Station Two Agreement, WKE agree to maintain complete and accurate records regarding Allotted Allowances and the allocation and application thereof as provided in subsections (a), (b), (c) and (d) of this Section 4.17, and agree to give the City and its respective representatives reasonable access from time to time to all such records. Big Rivers and, during the term of the Station Two Agreement, WKE further agree to direct the Station Two

Designated Representative to furnish to the City on or prior to March 1 of each year following each NOx Season a copy of the annual report made by the Station Two Designated Representative to environmental regulatory authorities regarding receipt and disposition of Allotted Allowances for such prior NOx Season. Big Rivers and, during the term of the Station Two Agreement, WKE will direct the Station Two Designated Representative to cause such report to include information that any Party may reasonably request in writing (and with reasonable advance notice) and as shall be permissible while maintaining the reports in compliance with applicable Federal and Kentucky NOx Regulations, including Allotted Allowances balances on hand at the beginning and at the end of such NOx Season and the summary of receipts and dispositions of Allotted Allowances during such NOx Season. WKE and Big Rivers, as applicable, further agree to direct the Station Two Designated Representative to furnish to each of the other Parties copies of any such quarterly reports to be filed by the Station Two Designated Representative with environmental regulatory authorities, as well as monthly reports tracking the Allotted Allowance consumption. In addition, WKE and Big Rivers, as applicable, agree to cooperate and use their respective best commercial efforts to provide to the City and the Designated Representative for City's Station One Power Plant, as

soon as practicable but in any event in a timely manner, any information relating to Station Two operation or Allotted Allowances required for the Designated Representative for City's Station One Power Plant to prepare and file the annual report with environmental regulatory authorities regarding the receipt and disposition of NOx allowances and emissions credits with respect to City's Station One Power Plant.

(j) For purposes of any calculation of the number of Allotted Allowances allocated or applied pursuant to this Section 4.17, the number of Allotted Allowances resulting from such calculation shall be rounded, if necessary, to the nearest whole number (e.g., 33.67 being rounded up to 34 and 33.34 being rounded down to 33) with one half of an Allotted Allowance being rounded up.

4.18 The reasonable costs incurred by the Parties in connection with obtaining all governmental regulatory approvals and any creditors' consents and approvals required for the Parties' respective execution of or performance of the 2005 Amendments to Contracts, the Amendatory Station Two Agreement, the Guarantor's Consent and Acknowledgement, the Big Rivers' Creditors' Subordination Agreement and the Big Rivers' Easement shall constitute SCR Capital Costs reimbursable as provided in Section 4.20(e).

4.19 The Parties acknowledge that the City, on the one hand, and each of WKE, LEM and Big Rivers, on the other hand, have a vested interest in ensuring that the design, acquisition, construction, installation, start-up and testing of the Station Two SCR System meets certain schedules and that the Station Two SCR System performs to stated NOx removal capabilities, all as warranted or guaranteed by the relevant bidders, vendors or contractors thereof (or as otherwise contemplated in the contract(s) with such bidders, vendors or contractors), and that such Parties may be damaged by reason of a failure by the Station Two SCR System to meet those schedules or warranted or guaranteed performance capabilities. In light of those mutual interests the parties agree that:

- (1) The City shall diligently pursue (with counsel reasonably satisfactory to the Parties) and on behalf of the City, WKE, LEM and Big Rivers as their respective interests may appear, on a best commercial efforts basis, (i) any and all contractual rights and remedies that it may have against any bidder, vendor or contractor with respect to the Station Two SCR System or any component(s) thereof, or on account of any failure of or by that system to meet any of the schedules, performance specifications, criteria or

capabilities warranted or guaranteed by such bidder, vendor or contractor, or otherwise on account of any misrepresentation, breach of warranty or non-fulfillment of any covenant or agreement on the part of that bidder, vendor or contractor in any manner relating to the Station Two SCR System (including without limitation, the pursuit of specific performance and any liquidated damages or other relief available as a result of, or arising by reason of, any such failure, misrepresentation, breach or non-fulfillment), and (ii) any and all contractual rights and remedies that it may have against any provider of a surety, performance or other bond with respect to the Station Two SCR System on behalf of any such bidder, vendor or contractor;

- (2) The City shall afford WKE, LEM and Big Rivers a reasonable opportunity to participate in the City's efforts to pursue its and their respective rights and remedies as contemplated in subsection (1) above, including the right to promptly receive copies of all pleadings and correspondence with the relevant bidder, vendor or contractor, or provider of a surety, performance or other bond, to attend all hearings and settlement discussions with that bidder, vendor or

contractor (or its counsel), or provider of a surety, performance or other bond (or any counsel thereof), and to approve any settlement of the City's claims against that bidder, vendor or contractor, or provider of a surety, performance or other bond (which approval shall not be unreasonably withheld, conditioned or delayed by WKE, LEM or Big Rivers);

- (3) The reasonable costs and expenses incurred by the City, WKE, LEM and Big Rivers in connection with the foregoing efforts ("Collection Costs") shall initially be allocated between and promptly funded (or, as applicable, reimbursed) by the City and WKE (or, in the event the Station Two Agreement shall have expired or been terminated, by the City and Big Rivers) on a 50%/50% basis, with 20% of any amounts so allocated to and paid or reimbursed by WKE being promptly thereafter reimbursed by Big Rivers to WKE upon its written request. To the extent any damages are recovered from the relevant bidder, vendor, contractor or provider of a surety, performance or other bond, the amounts so recovered shall first be used to proportionately reimburse the City, WKE and Big Rivers for the portions of the Collection Costs so

funded, paid or reimbursed by them, before such amounts are allocated between or among the Parties as contemplated in paragraphs (4), (5) and (6) below;

- (4) In the case of the proceeds of liquidated damages (net of the damages used for the recovery of the Parties' Collection Costs as contemplated in paragraph (3)) payable as a result of a failure of the bidder, vendor or contractor to meet its guaranties or warranties as to NOx removal or its schedules with respect to completion or commercial operation after testing of the Station Two SCR System or a component thereof (such failure being in this paragraph (4) referred to as the "Vendor Failure"), with respect to a particular day, such proceeds, after reimbursement of the reasonable costs and expenses of the Parties incurred in connection with submitting and enforcing a claim or the recovery of damages therefor, as the same shall be reallocated as provided in subsection (3) above, shall be applied as follows:

- (i) In the case of liquidated damages payable due to a Vendor Failure consisting of a failure to meet its guaranties or warranties as to the NOx removal capability of the Station

Two SCR System or a component thereof, including a failure of the Station Two SCR System or a component thereof to meet such guaranties or warranties by a scheduled date, whether or not such Vendor Failure occurs or the liquidated damages are payable during a NOx Season, the proceeds of such liquidated damages with respect to such particular day shall be paid and allocated between the City and WKE/LEM as follows:

- (A) if the percentage of NOx removal capability of the Station Two SCR System resulting from or in light of such Vendor Failure equals or exceeds the Base NOx Removal, all such proceeds of liquidated damages with respect to such day shall be paid by the City to WKE/LEM; and
- (B) if the percentage of NOx removal capability of the Station Two SCR System resulting from or in light of such Vendor Failure is less than the Base NOx Removal, there shall be allocated to the City from such proceeds of liquidated damages an amount determined in accordance with the following formula:

$$X = .3045 \times \left[1 - \frac{Y}{Y + (NR \times Z)} \right] \times LDP$$

where:

X = amount to be allocated to the City;

NR = a fraction the numerator of which is the difference between the Base NOx Removal and the actual percentage of NOx removal capability of the Station Two SCR System (or a component thereof) resulting from such Vendor Failure and the denominator of which is the Base NOx Removal;

Y = the SCR Capital Overcontrol Amount; and

LDP = the amount of the proceeds of liquidated damages with respect to such particular day; and

Z = the final contract price for the Station Two SCR System as determined in accordance with the SCR Contract and any settlement agreements or the like that may be entered into by the City with the successful bidder (with the prior written consent of Big Rivers and, during the term of the Station Two Agreement, WKE);

and the balance of such proceeds of liquidated damages shall be paid by the City to WKE/LEM.

(ii) In the case of liquidated damages payable due to a Vendor Failure to meet a scheduled date for the tie-in of duct work to either of the Station Two generating units, whether or not such Vendor Failure shall occur or such liquidated damages shall be payable during a NOx Season, the proceeds of such liquidated damages with respect to such particular day shall be paid and allocated between the City and WKE/LEM as follows:

(A) if the City shall have available to it for such day the full amount of its share of the Total Capacity of Station Two as allocated pursuant to Section 3 of the Power Sales Contract and due to such Vendor Failure WKE/LEM shall not have available to it the full amount of its surplus capacity from Station Two as allocated pursuant to Section 3 of the Power Sales Contract, the proceeds of such liquidated damages with respect to such particular day shall be paid by the City to WKE/LEM,

(B) if the City shall not have available to it for such day the full amount of its share of the Total Capacity of

Station Two as allocated pursuant to Section 3 of the Power Sales Contract, the proceeds of such liquidated damages with respect to such particular day shall be paid to and allocated between the City and WKE/LEM, respectively, in the same proportion as (x) the amount (in MWs) of the City's full share of the Total Capacity of Station Two that is not so available to the City for such day bears to (y) the amount (in MWs) of the full surplus capacity of Station Two allocated for such day to WKE/LEM pursuant to Section 3 of the Power Sales Contract that is not so available to WKE/LEM.

- (5) In all cases, other than those in which paragraph (4) above is applicable, the proceeds of liquidated damages and of the payment of other claims or the recovery of other damages under contracts with the abovementioned bidders, vendors or contractors, or under any surety, performance or other bond, after reimbursement of the parties reasonable costs and expenses incurred in connection with submitting and enforcing claims or the recovery of damages thereon, as the same shall be reallocated as provided in paragraph (3) above, shall be paid to and allocated between the City and WKE/LEM in the same proportion as their average respective shares of the Total Capacity of Station Two as allocated pursuant to

Section 3 of the Power Sales Contract during each Contract Year from and including the Contract Year which includes the first date of the relevant failure, breach action or omission of the bidder, vendor or contractor giving rise to such recovery, through and including the Contract Year in which such recovery is made.

(6) In the event WKE, LEM or Big Rivers shall receive from the City an allocated portion of the proceeds of any claims or any liquidated or other damages as contemplated in paragraphs (4) and (5) above (net of the damages used for the recovery of the Parties' Collection Costs as contemplated in paragraph (3)), WKE and LEM, on the one hand, and Big Rivers, on the other hand, agree that all such amounts shall be allocated to them or divided between them as set forth below, except as otherwise expressly provided in this paragraph (6).

(i) All liquidated damage amounts and other damage amounts that shall be received from the City as contemplated in paragraph (5) above shall be divided such that WKE and LEM shall receive the portion thereof determined by reference to the following formula and Big Rivers shall receive the balance:

$$A = \frac{B}{23.5}$$

Where:

- A = WKE's and LEM's collective allocated portion of such damages, expressed as a percentage (which shall not be a negative percentage); and
- B = The number of years (and/or portions thereof) remaining in the full "Term" of the Station Two Agreement as of the first date of the relevant failure of the Station Two SCR System or bidder, vendor or contractor giving rise to the claims(s) or damages contemplated in paragraph (5) above.

(ii) All liquidated damage proceeds allocated and paid by the City to WKE/LEM as contemplated in subparagraph (4)(i) above by reason of a Vendor Failure of the type described in that subparagraph ("Subparagraph (4)(i) Damages") shall be remitted to and retained by WKE/LEM for their own account; provided, that WKE/LEM hereby agree to first use any such Subparagraph (4)(i) Damages for the acquisition of NOx allowances or emissions credits to the extent required for the operation of Station Two and the generation of WKE's or LEM's share of Total Capacity during the Term in the absence of a commercially-operational, conforming Station Two SCR System, before retaining such damages or using such damages for any other purpose; and provided further, that in the event, as of the expiration of the Term of the

Station Two Agreement or the early termination of the Station Two Agreement, the relevant bidder, vendor or contractor that paid such liquidated damages has not delivered and installed all components of the Station Two SCR System for which it was responsible in conformity with the guarantees, warranties or other material commitments set forth in its contract with the City, then promptly following that expiration or termination of the Station Two Agreement, WKE/LEM shall pay to Big Rivers a share of the Subparagraph (4)(i) Damages actually received by it or them (net of the amount of those damages used by WKE/LEM to acquire NOx allowances or emissions credits as contemplated above) equal to the percentage of all SCR Capital Costs for which WKE/LEM were responsible under Section 4.20 of the Construction and Operation Agreement that have been funded by Big Rivers as of the expiration or termination of the Station Two Agreement, together with interest on Big Rivers' share of those Subparagraph (4)(i) Damages from the date first received by WKE/LEM through the date paid to Big Rivers at the "Prime Rate" (as defined in the Station Two Agreement).

(iii) All liquidated damage proceeds paid and allocated by the City to WKE/LEM as contemplated in subparagraph (4)(ii) above by reason of a Vendor Failure of the type described in that

subparagraph (“Subparagraph (4)(ii) Damages”) shall be remitted to and retained by WKE/LEM for their own account; *provided, that if* the relevant Vendor Failure contemplated in subparagraph (4)(ii) and the contract between the City and the relevant bidder, vendor or contractor do not physically or contractually prevent the City (or WKE as the City’s contractual operator of Station Two) from restarting and operating either Station Two generating unit in accordance with the requirements of the Station Two Contracts following the expiration of the scheduled outage during which the tie-in of duct work to the Station Two generating units was originally scheduled to be completed, and if either (A) WKE/LEM voluntarily extend that scheduled outage, or restart the Station Two generating units but thereafter voluntarily shut down either or both of those units, in either case in order to accommodate the completion of the tie-in of duct work, or (B) either or both of the Station Two generating units suffer an unscheduled or forced outage due to a mechanical or operational problem unrelated to the tie-in of duct work and such tie-in of duct work is undertaken during the period that the unscheduled or forced outage continues, then any Subparagraph (4)(ii) Damages that are allocated and paid by the City to WKE/LEM for the days (or portions

thereof) during which the scheduled outage was so voluntarily extended, for the days (or portions thereof) during which the Station Two generating units (or either of them) were so voluntarily shut down, or for the days (or portions thereof) of the unscheduled or forced outage during which the tie-in of duct work was so performed (as applicable), shall be allocated between WKE/LEM, on the one hand, and Big Rivers, on the other hand, based upon the formula set forth in subparagraph (6)(i) above, but with component "B" of that formula being the number of years (and/or portions thereof) remaining in the full Term of the Station Two Agreement as of the first date of the relevant Vendor Failure contemplated in subparagraph (4)(ii) above. Notwithstanding the foregoing provisions of this subparagraph (iii), in the event an unscheduled or forced outage as contemplated above is required to be extended beyond the period that would have been required in order to correct or repair the mechanical or operational problems initially giving rise to that outage, in order to allow the completion of tie-in of duct work undertaken during that outage and necessary for the restart of either or both of the Station Two generating units, then WKE/LEM shall be entitled to retain for their own account all Subparagraph (4)(ii) Damages paid for the days (or portions thereof) during

which that unscheduled or forced outage is extended to allow the completion of that work.

(iv) As between WKE/LEM, on the one hand, and Big Rivers, on the other hand, the Party(ies) receiving the proceeds of relevant liquidated damages or other damages from the City as contemplated in paragraph (4) or (5) above (net of the damages used for the recovery of the Parties' Collection Costs as contemplated in paragraph (3)) shall promptly thereafter pay to the other of those Parties its allocable share of those damages (if any) as contemplated in this paragraph (6) in immediately available funds. Notwithstanding anything contained in this paragraph (6) to the contrary, Big Rivers shall not be entitled to receive any portions of the proceeds of any claims or any liquidated or other damages, as contemplated in paragraph (4) or (5) above, until such time as Big Rivers shall have funded its respective share of all SCR Capital Costs as contemplated in the Amendatory Station Two Agreement. The receipt or retention by WKE/LEM of liquidated damages or other damages as contemplated in this Section 4.19 shall not preclude WKE/LEM from asserting or claiming that Big Rivers has an obligation under the Station Two Agreement to contribute its share of the costs of any other SCR Capital Costs, Station Two Improvements costs or

Henderson Incremental Environmental O&M Costs associated with, resulting from or necessitated by the relevant Vendor Failure or other failure of the Station Two SCR System or the bidder, vendor or contractor contemplated in paragraph (4) or (5) above, as applicable, nor shall Big Rivers be deemed to be released or discharged from any such obligations.

(7) A Party's respective entitlements to portions of the proceeds of liquidated damages as contemplated above shall not be affected by any decision by such Party (or any of them) to separately acquire NOx allowances or emissions credits in order for the generation of its share of Total Capacity of Station Two (and in the case of the City, the generation of energy associated with the City's Station One Power Plant Rated Capacity) to remain compliant with the Federal and Kentucky NOx Regulations. The City agrees to hold all liquidated damages or other damages that may be recovered from a particular bidder, vendor or contractor (as contemplated in paragraph (4) or paragraph (5) above) in escrow for the benefit of the Parties until their respective shares (if any) thereof can be calculated and such amounts can be allocated and paid or distributed as contemplated in this Section 4.19.

(8) The proceeds of any insurance maintained with respect to any damage or destruction of the Station Two SCR System or any part

thereof during the construction, start-up and testing thereof or with respect to the completion of the Station Two SCR System shall be applied by the City to the repair, reconstruction or completion thereof, as applicable.

4.20 The SCR Capital Costs have been and shall be funded in the manner provided in this Section 4.20, notwithstanding any provisions to the contrary elsewhere in the Construction and Operation Agreement or the Power Sales Contract. In addition the amount of \$123,584 shall be paid by WKE to the City with respect to WKE's proposed use of Alternate Fuel with respect to the two initial catalyst layers of the Station Two SCR System and the SCR Capital Overcontrol Amount shall be paid to the City by WKE, in each case to the extent not already funded by WKE pursuant to the Interim Funding Agreement. The City shall apply all such amounts to the payment of such costs of the Station Two SCR System.

(a) Promptly upon all provisions of the 2005 Amendments to Contracts becoming fully effective as contemplated in Section 601 below, the City agrees to establish and maintain at a bank in Henderson, Kentucky, reasonably satisfactory to the Parties, an SCR Construction Account (the "SCR Account") into which funds shall be deposited, and out of which payments shall be made, to fund the SCR Capital Costs not previously funded.

(b) The Parties agree to continue the budget for SCR Capital Costs established by the Interim Funding Agreement and to meet periodically to review

and, as needed, update such budget which shall not be amended, modified or supplemented absent the prior written consent of the City, WKE and Big Rivers, which consent shall not be unreasonably withheld, conditioned or delayed.

(c) Prior to the first day of each month, the City shall invoice WKE (or, in the event the Station Two Agreement shall have been terminated, Big Rivers) in writing for WKE's SCR Capital Cost Share of the budgeted SCR Capital Costs that are anticipated by the City, in good faith, to be expended by it during the coming month, and that have not already been funded by WKE pursuant to the Interim Funding Agreement. The City shall promptly provide WKE and Big Rivers with such information regarding those anticipated expenses as WKE (or Big Rivers) may reasonably request. Within five (5) business days after its receipt of that invoice, WKE (or, if the Station Two Agreement shall have been terminated, Big Rivers) shall deposit into the SCR Account funds in an amount equal to its SCR Capital Cost Share of the budgeted SCR Capital Costs for that coming month. Within one (1) business day following that deposit by WKE, the City shall deposit into the SCR Account the City's SCR Capital Cost Share of such budgeted SCR Capital Costs that are anticipated to be expended during that coming month. Once both of those deposits have been made (but not before), the City shall be entitled to thereafter draw upon the SCR Account to fund the budgeted expenditures of the SCR Capital Costs actually incurred by it in the applicable month (or in any subsequent month to the extent the relevant expenditures anticipated for the applicable month are deferred to a subsequent month with the written concurrence of the City and WKE (or, if the Station Two

Agreement shall have been terminated, Big Rivers)). In the event the actual expenditures of SCR Capital Costs associated with a particular aspect or component of the Station Two SCR System are less than the budgeted amounts therefor which were deposited by the City or WKE (or, if the Station Two Agreement shall have been terminated, Big Rivers), the excess amounts in the SCR Account shall be retained in the SCR Account to fund future unanticipated or unbudgeted SCR Capital Costs (with the written concurrence of the City, WKE and Big Rivers) or shall be released as contemplated in paragraph (d) below. In the event the actual obligations associated with a particular aspect or component of the Station Two SCR System require expenditures of SCR Capital Costs in excess of the budgeted amounts and available amounts which were deposited by the City and WKE (or, if the Station Two Agreement shall have been terminated, Big Rivers) in the SCR Account, the amount of the deficiency in the SCR Account shall be deposited in the SCR Account within five (5) business days by the City and WKE (or, if the Station Two Agreement shall have been terminated, Big Rivers) in accordance with their respective SCR Capital Cost Shares.

(d) The City agrees to hold and maintain all funds deposited into the SCR Account in trust for the City and WKE (and, if the Station Two Agreement shall have been terminated, Big Rivers) and agrees to use such funds solely in connection with the SCR Capital Costs as provided in this Section 4.20. If, as of the completed construction and commercial operation date of the Station Two SCR System, any amounts remain in the SCR Account which are not required to fund budgeted SCR Capital Costs that have actually accrued or that can

reasonably be expected to accrue thereafter, those remaining amounts shall promptly thereafter be released by the City from the SCR Account and returned to the City and WKE (and, if the Station Two Agreement shall have been terminated, Big Rivers) in the same proportions as those funds were deposited by those Parties into the SCR Account. In the event the Station Two Agreement shall have been terminated and the rights of WKE under the Agreements shall have been cancelled or reassigned to Big Rivers prior to a release of funds by the City from the SCR Account as contemplated in the preceding sentence, and to the extent the funds so released to Big Rivers constitute a return of funds that were deposited by WKE into the SCR Account as contemplated in paragraph (c) above, Big Rivers agrees to remit and pay to WKE such released funds within ten (10) business days following its receipt thereof without set-off, deduction or counterclaim. The covenant of Big Rivers in the preceding sentence shall survive the expiration or termination of the Station Two Agreement and/or the Construction and Operation Agreement.

(e) The Parties agree that all out-of-pocket costs and expenses that may be incurred by them or any of them (other than the costs and expenses described in Section 4.19 (3) of the Construction and Operation Agreement and other than a Party's cost to borrow or otherwise raise the funds required to be contributed by it toward SCR Capital Costs under this Agreement or under the Amendatory Station Two Agreement), whether pursuant to the 2005 Amendments to Contracts or the Interim Funding Agreement, in connection with (i) the initial design, acquisition, construction, installation, start-up and testing of the Station Two SCR System in

accordance with the 2005 Amendments to Contracts, the Interim Funding Agreement and the SCR Contract; (ii) the development, negotiation and execution of the 2005 Amendments to Contracts, the Interim Funding Agreement, the Amendatory Station Two Agreement, the SCR Contract, the Big Rivers' Easement, the Big Rivers' Creditors' Subordination Agreement and the Guarantor's Consent and Acknowledgement; or (iii) the obtaining of all governmental and third-party consents or approvals required for such agreements or instruments or for the Station Two SCR System; shall constitute SCR Capital Costs. At such time as any Party shall incur any such out-of-pocket costs or expenses (other than the deposits required to be made by WKE or the City into the SCR Account and other than the payments required to be made by the City from the SCR Account, each as contemplated in Section 4.20(c) above) and shall seek reimbursement of the same, that Party shall thereafter submit a written request for reimbursement of such costs and expenses to the City with a copy to the other Parties (or, in the case of costs and expenses incurred by the City, shall notify WKE and Big Rivers in writing of such costs and expenses and of the City's intention to charge the same to the SCR Account as SCR Capital Costs), and all such requested costs and expenses shall be deemed to be added to the approved SCR Capital Costs budget for the Station Two SCR System (to the extent they are not already included in that approved budget) without further action on the part of any Party. Thereafter, such out-of-pocket costs and expenses shall be funded by the City and WKE into the SCR Account in the same manner as other budgeted SCR Capital Costs are funded pursuant to Section 4.20(c)

above, and thereafter shall be paid by the City to the relevant Party from the SCR Account within five business days, and a portion of those out-of-pocket costs shall be paid by Big Rivers to WKE as contemplated in Section 19.4(b) of the Station Two Agreement (as added pursuant to the Amendatory Station Two Agreement). Each Party agrees to provide reasonable documentation in support of a particular cost or expense claimed as being reimbursable to it hereunder upon the request of any other Party.

(f) Upon completion of construction of the Station Two SCR System and settlement of all obligations to third parties (that is, to parties other than the City, Big Rivers, WKE, LEM or their Affiliates) relating to SCR Capital Costs or to costs funded with the SCR Capital Overcontrol Amount and the \$123,584 with respect to alternate fuel with respect to the two initial catalyst layers of the Station Two SCR System, the City shall within forty five (45) days thereafter furnish to WKE and Big Rivers a final written accounting of all items of SCR Capital Costs and all items of costs funded with the SCR Capital Overcontrol Amount and such \$123,584 with respect to alternate fuel for the Station Two SCR System. WKE and Big Rivers shall have until sixty (60) days following receipt of such accounting to question the suitability or correctness of any item thereof or to propose other costs for inclusion in that final accounting, and unless that proposed final accounting is so questioned, or other costs are so proposed within that period, the suitability and correctness of such accounting shall be conclusively presumed. In the event that WKE or Big Rivers shall question the suitability or correctness of any item or items of such accounting, or shall propose other costs

for inclusion in that accounting, the City shall review each such questioned item or items or additional costs and notify WKE and Big Rivers in writing within thirty (30) days thereafter as to whether or not it found any error(s) or omission(s) and, if any such error(s) or omission(s) were found, such notice shall also set forth any reimbursements or payments required to correct such error(s) or omission(s). If, however, after such review and notice by the City, any such questions remain unresolved or differences between the parties persist regarding the proposed final accounting, the City, WKE and Big Rivers shall endeavor, in good faith, to resolve the same for a period of at least sixty (60) days. In the absence of such consensual resolution any party shall be free to resort to the courts to resolve the dispute. Upon the suitability and correctness of such final accounting being conclusively presumed, agreed or determined, and upon the making of any such required payments and reimbursements as a final settlement of accounts, the City shall close the SCR Account and distribute to WKE and the City their respective SCR Capital Cost Shares of any remaining balance.

(g) Upon all provisions of the 2005 Amendments to Contracts becoming fully effective as contemplated in Section 601 below, the budget for SCR Capital Costs and the supplemental budget with respect to SCR Ammonia Costs, prepared and maintained as provided in the Interim Funding Agreement and approved as contemplated in Section 10 of the First Amendment to the Interim Funding Agreement shall continue as the approved budget for SCR Capital Costs and, in the case of such supplemental budget, as a supplement to the then current Annual Budget under and for the purposes of this Construction and Operation Agreement,

the other Agreements and the Station Two Agreement, and the Parties' respective rights and obligations hereunder and thereunder.

4.21 In the event that subsequent to the date of the 2005 Amendments to Contracts, Federal or Kentucky law and regulations shall require the treatment of any sulfuric acid ("SO₃") emissions generated by the Station Two SCR System, the Parties agree (or in the event the Station Two Agreement shall have expired or shall have been terminated as of that time, the City and Big Rivers agree) to negotiate in good faith the terms and conditions of an arrangement under the Construction and Operation Agreement for the sharing and payment by them of the costs relating to such treatment of the SO₃ emissions.

4.22 Big Rivers (or WKE as assignee of Big Rivers) will monitor the operating performance of the Station Two SCR System as provided in Section III of Exhibit D to the Power Sales Contract (as added by the 2005 Amendments to Contracts and attached hereto) and will perform the fuel sampling and analyses to be performed by it as provided in Section V(C) and (D) of Exhibit E to the Power Sales Contract (as added by the 2005 Amendments to Contracts and attached hereto).

Section 203 Section 9.1 of the Construction and Operation Agreement is amended to read as follows:

"9.1 In the event of the issuance of any Station Two Bonds subsequent to the date of the 2005 Amendments to Contracts with the prior written consent of Big Rivers (and, during the term of the Station Two Agreement, WKE/LEM),

the applicable Bond Ordinance may establish and provide for the funding of such funds and accounts pertaining to such Station Two Bonds or to Station Two as shall be approved in writing by Big Rivers (and during the term of the Station Two Agreement WKE/LEM).”

Section 204 Section 14.4 of the Construction and Operation Agreement is amended to read as follows:

“14.4 The Annual Budget may be amended only with the written agreement of the Parties.”

Section 205 Section 15.2 of the Construction and Operation Agreement is amended to read as follows:

“15.2 Such books, records and accounts shall be audited by an independent certified public accountant or a firm of certified public accountants of recognized standing, selected by the City. Such audit shall be completed within 120 days after the close of each Contract Year and WKE and Big Rivers shall be entitled to timely receipt of copies of the audit report of such accountant or firm of accountants and the accompanying financial statements. All such books, records and accounts shall be held and maintained by the City in confidence (and the City shall require its auditors to hold and maintain the same in confidence) for a period of five (5) years from the date of receipt, unless the same shall come into the public domain through no fault of the City or its auditors or unless disclosure thereof is required by applicable laws or regulations pertaining to the City or its auditors or any debt of the City with

respect to its municipal electric system or any Station Two Bonds or required for the exercise by the City of any of its rights or remedies under the Agreements or the Station Two Agreement.”

Section 206 Section 18.4 of the Construction and Operation Agreement is amended to read as follows:

“18.4 During the term of this Agreement all proceeds from policies of insurance maintained with respect to damage or destruction of Station Two or any component thereof and obtained pursuant to this Section shall be paid and applied by the City and Big Rivers (and during the term of the Station Two Agreement by WKE) to the cost of repair, reconstruction and replacement of such damaged or destroyed property unless otherwise agreed to by such parties; provided that if Station Two Bonds (that have been consented to as provided above) shall then be Outstanding such proceeds shall be paid and applied in accordance with the provisions of the applicable Bond Ordinance.”

Section 207 Section 28.1 of the Construction and Operation Agreement is amended to read as follows:

“28.1 In the event Station Two Bonds (that have been consented to as provided above) shall be at any time Outstanding, this Agreement shall be subject to the terms and provisions of the applicable Bond Ordinance. City and Big Rivers (and during the term of the Station Two Agreement, WKE) agree that they will not amend, modify or otherwise alter this Agreement in any manner that will conflict with the provisions of the applicable Bond

Ordinance as the same may, from time to time, exist.”

III. POWER SALES CONTRACT

Section 301 Section 3.1 of the Power Sales Contract is amended to read as follows:

“3.1 Subject to the allocation of surplus capacity to Big Rivers (or to WKE/LEM as Big Rivers’ assignee) as hereinafter provided, the Total Capacity and output of City’s Station Two shall be reserved to and available for use by the City for the purpose of supplying the needs of the City and its inhabitants for electric power and energy in excess of the capabilities, from time to time, of its Existing System. For avoidance of any doubt, the Station Two capacity and associated energy to be reserved to and available for use by the City for any Contract Year to supply the needs of the City and its inhabitants for electric power and energy shall be determined only after giving effect to the application of the then rated capacity and associated energy of the City’s Station One Power Plant (without any reduction for any off-system capacity sales therefrom) to supply such needs.

Section 301A The title of Section 6 of the Power Sales Contract is amended to read as follows:

“Section 6. PAYMENT FOR CAPACITY, FUEL, ALLOCABLE
SCR COSTS AND REAGENT REQUIREMENTS”

Section 302 Section 6.1 of the Power Sales Contract is amended to read as follows:

“6.1 Big Rivers (or during the term of the Station Two Agreement, WKE/LEM, as Big Rivers’ assignee) shall pay to the City of Henderson Utility Commission capacity charges as hereinafter defined for the surplus capacity of Station Two allocated to it as provided in Section 3 of the Power Sales Contract.”

Section 303 Section 6.2 of the Power Sales Contract is amended to read as follows:

“6.2 Capacity charges payable by Big Rivers (or WKE/LEM, as Big Rivers’ assignee), other than Allocable SCR Costs, for any Monthly Billing Period as provided in Section 6 of the Power Sales Contract shall be in the same proportion of the Total Capacity costs (exclusive of Allocable SCR Costs) of Station Two for such Monthly Billing Period as Big Rivers’ (or WKE/LEM’s, as Big Rivers’ assignee) allocation of surplus net send-out capacity of Station Two during such Monthly Billing Period bears to the total net send-out capacity of Station Two for such Monthly Billing Period as established pursuant to Section 3 of the Power Sales Contract. Capacity charges payable by Big Rivers (or WKE/LEM, as Big Rivers’ assignee) for any Monthly Billing Period as provided in Section 6 of the Power Sales Contract consisting of Allocable SCR Costs shall be calculated as follows:

(a) The amount of SCR Ammonia Costs for such Monthly

Billing Period allocated to Big Rivers (or WKE/LEM, as Big Rivers' assignee) shall be determined in accordance with the formula and related provisions set forth in Exhibit D to the Power Sales Contract (as added by the 2005 Amendments to Contracts) attached hereto; and

(b) The amount of SCR Catalyst Acquisition Costs for such Monthly Billing Period allocated to Big Rivers (or to WKE/LEM, as Big Rivers' Assignee) shall be determined in accordance with the formula and related provisions set forth in Exhibit E to the Power Sales Contract (as added by the 2005 Amendments to Contracts) attached hereto, subject to the provisions of Sections 6.8 and 6.9 below.

Notwithstanding any other provision of the Power Sales Contract to the contrary, capacity charges payable by Big Rivers (or WKE/LEM as Big Rivers' assignee) for a Monthly Billing Period during each Contract Year commencing with the initial Contract Year beginning June 1, 2004 and ending with the expiration of the nineteenth (19th) Contract Year (i.e., a 20-year amortization) following such initial Contract Year, shall be adjusted so as to provide for each of the following:

(i) in the event that the City's share of the Total Capacity of

Station Two as allocated pursuant to Section 3 of the Power Sales Contract for such Contract Year shall exceed its share of such Total Capacity for the Contract Year beginning June 1, 2004, a credit to Big Rivers (or WKE/LEM, as Big Rivers' assignee) in an amount equal to one-twelfth ($1/12^{\text{th}}$) (or such greater fraction as appropriate in the case of a Contract Year embracing fewer than 12 months) of the product obtained by multiplying the SCR Amortized Capital Cost per MW for such Contract Year, if any, by the number of MWs by which the City's share of the Total Capacity of Station Two for such Contract Year exceeds its share of the Total Capacity of Station Two for the Contract Year beginning June 1, 2004; and

- (ii) in the event the City's share of the Total Capacity of Station Two as allocated pursuant to Section 3 of the Power Sales Contract for such Contract Year shall be less than its share of such Total Capacity for the Contract Year beginning June 1, 2004, an additional payment by Big Rivers (or WKE/LEM, as Big Rivers' assignee) in an amount equal to one-twelfth ($1/12^{\text{th}}$) (or such greater fraction as appropriate in the case of a Contract Year embracing fewer than 12 months) of the product obtained by multiplying the SCR Amortized Capital Cost per MW for such Contract Year, if

any, by the number of MWs by which the City's share of the Total Capacity of Station Two for such Contract Year is less than its share of Total Capacity of Station Two for the Contract Year beginning June 1, 2004.

Section 304 The initial paragraph of Section 6.3 of the Power Sales Contract is amended to read as follows:

"6.3. The Total Capacity costs of Station Two for each Monthly Billing Period shall be the City's total cost resulting from the ownership, operation and maintenance of, and renewals and replacements to, Station Two, except that the cost of fuels and Reagents with respect to Station Two shall not be included as such capacity costs and such capacity costs shall not include any SCR Capital Costs or any Debt Service except Debt Service on Station Two Bonds (which as applicable have been consented to by WKE/LEM and/or Big Rivers as contemplated in the Construction and Operation Agreement, as amended by the 2005 Amendments to Contracts), if any. Such capacity costs shall include but are not limited to:

(a) In the event Station Two Bonds shall be Outstanding, Debt Service (as defined in the applicable Bond Ordinance with respect to such Station Two Bonds) for such Monthly Billing Period with respect to such Station Two Bonds.

(b) One-twelfth (1/12th) or such greater fraction as appropriate in the case of a Contract Year embracing fewer than 12 months) of all costs associated with the operation and maintenance of Station Two during such Contract Year, including, without limitation, Allocable SCR Costs and all other costs properly chargeable to FERC Accounts 408, 500, 502, 505, 506, 510, 511, 512, 513, 514 and 924, and fiscal agency costs and expenses allocable to Station Two.

(c) In the event Station Two Bonds shall be Outstanding, the amount, if any, which the City is required under the applicable Bond Ordinance with respect to such Station Two Bonds to pay during such Monthly Billing Period into (i) the Station Two Account (Station Two O. & M. Account) in the Operation and Maintenance Fund, if any, so as to restore any minimum balance required to be maintained therein, and (ii) the Station Two Account (Station Two R. & R. Account) in the Renewals and Replacements Fund, if any, so as to restore any minimum balance required to be maintained therein, but in each case only if the applicable Bond Ordinance requiring such funding amounts had been approved by Big Rivers (and, as applicable, by WKE/LEM);

(d) The amount, if any, required to be paid during such Monthly Billing Period by (i) the City and Big Rivers (or WKE/LEM, as Big Rivers' assignee) pursuant to Section 19.3(c) of the Power Sales Contract, (ii) the City and Big Rivers pursuant to Section 19.2 of the Power Sales Contract, and (iii) the City and WKE/LEM pursuant to Section 10.3(g) of the Station Two Agreement;

(e) Costs of renewals, replacements and additions (when such additions are agreed to by Big Rivers (or WKE/LEM, as Big Rivers' assignee)) which are not provided for through (i) proceeds of insurance, or (ii) funds available from proceeds of Station Two Bonds.

(f) One-twelfth (1/12) of all costs of administration and general expense for Station Two during such Contract Year, and including, but not limited to costs properly includible in FERC Accounts 920, 921, 923, 924, 925, 926, 928 and 930.

(g) Any amounts paid or payable to Big Rivers (or WKE/LEM as Big Rivers' assignee) for such Monthly Billing Period under terms of the Construction and Operation Agreement (except any delayed payment penalties as therein provided) not included in the foregoing.

(h) Any other costs associated with Station Two which are not included in paragraphs (a) through (g) hereof."

Section 305 Section 6.7 of the Power Sales Contract is amended to read as follows:

"6.7 Fuel and Reagent Requirements: Big Rivers (or WKE/LEM, as Big Rivers' assignee) and the City shall each provide, at its own cost, the full replacement of all fuels consumed from the Station Two fuel reserve for the production of electric energy used by it during each month. If at any time during the term of the Power

Sales Contract, the Station Two coal reserve shall fall below a full thirty (30) days' supply, then upon written demand by either party, both parties shall increase their respective monthly additions to the coal reserve by five per cent (5%) until the coal reserve is restored to the amount specified in such demand, not to exceed forty-five (45) days' supply for Station Two. Fuel consumption by each party will be determined on the basis of measured quantities, adjusted for heat content, and attributed to the parties on the basis of their respective uses of electric energy from Station Two during each month. Big Rivers (or WKE/LEM, as Big Rivers' assignee) and the City shall each provide, at its own cost, the full replacement of all Reagents consumed for its own use, which in the case of lime for the Station Two Flue Gas Desulfurization System shall be based on the tonnage of coal supplied by such party to produce the electric energy it takes from Station Two and the sulfur and BTU content of such coal."

Section 305A The Power Sales Contract is amended by adding a new Section 6.8 to read as follows:

"6.8 As an adjustment of payments otherwise due as provided in this Section 6 with respect to the SCR Catalyst Acquisition Costs of a Catalyst Layer, Big Rivers (or WKE/LEM, as Big Rivers' assignee) or the City, or both of such Parties, as applicable, shall make the Catalyst Refund Payment or Payments, if any, payable

with respect to a Catalyst Failure of such Catalyst Layer determined in accordance with the formula and related provisions set forth in Section IV and Section V of Exhibit E hereto, and, notwithstanding the provisions Sections 3, 6.1, 6.3 or 9.1 of the Power Sales Contract, each such Catalyst Refund Payment shall be due and payable within 60 days of the date of such determination pursuant to Exhibit E hereto.”

Section 305B The Power Sales Contract is amended by adding a new Section 6.9 to read as follows:

“6.9 The Parties agree that any proceeds received in connection with the sale or disposal of any catalyst layer (whether or not a “Catalyst Layer” as defined hereunder) permanently removed from the Station Two SCR System, shall be applied solely for the following: (i) to offset the SCR Catalyst Acquisition Costs for the relevant new Catalyst Layer (if any) as provided in the definition of “SCR Catalyst Acquisition Costs” (as added by the 2005 Amendments to Contracts), or (ii) if no new Catalyst Layer is then to be installed in place of such catalyst layer sold or disposed of, to defray the costs associated with the operation and maintenance of Station Two.”

Section 306 Section 9.1 of the Power Sales Contract is amended to read as follows:

“9.1. On or before the twentieth (20th) day of each calendar month during each Contract Year Big Rivers (or WKE/LEM, as Big Rivers’ assignee) shall pay to the City of Henderson Utility Commission in payment for its allocated Station Two capacity during the current Monthly Billing Period all capacity charges due from Big Rivers (or WKE/LEM, as Big Rivers’ assignee) for such Monthly Billing Period in accordance with Section 6 of the Power Sales Contract. Such payments shall be made on the basis of the Annual Budget in effect for the Contract Year that includes such Monthly Billing Period which, for purposes of calculating SCR Ammonia Costs and SCR Catalyst Acquisition Costs with respect to such Contract Year estimated for purposes of such Annual Budget to be allocated to Big Rivers (or WKE/LEM, as Big Rivers’ assignee) for such Monthly Billing Period in accordance with Section 6.2(a) and (b) of the Power Sales Contract, shall reflect the allocation of SCR Ammonia Costs and SCR Catalyst Acquisition Costs in accordance with the applicable formulae set forth in Exhibit D and Exhibit E hereto. Payments shall be deemed complete upon the posting thereof in the regular United States mail, properly addressed and affixed with postage or upon receipt by wire transfer by a bank designated by the City for such purpose.”

Section 307 Section 9.3 of the Power Sales Contract is amended to read as

follows:

“9.3 Off-Setting Accounts: Big Rivers (or WKE/LEM, as Big Rivers’ assignee) shall have the right to off-set accounts payable under this Agreement by any payments due it under Section 13.6 of the Construction and Operation Agreement and thereupon shall pay to the City of Henderson Utility Commission any remaining balance of the off-set account. Off-setting of accounts shall be employed in determining any delayed payment charges as provided herein.”

Section 308 Section 9.4 of the Power Sales Contract is amended to read as

follows:

“9.4 As quickly as is reasonably possible but in no event later than one hundred twenty (120) days after the end of each Contract Year Big Rivers (or WKE/LEM, as Big Rivers’ assignee) shall submit to the City a detailed statement of the actual capacity costs for all Monthly Billing Periods of such Contract Year, based on the annual audit of accounts provided for in Section 11 of the Power Sales Contract. If, on the basis of such statement, actual aggregate capacity costs for such Contract Year payable by Big Rivers (or WKE/LEM, as Big Rivers’ assignee) exceed the estimates thereof in the Annual Budget on the basis of which Big Rivers (or

WKE/LEM, as Big Rivers' assignee) has made payments, Big Rivers (or WKE/LEM, as Big Rivers' assignee) shall pay promptly to the City of Henderson Utility Commission the additional amount to which the City is entitled. If, on the basis of such statement, the actual aggregate capacity costs for such Contract Year payable by Big Rivers (or by WKE/LEM, as Big Rivers' assignee) are less than the estimates thereof in the Annual Budget on the basis of which Big Rivers (or WKE/LEM, as Big Rivers' assignee) has made payments, such excess shall be credited against Big Rivers'(or, WKE/LEM, as Big Rivers' assignee) next monthly payment or payments hereunder, or paid to Big Rivers (or to WKE/LEM, as Big Rivers' assignee) if no such payments are due from Big Rivers (or WKE/LEM, as Big Rivers' assignee).”

Section 309 Section 11.1 of the Power Sales Contract is amended to read as follows:

“11.1 There shall be an annual audit of the financial accounts of the City’s Station Two by an independent certified public accountant or a firm of certified public accountants of recognized standing, selected by the City. Such audit shall be completed within 120 days after the close of each Contract Year and WKE and Big Rivers shall be entitled to receipt of copies of the annual audit report of such accountant or firm of accountants and the

accompanying financial statements within that 120-day period.

Such financial statements, accounts and reports shall be held and maintained by the City in confidence (and the City shall require its auditors to hold and maintain the same in confidence) for a period of five (5) years from the date of receipt, unless the same shall come into the public domain through no fault of the City or its auditors, or unless disclosure thereof is required by applicable laws or regulations pertaining to the City or its auditors or any debt with respect to its municipal electric system or any Station Two Bonds or required for the exercise by the City of any of its rights or remedies under the Agreements or the Station Two Agreement.”

Section 310 Section 18.1 of the Power Sales Contract is amended to read as follows:

“18.1 In the event Station Two Bonds (as applicable, that have been consented to by Big Rivers and/or WKE/LEM as contemplated in the Power Sales Contract or the Construction and Operation Agreement) shall be at any time Outstanding, this Agreement shall be subject to the terms and provisions of the applicable Bond Ordinance. City and Big Rivers (and during the term of the Station Two Agreement, WKE and LEM) agree that they will not amend, modify or otherwise alter this Agreement in any manner that will impair or adversely affect the security afforded by the provisions of this Agreement to the holders of any

such Station Two Bonds, for the payment of principal, interest and premium, if any, thereon, so long as any of such Bonds are Outstanding and unpaid, or until provision is irrevocably made for the payment thereof.”

Section 311 Section 19.1 of the Power Sales Contract is hereby deleted in its entirety.

Section 312 Section 19.2 of the Power Sales Contract is hereby renumbered as Section 19.1 and amended to read as follows, provided that this Section 19.1 shall be and remain suspended as among the parties to the extent provided in and in accordance with Section 9.4(b)(1) and Section 10.3(g) of the Station Two Agreement:

“19.1 Big Rivers and the City agree as follows:

(a) Big Rivers shall remit and pay to the City by wire transfer, within two (2) business days following its receipt of a written request therefor from the City, immediately available funds in an amount not to exceed \$1,050,000 in the aggregate (the “Maximum Funding Limit”), for use by the City to fund one or more major renewals or replacements with respect to Station Two in order to keep Station Two in good operating condition (including without limitation, any such major renewals or replacements required to correct any unusual loss or damage with respect to Station Two). The City’s use of the funds contemplated above shall be limited to those situations where a sufficient budget was not previously established in the then current Annual Budget for Station Two, but then only to the extent that the expenditure for such renewal or replacement is required on an

expedited basis and in advance of the time by which the Parties could otherwise meet to separately budget and fund the expenditure. The City's written request for funds contemplated above shall include a description of the major renewals or replacements for which the funds are requested, the reason for their expenditure, the amount of funds so requested, the City's good faith estimate of the actual cost of the relevant renewals or replacements, and the bank account of the City to which the funds are to be wire transferred (with appropriate wiring instructions).

(b) The City shall be entitled from time to time, in its discretion, to submit multiple requests for funds from Big Rivers pursuant to this Section 19.1; provided, however, that the following additional conditions or limitations shall apply to the funding obligations of Big Rivers under this Section 19.1 for all purposes:

- (i) the maximum amount of funds that Big Rivers shall be obligated to remit and pay to the City pursuant to this Section 19.1 during any consecutive twelve (12) month period (for all renewals and replacements, collectively, to be funded as contemplated in this Section 19.1) shall not exceed the Maximum Funding Limit;
- (ii) the City may not request funds hereunder in increments of less than \$10,000;
- (iii) Big Rivers shall not be required to remit or pay funds to the

City hereunder in excess of that portion of the cost of the relevant renewals or replacements corresponding with the share of the Total Capacity from Station Two then allocated for use by Big Rivers pursuant to Section 3 of the Power Sales Contract, except that, in the case of a renewal or replacement the cost of which constitutes a SCR Catalyst Acquisition Costs, the portion of such cost shall correspond with the allocation of such SCR Catalyst Acquisition Costs to Big Rivers as provided in Section 6.2 of the Power Sales Contract,

- (iv) the City shall not request funds in excess of its good faith estimate of the cost of such renewals or replacements, and hereby agrees to promptly repay to Big Rivers any amounts funded by Big Rivers in excess of the actual cost thereof plus any interest earned on such amounts, and
- (v) the City shall also contemporaneously fund, out of its own resources, that portion of the cost of such renewals or replacements corresponding with the City's share of the Total Capacity of Station Two at that time reserved for the City pursuant to Section 3 of the Power Sales Contract (or, in the case of SCR Catalyst Acquisition Costs, corresponding with the City's share of such costs as contemplated in Section 6.2 of the Power Sales Contract).

Section 313 Section 19.3 of the Power Sales Contract is hereby renumbered as
Section 19.2 and amended to read as follows:

"19.2 Big Rivers and the City agree as follows:

(a) Big Rivers shall continue the Big Rivers Station Two Operation and Maintenance Fund and shall have on deposit therein funds in the amount of \$400,000 (the "Big Rivers O&M Minimum Balance"). In the event an amount is withdrawn therefrom as hereinafter provided, Big Rivers agrees to make monthly levelized payments into the Big Rivers Station Two Operation and Maintenance Fund, so as to restore the Big Rivers O&M Minimum Balance within twelve months. All interest on such amounts shall be repaid to Big Rivers at the end of each calendar year, and all amounts in such Fund shall be paid to Big Rivers upon termination or expiration of the Power Sales Contract. Amounts from this Fund shall be withdrawn in accordance with Section 19.2(c) of this Power Sales Contract; and

(b) The City shall continue the City Station Two Operation and Maintenance Fund and shall have on deposit therein funds in the amount of \$100,000 (the "City O&M Minimum Balance"). In the event an amount is withdrawn

therefrom as hereinafter provided, the City agrees to make monthly levelized payments into the City Station Two Operation and Maintenance Fund each month, so as to restore the City's O&M Minimum Balance within twelve months. All interest on such amounts shall be repaid to the City at the end of each calendar year, and all amounts in such Fund shall be paid to the City upon termination or expiration of the Power Sales Contract. Amounts from this Fund shall be withdrawn in accordance with Section 19.2(c) of the Power Sales Contract; and

- (c) All required expenditures for operation and maintenance not otherwise provided for, other than with respect to SCR Ammonia Costs and SCR Catalyst Acquisition Costs, shall be paid from the Big Rivers Station Two Operation and Maintenance Fund and the City Station Two Operation and Maintenance Fund, respectively, and such payments shall be made in the same ratio as the then effective allocation of Station Two capacity between Big Rivers and the City in accordance with Section 3 of the Power Sales Contract. Required expenditures for operation and maintenance constituting SCR Ammonia Costs and SCR Catalyst Acquisition Costs not otherwise

provided for shall be paid from the Big Rivers Station Two Operation and Maintenance Fund in an amount as provided in Section 6.2 of the Power Sales Contract for the allocation of SCR Ammonia Costs and SCR Catalyst Acquisition Costs to Big Rivers and the balance of such expenditures for SCR Ammonia Costs and SCR Catalyst Acquisition Costs shall be made from the City Station Two Operation and Maintenance Fund.

Big Rivers agrees that promptly following the expiration or termination of the Station Two Agreement and disbursement of amounts in the Big Rivers Station Two Operation and Maintenance Fund as provided in the Station Two Agreement, it will fund the Big Rivers Station Two Operation and Maintenance Fund to the same extent as would have initially been required of it under this Section 19.2 had such funding not been provided by WKE pursuant to Section 10.3(f) of the Station Two Agreement and Big Rivers agrees that it will comply thereafter with the provisions of this Section 19.2.”

Section 314 A new Section 21.4 is added to the Power Sales Contract to read as follows:

“21.4 Since the City’s Electric Light and Power Refunding

Revenue Bonds, Station Two Series, dated as of March 1, 1973, have been paid in accordance with their terms, the two county restriction provided for in the Internal Revenue Service Letter Ruling, dated January 26, 1971, shall no longer be applicable with respect to the operation of the Henderson-Daviess System and the City Electric System referred to in Section 21.1 above (or to the capacity or energy generated by Station Two), and, accordingly, the parties to the Power Sales Contract agree that the provisions of Section 21.1, 21.2 and 21.3 of this Power Sales Contract will no longer be applicable or have any force or effect with respect to the capacity and energy generated after the date of payment of such Bonds by Station Two or the City's Station One Power Plant."

IV. BIG RIVERS ASSIGNMENT

Section 401 Section 37.1 of the Construction and Operation Agreement, Section 24.1 of the Power Sales Contract and Section 15.1 of the Joint Facilities Agreement are each amended by adding the following:

"Notwithstanding anything to the contrary contained in this Agreement or the other Agreements (as hereinafter defined) or the Station Two Agreement, in addition to the assignment of such Agreements by Big Rivers to the United States of America, Big Rivers may assign its rights and interests under the Agreements, including this Agreement, and the Station Two Agreement as security for, and may grant a security interest herein and therein

pursuant to the Mortgages (as hereinafter defined) as security for, any and all of its obligations to the other mortgagees or secured parties specifically identified in the Mortgages as being secured thereby; provided that in exercising any of its rights or remedies arising out of such assignment of rights and interests as security, no such mortgagee or secured party (other than WKE, LEM or Western Kentucky Energy Corp., or their respective successors or permitted assigns under Section 15 of the Station Two Agreement or under this Agreement or the other Agreements, in the exercise of any rights that they may have under or pursuant to any Agreement, the Station Two Agreement or any other "Operative Document" (as defined in the Station Two Agreement)), shall itself have the right to occupy, operate or maintain Station Two or exercise any other right, remedy or interest so assigned, pledged or granted as aforesaid, unless it shall meet the requirements set forth in clauses (i) to (iii), inclusive, below, as if it were a transferee or assignee as provided therein (the aforementioned limitation not to be deemed to limit any foreclosure of the mortgage liens and security interests so long as upon foreclosure the transferee or assignee of such rights and interests, whether or not including the mortgagee or secured party, shall meet the requirements set forth in clauses (i) to (iii), inclusive); and each such mortgagee or secured party may transfer or assign the rights and interest(s) so

assigned, pledged or granted as security pursuant to a sale in foreclosure of the lien of any of the Mortgages, or a sale in lieu of a foreclosure of the lien of any of the Mortgages (or the exercise of power of sale); provided that, except in the case of WKE, LEM and Western Kentucky Energy Corp., and their respective successors or permitted assigns under Section 15 of the Station Two Agreement or under this Agreement or the other Agreements, in the exercise of any rights that they may have under or pursuant to any Agreement, the Station Two Agreement or any other "Operative Document" (as defined in the Station Two Agreement),

(i) the transferee or assignee shall be an electric utility, combination electric and gas utility or an Affiliate thereof (as hereinafter defined) and shall assume all of the duties and obligations of Big Rivers under the Agreements and the Station Two Agreement, including, without limitation, all other agreements that relate to the interest being transferred or assigned,

(ii) such transferee or assignee that undertakes such duties and obligations of Big Rivers as aforesaid is authorized by all appropriate regulatory authorities and under applicable law to fulfill such duties and obligations, and (iii) such transferee or assignee is approved by the City, which approval shall not be unreasonably withheld, conditioned or delayed, and in its consideration of such approval it is understood that the City may

take into account, among other relevant matters, the experience and reputation of such transferee or assignee in operating and maintaining coal-fired electric generating facilities similar to Station Two, the creditworthiness of such transferee or assignee and whether the business or interest of such transferee or assignee (or its Affiliate) is in conflict with the interest of the City. For purposes of this Section the following terms as used in this Section shall be defined as follows:

(1) The term "Mortgages" shall mean (i) the Restated Mortgage and Security Agreement, dated as of July 15, 1998, among Big Rivers, as mortgagor, and the United States of America acting through the Rural Utilities Service, Ambac Assurance Corporation and the National Rural Utilities Cooperative Finance Corporation (together, the "Original Mortgagees"), recorded in Mortgage Book 559, page 1, Office of the Henderson County Court Clerk, (ii) the Supplemental Mortgage and Security Agreement dated as of April 1, 2000, among the Big Rivers, as Mortgagor, and the Original Mortgagees, PBR-1 Statutory Trust, PBR-2 Statutory Trust, PBR-3 Statutory Trust, FBR-1 Statutory Trust, FBR-2 Statutory Trust and Ambac Credit Products, LLC (together, the "Supplemental Mortgage Mortgagees"), recorded in Mortgage Book 621, page 285, Office of the Henderson County Court Clerk, (iii) the Second Restated Mortgage and Security

Agreement among Big Rivers, as mortgagor, and the Supplemental Mortgage Mortgagees and Credit Suisse First Boston, acting by and through its New York Branch (together, the "Second Restated Mortgage Mortgagees"), recorded in Mortgage Book 647, page 125, Office of the Henderson County Court Clerk, (iv) the Third Restated Mortgage and Security Agreement, dated as of August 1, 2001, among Big Rivers, as mortgagor, and the Second Restated Mortgage Mortgagees and U.S. Bank National Association, as Trustee, recorded in Mortgage Book 679, page 1, Office of the Henderson County Court Clerk, as amended by the First Amendment to Third Restated Mortgage and Security Agreement dated as of July 15, 2003, recorded in Mortgage Book 812, page 599, Office of the Henderson County Court Clerk, (v) the Mortgage and Security Agreement (LEM Mortgage), dated as of July 15, 1998, among Big Rivers, LG&E Energy Marketing Inc., Western Kentucky Energy Corp., LG&E Station Two Inc., and WKE Corp. recorded in Mortgage Book 559, page 199, Office of the Henderson County Court Clerk, as amended by the First Amendment to Mortgage and Security Agreement (LEM Mortgage) dated as of August 22, 2002, recorded in Mortgage Book 749, page 805, Office of the Henderson County Court Clerk, (vi) the Mortgage and Security Agreement, dated as of July 15, 1998, among Big Rivers, Western Kentucky Energy Corp., LG&E

Energy Marketing Inc., WKE Station Two Inc., and WKE Corp. recorded in Mortgage Book 559, page 123, Office of the Henderson County Court Clerk, (vii) the Subordinated Mortgage and Security Agreement, dated as of April 1, 2000, among Big Rivers, PBR-1 Statutory Trust, PBR-2 Statutory Trust, PBR-3 Statutory Trust, FBR-1 Statutory Trust, FBR-2 Statutory Trust, PBR-1 OP Statutory Trust, PBR-2 OP Statutory Trust, PBR-3 OP Statutory Trust, FBR-1 OP Statutory Trust, FBR-2 OP Statutory Trust, Ambac Credit Products, LLC, AME Investments, LLC, Cobank, ACB, Bluegrass Leasing, Fleet Real Estate, Inc., AME Asset Funding, LLC, and Ambac Assurance Corporation, recorded in Mortgage Book 621, page 328, Office of the Henderson County Court Clerk, and (viii) any instrument or instruments that replace or are substituted for any of the foregoing instruments, in the case of (i) through (viii) above, as the same may be further amended or supplemented from time to time.

(2) The term "Agreements" shall mean the Construction and Operation Agreement, the Power Sales Contract and the Joint Facilities Agreement, in each case as amended and supplemented from time to time.

(3) The term "Affiliate" of any designated entity shall mean any entity that has a relationship with the designated entity whereby either of such entities directly or indirectly controls, is

controlled by, or is under common control with the other. For this purpose, the term "control" means the power, direct or indirect, of one entity to direct or cause the direction of the management or policies of another, whether by contract, through voting securities or otherwise.

V. CONSENT AND AGREEMENT

Section 501 WKE and LEM, as assignees of certain of the rights, title and interests of Big Rivers under the Agreements and pursuant to their respective assumptions of certain of the obligations of Big Rivers under the Agreements, all pursuant to the Station Two Agreement and the Assignment and Assumption Agreement, hereby consent and agree to the amendments to the Agreements contained in the 2005 Amendments to Contracts (subject to the conditions and limitations set forth in the 2005 Amendments to Contracts), and the Parties agree that under and pursuant to the Station Two Agreement and the Assignment and Assumption Agreement, WKE and LEM shall, as such assignees, be entitled (whether or not so specified in the Agreements and the 2005 Amendments to Contracts) as aforesaid, to all the rights, title and interests of Big Rivers under the 2005 Amendments to Contracts and shall be bound (whether or not so specified in the Agreements and the 2005 Amendments to Contracts) to perform such obligations of Big Rivers under the 2005 Amendments to Contracts (other than Big Rivers' obligation pursuant to Section 201 or Section 401 thereof) that are assumed by WKE and LEM pursuant to the Station Two Agreement and the Assignment and Assumption Agreement and arise or otherwise exist during the term of the Station Two Agreement (except as otherwise provided, and subject to the limitations in the

Station Two Agreement), as well as bound by their respective obligations as Parties hereunder.

VI. REQUIRED APPROVALS; EFFECTIVE DATE; REPRESENTATIONS AND ACKNOWLEDGEMENTS; TERMINATION OF INTERIM AGREEMENTS; MISCELLANEOUS

Section 601 The Parties agree that:

(a) Each Party shall use its commercially reasonable efforts to cooperate with the other Parties to obtain at the earliest practicable time all governmental regulatory approvals and any creditors' consents and approvals required for the Parties' respective execution, delivery and performance of the 2005 Amendments to Contracts, the Amendatory Station Two Agreement, the Guarantor's Consent and Acknowledgment, the Big Rivers' Creditors' Subordination Agreement and the Big Rivers' Easement, and each Party shall otherwise use its commercially reasonable efforts to satisfy for its part the conditions of the effectiveness of all provisions of the 2005 Amendments to Contracts applicable to it or for which it is responsible as set forth in subsection (b) of this Section 601.

(b) Upon the execution and delivery of the 2005 Amendments to Contracts by the Parties this Section 601 shall become effective and, notwithstanding anything to the contrary set forth elsewhere herein, all other provisions of the 2005 Amendments to Contracts shall become effective only upon the date (based as to clauses (i), (ii) and (iii) below on certifications by the Parties as set forth in clause (iv) below) of the last of the following to occur:

(i) each Party shall have received all regulatory and other approvals, consents and authorizations required or necessary (A) for the effectiveness of all the provisions of the 2005 Amendments to Contracts with respect to all Parties thereto and the performance by the Parties of their respective duties and obligations hereunder, and for all the provisions of the 2005 Amendments to Contracts to become the legal obligation of all Parties thereto, (B) for the effectiveness of the Amendatory Station Two Agreement as to all parties thereto and the performance by all such parties of their respective duties and obligations thereunder, and for the Amendatory Station Two Agreement to become the legal and binding obligation of all parties thereto; (C) for the execution and delivery by all relevant parties of the Big Rivers' Easement and the Big Rivers' Creditors Subordination Agreement and the performance by such parties of their respective duties and obligations thereunder, and for the Big Rivers Easement and the Big Rivers Creditors' Subordination Agreement to become the legal obligation of all such parties, including in the case of subclauses (A) through (C) above, without limitation, any approvals, consents or authorizations that may be required from the Kentucky Public Service Commission, the Rural Utilities Service or any other creditor of Big Rivers that may hold one or more security interests in Big Rivers' interests in the Agreements or the

real property that is the subject of the Big Rivers' Easement;

(ii) the Amendatory Station Two Agreement, the Big Rivers Easement and the Big Rivers' Creditors' Subordination Agreement shall have been executed and delivered by the respective parties thereto and all the provisions thereof shall, either before or contemporaneous with all provisions of the 2005 Amendments to Contracts, have become effective and binding on such parties; and

(iii) LG&E Energy LLC shall have executed and delivered the Guarantor's Consent and Acknowledgement and received all regulatory and other approvals, consents and authorizations required therefor.

(iv) Each Party shall have furnished to the other Parties a written certificate to the effect that for its part each of the conditions set forth in clauses (i), (ii) and (iii) above, has been satisfied.

(v) The Parties shall have delivered each to the other, such opinions of counsel and other documentation in customary form and substance relating to the 2005 Amendments to Contracts and the other agreements referred to in this subsection (b) reasonably evidencing the due authorization, execution and delivery thereof the binding effect and enforceability thereof, the receipt of all required regulatory, creditor and other approvals thereof and

consents thereto and such other matters as reasonably requested by any Party;

(c) In the event that all the provisions of the 2005 Amendments to Contracts shall not become fully effective as to all Parties in accordance with subsection (b) of this Section 601 on or prior to April 30, 2006 (or such later date as shall be agreed to by the Parties), the 2005 Amendments to Contracts shall forthwith terminate and shall no longer have any force or effect (except for a Party's obligations for a breach or default under this Section 601 occurring prior to such termination, which obligations shall survive such termination), provided, however, if prior to April 30, 2006, the Station Two Agreement shall terminate, the 2005 Amendments to Contracts shall terminate only as to WKE and LEM and in that event this Section 601 shall continue in effect as to Big Rivers and the City;

(d) Notwithstanding anything to the contrary set forth elsewhere in the 2005 Amendments to Contracts, upon the effectiveness of all the provisions of the 2005 Amendments to Contracts as contemplated above, the 2005 Amendments to Contracts shall be deemed to have retroactive effectiveness to June 1, 2004 as among the Parties hereto.

Section 602 As of the date on which all of the provisions of the 2005 Amendments to Contracts shall be fully effective, each Party represents and warrants to each of the other Parties that:

(a) Such Party is duly organized and validly existing under applicable law and

has full power and authority to conduct its business as presently conducted, and to execute, deliver and perform the 2005 Amendments to Contracts.

(b) The execution, delivery and performance of the 2005 Amendments to Contracts have been duly authorized by all necessary action on the part of such Party and do not require approval or consent of, or notice to, any creditor or any trustee or holder of any indebtedness or other obligations of such Party or any indebtedness entitled to any security interest in any property, rights or interests of such Party, other than such approvals, consents and other action as have been duly obtained or taken.

(c) Neither the execution, delivery or performance by such Party of the 2005 Amendments to Contracts, nor the consummation by such Party of the transactions contemplated thereby, will conflict with or result in any violation of or constitute a default under any terms of any material agreement, mortgage, contract, indenture, lease or other instrument, or any applicable law, by which such Party or its properties or assets are bound.

(d) The execution, delivery or performance by such Party of any provision of the 2005 Amendments to Contracts, do not require the consent or approval of, the giving of notice to, the registration with, or the taking of any other action in respect of, any government authority or agency, including any judicial body, other than such consents, approvals, notices, registration or other action which have been duly obtained, given, sent or taken.

(e) These 2005 Amendments to Contracts have been duly executed and delivered by such Party and constitute the legal, valid and binding obligation of such Party enforceable against such Party in accordance with its terms, except as such enforcement may be

limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the rights of creditors generally and by general principles of equity, regardless of whether enforcement is sought in a proceeding in equity or at law.

(f) There are no pending or to the actual knowledge of such Party, threatened actions or proceedings by or before any court or administrative agency that, either individually or in the aggregate, are reasonably likely materially and adversely to affect the ability of such Party to perform its obligations under these 2005 Amendments to Contracts.

Section 603 Each of the Parties acknowledges that WKE and the City have heretofore funded SCR Capital Costs and other costs of the Station Two SCR System, as well as SCR Ammonia Costs, and have otherwise performed certain obligations and undertaken certain activities with respect to the Station Two SCR System or the design, acquisition, construction, installation, start-up and testing thereof, in each case pursuant to the Interim Funding Agreement, and the Parties hereby agree that provision of such funding, the performance of such obligations and the undertaking of such activities shall be deemed to have been authorized, undertaken and accomplished consistent and in accordance with the Parties' respective obligations under the provisions of the Agreements (as amended hereby) and the Station Two Agreement. The acknowledgements and agreements of the Parties pursuant to this Section 603 shall apply with respect to all such fundings, performance and undertaking through the effective date of all provisions of the 2005 Amendments to Contracts.

Section 604 The Parties agree that upon all provisions of these 2005 Amendments to Contracts becoming fully effective as provided in Section 601, any amounts

remaining in the Interim SCR Account held by the City under the Interim Funding Agreement shall be paid into the SCR Account established under the Construction and Operation Agreement; and the Interim Funding Agreement and the Interim SCR Account shall each terminate in accordance with their respective terms. To the extent a Party has funded a share of SCR Capital Costs prior to all provisions of the 2005 Amendments to Contracts becoming fully effective that is greater than or less than the share of such costs required to be funded by that Party in accordance with the 2005 Amendments to Contracts (including without limitation, any SCR Capital Costs funded by the City, WKE or LEM pursuant to the Interim Funding Agreement), the other relevant Party or Parties agree to promptly reimburse that Party (in the case of an over funding), or that Party agrees to promptly reimburse the other relevant Party or Parties (in the case of an under funding), in each case, in an amount necessary to reflect the Parties' respective funding obligations for SCR Capital Costs under the 2005 Amendments to Contracts, without set-off, deduction or counterclaim. As used in the Interim Funding Agreement, references to the 2002 Amendments to Contracts shall mean the 2005 Amendments to Contracts. The Parties agree that notwithstanding the provisions of Section 8 of the Interim Funding Agreement to the contrary, neither Western Kentucky Energy Corp. nor WKE Corp. are required to be parties to the 2005 Amendments to Contracts as a condition to the Interim Funding Agreement becoming immediately null and void as contemplated in that Section 8.

Section 605 Except as amended by the 2005 Amendments to Contracts, each of the Agreements shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties have executed the 2005 Amendments to Contracts in multiple counterparts as of the date first written above.

ATTEST:

Acting Maree Collins
City Clerk
(City Seal)

City of Henderson, Kentucky

By: [Signature]

Title: Mayor

ATTEST:

Mark S. [Signature]
Secretary

City of Henderson Utility Commission

By: William L. Smith

Title: Chairman

WKE Station Two, Inc.

By: Ralph [Signature]

Title: Vice President

LG&E Energy Marketing Inc.

By: [Signature]

Title: President

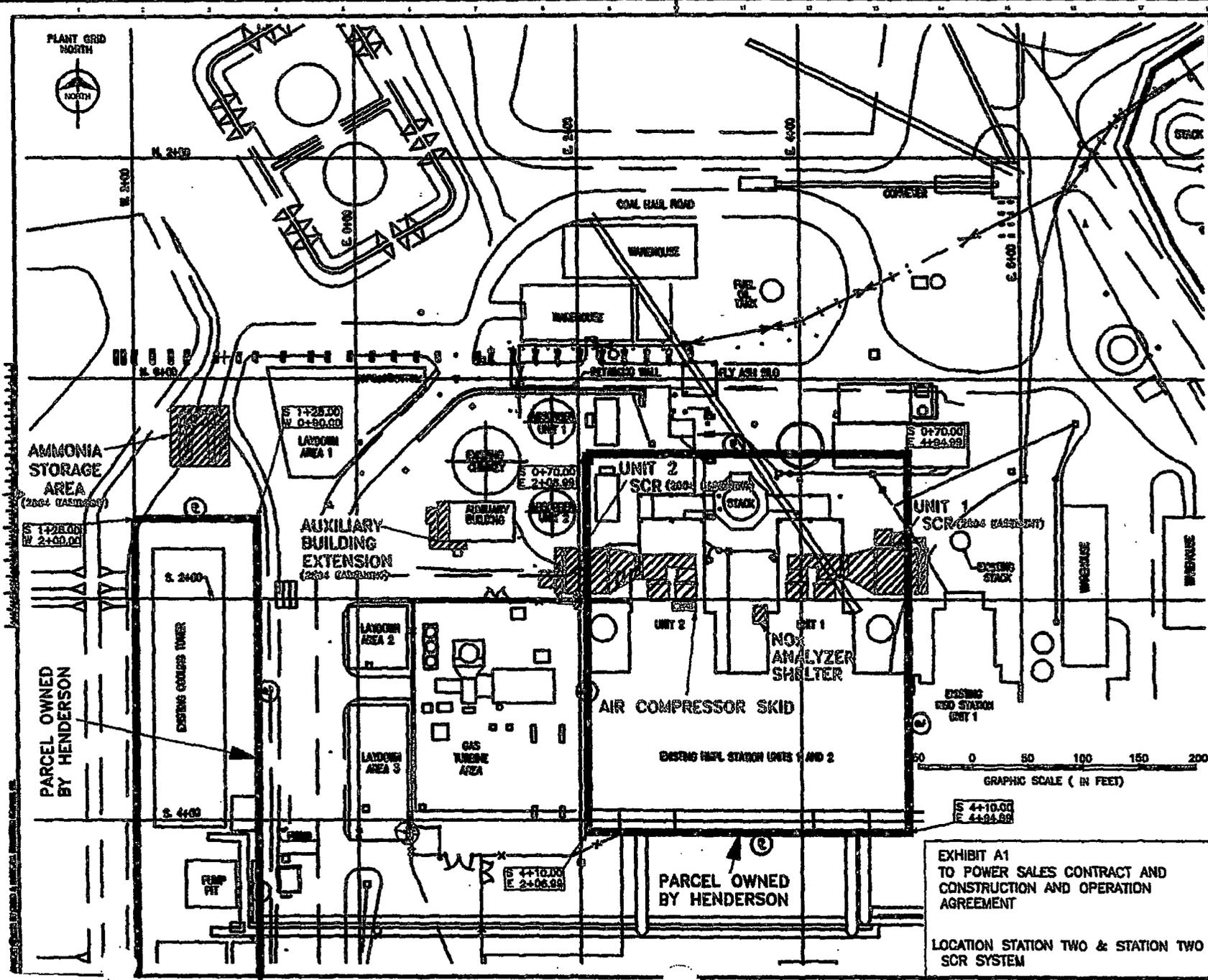
Big Rivers Electric Corporation

By: [Signature]

Title: President

**EXHIBIT A1
to the Power Sales Contract and the
Construction and Operation Agreement**

LOCATION OF STATION TWO AND STATION TWO SCR SYSTEM



Graphic Scale (in Feet)
 0 50 100 150 200

**EXHIBIT A1
 TO POWER SALES CONTRACT AND
 CONSTRUCTION AND OPERATION
 AGREEMENT**

**LOCATION STATION TWO & STATION TWO
 SCR SYSTEM**

**CITY OF HENDERSON
 PARCELS PLATTED
 BY BRANSON SURVEYS, INC.
 NO IMPROVEMENTS WERE
 LOCATED BY THE SURVEYOR**

BRANSON SURVEYS, INC.
 1000 S. 10th Street
 Henderson, NV 89002
 (702) 251-1111

DATE: 08/26/2019
BY: [Signature]
SCALE: AS SHOWN

GA-01 - D

EXHIBIT A2
to the Power Sales Contract and the
Construction and Operation Agreement

STATION TWO SCR SYSTEM BASE COAL SPECIFICATIONS

Ultimate Analysis – Weight % as received except as noted:

	Design	Range
% Carbon	61.0	60.0 – 65.0
Hydrogen	4.2	3.5 – 5.0
% Nitrogen	1.3	1.1 – 1.5
% Chlorine	0.10	0.03 – 0.25
% Sulfur	3.6	2.5 – 4.0
% Oxygen	7.8	N/A
% Moisture	9.0	7.0 – 12.0
% Ash	13.0	5.0 – 22.0
BTU	11,200	10,800 – 12,000
SO ₂ (in lbs per mmBTU)	6.27	4.0 – 7.0

Coal Ash Analysis – Weight % as received except as noted:

	Design	Range
Silica, SiO ₂	45.6	43.1 – 51.0
Ferric Oxide, Fe ₂ O ₃	20.0	15.0 – 28.3
Alumina, Al ₂ O ₃	21.9	18.5 – 23.7
Titania, TiO ₂	1.0	0.4 – 1.93
Calcium Oxide, CaO	2.6	1.6 – 5.2
Magnesium Oxide, MgO	3.8	0.6 – 4.5
Potassium Oxide, K ₂ O	2.5	0.8 – 3.0
Sodium Oxide, Na ₂ O	0.6	0.3 – 0.9
Undetermined		remainder

Trace Elements (dry basis g/g)

	Design	Range
Arsenic, As	10	2 - 30
Vanadium, V	86	50 - 200

EXHIBIT B
to the Power Sales Contract and the
Construction and Operation Agreement

COMPONENTS OF STATION TWO SCR SYSTEM

SCR SYSTEM

The SCR system for each of the units is located between the boiler economizer outlet and the air heater inlet. The catalyst modules are located in one vertical down flow reactor for each boiler. The SCR reactors are of an outdoors design.

During periods of operation, flue gas from the boilers after the economizer sections will pass through the SCR and then through the air heaters. When the SCR is not in service, the flue gas will by-pass the SCR system. The ammonia injection system will use anhydrous ammonia from a storage facility. Two layers of catalyst will be employed initially to attain required performance. A third layer will be added, when necessary after the guarantee period, to maintain continued performance.

Ammonia System

The purpose of the ammonia injection system is to ensure that there is a correct amount of ammonia and an even distribution of NH_3/NO_x ratio at the first catalyst layer. The ammonia injection process involves moving the liquid anhydrous ammonia from the storage tanks to the vaporizer skid, where it is vaporized, and then moved to the reactor area where it is mixed with heated dilution air. The ammonia air mixture is then injected into the flue gas duct ahead of the SCR reactor through a specially designed injection grid.

SCR, Ductwork and Support System:

File Foundations

Grade Beams

Slabs on Grade

Equipment Pads

SCR and Ductwork Support Steel

Access Platforms and Stairs to Grade

2 SCR Reactor Vessels

SCR Inlet and Outlet Ductwork

SCR and Ductwork Insulation and Lagging

Ductwork Expansion Joints

SCR and Ductwork Access Doors

Pipe Supports

Buildings and Enclosures:

Electrical Building Extension

NOx Analyzer Shelter

2 Dilution Air Fan Skid Enclosures

Mechanical Equipment, SCR System:

4 Diverter Dampers

6 Diverter Damper Seal Air Fans

6 Damper Seal Air Fan Intake Silencers

2 Seal Air Heaters

SCR Catalyst Modules

Catalyst Handling Equipment; Carts, Air Powered Hoists, and Crane Beams

16 Sonic Air Horns

2 Air Filters

2 Air Compressors

1 Regenerative Air Dryer Skid

1 Air Receiver

6 Ash Hoppers

6 Hopper Ash Handling Valves

Mechanical Equipment, Ammonia System:

2 Ammonia Storage Tanks

2 Ammonia Leak Detection System

3 Ammonia Vaporizers

4 Dilution Air Fans

4 Dilution Air Intake Silencers

4 Dilution Air Heaters

1 Mixing Chamber

2 Air Filters

Ammonia Piping

2 Ammonia Injection Grids and Associated Nozzles, etc.

3 Ammonia Area Eye Wash Stations

Nitrogen Bottles for Purging

Electrical Equipment:

2 SCR Control Systems

2 Motor Control Centers

2 Gas Analyzers & Monitoring System

Air Preheater Refurbishment

Air Heater Baskets

4 Air Heater Rotors

Seals and Stay Plates

Multi-media Cleaning System

1 Air Heater Water Wash Skid

**EXHIBIT C
to the Construction and
Operation Agreement**

**EXAMPLE OF CALCULATION FOR
ALLOCATION OF ALLOTTED ALLOWANCES**

	A	B	C	D
1	ALLOCATION OF STATION TWO ALLOTTED ALLOWANCES *			
2	<i>DATA ENTRY (SHOWN WITH EXAMPLE VALUES)</i>			
3		"Station Two Allotted Allowances" (e.g. 750 allowances)	750	
4		"City Capacity Reservation" (e.g. 95 MWnet)	95	
5		Actual Net Station Two Generation (e.g. 890,000 MWhrs)	890,000	
6		Total Number of Hours in NOx Season (e.g. 3,672)	3,672	
7		"City Actual Load Factor" (e.g. 80%)	0.80	
8		"Station Two Stack NOx Emissions" at % Actual SCR NOx Removal (e.g. 88%)	330	
9		"Station Two SCR Inlet NOx Tons" (e.g. 2,750 tons)	2,750	
10		Station Two Allotted Allowances	330	
11		SCR Design NOx Removal (Fixed at 90.0%)	0.90	
12		"Station One Unit 6 Stack NOx Emissions" (e.g. 66 tons)	66	
13		"Station One Unit 6 Allotted Allowances" (e.g. 31 allowances)	31	
14	<i>REFERENCE CALCULATIONS</i>			
15		City's "Average Station Two Capacity Share"	30.45%	C4312
16	<i>CITY'S EXCESS ALLOWANCES (APPLIES ONLY IF CITY ACTUAL LOAD FACTOR LESS THAN 85%)</i>			
17		Actual Net Station Two Generation (e.g. 890,000 MWhrs)	890,000	=C5
18		City Reduction Generation Amount (MWhrs)	17,442	.85*(C15^312^C8)*((0.85-C7)/0.85)
19		Station Two Stack NOx Emissions applying SCR Design NOx Removal	275	C9*(1-C11)
20		Station Two Allotted Allowances if SCR Design NOx Removal Applied to Stack Emissions	275	=C18 **
21		Station Two NOx Allowances associated with City Reduction Generation Amount	5	(C20/C9)^C18
22		Calculation Value/Formula Step	5	IF(C3-C8>C21,C21,C3-C8)
23		Calculation Value/Formula Step	5	IF(C22<0.0,C22)
24		"City Excess Allowances"	5	IF(C7<0.85,C23,0)
25	<i>CALCULATION OF STATION TWO ALLOTTED ALLOWANCES ALLOCATED TO STATION ONE UNIT 6</i>			
26		Calculation Value/Formula Step	35	IF(C12-C13>0,C12-C13,0)
27		Calculation Value / Formula Step	35	IF(C3-C8-C24<C26,C26,C3-C8-C24)
28		Calculation Value/Formula Step	35	IF(C3-C8-C24<0.0,C27)
29		Station Two Allotted Allowances Allocated to Station One Unit 6 (not to exceed 40 or be less than 0)	35	IF(C28>40,40,C28)
30	<i>ALLOWANCES ALLOCATED TO WKE/BREC</i>			
31		Balance of Station Two Allotted Allowances to WKE/BREC less 40 Station Two Allotted Allowances potentially available for use at Station One Unit 6	375	IF(C3-C8-C24-C29-C32<0.0,C3-C8-C24-C29-C32)
32		Portion of 40 Potentially Available Station Two Allotted Allowances Not Allocated to Station One Unit 6	5	40-C29
33		Balance of Station Two Allotted Allowances to WKE/BREC	380	IF(C3-C8-C24-C29<0.0,C3-C8-C24-C29)
34	<i>SUMMARY OF ALLOWANCE DISTRIBUTION</i>			
35		"Station Two Allotted Allowances"	750	=C3
36		"Station Two Allotted Allowances" (not to exceed amount of Station Two Allotted Allowances)	330	IF(C8>C3,C3,C8)
37		"City Excess Allowances"	5	=C24
38		Station Two Allotted Allowances Allocated to Station One Unit 6 (not to exceed 40 or be less than 0)	35	=C29
39		Balance of Station Two Allotted Allowances to WKE/BREC	380	=C33
40				
41	*All values and calculations pertain to a NOx Season and reflect existing Federal and Kentucky NOx Regulations under which one allowance equals one ton of NOx			
42	**Line C20 must be reflected as a number carried to at least ten decimal places			
43				

SCR AMMONIA COST SHARE

I. DEFINITIONS

In addition to the terms used in this Exhibit that are defined in Section 2 of the Power Sales Contract, capitalized terms used in this Exhibit shall have the meanings set forth in Section VI of this Exhibit.

II. SCR AMMONIA COST ALLOCATION FORMULA

The SCR Ammonia Costs allocated to Big Rivers (or WKE/LEM, as Big Rivers' assignee) pursuant to Section 6.2(a) of the Power Sales Contract for a particular Monthly Billing Period shall be determined, subject to adjustment as provided in Sections IV and V of this Exhibit, as follows:

$$AC = \left[C \times \frac{G}{TG} \right] \times MB$$

Where:

AC = The amount of SCR Ammonia Costs allocated to Big Rivers (or WKE/LEM, as Big Rivers' assignee) for such Monthly Billing Period

C = The total amount of SCR Ammonia Costs for the Contract Year that includes such Monthly Billing Period.

G = The Actual Station Two Generation Share of Big Rivers (or

WKE/LEM, as Big Rivers' assignee) for the NOx Season or portions of the NOx Seasons within the Contract Year that includes such Monthly Billing Period

TG = The Actual Net Station Two Generation for the NOx Season or portions of the NOx Seasons within the Contract Year that includes such Monthly Billing Period

MB = $1/12$, or in the case where the Contract Year that includes such Monthly Billing Period embraces fewer than 12 months, a greater fraction the numerator of which is 1 and the denominator of which is the number of months in such Contract Year.

III. MONITORING OPERATING PERFORMANCE

Monitoring of the operating performance of the Station Two SCR System by Big Rivers (or WKE as Big Rivers' assignee) under the Construction and Operation Agreement, shall include the following:

- (A) Boiler Efficiency
- (B) Performance under vendor warranties:
 - (i) Operation of NOx duct inlet and outlet monitors
 - (ii) Actual NOx removal
 - (iii) Actual ammonia consumption and ammonia slip
- (C) NOx burner performance
- (D) Unit turndown

IV. Two Year Revisit of SCR Ammonia Cost Allocation Formula

Within 60 days following the end of the 2005 NOx Season (September 30, 2005), the Parties shall revisit the SCR Ammonia Cost Allocation Formula for the purpose of determining whether there is to be an adjustment of the SCR Ammonia Cost Allocation Formula as follows:

(A) Selection of an SCR Ammonia Consultant (that may be an affiliate of a Party) by agreement of all the Parties to advise and assist the Parties in making such determination.

(B) Review of data derived from the monitoring of operating performance under Section III of this Exhibit.

(C) Consideration of whether a Correction Factor is needed to adjust the SCR Ammonia Cost Allocation Formula in light of the operating performance data.

(D) Determination by agreement of all the Parties of whether (and the extent to which) (i) the SCR Ammonia Cost Allocation Formula shall be adjusted by a Correction Factor approved by all the Parties; or (ii) the SCR Ammonia Cost Allocation Formula shall continue without adjustment.

(E) If the Parties are not able to agree as set forth in (D) above within 60 days following the end of the 2005 NOx Season, then at the request of any Party made within ten days thereafter, there shall be an Ammonia Dispute Resolution Procedure to commence 20 days after the date of such request for the purpose of determining whether or not the SCR Ammonia Cost Allocation Formula shall be adjusted, and if so, a determination as to the Correction Factor for the adjustment. The Parties shall be bound by the determinations made pursuant to the Ammonia Dispute Resolution Procedure.

(F) If a Correction Factor shall be determined pursuant to (D) or (E) above, this

Exhibit shall be revised to reflect the adjustment of the Ammonia Cost Allocation Formula by such Correction Factor.

(G) The costs of the Ammonia Dispute Resolution Procedure shall be treated as capacity costs of Station Two and constitute general and administrative expenses thereof under Section 6.3 of the Power Sales Contract.

V. **Other Adjustments of SCR Ammonia Cost Allocation Formula**

Based on a review by the Parties of the data developed from the monitoring of operating performance pursuant to Section III of this Exhibit, the SCR Ammonia Cost Allocation Formula may be adjusted at any time by a Correction Factor approved by all the Parties, and this Exhibit shall be revised to reflect the adjustment of the SCR Ammonia Cost Allocation Formula by such Correction Factor.

VI. **Certain Definitions**

Certain terms used in this Exhibit are defined as follows:

“Ammonia Dispute Resolution Procedure” shall mean, with respect to a determination pursuant to this Exhibit as to whether or not the SCR Ammonia Allocation formula shall be adjusted by a Correction Factor, the following procedures and actions:

(i) The appointment of members of a committee (the “Dispute Resolution Committee”) consisting of three SCR Consultants. One SCR Consultant shall be appointed by Big Rivers (or WKE/LEM, as Big Rivers’ assignee) and one appointed by the City, and each of such SCR Consultants may be affiliated with the Party that appointed it. Each such Party shall notify the other as to the identity of its appointee within 15 days of the commencement of the Ammonia Dispute Resolution Procedure. The third SCR Consultant shall be appointed by the

two SCR Consultants appointed by the Parties as above provided, which appointment shall be made within 30 days from the commencement of the Ammonia Dispute Resolution Procedure. The third SCR Consultant shall not be affiliated with any Party and shall be the Chair of the Dispute Resolution Committee:

(ii) The Dispute Resolution Committee shall be furnished by Big Rivers (or WKE as Big Rivers' assignee) with the monitoring data obtained pursuant to Section III of this Exhibit and upon request of any member, the Dispute Resolution Committee shall be furnished by a Party with other available information in that Party's possession or control relating to this Exhibit or the Station Two SCR System.

(iii) Both Big Rivers (or WKE/LEM, as Big Rivers' assignee) and the City shall furnish to the Dispute Resolution Committee statements as to their respective positions with respect to the determination in dispute, together with such other information that such Party deems relevant. Each such Party may be assisted by an advisor and by counsel of its choice, each of which shall be at the expense of that Party.

(iv) The Dispute Resolution Committee shall establish by majority vote of its members such procedures for its deliberations as it deems appropriate.

(v) The determination by the Dispute Resolution Committee as to whether the SCR Ammonia Cost Allocation Formula should be adjusted by a Correction Factor and, if so, the determination of such Correction Factor shall be made by a majority vote of its members.

(vi) The Dispute Resolution Committee shall issue a written decision as to its determinations stating the reasons upon which such determinations are based. The determinations by the Dispute Resolution Committee shall be made within 60 days of the

commencement of the Ammonia Dispute Resolution Procedure (or by such later date as the Parties shall approve). Such determination by the Dispute Resolution Committee shall be conclusive for the purposes of the Power Sales Contract and shall be final and binding on the Parties.

“Correction Factor” shall mean the correction factor considered and, as applicable, determined pursuant to Section IV or Section V of this Exhibit which shall constitute an adjustment of the SCR Ammonia Cost Allocation Formula.

“SCR Consultant” shall mean the engineering or consulting firm having a favorable reputation for knowledge and experience with respect to the operation and performance of selective catalytic reduction systems installed in coal-fired electric power plants.

SCR CATALYST AND COST SHARE
AND
CATALYST REFUND PAYMENT

I. Definitions

In addition to the terms used in this Exhibit that are defined in Section 2 of the Power Sales Contract, capitalized terms used in this Exhibit shall have the meanings set forth in Section VI of this Exhibit.

II. SCR Catalyst Cost Allocation Formula

The SCR Catalyst Acquisition Costs with respect to a Catalyst Layer allocated to Big Rivers (or WKE/LEM, as Big Rivers' assignee) pursuant to Section 6.2(b) of the Power Sales Contract for a particular Monthly Billing Period shall be calculated in accordance with the following formula:

$$X = \frac{[(CC - AF) \times CS] + BAF}{MB}$$

Where:

X = The amount of the SCR Catalyst Acquisition Costs with respect to such Catalyst Layer allocated to Big Rivers (or WKE/LEM, as Big Rivers' assignee) for such Monthly Billing Period

CC = The amount of the SCR Catalyst Acquisition Costs with respect to such Catalyst Layer for the Contract Year that includes such Monthly Billing

..
..
..
Period

AF = The amount of any Alternate Fuel Differential Amount with respect to such Catalyst Layer as set forth in the successful bid by the vendor of such Catalyst Layer based on the designation of Alternate Fuel by either or both Parties with respect to such Catalyst Layer

MB = 12, or in the case where the Contract Year that includes such Monthly Billing Period embraces fewer than 12 months, the number of months in such Contract Year

CS = The share (expressed as a decimal) of the Total Capacity (determined as provided in Section 3 of the Power Sales Contract) of Big Rivers (or WKE/LEM, as Big Rivers' assignee) for the Contract Year that includes such Monthly Billing Period

BAF = The amount of the Alternate Fuel Differential Amount, if any, attributable to the designation by Big Rivers, (or WKE/LEM, as Big Rivers' assignee) of its use of Alternate Fuel with respect to such Catalyst Layer

III. Certain Requirements for Vendor's Bid

The bid terms for the purchase by a vendor of a Catalyst Layer shall require, among others, that:

(A) The vendor's bid with respect to the Catalyst Layer shall set forth (i) the purchase price with respect to such Catalyst Layer as designed for Base Coal;

(B) If either Big Rivers (or WKE/LEM, as Big Rivers' assignee) or the City shall designate its use of Alternate Fuel with respect to such Catalyst Layer, the vendor's bid with

respect to such Catalyst Layer shall set forth in addition to the amount of the purchase price of the Catalyst Layer as if designed for Base Coal, any adjustment in the amount of the purchase price attributable to such designation of the use of Alternate Fuel .

IV. Catalyst Failure and Catalyst Refund Payment

The amount of SCR Catalyst Acquisition Costs allocated pursuant to the SCR Catalyst Cost Allocation Formula set forth in Section II of this Exhibit or paid by the City shall be adjusted by a Catalyst Refund Payment in the event of a Catalyst Failure as follows:

(A) In the event of a Catalyst Failure, the Party (either Big Rivers (or WKE/LEM, as Big Rivers' assignee) or the City, as the case may be) whose fuel is responsible for the Catalyst Failure shall make a Catalyst Refund Payment to the other Party as an adjustment of the payments by the Parties of their respective amounts of SCR Catalyst Acquisition Costs, or in the case where both Big Rivers' (or WKE/LEM's, as Big Rivers' assignee) and the City's fuel characteristics are responsible for the Catalyst Failure, such Parties shall pay, each to the other, a Catalyst Refund Payment in proportion to the relative responsibility of its fuel for the Catalyst Failure.

(B) Unless determined by agreement of all the Parties, the determination of whether a Catalyst Failure shall have occurred and, if so, the characteristics of a Party's fuel responsible therefor, or, if both Parties' fuel shall be responsible, the percentage with respect to the proportionate responsibility of each Party therefor as contemplated in (A) above, shall be made within 90 days following the occurrence of such Catalyst Failure (or by such later date as approved by all the Parties) by a Catalyst Analysis Organization (which may be an affiliate of a Party) acceptable to all the Parties based upon the data obtained through the fuel sampling and analysis methodology provided for in Section V of this Exhibit.

(C) In the event the Parties are not able to reach a determination as to a Catalyst Failure and its cause by mutual acquiescence and are not able to select a Catalyst Analysis Organization mutually acceptable to all the Parties within 20 days of the occurrence of the Catalyst Failure, at the request of any Party made within 10 days thereafter, there shall be a Catalyst Dispute Resolution Procedure which shall commence within 15 days of the date of such request for the purpose of selecting a Catalyst Analysis Organization to make the determination as to the Catalyst Failure, its cause and the fuel characteristic responsible, as set forth in (B) above.

(D) The cost of the Catalyst Analysis Organization, together with costs of any attendant Catalyst Dispute Resolution Procedure, shall constitute capacity costs of Station Two and operation and maintenance costs thereof under Section 6.3 of the Power Sales Contract, provided that, in the case where the determination by the Catalyst Analysis Organization of a Catalyst Failure with respect to a Catalyst Layer results in a Catalyst Refund Payment, such costs shall be included in the SCR Catalyst Acquisition Costs for such Catalyst Layer for the purposes of the calculation of the amount of any Catalyst Refund Payment pursuant to (F) below.

(E) In the event of a Catalyst Failure where neither the Parties nor any Catalyst Analysis Organization shall be able to determine the responsibility for the Catalyst Failure based on the respective fuel characteristics of the Parties' fuel, no Catalyst Refund Payment shall be payable by any Party.

(F) The amount of a Catalyst Refund Payment with respect to a Catalyst Layer to be made by a Party (either Big Rivers (or WKE/LEM, as Big Rivers' assignee) or the City) whose fuel shall be responsible for the Catalyst Failure, or made by each of such Parties in the case where the fuel of both such Parties shall be responsible for the Catalyst Failure, based on a

determination made pursuant to (B) above or (C) above, shall be calculated with respect to a Party in accordance with the following formula:

$$Z = \frac{(AC - AF) \times (GL - AL) \times PS \times CS}{GL}$$

Where:

- Z = The amount of the Catalyst Refund Payment to be made by such Party
- AC = The SCR Catalyst Acquisition Costs with respect to such Catalyst Layer
- AF = The Alternate Fuel Differential Amount, if any, with respect to such Catalyst Layer
- GL = The Guaranteed Life Cycle with respect to such Catalyst Layer
- AL = The total number of hours of the actual operating life of such Catalyst Layer
- CS = The share (expressed as a decimal) of the Total Capacity (determined as provided in Section 3 of the Power Sales Contract) of such Party for the Contract Year for which the SCR Catalyst Acquisition Costs with respect to such Catalyst Layer was payable pursuant to Section 6 of the Power Sales Contract
- PS = If the characteristics of both Parties' fuel shall be responsible for the Catalyst Failure, the percentage (expressed as a decimal) of the proportionate

responsibility of such Party's fuel therefor as determined pursuant to (B) or (C) above or, if only such Party's fuel is responsible, PS shall equal 1

V. Fuel sampling and Analysis Methodology

Fuel sampling and analysis methodology shall be conducted for each NOx Season for purposes of making determinations as to any Catalyst Failure as set forth in Section IV of this Exhibit and to identify and evaluate any issues as to the warranties under the catalyst vendor's contract with respect to each Catalyst Layer as follows:

(A) Big Rivers (or WKE/LEM, as Big Rivers' assignee) shall perform monthly composite sampling to obtain ultimate, trace element and mineral ash analyses of the as-received fuel purchased by it from the fuel supplier, which sampling shall be performed at its own cost.

(B) The City shall perform monthly composite sampling to obtain ultimate, trace element and mineral ash analyses of the as-received fuel purchased by it from the fuel supplier which sampling shall be performed at its own cost.

(C) Big Rivers (or WKE as Big Rivers' assignee) will perform daily into weekly composite ultimate and trace element analyses of as-fired fuel under the Construction and Operation Agreement, and the costs thereof shall be treated as capacity costs of Station Two and constitute operation and maintenance costs thereof under Section 6.3 of the Power Sales Contract.

(D) Big Rivers (or WKE as Big Rivers' assignee) will perform monthly composite sampling and obtain mineral ash analysis of fly ash samples under the Construction and Operation Agreement, and the cost thereof shall be treated as capacity costs of Station Two and

constitute operation and maintenance costs thereof under Section 6.3 of the Power Sales Contract.

VI. Certain Definitions:

“Catalyst Analysis Organization” shall mean a laboratory or engineering firm having a favorable reputation for skill and experience with respect to conducting tests, analyses and studies in connection with the use of catalyst in the operation of selective catalytic reduction systems installed in coal fired electric power plants.

“Catalyst Dispute Resolution Procedure” shall mean, with respect to determinations pursuant to Section IV(C) of this Exhibit as to a Catalyst Failure, its cause and the fuel characteristics responsible therefor, the following procedures and actions:

(i) The appointment of members of a committee (the “Selection Committee”) consisting of three SCR Consultants. One SCR Consultant shall be appointed by Big Rivers (or WKE/LEM, as Big Rivers’ assignee) and one appointed by the City, and each of such SCR Consultants may be affiliated with the Party that appointed it. Each such Party shall notify the other as to the identity of its appointee within 15 days of the commencement of the Catalyst Dispute Resolution Procedure. The third SCR Consultant shall be appointed by the two SCR Consultants appointed by the Parties as above provided, which appointment shall be made within 30 days from the commencement of the Catalyst Dispute Resolution Procedure. The third SCR Consultant shall not be affiliated with any Party and shall be the Chair of the Selection Committee.

(ii) The Selection Committee shall by a majority vote of its members select an independent Catalyst Analysis Organization which shall not be affiliated with any of the Parties

that will accept the assignment to make the determinations for which the Catalyst Dispute Resolution Procedure was required by Section IV (C) of this Exhibit.

(iii) Such Catalyst Analysis Organization shall be furnished by Big Rivers (or WKE as Big Rivers' assignee) with the fuel sampling and analyses methodology data obtained pursuant to Section V of this Exhibit and upon its request shall be furnished by a Party with other available information in the possession or control of that Party relating to this Exhibit or the Station Two SCR System.

(iv) Big Rivers (or WKE/LEM, as Big Rivers' assignee) and the City may each furnish to the Catalyst Analysis Organization any statements as to their respective positions with respect to the determination in dispute, together with such other information that such Party deems relevant. Each such Party may be assisted by an advisor and by counsel of its choice, each of which shall be at the expense of that Party.

(v) The determination shall be made by the Catalyst Analysis Organization as to whether a Catalyst Failure occurred and, if so, its cause and the fuel characteristics of the Party responsible therefor, or, in the case where the fuel of both such Parties shall be responsible, the percentage of the proportionate responsibility of the fuel of each such Party (or, if the Catalyst Analysis Organization is not able to determine such proportionate responsibility, it shall state that it is unable to do so).

(vi) The Catalyst Analysis Organization shall issue a written decision as to its determinations (or inability to make the same) stating the basis therefor. Such decision by the

Catalyst Analysis Organization shall be made within 60 days of the commencement of the Catalyst Dispute Resolution Procedure or by such later date as the Parties shall approve. Such decision by the Catalyst Analysis Organization shall be conclusive for the purposes of the Power Sales Contract and shall be final and binding on the Parties.

“Guaranteed Life Cycle” shall mean, with respect to a particular Catalyst Layer, the number of hours of operation of such Catalyst Layer consistent with its design capability guaranteed or warranted by the vendor of such Catalyst Layer based on compliance with the operation and maintenance procedures and fuel specifications provided in the contract with such vendor.

“SCR Consultant” shall mean, with respect to a particular Catalyst Layer, an engineering or consulting firm having a favorable reputation for skill and experience in connection with the operation of selective catalytic reduction systems installed in coal fired electric power plants.

MEMORANDUM OF UNDERSTANDING

Subsequent to the Unwind Transaction, Big Rivers Electric Corporation will continue to provide and be responsible for compliance with all TOP, GOP, and BA Reliability Standard functions related to Henderson Municipal Power and Light as those functions were provided by Big Rivers Electric Corporation, Western Kentucky Energy Corporation, and LG&E Energy Marketing, Inc. prior to the Unwind Transaction.

Henderson Municipal Power & Light

Big Rivers Electric Corporation

BY: _____

BY: Mark E. T. [Signature]

TITLE: _____

TITLE: President and CEO

DATE: _____

DATE: 7-16-09

MEMORANDUM OF UNDERSTANDING

Subsequent to the Unwind Transaction, Big Rivers Electric Corporation will continue to provide and be responsible for compliance with all TOP, GOP, and BA Reliability Standard functions related to Henderson Municipal Power and Light as those functions were provided by Big Rivers Electric Corporation, Western Kentucky Energy Corporation, and LG&E Energy Marketing, Inc. prior to the Unwind Transaction.

Henderson Municipal Power & Light

Big Rivers Electric Corporation

BY: 

BY: _____

TITLE: General Manager

TITLE: _____

DATE: 6/23/09

DATE: _____

Standard BAL-002-0 — Disturbance Control Performance

Introduction

- 1. Title:** **Disturbance Control Performance**
- 2. Number:** BAL-002-0
- 3. Purpose:**

The purpose of the Disturbance Control Standard (DCS) is to ensure the Balancing Authority is able to utilize its Contingency Reserve to balance resources and demand and return Interconnection frequency within defined limits following a Reportable Disturbance. Because generator failures are far more common than significant losses of load and because Contingency Reserve activation does not typically apply to the loss of load, the application of DCS is limited to the loss of supply and does not apply to the loss of load.
- 4. Applicability:**
 - 4.1.** Balancing Authorities
 - 4.2.** Reserve Sharing Groups (Balancing Authorities may meet the requirements of Standard 002 through participation in a Reserve Sharing Group.)
 - 4.3.** Regional Reliability Organizations
- 5. Effective Date:** April 1, 2005

B. Requirements

- R1.** Each Balancing Authority shall have access to and/or operate Contingency Reserve to respond to Disturbances. Contingency Reserve may be supplied from generation, controllable load resources, or coordinated adjustments to Interchange Schedules.
 - R1.1.** A Balancing Authority may elect to fulfill its Contingency Reserve obligations by participating as a member of a Reserve Sharing Group. In such cases, the Reserve Sharing Group shall have the same responsibilities and obligations as each Balancing Authority with respect to monitoring and meeting the requirements of Standard BAL-002.
- R2.** Each Regional Reliability Organization, sub-Regional Reliability Organization or Reserve Sharing Group shall specify its Contingency Reserve policies, including:
 - R2.1.** The minimum reserve requirement for the group.
 - R2.2.** Its allocation among members.
 - R2.3.** The permissible mix of Operating Reserve – Spinning and Operating Reserve – Supplemental that may be included in Contingency Reserve.
 - R2.4.** The procedure for applying Contingency Reserve in practice.
 - R2.5.** The limitations, if any, upon the amount of interruptible load that may be included.
 - R2.6.** The same portion of resource capacity (e.g. reserves from jointly owned generation) shall not be counted more than once as Contingency Reserve by multiple Balancing Authorities.
- R3.** Each Balancing Authority or Reserve Sharing Group shall activate sufficient Contingency Reserve to comply with the DCS.
 - R3.1.** As a minimum, the Balancing Authority or Reserve Sharing Group shall carry at least enough Contingency Reserve to cover the most severe single contingency. All Balancing Authorities and Reserve Sharing Groups shall review, no less frequently

Standard BAL-002-0 — Disturbance Control Performance

than annually, their probable contingencies to determine their prospective most severe single contingencies.

- R4.** A Balancing Authority or Reserve Sharing Group shall meet the Disturbance Recovery Criterion within the Disturbance Recovery Period for 100% of Reportable Disturbances. The Disturbance Recovery Criterion is:
- R4.1.** A Balancing Authority shall return its ACE to zero if its ACE just prior to the Reportable Disturbance was positive or equal to zero. For negative initial ACE values just prior to the Disturbance, the Balancing Authority shall return ACE to its pre-Disturbance value.
- R4.2.** The default Disturbance Recovery Period is 15 minutes after the start of a Reportable Disturbance. This period may be adjusted to better suit the needs of an Interconnection based on analysis approved by the NERC Operating Committee.
- R5.** Each Reserve Sharing Group shall comply with the DCS. A Reserve Sharing Group shall be considered in a Reportable Disturbance condition whenever a group member has experienced a Reportable Disturbance and calls for the activation of Contingency Reserves from one or more other group members. (If a group member has experienced a Reportable Disturbance but does not call for reserve activation from other members of the Reserve Sharing Group, then that member shall report as a single Balancing Authority.) Compliance may be demonstrated by either of the following two methods:
- R5.1.** The Reserve Sharing Group reviews group ACE (or equivalent) and demonstrates compliance to the DCS. To be in compliance, the group ACE (or its equivalent) must meet the Disturbance Recovery Criterion after the schedule change(s) related to reserve sharing have been fully implemented, and within the Disturbance Recovery Period.
- or
- R5.2.** The Reserve Sharing Group reviews each member's ACE in response to the activation of reserves. To be in compliance, a member's ACE (or its equivalent) must meet the Disturbance Recovery Criterion after the schedule change(s) related to reserve sharing have been fully implemented, and within the Disturbance Recovery Period.
- R6.** A Balancing Authority or Reserve Sharing Group shall fully restore its Contingency Reserves within the Contingency Reserve Restoration Period for its Interconnection.
- R6.1.** The Contingency Reserve Restoration Period begins at the end of the Disturbance Recovery Period.
- R6.2.** The default Contingency Reserve Restoration Period is 90 minutes. This period may be adjusted to better suit the reliability targets of the Interconnection based on analysis approved by the NERC Operating Committee.

C. Measures

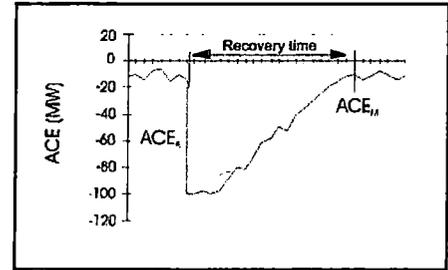
- M1.** A Balancing Authority or Reserve Sharing Group shall calculate and report compliance with the Disturbance Control Standard for all Disturbances greater than or equal to 80% of the magnitude of the Balancing Authority's or of the Reserve Sharing Group's most severe single contingency loss. Regions may, at their discretion, require a lower reporting threshold. Disturbance Control Standard is measured as the percentage recovery (R_i).

Standard BAL-002-0 — Disturbance Control Performance

For loss of generation:

if $ACE_A < 0$
then

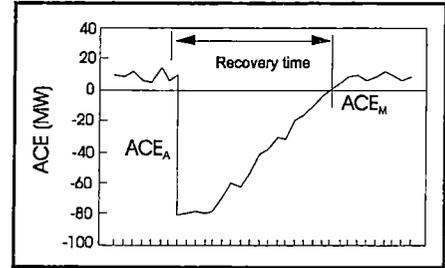
$$R_i = \frac{MW_{Loss} - \max(0, ACE_A - ACE_M)}{MW_{Loss}} * 100\%$$



if $ACE_A \geq 0$

then

$$R_i = \frac{MW_{Loss} - \max(0, -ACE_M)}{MW_{Loss}} * 100\%$$

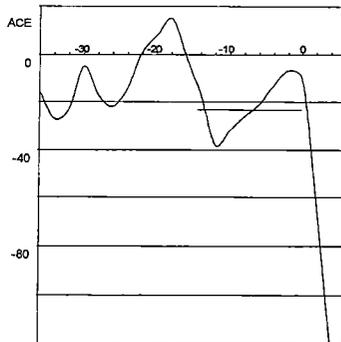


where:

- MW_{Loss} is the MW size of the Disturbance as measured at the beginning of the loss,
- ACE_A is the pre-disturbance ACE,
- ACE_M is the maximum algebraic value of ACE measured within the fifteen minutes following the Disturbance. A Balancing Authority or Reserve Sharing Group may, at its discretion, set $ACE_M = ACE_{15 \text{ min}}$, and

The Balancing Authority or Reserve Sharing Group shall record the MW_{Loss} value as measured at the site of the loss to the extent possible. The value should not be measured as a change in ACE since governor response and AGC response may introduce error.

The Balancing Authority or Reserve Sharing Group shall base the value for ACE_A on the average ACE over the period just prior to the start of the Disturbance (10 and 60 seconds prior and including at least 4 scans of ACE). In the illustration below, the horizontal line represents an averaging of ACE for 15 seconds prior to the start of the Disturbance with a result of $ACE_A = -25 \text{ MW}$.



Standard BAL-002-0 — Disturbance Control Performance

The average percent recovery is the arithmetic average of all the calculated R_i 's for Reportable Disturbances during a given quarter. Average percent recovery is similarly calculated for excludable Disturbances.

D. Compliance

1. Compliance Monitoring Process

Compliance with the DCS shall be measured on a percentage basis as set forth in the measures above.

Each Balancing Authority or Reserve Sharing Group shall submit one completed copy of DCS Form, "NERC Control Performance Standard Survey – All Interconnections" to its Resources Subcommittee Survey Contact no later than the 10th day following the end of the calendar quarter (i.e. April 10th, July 10th, October 10th, January 10th). The Regional Reliability Organization must submit a summary document reporting compliance with DCS to NERC no later than the 20th day of the month following the end of the quarter.

1.1. Compliance Monitoring Responsibility

Regional Reliability Organization.

1.2. Compliance Monitoring Period and Reset Timeframe

Compliance for DCS will be evaluated for each reporting period. Reset is one calendar quarter without a violation.

1.3. Data Retention

The data that support the calculation of DCS are to be retained in electronic form for at least a one-year period. If the DCS data for a Reserve Sharing Group and Balancing Area are undergoing a review to address a question that has been raised regarding the data, the data are to be saved beyond the normal retention period until the question is formally resolved.

1.4. Additional Compliance Information

Reportable Disturbances – Reportable Disturbances are contingencies that are greater than or equal to 80% of the most severe single Contingency. A Regional Reliability Organization, sub-Regional Reliability Organization or Reserve Sharing Group may optionally reduce the 80% threshold, provided that normal operating characteristics are not being considered or misrepresented as contingencies. Normal operating characteristics are excluded because DCS only measures the recovery from sudden, unanticipated losses of supply-side resources.

Simultaneous Contingencies – Multiple Contingencies occurring within one minute or less of each other shall be treated as a single Contingency. If the combined magnitude of the multiple Contingencies exceeds the most severe single Contingency, the loss shall be reported, but excluded from compliance evaluation.

Multiple Contingencies within the Reportable Disturbance Period – Additional Contingencies that occur after one minute of the start of a Reportable Disturbance but before the end of the Disturbance Recovery Period can be excluded from evaluation. The Balancing Authority or Reserve Sharing Group shall determine the DCS compliance of the initial Reportable Disturbance by performing a reasonable estimation of the response that would have occurred had the second and subsequent contingencies not occurred.

Multiple Contingencies within the Contingency Reserve Restoration Period – Additional Reportable Disturbances that occur after the end of the Disturbance Recovery Period but before the end of the Contingency Reserve Restoration Period shall be reported and included in the compliance evaluation. However, the Balancing Authority or Reserve Sharing Group can request a waiver from the Resources Subcommittee for the event if the contingency reserves were rendered inadequate by prior contingencies and a good faith effort to replace contingency reserve can be shown.

2. Levels of Non-Compliance

Each Balancing Authority or Reserve Sharing Group not meeting the DCS during a given calendar quarter shall increase its Contingency Reserve obligation for the calendar quarter (offset by one month) following the evaluation by the NERC or Compliance Monitor [e.g. for the first calendar quarter of the year, the penalty is applied for May, June, and July.] The increase shall be directly proportional to the non-compliance with the DCS in the preceding quarter. This adjustment is not compounded across quarters, and is an additional percentage of reserve needed beyond the most severe single Contingency. A Reserve Sharing Group may choose an allocation method for increasing its Contingency Reserve for the Reserve Sharing Group provided that this increase is fully allocated.

A representative from each Balancing Authority or Reserve Sharing Group that was non-compliant in the calendar quarter most recently completed shall provide written documentation verifying that the Balancing Authority or Reserve Sharing Group will apply the appropriate DCS performance adjustment beginning the first day of the succeeding month, and will continue to apply it for three months. The written documentation shall accompany the quarterly Disturbance Control Standard Report when a Balancing Authority or Reserve Sharing Group is non-compliant.

- 2.1. Level 1:** Value of the average percent recovery for the quarter is less than 100% but greater than or equal to 95%.
- 2.2. Level 2:** Value of the average percent recovery for the quarter is less than 95% but greater than or equal to 90%.
- 2.3. Level 3:** Value of average percent recovery for the quarter is less than 90% but greater than or equal to 85%.
- 2.4. Level 4:** Value of average percent recovery for the quarter is less than 85%.

E. Regional Differences

None identified.

Standard BAL-002-0 — Disturbance Control Performance

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed "Proposed" from Effective Date	Errata
0	February 14, 2006	Revised graph on page 3, "10 min." to "Recovery time." Removed fourth bullet.	Errata

Adopted by NERC Board of Trustees: February 8, 2005
Effective Date: April 1, 2005

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Case No. 2019-00_____
Application Exhibit 16

COMMONWEALTH OF KENTUCKY
WEBSTER CIRCUIT COURT
CIVIL ACTION NO. 18-CI-_____

**CITY OF HENDERSON, KENTUCKY, and
CITY OF HENDERSON UTILITY COMMISSION,
d/b/a HENDERSON MUNICIPAL POWER & LIGHT**

PLAINTIFFS

v.

BIG RIVERS ELECTRIC CORP.

DEFENDANT

**Serve: Paula L. Mitchell
Registered Agent
Big Rivers Electric Corp.
201 Third Street
Henderson, Kentucky 42420**

**Robert W. Berry
President & CEO
Big Rivers Electric Corp.
201 Third Street
Henderson, Kentucky 42420**

COMPLAINT FOR DECLARATORY RELIEF

Plaintiffs, City of Henderson, Kentucky, and City of Henderson Utility Commission, d/b/a Henderson Municipal Power & Light (jointly referenced hereinafter as "Henderson"), by and through counsel, and pursuant to KRS 418.040, and Kentucky Civil Rule 57, state as follows for their cause of action seeking declaratory relief and enforcement against Defendant Big Rivers Electric Corp. ("Big Rivers"):

THE PARTIES

1. The City of Henderson, Kentucky, is a Kentucky city of the Home Rule class, with all of the authority and powers specified in and enumerated by the Kentucky Constitution, and state statutes enacted by the Kentucky General Assembly, said authority and powers

including but not being limited to the capacity to enter into legal contracts, and to sue and be sued in its own name.

2. The Henderson Utility Commission, d/b/a Henderson Municipal Power & Light ("HMPL"), is a utility commission established by Ordinance of the City of Henderson, Kentucky, pursuant to KRS 96.530 et. seq., and is a public body politic and corporate, with perpetual succession, which has absolute control of the municipally owned electric system of the City of Henderson, Kentucky, including the operation and fiscal management of the city's electric generation, transmission, and distribution facilities, which body may contract and be contracted with, sue and be sued, in and by its corporate name. The Henderson Utility Commission, d/b/a Henderson Municipal Power & Light, is headquartered at 100 Fifth Street, Henderson, Kentucky, 42420.

3. Big Rivers is an electric generation and transmission cooperative corporation headquartered at 201 Third Street, P.O. Box 24, Henderson, Kentucky, 42419-0024, organized pursuant to KRS Chapter 279, and having the capacity to contract, to sue, and to be sued in its own name.

JURISDICTION & VENUE

4. Jurisdiction in this Court is proper pursuant to KRS 418.040, *et seq.*, and KRS Chapter 23A.

5. Venue in this Court is proper pursuant to KRS 452.400, as the majority of the real property which is the subject of this litigation is located in Webster County, Kentucky.

FACTUAL BACKGROUND

6. On August 1, 1970, Henderson and Big Rivers entered into a series of contracts authorized pursuant to KRS 96.520, and providing in part for the construction,

operation, and maintenance of two coal-fired generating units to be owned by the City of Henderson, and to be located on real property owned by Big Rivers. One such contract, the Power Plant Construction & Operation Agreement, as amended, contains a provision reflecting the parties' agreement that Big Rivers would sell and convey to the city a site, along with necessary easements and rights of way, for the construction and operation of the generating units known collectively as "Station Two."

7. In accordance with the terms of the Construction & Operation Agreement, as amended, Big Rivers, in exchange for nominal consideration, conveyed to the city two tracts of land to be used for the construction and operation of the "Station Two" power plant. The tracts are described in Exhibit A to the Deed dated March 18, 1971, of record in Deed Book 151, Page 203, Webster County Clerk's Office, and corrected by Deed of Correction dated December 9, 1971, of record in Deed Book 154, Page 309, Webster County Clerk's Office (copies of the Deed and Deed of Correction are attached hereto as **Exhibits 1 & 2** respectively).

8. The Deed, drafted by Big Rivers' counsel, provides in pertinent part:

"... Big Rivers has bargained and sold and by these presents does hereby grant and convey unto City, its successors and assigns, in fee simple the following described tracts of land situated in Henderson and/or Webster Counties, Kentucky, and being more particularly described upon Exhibit A attached hereto and made a part hereof. ...

"Provided, however, that upon the discontinuance by City, its successors or assigns, of the use of said tracts of land, or either of them, for the operation and/or maintenance thereon of City's Station Two electric generating plant, units one and two only, or any related facilities thereof, and the retirement of all outstanding City of Henderson Electric Light and Power Revenue Bonds, Station Two Series, dated March 1, 1971, and any additional bonds which may be sold and issued by City for the completion of said Station Two electric generating plant, units one and two only, title

to the above described tracts, or either of them, shall revert to Big Rivers, its successors or assigns, but with right of City, its successors or assigns, to remove any improvements placed thereon by it or them, provided, however, City shall not remove any facility installed by it which shall have become a joint-use facility with Big Rivers.”

9. Under the plain language of the deed, Big Rivers conveyed to the city a fee-simple estate, and retained a reversionary interest that would automatically become a present, possessory interest on the date the land ceased to be used for the operation and/or maintenance of the plant.

10. On May 1, 2018, Big Rivers notified Henderson that the “Station Two” units were no longer capable of normal, continuous, reliable operation for the economically competitive production of electricity, and that the “Station Two” contracts (with the exception of the Joint Facilities Agreement) had thus terminated pursuant to their own terms. On that same date, Big Rivers filed with the Kentucky Public Service Commission (“Commission”) a “Notice of Termination of Contracts and Application of Big Rivers Electric Corporation for a Declaratory Order and for Authority to Establish a Regulatory Asset.” The application sought a Commission finding supporting Big Rivers’ determination that the “Station Two” units were no longer capable of normal, continuous, reliable operation for the economically competitive production of electricity and that, as a result, the contracts had terminated pursuant to the 1993 and 1998 contract amendments.

11. On July 27, 2018, Big Rivers submitted a notice to the energy market operator Midcontinent ISO (“MISO”), stating an intent to retire the “Station Two” generating units, effective February 1, 2019. MISO thereafter approved the retirement of “Station Two.” In a letter dated October 8, 2018, (copy attached hereto as Exhibit 3), MISO approved the retirement of the

units, and advised that the retirement decision was final and would take effect on February 1, 2019.

12. Henderson does not intend to exercise its right under the Deed to remove any improvements from the land.

13. Henderson now seeks a declaration of its rights under the "Station Two" deed, and a determination that the land reverts to Big Rivers on February 1, 2019.

ACTUAL CONTROVERSY

14. A dispute has arisen between the parties concerning the proper construction of the deed, and the nature of the estate and future interest created therein. The dispute centers on whether the language referenced in Paragraph 8 above creates an estate for a term of years, with a reversion, or a fee simple determinable.

15. - Pursuant to KRS 418.040, this Court possesses authority to declare the rights of the parties where there exists an actual controversy. Specifically, under KRS 418.045, any person interested under a deed, or who is concerned with any title to property, is entitled to a determination of his rights or duties arising under the instrument, provided there is an actual controversy.

16. Henderson is entitled to a declaration that the Deed provision creating a reversion of title in favor of Big Rivers is effective February 1, 2019.

WHEREFORE, Henderson respectfully requests that the Court enter a Declaratory Judgment that Big Rivers is the owner of a reversion in the real property described herein, for its costs herein expended, and for any and all other just and proper relief.

Respectfully submitted,

KING, DEEP & BRANAMAN

/s/ Harry L. Mathison

HARRY L. MATHISON

H. RANDALL REDDING

SHARON W. FARMER

127 North Main Street

P.O. Box 43

Henderson, Kentucky 42419-0043

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sfarmer@kdblawn.com

*Attorneys for Henderson Utility Commission, d/b/a
Henderson Municipal Power & Light*

THIS DEED made and entered into this 18th day of March, 1971, by and between BIG RIVERS RURAL ELECTRIC COOPERATIVE CORPORATION, a Kentucky corporation with principal offices in Henderson, Kentucky, hereinafter referred to as "Big Rivers", and CITY OF HENDERSON, KENTUCKY, a municipal corporation, hereinafter referred to as "City".

WITNESSETH: That for and in consideration of the sum of one dollar (\$1.00), cash in hand paid, and other good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, and in full compliance with the terms and provisions of the parties' Power Plant Construction and Operation Agreement, Power Sales Contract and Joint Facilities Agreement dated August 1, 1970, Big Rivers has bargained and sold and by these presents does hereby grant and convey unto City, its successors and assigns, in fee simple the following described tracts of land situated in Henderson and/or Webster Counties, Kentucky, and being more particularly described upon Exhibit A attached hereto and made a part hereof.

File Ind.

Said tracts of land are conveyed subject to all existing easements, whether created by recorded express easements or otherwise, affecting said property.

Provided, however, that upon the discontinuance by City, its successors or assigns, of the use of said tracts of land, or either of them, for the operation and/or maintenance thereon of City's Station Two electric generating plant, units one and two only, or any related facilities thereof, and the retirement of all outstanding City of Henderson Electric Light and Power Revenue Bonds, Station Two Series, dated March 1, 1971, and any additional bonds which may be sold and issued by City for the completion of said Station Two electric generating plant, units one and two only, title to the above described tracts, or either of them, shall revert to Big Rivers, its successors or assigns,



but with right of City, its successors or assigns, to remove any improvements placed thereon by it or them, provided, however, City shall not remove any facility installed by it which shall have become a joint-use facility with Big Rivers.

And for the same considerations, Big Rivers hereby grants and conveys to City, its successors or assigns, all easements and rights-of-way in and to the following described tract of land necessary or convenient for the construction thereon of City's Station Two electric generating plant, units one and two only, and all related facilities, in accordance with plans and specifications therefore to be approved by Big Rivers and City, and for the continued operation and maintenance of such electric generating plant and related facilities; provided, however, that the use by City, its successors or assigns, of said easements and rights-of-way shall not unreasonably interfere with the use by Big Rivers of its land or with the continued operation by Big Rivers, its successors or assigns, of the electric generating plant or extensions and additions thereto known as Robert Reid Station; and further provided that such extensions or additions by Big Rivers, its successors or assigns, will not unreasonably interfere with the construction, operation and maintenance of City's Station Two electric generating plant, units one and two. The tract of land upon which the rights-of-way and easements are granted is situated in Henderson and Webster Counties, Kentucky, and is more particularly described as shown Exhibit B, a copy of which is attached hereto and made a part hereof.

This conveyance is subject to all existing easements and rights-of-way, whether created by recorded express grants or otherwise, affecting the property herein conveyed.

Such easements and rights-of-way shall terminate upon the discontinuance by City, its successors or assigns, of the use thereof for the construction, operation and maintenance of City's

Station Two electric generating plant, units one and two only, or any related facilities thereof and the retirement of all outstanding City of Henderson Electric Light and Power Revenue Bonds, Station Two Series, dated March 1, 1971, and any additional bonds which may be sold and issued by City for the completion of its Station Two electric generating plant, units one and two only.

TO HAVE AND TO HOLD the above described tracts of land, easements and rights-of-way unto City, its successors or assigns, with covenant of General Warranty.

This instrument is executed for and on behalf of Big Rivers by the undersigned officers thereof pursuant to authority granted by Big Rivers' Board of Directors.

BIG RIVERS RURAL ELECTRIC COOPERATIVE CORPORATION

By Robert Reid, Sr.
Robert Reid, Sr., President

ATTEST:

D. B. Wilson
D. B. Wilson, Secretary

STATE OF KENTUCKY
COUNTY OF HENDERSON. . .SCT.

I, the undersigned notary public in and for the state and county aforesaid, certify that Robert Reid, Sr. and D. B. Wilson, who are personally known to me to be the President and Secretary, respectively of Big Rivers Rural Electric Cooperative Corporation, this day appeared before me and signed and acknowledged the foregoing instrument to be their own free and authorized act and deed.

Given under my hand and seal this 18th day of March 1971.

My commission expires Oct. 25, 1972

Charles D. Tucker
Notary Public Kentucky at Large

(SEAL)

This instrument prepared by:

R. R. H. - J. J. J.
of Sandage, Holbrook, Craig and Hager
100 St. Ann Street
Owensboro, Kentucky

EXHIBIT "A"
ATTACHED TO AND MADE A PART OF A DEED
DATED DAY OF MARCH, 1971, BY
AND BETWEEN BIG RIVERS RURAL ELECTRIC
COOPERATIVE CORPORATION AND THE CITY
OF HENDERSON.

Tract 1: A certain parcel of land located immediately northeast of the existing power plant building within the boundary of the Big Rivers RECC property on the waters of the Green River north of Sebrece, Kentucky, and more particularly, described as follows:

Beginning at a point approximately 70. feet southwest of the centerline of the existing north plant road and approximately 105 feet southeast of the existing west plant road having plant grid coordinates of S=70.00 feet and E=206.99 feet; thence moving approximately 70. feet from and parallel to the centerline of the north plant road S 47° 00' E 288.00 feet to a point located within the existing storage building; thence moving approximately 220. feet from and parallel to the centerline of the east plant road S 43° 00' W 340.00 feet to a point; thence moving approximately 390 feet from and parallel to the centerline of the south plant road N 47° 00' W 288.00 feet to a point; thence moving approximately 105. feet from and parallel to the centerline of the west plant road N 43° 00' E 340.00 feet to the beginning containing 2.248 acres as surveyed by Donan Engineering Inc.

Tract 2: A certain parcel of land located on the existing service road to the water intake structure within the boundary of the Big Rivers RECC property on the waters of the Green River north of Sebrece, Kentucky, and more particularly, described as follows:

Beginning at a point having plant grid coordinates S=525.00 feet and E=835.00 feet located approximately 130 feet southeast of the east plant road and approximately 130 feet north of the service road to the power plant water intake structure; thence moving approximately 130. feet from and parallel to the centerline of the service road S 83° 40' E 650.00 feet to a point; thence S 06° 20' W 130.00 feet to a point; thence up the service road N 83° 40' W 650.00 feet to a point; thence N 06° 20' E 130.00 feet to the beginning containing 1.940 acres as surveyed by Donan Engineering Inc.

Being a portion of the same property conveyed to Big Rivers by Walker Ridgout, unmarried, dated June 24, 1963, of record in Deed Book 126, page 227, in the Office of the Webster County Court Clerk, and of record in Deed Book 211, page 56, in the Office of the Henderson County Court Clerk.

EXHIBIT "B"
ATTACHED TO AND MADE A PART OF A DEED
DATED _____ DAY OF MARCH, 1971, BY
AND BETWEEN BIG RIVERS RURAL ELECTRIC
COOPERATIVE CORPORATION AND THE CITY
OF HENDERSON.

A certain tract of land which contains the Big Rivers Power Plant in Henderson and Webster Counties, Kentucky, on the waters of the Green River and more particularly described as follows:

Beginning at a stake on the west side of the Sebree Road survey station 26-A having plant grid coordinates of N=26.23 feet and W=1803.52 feet and being a common corner with Anaconda Aluminum Company and in the line of the old Paul and Oliver Wright tract and the southwest most corner of the old Thornton Walker tract; thence with Anaconda Aluminum Company formerly known as the Thornton Walker tract the following courses and distances:

- Thence S 85° 21' E 1,484.05 feet to station 30-B;
- Thence N 12° 26' E 410.54 feet to station 31-A;
- Thence S 84° 00' E 1,266.82 feet to station 39-A;
- Thence N 03° 37' E 1,322.48 feet to station 42-C;

being a common corner with Anaconda Aluminum Company in the line of the old Thornton Walker tract and a common corner with the old Richard Farmer tract; thence continuing with Anaconda Aluminum Company formerly known as the Richard Farmer tract S 43° 20' E 2,094.00 feet to a 40 inch maple or station 57-A on the west bank of the Green River a common corner with Anaconda Aluminum Company formerly known as the Richard Farmer Tract; thence up the west bank of the Green River the following courses and distances:

- Thence S 38° 44' W 1,442.05 feet to station 45-C;
- Thence S 27° 30' W 1,640.00 feet to station 45-B;

on the west bank of the Green River and a common corner to the Quinn 1.19 acre tract; thence with the Quinn 1.19 acre tract N 66° 41' W 465.90 feet to Station 8. a common corner with the Quinn 1.19 acre tract and the north right of way line of Quinn Ferry Road; thence along the north right of way line of Quinn Ferry Road N 83° 42' W 1,046.70 feet to station 15-A a 24 inch maple in the north right of way of Quinn Ferry Road; thence continuing with the north right of way line of Quinn Ferry Road N 51° 30' W 554.69 feet to station 18-E in the north right of way line of the intersecting Sebree Road; thence with the north right of way line of the Sebree Road N 76° 36' W 1,255.87 feet to station 21-D in the west right of way line of Sebree Road

EXHIBIT "B"
Page Two

crossing the centerline of the road at approximately 1,245 feet being in the line of M. A. Rideout; thence along the west right of way line of Sebree Road with M. A. Rideout N 10° 35' E 315.40 feet to station 21-C a common corner with M. A. Rideout and Anaconda Aluminum Company; thence along the west right of way line of the Sebree Road with Anaconda Aluminum Company N 15° 14' E 179.09 feet to station 111-X a common corner with Anaconda Aluminum Company and in the south right of way line of the Kentucky Department of Highways Quinn's Landing Road; thence with the south right of way line of Quinn's Landing Road S 85° 07' E 118.15 feet to Highway right of way monument to be set; thence continuing with the Kentucky Department of Highways N 10° 36' E 80.00 feet to a Highway right of way monument to be set crossing the centerline of Quinn's Landing Road at approximately 40 feet; thence continuing with the Kentucky Department of Highways along the north right of way line of Quinn's Landing Road N 74° 09' W 109.76 feet to station 111-Y in the west right of way line of Sebree Road and a common corner with Anaconda Aluminum Company; thence leaving Quinn's Landing Road along the west right of way line of Sebree Road with Anaconda Aluminum Company N 15° 14' E 1,158.49 feet to the beginning containing 222.217 acres by D. M. D. as surveyed by Donan Engineering Inc. LESS AND EXCEPT the following described tract or parcel of land:

Beginning at a stake being Big Rivers survey station 26-A having plane survey coordinates of N=2393.67 and E=-721.07 and being a common corner with Anaconda Aluminum Company or in the line of the Paul and Oliver Wright parcel and a common corner with the Thornton Walker parcel; thence with Anaconda Aluminum Company or the Thornton Walker parcel S 85° 21' E 1,484.05 feet to a corner post station 30-B; thence continuing with Anaconda Aluminum Company or the Thornton Walker parcel along the old property line fence N 12° 26' E 410.54 feet to a corner stone station 31-A; thence continuing with Anaconda Aluminum Company or the Thornton Walker parcel S 84° 00' E 1,266.82 feet to a twelve inch white Oak station 39-A corner of the Thornton Walker parcel; thence continuing with Anaconda Aluminum or the Thornton Walker parcel along the property line fence N 03° 37' E 1,322.48 feet to a stake station 42-C in the fence on the Thornton Walker parcel's line and a common corner with the Richard Farmer parcel; thence with Anaconda Aluminum Company or the Richard Farmer parcel S 43° 20' E 1,999.37 feet to a new division corner of Big Rivers R.E.C.C. Station 42-X; being N 43° 20' W 94.63 feet from a forty inch maple original corner at the mouth of a ravine

EXHIBIT "B"
Page Three

on the bank of the Green River; thence with the new division line of Big Rivers R.E.C.C. S 84° 43' W 1,853.02 feet to a point of intersection of the newly constructed Owensboro-Ashland Oil line, being centerline construction station 32+19.6; thence continuing with the new division line of Big Rivers R.E.C.C. up the centerline of the newly constructed Owensboro-Ashland Oil line S 84° 43' W 1,987.30 feet to a point of intersection of the oil line, being centerline construction station 12+32.3; thence continuing with the new division line of Big Rivers R.E.C.C. up the centerline of the newly constructed Owensboro-Ashland oil line S 59° 12' W 766.26 feet to station 26-X being a new division corner of Big Rivers R.E.C.C. in the west right-of-way line of the Sebree Road and in the line of Anaconda Aluminum Company or the W. A. King parcel; thence with the Anaconda Aluminum Company or the W. A. King parcel and the Paul and Oliver Wright parcel along the west right-of-way of the Sebree Road N 15° 14' E 759.07 feet to the beginning containing 49.945 acres by D.M.D.

Being a portion of the same property conveyed to Big Rivers by the following: (1) deed from Walker Rideout, unmarried, dated June 24, 1963, of record in Deed Book 126, page 277, in the Office of the Webster County Court Clerk, and of record in Deed Book 211, page 56, in the Office of the Henderson County Court Clerk; (2) deed from Maud Watson et al dated June 25, 1963, of record in Deed Book 126, page 374, in the Office of the Webster County Court Clerk, and of record in Deed Book 211, page 180, in the Office of the Henderson County Court Clerk; (3) deed from Hattie E. McCollum et vir dated September 27, 1963, of record in Deed Book 127, page 190, in the Office of the Webster County Court Clerk, and of record in Deed Book 212, page 23, in the Office of the Henderson County Court Clerk; (4) deed from James A. Newman, Special Commissioner of the Henderson County Court, on behalf of John Kuhlmayr, dated December 14, 1963, of record in Deed Book 127, page 274, in the Office of the Webster County Court Clerk, and of record in Deed Book 213, page 20, in the Office of the Henderson County Court Clerk.

State of Kentucky }
County of Webster } ss:
This instrument was filed for record on the 29 day of March 19 71
at 2:13 P.M., and is duly recorded in Deed book 151, page 203

ETHEL C. WATSON, Clerk
Ethel C. Watson

DEED OF CORRECTION

THIS DEED OF CORRECTION made and entered into this 9 day of December, 1971, by and between BIG RIVERS RURAL ELECTRIC COOPERATIVE CORPORATION, a Kentucky corporation with principal offices in Henderson, Kentucky, hereinafter referred to as "Big Rivers", and CITY OF HENDERSON, KENTUCKY, a municipal corporation, hereinafter referred to as "City",

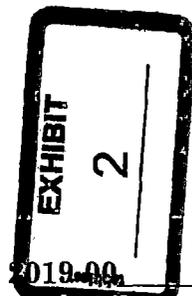
WITNESSETH: WHEREAS, by instrument dated March 18, 1971, of record in Deed Book 151, page 203, in the Office of the Webster County Court Clerk, and of record in Deed Book 252, page 192, in the Office of the Henderson County Court Clerk, Big Rivers conveyed to City certain tracts of land described in Exhibit "A" for the uses and purposes and subject to the terms and conditions set out in the aforesaid deed, and

WHEREAS, Tract 2 as described on Exhibit "A" to the aforesaid deed was for the location of the cooling towers for the new Station Two Henderson Municipal Power and Light Plant, and

WHEREAS, the description of Tract 2 as contained in Exhibit "A" to the aforesaid deed is not correct, and said erroneous description of said Tract 2 did not reflect the intention of either City or Big Rivers; and

WHEREAS, City and Big Rivers are desirous of correcting the description of Tract 2 as contained in the aforesaid deed so as to accurately reflect the intention of the parties thereto.

NOW, THEREFORE, and in consideration of the sum of One Dollar (\$1.00), cash in hand paid, and other good and valuable considerations, including the considerations set out in the original deed from Big Rivers to City, hereinabove referred to herein, the receipt of all of which is hereby acknowledged, Big Rivers has sold and does hereby bargain, sell, grant and convey unto City, its successors and assigns forever, the following



~~BOOK 124 PAGE 23 &~~

described real estate situated in Henderson County, Kentucky,

to-wit:

Tract 2: A certain tract of land to contain the proposed water cooling towers for the new Station Two Henderson Municipal Power and Light Plant located immediately east of the Pennyrile Parkway and approximately three miles north of Sebree on the waters of the Green River in Henderson County, Kentucky, and more particularly described as follows:

Beginning at a point having Big Rivers plant grid coordinates of S = 128.00' and W = 90.00' located S 78° 07' W 156.45 feet from survey station 13 which is the point of intercept of the north-south and east-west plant grid lines having plant grid coordinates of N = 0.0 and E = 0.0 and being a common corner with Big Rivers RECC; thence with Big Rivers RECC S 43° 00' W 672.0 feet to a point having plant grid coordinates of S = 800.0 feet and W = 90.0 feet; thence continuing with Big Rivers RECC N 47° 00' W 110.0 feet to a point having Big Rivers plant grid coordinates of S = 800.0 feet and W = 200.0 feet; thence continuing with Big Rivers RECC N 43° 00' E 672.0 feet to a point having Big Rivers plant grid coordinates of S = 128.0 feet and W = 200.0 feet; thence continuing with Big Rivers RECC S 47° 00' E 110.0 feet to the beginning containing 73,920 square feet or 1.697 acres by Donan Engineering, Inc. of Madisonville, Kentucky, on October 26, 1971.

AND BEING a portion of the same property conveyed to Big Rivers by Walker Rideout, unmarried, by deed dated June 24, 1963, of record in Deed Book 126, page 227, in the Office of the Webster County Court Clerk, and of record in Deed Book 211, page 56, in the Office of the Henderson County Court Clerk.

TO HAVE AND TO HOLD the above described real estate, together with all privileges and appurtenances thereunto belonging, or in anywise appertaining, unto the City, its successors and assigns, with covenant of General Warranty, subject, however, to the following terms and conditions, to-wit:

(1) This property is subject to all terms and conditions set out in the original deed from Big Rivers to City dated March 18, 1971, of record as aforesaid.

(2) The property erroneously described as Tract 2 in Exhibit "A" to the original deed from Big Rivers to City hereinabove referenced has been and shall remain the property of

BOOKS PAGE 114

Big Rivers, and City by execution of this Deed of Correction conveys and relinquishes any and all claims it may have had, if any, to the erroneously described tract, it being the understanding of the parties hereto that City has never accepted any conveyance or rights in the erroneously described property.

This instrument is executed for and on behalf of Big Rivers by the undersigned officers thereof pursuant to authority granted by Big Rivers' Board of Directors, and likewise is executed for and on behalf of the City by its undersigned officers pursuant to the authority granted to said officers by the City Commission of the City.

IN TESTIMONY WHEREOF, witness the signatures of the respective officers of Big Rivers and City this the day and date first herein written.

BIG RIVERS RURAL ELECTRIC COOPERATIVE CORPORATION

By Robert X. Brown
President



ATTEST:

D. B. Wilson
Secretary

CITY OF HENDERSON, KENTUCKY

By William R. Newman

ATTEST:

Theresa Crafton

STATE OF KENTUCKY
COUNTY OF HENDERSON...SCT.

The foregoing instrument was acknowledged before me this 9th day of December, 1971, by William L. Newman and Theresa Crafton, the Mayor and City Clerk respectively, of the City of Henderson, Kentucky, a municipal corporation, on behalf of the corporation.



Gloria S. Crank
Notary Public, Henderson, Ky.
My Commission Expires August 15, 1972

BOOK 153 PAGE 312

STATE OF KENTUCKY
COUNTY OF HENDERSON...SCT.

The foregoing instrument was acknowledged before me this
10 day of December, 1971, by Robert D. Green and
D. E. Wilson, the President and Secretary
respectively, of St. Josephs Rural Electric Cooperative Corporation, a Kentucky
corporation, on behalf of said corporation.

Joseph D. Towler
Notary Public, Kentucky at large
My Commission Expires:
October 25, 1972



This instrument was prepared by
George E. Stigler III
Geo. E. STIGLER III
Attorney - At - Law
131 First Street
Henderson, Kentucky 42420

STATE OF KENTUCKY
HENDERSON COUNTY Set.

I, MILDRED M. HOWARD, Clerk of the Henderson County Court, certify
that the foregoing ~~instrument~~ *deed of conveyance* was this day at 3:40 o'clock P.M.
lodged in my office for record, and that I have recorded it, the fore-
going and this certificate in my said office.

Given under my hand this 22nd day of March 1972

MILDRED M. HOWARD, Clerk
By Jane Wain D. C.

State of Kentucky }
County of Webster } sc

This instrument was filed for record on the 7 day of April 1972
at 8:00 A.M., and is duly recorded in Book 153 page 309

ETHEL C. WATSON, Clerk

Mildred Howard



Vikram Godbole
Director, Resource Utilization
317-249-5376
vgodbole@misoenergy.org

VIA OVERNIGHT DELIVERY

October 8, 2018

Robert W. Berry
President and CEO
Big Rivers Electric Corporation
201 Third Street, P.O. Box 24
Henderson, KY 42419-0024

Subject: Approval of Henderson Municipal Power and Light Units 1 and 2 Attachment Y Retirement Notice

Dear Mr. Berry:

On July 27, 2018, Big Rivers Electric Corporation submitted a completed Attachment Y Notice to MISO for the Retirement of Henderson Municipal Power and Light Units 1 and 2 effective February 1, 2019. After being reviewed for power system reliability impacts as provided for under Section 38.2.7 of MISO's Open Access Transmission, Energy, and Operating Reserve Markets Tariff ("Tariff"), the retirement of Henderson Municipal Power and Light Units 1 and 2 would not result in violations of applicable reliability criteria. Therefore, Henderson Municipal Power and Light Units 1 and 2 may Retire without the need for the generator to be designated as a System Support Resource ("SSR") unit as defined in the Tariff.

This letter acknowledges that you did not exercise your right to rescind your Attachment Y submission. The decision to retire is considered final and the existing interconnection rights for the generators will be terminated as of the retirement date specified in the Attachment Y Notice. Big Rivers Electric Corporation may not modify the decision to Retire Henderson Municipal Power and Light Units 1 and 2 unless an Attachment X Request is submitted to enter the generation interconnection queue.

Please do not hesitate to contact me if you have any questions regarding this matter.

Respectfully,

Vikram Godbole
Director, Resource Utilization



Midcontinent Independent
System Operator, Inc.
317-249-5400
www.misoenergy.org

720 W City Center Drive
Carmel, Indiana 46032

2985 Ames Crossing Road
Eagan, Minnesota 55121

3850 N. Causeway Blvd.,
Two Lakeway, Suite 442
Metairie, LA 70002

1700 Centerview Drive
Little Rock, AR 72211