

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

ORDER

On April 2, 2012, Big Rivers Electric Corporation (“Big Rivers”) filed an application seeking approval of a new environmental compliance plan; approval of revisions to its environmental surcharge tariff, monthly reporting forms, and related tariff billing forms; certificates of public convenience and necessity (“CPCN”) to construct certain projects related to its new environmental compliance plan; authority to establish a regulatory asset for its costs associated with this case; and authority to recover such costs through its environmental surcharge tariff.<sup>1</sup>

The following parties were granted full intervention in this matter: Kentucky Industrial Utility Customers, Inc. (“KIUC”), Kenergy Corp. (“Kenergy”), the Office of the Attorney General, by and through his office of Rate Intervention (“AG”), and Ben Taylor and Sierra Club (collectively, “Sierra Club”). A procedural schedule was established in this case providing for discovery upon Big Rivers’ application, an opportunity to file intervenor testimony, discovery upon intervenors, and an opportunity for Big Rivers to

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<sup>1</sup> Application at 1.

file rebuttal testimony. The Commission also scheduled and conducted public meetings in Paducah and Henderson, Kentucky, on August 13 and 14, 2012, respectively, to receive public comments on the environmental compliance plan and associated surcharge requests submitted by Big Rivers.

A formal evidentiary hearing was conducted on August 22 and 23, 2012 at the Commission's offices in Frankfort, Kentucky. Prior to the start of the formal hearing on August 22, 2012, the parties to this matter met to discuss the impact of the recent ruling by the United States Court of Appeals for the District of Columbia Circuit vacating the Cross State Air Pollution Rule ("CSAPR")<sup>2</sup> on Big Rivers' Application. As a result of those discussions, the parties were able to reach a full and unanimous settlement of all issues related to this case. On August 23, 2012, the parties to this matter filed a Stipulation and Recommendation ("Settlement Agreement"), which is attached to this Order as the Appendix.

The matter is now before the Commission for a decision. For the following reasons, the Commission determines that it is in the public interest to approve the Settlement Agreement.

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<sup>2</sup> See, *EME Homer City Generation, L.P. v. Environmental Protection Agency et al.*, No. 11-1302 (D.C. Cir. Aug. 21, 2012).

Big Rivers' 2012 Environmental Compliance Plan ("2012 Plan")

Although all of the Big Rivers' coal-fired, owned, and operated units,<sup>3</sup> except one, are already fitted with SO<sub>2</sub>, NO<sub>x</sub>, and particulate emission control equipment, Big Rivers determined that new and pending federal environmental regulatory requirements would require it to install new pollution control facilities.<sup>4</sup> If operating at its projected capacity of above 80 percent net capacity factor, Big Rivers noted that it would not be capable of meeting the requirements of CSAPR<sup>5</sup> and the Mercury and Air Toxics Standard ("MATS") without significant incremental capital investment.<sup>6</sup> Unless emissions removal efficiencies are improved, Big Rivers would need to curtail its generation by 27 percent from historic levels in order to comply with the second phase of CSAPR standards beginning in 2014.<sup>7</sup> Towards that end, Big Rivers retained Sargent & Lundy, an engineering and consulting firm specializing in professional services for the electric power industry, to perform a focused compliance study in order to address recently issued, proposed, and pending federal environmental regulations and the potential

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<sup>3</sup> Big Rivers owns and operates the following coal generating stations: Coleman Station (consisting of three units with a total output of 485 MW); Wilson (consisting of one unit with an output of 440 MW); and Sebree (consisting of two Green units totaling 496 MW, two Henderson Municipal Power & Light ("HMP&L") units totaling 337 MW, and one Reid unit with an output of 72 MW). See, Direct Testimony of Robert W. Berry ("Berry Testimony"), Exhibit Berry-3, pp. 1-2. HMP&L Units 1 and 2, also known as Station Two, is owned by the City of Henderson, Kentucky and operated by Big Rivers. Pursuant to a power sales contract, Big Rivers, among other things, pays a proportionate share of all expenses in return for a proportionate share of Station Two's electrical output.

<sup>4</sup> Application, p. 3.

<sup>5</sup> It should be noted that Big Rivers undertook its environmental compliance study well in advance of the federal court decision vacating CSAPR.

<sup>6</sup> Berry Testimony, p. 16.

<sup>7</sup> *Id.*

impacts these initiatives may have on Big Rivers' generating units.<sup>8</sup> Sargent & Lundy was tasked to develop a cost-effective strategy for Big Rivers to primarily comply with CSAPR<sup>9</sup> and MATS<sup>10</sup> although the impacts of other proposed and potential regulations were also considered.<sup>11</sup>

The United States Environmental Protection Agency ("EPA") finalized CSAPR on July 6, 2011. CSAPR, which replaced CAIR, required 28 states, including Kentucky, to significantly improve air quality by reducing power plant emissions that contribute to ozone and/or fine particle pollution in other states. CSAPR was designed to achieve reductions in SO<sub>2</sub> emissions as well as annual NO<sub>x</sub> and/or ozone season NO<sub>x</sub> emissions from power plants beginning in 2012, with additional reductions to be in place for 2014 and following years. CSAPR creates more stringent state-specific allowance budgets for SO<sub>2</sub> and NO<sub>x</sub>, and allows sources to trade emission allowances with other sources within the same program in the same or different states, while firmly constraining any emissions shifting that may occur by requiring a strict emission ceiling in each state.

CSAPR divides the states required to reduce SO<sub>2</sub> into two groups. Both groups must reduce their SO<sub>2</sub> emissions beginning in 2012. Group 1 states must make significant additional reductions in SO<sub>2</sub> emissions by 2014 in order to eliminate their

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<sup>8</sup> Direct Testimony of William DePriest ("DePriest Testimony"), p. 7.

<sup>9</sup> 76 Fed. Reg. 48208 (Aug. 8, 2011) (to be codified at 40 C.F.R. pts. 51, 52, 72, 78, and 97).

<sup>10</sup> 77 Fed. Reg. 9304 (Feb. 16, 2012) (to be codified at 40 C.F.R. pts. 60 and 63).

<sup>11</sup> The other federal environmental rules and regulations that were evaluated by Sargent & Lundy were the Clean Air Interstate Rule ("CAIR"); the Regional Haze Rule; the National Ambient Air Quality Standards; Multi-pollutant and greenhouse gas legislation; Greenhouse Gas Tailoring Rule; Section 316(b), Cooling Water Intake Regulations; Coal Combustion Residuals Regulations; and Wastewater Discharge Standards for the Steam Electric Power Point Source Category.

significant contribution to air quality problems in downwind areas. Kentucky is designated as a Group 1 state.

On December 21, 2011, the EPA finalized the MATS rule which was designed to reduce emissions of toxic air pollutants from new and existing coal-fired and oil-fired electric utility steam generating units. Specifically, MATS will reduce emissions of heavy metals, including mercury, arsenic, chromium, and nickel; and acid gases, including hydrochloric acid ("HCl") and hydrofluoric acid. Existing sources generally will have up to four years to comply with MATS. This includes the three years provided to all sources by the Clean Air Act. Also, under the Clean Air Act, state permitting authorities can also grant an additional year as needed for technology installation. The EPA expects this option to be broadly available. The EPA is also providing a pathway for reliability critical units to obtain a schedule with up to an additional year, for a total of five years, to achieve compliance.

For all existing and new coal-fired generating units, MATS establishes numerical emission limits for mercury, particulate matter (a surrogate for toxic non-mercury metals), and HCl (a surrogate for all toxic acid gases). The rule also establishes alternative numeric emission standards, including SO<sub>2</sub> (as an alternate to HCl), individual non-mercury metal air toxics (as an alternate to particulate matter), and total non-mercury metal air toxics (as an alternate to particulate matter) for certain power plants. The EPA notes that a range of widely available and economically feasible technologies, practices, and compliance strategies are available to power plants to meet the emission limits, including wet and dry scrubbers, dry sorbent injection systems, activated carbon injection systems, and fabric filters.

Sargent & Lundy conducted the environmental compliance study on behalf of the Big Rivers' system in three phases. The first phase consisted of a focused evaluation of current, pending, and proposed environmental regulations as they applied to Big Rivers.<sup>12</sup> In phase two, based upon the conclusions developed in the first phase, Sargent & Lundy evaluated possible compliance options, consisting of new technologies to reduce emissions, upgrading existing equipment to further reduce emissions, fuel switching, or combinations of these alternatives.<sup>13</sup> Phase three consisted of an evaluation of the costs and installation schedules associated with the alternative options and included a recommendation for the most cost-effective compliance strategy for the Big Rivers facilities based on a net present value analysis accounting for capital and operation and maintenance expenditures for each technology.<sup>14</sup>

Sargent & Lundy recommended, and Big Rivers incorporated into its 2012 Plan, the following technologies to comply with CSAPR and MATS:

- Project Number 4: At Wilson Unit 1, replacing the existing wet flue-gas desulfurization ("FGD") absorber with a new absorber based on current technology that will improve the SO<sub>2</sub> removal rate from 91 percent to 99 percent. The estimated capital cost for this project is \$139 million and incremental operation and maintenance ("O&M") expenses are projected to be \$760,000 annually. The project is scheduled to be completed by January 1, 2016.
- Project Number 5: At Green Unit 2, installing a new advanced technology Selective Catalytic Reduction ("SCR") control system that will improve the NO<sub>x</sub> removal from 50 percent to 85 percent. The estimated capital cost for this project is \$81 million and

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<sup>12</sup> DePriest Testimony, p. 9.

<sup>13</sup> *Id.*

<sup>14</sup> *Id.*, pp. 9-10.

incremental O&M expenses are projected to be \$1.6 million annually. The project is scheduled to be completed by July 1, 2015.

- Project Number 6: At Reid Unit 1, completing the conversion of this unit to natural gas. The estimated capital cost for this project is \$1.2 million and ongoing O&M expenses are not expected to increase. The project is scheduled to be completed by January 1, 2014.
- Project Number 7: At Station Two, upgrading the existing wet FGD control systems to increase removal of SO<sub>2</sub> from 93.5 percent to 97 percent. Big Rivers' projected share of the capital cost is \$3.85 million and Big Rivers' share of the incremental O&M expenses are projected to be \$475,000 annually.
- Project Numbers 8, 9, and 10: At the Coleman, Wilson, and Green Stations, installing activated carbon injection and dry sorbent injection to reduce mercury and condensable particulate emissions as part of the MATS compliance strategy. In order to provide evidence of compliance as required by MATS, Big Rivers proposes to install continuous emissions monitors to sample and analyze the exhaust gases. The estimated capital costs of these three projects are \$58.16 million and incremental O&M expenses are projected to be \$10 million annually. The projects are scheduled to be completed by January 1, 2016. Lastly, Big Rivers will also conduct testing of Electro-Static Precipitator ("ESP") performance while injecting activated carbon and dry sorbent injection at the Coleman Station, Wilson, and Green Stations to determine whether ESP upgrades will be required to maintain filterable particulate emissions below the MATS requirements.
- Project Number 11: At HMP&L Units 1 and 2, installing continuous emission monitors to demonstrate constant compliance with MATS. Big Rivers projected share of the capital costs are \$280,000 and its share of the incremental O&M is projected to be \$25,250 annually. The project is to be completed by January 1, 2016.

The total estimated capital cost of Big Rivers' 2012 Plan is \$283.49 million.

Based on the recommendations provided by the Sargent & Lundy environmental compliance study, Big Rivers performed an analysis of the cost effectiveness of those various compliance strategies as well as taking into consideration the availability of

generating capacity and energy from the wholesale energy market that could be provided in lieu of generation from Big Rivers' own generating units.<sup>15</sup> In performing its analysis, Big Rivers made two basic assumptions. First, the only options that Big Rivers considered were to operate its generating units in compliance with the environmental regulations or to replace the capacity of the affected units with purchased power.<sup>16</sup> Second, Big Rivers assumed that the proposed suite of environmental facilities contained in its 2012 Plan was the most cost-effective suite of technology options.<sup>17</sup>

Big Rivers modeled three cases to evaluate the cost-effectiveness of the alternative strategies that it considered for environmental compliance.<sup>18</sup> The first case, or Build Case, was to comply with CSAPR and MATS by installing the environmental control facilities contained in the 2012 Plan.<sup>19</sup> The second case, or Partial Build Case, was to comply with CSAPR and MATS by installing all of the equipment contained in the 2012 Plan except the SCR on Green Unit 2.<sup>20</sup> The third case, or Buy Case, was to comply with MATS by installing the MATS-related equipment proposed in Projects 6, 8, 9, 10, and 11 and to comply with CSAPR by reducing generation and purchasing power in the wholesale market.<sup>21</sup>

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<sup>15</sup> Direct Testimony of Mark A. Hite ("Hite Testimony"), p. 5.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*, p. 6.

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

<sup>21</sup> *Id.*



In performing the cost-effectiveness evaluation, Big Rivers developed a financial model to determine the net present value of revenue requirements over a 15-year study period from 2012 – 2026.<sup>22</sup> The financial model was used to evaluate several scenarios and includes the variable costs of power production, wholesale market purchases, and off-system sales that stem from production cost models of each alternative over the study period.<sup>23</sup> The financial model also incorporated the fixed costs of the various projects considered in each scenario. For the production cost models used in the cost-effectiveness evaluation, Big Rivers acquired forward pricing data from PACE Global, which include forward hourly energy prices, monthly coal prices, monthly natural gas prices, and monthly allowance prices.<sup>24</sup> This data, along with Big Rivers' plant specific data, was supplied to ACES Power Marketing ("ACES"), who ran all of the production cost models for this evaluation.<sup>25</sup> Data from the ACES production cost models were then entered into Big Rivers' financial model.

Big Rivers also utilized the financial model to develop four scenarios. The first scenario represented a status quo, or Base Case, which included no new environmental compliance cost for the 2012 Plan.<sup>26</sup> A financial model was also developed for each of the three environmental compliance cases: the Build Case, the Partial Build Case, and

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<sup>22</sup> *Id.*

<sup>23</sup> *Id.*, pp. 6-7.

<sup>24</sup> *Id.*, p. 7-8.

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*, p. 7.

the Buy Case.<sup>27</sup> The member and smelter revenue requirement of each of the environmental compliance and sensitivity models was then compared to the Base Case financial model on a net present value basis using Big Rivers' 2010 cost of capital, 7.93 percent, as the discount rate.<sup>28</sup> Of the three environmental compliance options analyzed by Big Rivers, the Build Case was the least cost option.<sup>29</sup>

Big Rivers also conducted a sensitivity analysis of the compliance alternatives with the smelter load not included to simulate the relative economics of these options should the smelters terminate their agreements with Big Rivers or otherwise close their operations in the Big Rivers service territory.<sup>30</sup> Big Rivers analyzed the economic impact of both the Build Case and the Buy Case with a corresponding loss in smelter load starting January 1, 2014.<sup>31</sup> The smelter load sensitivity analysis results indicated that the Build Case had a lower member revenue requirement than the Buy Case on a present value basis.<sup>32</sup>

#### Intervenors' Positions

The AG, KIUC, and Sierra Club, through their testimony and data requests, raised certain concerns relating to Big Rivers' proposed 2012 plan for meeting CSAPR and MATS requirements. In particular, the intervenors challenged Big Rivers' compliance plan as not cost-effective and not reasonable. They also contested Big

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<sup>27</sup> *Id.*

<sup>28</sup> *Id.*

<sup>29</sup> *Id.*, p. 9.

<sup>30</sup> *Id.*, p. 10.

<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

Rivers' modeling and analyses, contending that Big Rivers' economic evaluation was skewed in favor of retrofitting and that Big Rivers failed to consider a full range of compliance options.

#### Settlement Agreement

The Settlement Agreement provides that Big Rivers, KIUC, Kenergy, and the AG agree that the settlement represents a fair, just, and reasonable resolution of all the issues in the instant matter and that the Sierra Club agreed not to oppose the settlement. As a result of the Settlement Agreement, the total estimated capital cost of Big Rivers' 2012 Plan is approximately \$58.5 million. The major provisions of the Settlement Agreement, which is attached hereto and incorporated herein as the Appendix, are as follows:

1. Big Rivers agrees to withdraw its request for CPCNs for Project 4 (installation of a new wet FGD at Wilson Unit 1), Project 5 (installing a new SCR at Green Unit 2), and Project 7 (upgrading the existing wet FGD system at Station Two) and for inclusion of those projects in the environmental surcharge. Big Rivers also agrees to withdraw its request to include the cost of Project 6 (conversion of Reid Unit 1 to natural gas) in the environmental surcharge. Big Rivers retains its right to seek authority to pursue Projects 4, 5, and 7 in a future filing with the Commission and to seek cost recovery of projects 4, 5, 6, and 7 in a future filing with the Commission.

2. Big Rivers, KIUC, and Kenergy recommend the Commission:
  - a. Enter an Order on or before October 2, 2012, granting Big Rivers CPCNs to permit the construction of Project 6 and Projects 8, 9, and 10 (installation of

activated carbon injection and dry sorbent injection systems and emission control monitors at the Coleman, Wilson, and Green Stations);

b. Find that Project 11 (installing emission control monitors at Station Two) does not require a CPCN, or alternatively, grant a CPCN for Project 11;

c. Approve the addition of Projects 8, 9, 10, and 11 to Big Rivers' 2012 Plan and approve the recovery of the costs of those projects through the environmental surcharge;

d. Approve the establishment of a regulatory account for Big Rivers' actual costs associated with this case, for expenses incurred by Big Rivers up through and including August 31, 2012, which are estimated not to exceed \$900,000;

e. Approve the amortization of the regulatory account over three years as well as approve the recovery of those costs through the environmental surcharge tariff; and

f. Approve the revised Environmental Surcharge ("ES") Tariff as well as approve the proposed ES monthly filing forms supporting the revised ES Tariff.

3. The AG and the Sierra Club agree not to oppose the recommendations listed in paragraph 2 above.

4. Before incurring any costs associated with Projects 8, 9, and 10 ("MATS Projects"), except those relating to testing, Big Rivers agrees to perform testing, while injecting activated carbon and dry sorbent, to ensure that the MATS Projects will achieve compliance with all applicable MATS particulate limits at the Coleman, Wilson, and Green Stations and that those generating stations will not need ESP upgrades or the addition of other particulate matter controls. If such testing demonstrates that the

MATS Projects will not be able to comply with MATS at any of the Coleman, Wilson, or Green units or will require ESP upgrades or the addition of other particulate matter controls, Big Rivers agrees not to proceed with the respective MATS Project for that unit, but will seek an amendment to its 2012 Plan to ensure MATS compliance. Big Rivers further agrees to file the testing results with the Commission. All parties to this case will have 30 days from the date each testing is filed to file comments with the Commission relating to the testing provided. Big Rivers will not incur any costs associated with the MATS Projects, except those relating to testing, until 15 days after the close of the comment period for the unit for which testing data was provided.

5. The parties agree that the Commission retains jurisdiction to review the 2012 Plan should the MATS requirements be modified in a manner that materially affects the 2012 Plan prior to Big Rivers' completion of Projects 8, 9, 10, and 11. In the event any material change to the MATS regulation should occur, any party to this proceeding may bring such information to the attention of the Commission.

6. KIUC, the AG, and the Sierra Club agree to withdraw their respective motions to dismiss that were filed on August 21 and 22, 2012.<sup>33</sup>

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<sup>33</sup> The motions to dismiss were filed as a result of the *EME Homer City Generation* ruling vacating CSAPR.

## Legal Standards

### CPCN

No utility may construct any facility to be used in providing utility service to the public until it has obtained a CPCN from this Commission.<sup>34</sup> To obtain a CPCN, the utility must demonstrate a need for such facilities and an absence of wasteful duplication.<sup>35</sup>

“Need” requires:

[a] showing of a substantial inadequacy of existing service involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed and operated.

. . .

The inadequacy must be due either to a substantial deficiency of service facilities, beyond what could be supplied by normal improvements in the ordinary course of business; or to indifference, poor management or disregard of the rights of consumers, persisting over such a period of time as to establish an inability or unwillingness to render adequate service.<sup>36</sup>

“Wasteful duplication” is defined as “an excess of capacity over need” and “an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.”<sup>37</sup> To demonstrate that a proposed facility does not result in wasteful duplication, we have held that the applicant must demonstrate that a

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<sup>34</sup> KRS 278.020(1).

<sup>35</sup> *Kentucky Utilities Co. v. Pub. Serv. Comm'n*, 252 S.W.2d 885 (Ky. 1952).

<sup>36</sup> *Id.* at 890.

<sup>37</sup> *Id.*

thorough review of all alternatives has been performed.<sup>38</sup> Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication.<sup>39</sup> All relevant factors must be balanced.<sup>40</sup>

### Environmental Cost Recovery Mechanism

KRS 278.183(1), commonly known as the Environmental Surcharge Statute provides, in pertinent part, as follows:

Notwithstanding any other provision of this chapter, effective January 1, 1993, a utility shall be entitled to the current recovery of its costs of complying with the Federal Clean Air Act as amended and those federal, state, or local environmental requirements which apply to coal combustion wastes and by-products from facilities utilized for production of energy from coal in accordance with the utility's compliance plan as designated in subsection (2) of this section. These costs shall include a reasonable return on construction and other capital expenditures and reasonable operating expenses for any plant, equipment, property, facility, or other action to be used to comply with applicable environmental requirements set forth in this section. Operating expenses include all costs of operating and maintaining environmental facilities, income taxes, property taxes, other applicable taxes and depreciation expenses as these expenses relate to compliance with the environmental requirements set forth in this section.

The Environmental Surcharge Statute allows a utility to recover its qualifying environmental costs through a ratemaking procedure which is an alternative to the filing

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<sup>38</sup> Case No. 2005-00142, *Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Jefferson, Bullitt, Meade, and Hardin Counties, Kentucky* (Ky. PSC Sept. 8, 2005).

<sup>39</sup> See *Kentucky Utilities Co. v. Pub. Serv. Comm'n*, 390 S.W.2d 168, 175 (Ky. 1965). See also Case No. 2005-00089, *Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity to Construct a 138 kV Transmission Line in Rowan County, Kentucky* (Ky. PSC Aug. 19, 2005).

<sup>40</sup> Case No. 2005-00089, Order dated August 19, 2005, at 6.

of a general rate case under KRS 278.190. The Environmental Surcharge Statute specifies: (1) the categories of costs that can be recovered by surcharge; (2) the procedures which must be followed by a utility to obtain approval of its environmental plan and surcharge; (3) the procedures and evidentiary standard to be applied by the Commission in reviewing applications for approval of an environmental plan and rate charge; and (4) the mandatory filing requirements and periodic reviews of an approved surcharge. The Commission must consider the plan and the proposed rate surcharge, and approve them if it finds the plan and rate surcharge to be reasonable and cost-effective.

### Findings

Having reviewed the extensive evidentiary record and being otherwise sufficiently advised, the Commission finds that the Settlement Agreement represents a reasonable resolution to the issues surrounding Big Rivers' proposed 2012 Plan and should be approved. The Commission notes that the evidentiary record developed in this case is voluminous, consisting of hundreds of thousands of pages of documents, many filed in paper format; but those too voluminous for paper filing were submitted on electronic medium. Numerous economic modeling and financial modeling runs were performed, and filed by the parties in support of their respective positions. In terms of capital expenditure, the bulk of Big Rivers' 2012 Plan consisted of environmental control facilities to address the requirements imposed by CSAPR. The estimated capital investment for the proposed installations of a new wet FGD at Wilson Unit 1 (Project 4 – \$139 million) and a new SCR at Green Unit 2 (Project 5 – \$81 million), as well as upgrading the wet FGD at Station Two (Project 7 – \$3.85 million), totaled approximately



\$224 million, which accounted for about 79 percent of the overall cost of Big Rivers' 2012 Plan. On August 21, 2012, one day before the formal evidentiary hearing in this matter, the D.C. Circuit Court of Appeals, in the case of *EME Homer City Generation, L.P. v. Environmental Protection Agency*, rendered an opinion vacating CSAPR and ordering the EPA to continue to implement CAIR until the agency can promulgate a replacement program, which will maintain the status quo as to emission reduction requirements. As a result of this decision, Big Rivers, pursuant to the Settlement Agreement, agreed to withdraw the three CSAPR-related projects from its 2012 Plan. Because of the vacatur, CSAPR will no longer have an impact on existing coal-fired power generation.

The Commission notes that Big Rivers' decision to withdraw its CSAPR-related projects would reduce the billing impacts. Big Rivers' 2012 Plan, including the CSAPR-related projects, would have resulted in a 6.9 percent increase to the Rural class with the Large Industrial class receiving a 6.1 percent increase and the smelters receiving a 6.9 percent increase. The 2012 Plan, as set forth in the Settlement Agreement, will result in the following increases: 3.6 percent to the Rural class, 2.7 percent to Large Industrial class, and 3.4 percent to the smelters.<sup>41</sup> However, due to the establishment of the Economic and Rural Economic Reserve funds, as ordered in Case No. 2007-

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<sup>41</sup> Revised Exhibit Wolfram-6 filed as Big River's Hearing Exhibit 1 at the August 23, 2012 hearing.

00455,<sup>42</sup> the environmental compliance costs charged to the Rural class will be mitigated until sometime in 2018.<sup>43</sup>

The Settlement Agreement, in effect, allows Big Rivers to proceed with its proposed plans to comply with MATS subject to the testing of the Coleman, Wilson, and Green power plants while injecting activated carbon and dry sorbent to ensure that the MATS Projects achieve compliance with all applicable MATS particulate limits at those units. Based on the Commission's analysis of the record, we find that the provisions of the Settlement Agreement, when viewed in total, represent a reasonable and cost-effective course of action for Big Rivers to meet its environmental obligations under MATS. Our analysis is based on the current emission levels at Big Rivers' generating units, the future levels of emission reductions needed to be in compliance with MATS, and the modeling results of the present value costs to construct and operate environmental retrofits to Big Rivers' existing generation versus retiring coal-fired generation and purchasing capacity.

Although the Settlement Agreement provides the parties with the ability to formally advise the Commission in the event of a material change to the MATS regulation, Big Rivers should nonetheless be required to promptly notify the Commission in the event that a future revision to an existing environmental regulation or the finalization of a new requirement impacts an approved environmental project. In an

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<sup>42</sup> Case No. 2007-00455, *The Applications of Big Rivers Electric Corporation for: (1) Approval of Wholesale Tariff Additions for Big Rivers Electric Corporation, (2) Approval of Transactions, (3) Approval to Issue Evidences of Indebtedness, and (4) Approval of Amendments to Contracts; and of E.ON U.S., LLC, Western Kentucky Energy Corp., and LG&E Energy Marketing, Inc. for Approval of Transactions* (Ky. PSC Mar. 6, 2009).

<sup>43</sup> August 23, 2012 Hearing at 11:33:25.

effort to ensure that all environmental investments are prudent, the Commission finds that Big Rivers should promptly file notice of either a change in an existing environmental requirement or the finalization of a new requirement, along with an analysis of the impacts on facilities in service and under construction.

Lastly, and consistent with our ruling in Case No. 93-065,<sup>44</sup> the Commission finds that Project 11 (installing emission control monitors at Station Two) does not require a CPCN in light of the fact that Station Two is wholly owned by the City of Henderson and is therefore exempt from the requirements of KRS 278.020(1).

IT IS THEREFORE ORDERED that:

1. Big Rivers is granted CPCNs to complete the conversion of Reid Unit 1 to burn natural gas (Project 6) and install activated carbon injection and dry sorbent injection systems and emission control monitors at the Coleman, Wilson, and Green Stations (Projects 8, 9, and 10).

2. Project 11, consisting of installing emission control monitors at Station Two, is exempt from the CPCN requirements of KRS 278.020(1).

3. Big Rivers' 2012 Plan, consisting of Projects 8, 9, 10, and 11, is approved.

4. The establishment of a regulatory account for Big Rivers' actual costs associated with this case, for expenses incurred by Big Rivers up through and including August 31, 2012, which are estimated not to exceed \$900,000, is approved.

5. The amortization of the regulatory account over three years, including the recovery of those costs through the environmental surcharge tariff, is approved.

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<sup>44</sup> Case No. 93-065, *City of Henderson, Kentucky, City of Henderson Utility Commission, and Big Rivers Electric Corporation Application for Certificate of Public Convenience and Necessity and to File Plan for Compliance with Clean Air Act and Impose Environmental Surcharge* (Ky. PSC Jul. 19, 1993).

6. The revised ES Tariff is approved effective on or after the date of this Order.

7. The proposed ES monthly filing forms supporting the revised ES Tariff, as provided in Big Rivers' response to the Commission Staff's Second Request for Information, Item 12, including the proposal to allocate environmental surcharge costs based on Total Adjusted Revenues, are approved.

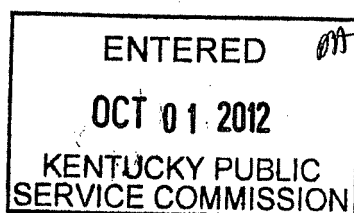
8. The Settlement Agreement, attached hereto and incorporated herein as the Appendix, is approved in its entirety.

9. Within 10 days of the date of this Order, Big Rivers shall file with the Commission revised tariff sheets setting out the ES Tariff as approved herein and reflecting that it was approved pursuant to this Order.

10. Big Rivers shall promptly file with the Commission a notice and supporting analysis in the event that a new or revised environmental requirement impacts any facility in service or under construction.

11. Any document filed in the future, pursuant to ordering paragraph 10 herein, shall reference this case number and shall be filed in the utility's general correspondence file.

By the Commission



ATTEST:

  
\_\_\_\_\_  
Executive Director

Case No. 2012-00063

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASE NO. 2012-00063 DATED **OCT 01 2012**

RECEIVED

AUG 23 2012

**STIPULATION AND RECOMMENDATION** PUBLIC SERVICE  
COMMISSION

This Stipulation and Recommendation (“Stipulation”) is entered into this 22<sup>nd</sup> day of August 2012, by and between Big Rivers Electric Corporation (“Big Rivers”), the Office of the Attorney General (“AG”), Kentucky Industrial Utility Customers, Inc. and Alcan Primary Products Corporation (collectively, “KIUC”), the Sierra Club and Ben Taylor (collectively, “Sierra Club”), and Kenergy Corp. (“Kenergy”) in the proceedings involving Big Rivers which are the subject of this Stipulation as set forth below:

**WITNESSETH:**

**WHEREAS**, Big Rivers filed on April 2, 2012, with the Kentucky Public Service Commission (“Commission”) its application and testimony in *The Application of Big Rivers Electric Corporation for Approval of its 2012 Environmental Compliance Plan, for Approval of its Amended Environmental Cost Recovery Surcharge Tariff, for Certificates of Public Convenience and Necessity, and for Authority to Establish a Regulatory Account* and the Commission has established Case No. 2012-00063 to review Big Rivers’ application;

**WHEREAS**, the Commission has granted AG, KIUC, Sierra Club and Kenergy full intervention in this proceeding;

**WHEREAS**, AG, KIUC and Sierra Club, through their testimony and data requests have raised certain concerns relating to Big Rivers’ 2012 Environmental Compliance Plan (“2012 Plan”) for meeting new and pending environmental regulatory requirements under the Federal Clean Air Act as amended, which apply to coal combustion wastes and by-products from facilities utilized for production of energy from coal (including the proposed Cross-State Air Pollution Rule (“CSAPR”) and the national emission standards for hazardous air pollutants, also known as the Mercury and Air Toxics Standards (“MATS”) rule);

**WHEREAS**, on August 21, 2012, the United States Court of Appeals for the District of Columbia in *EME Homer City Generation, L.P. v. Environmental Protection Agency*, Case No. 11-1302, vacated the CSAPR rule, which was the basis for a significant portion of Big Rivers' 2012 Plan and the basis of several concerns raised by AG, KIUC and Sierra Club;

**WHEREAS**, AG, KIUC, Sierra Club, Kenergy and Big Rivers hereto desire to settle issues pending before the Commission in the above-referenced proceedings;

**WHEREAS**, the adoption of this Stipulation will eliminate the need for the Commission and the parties to expend significant resources litigating these proceedings, and eliminate the possibility of, and any need for, rehearing or appeals of the Commission's final order herein;

**WHEREAS**, AG, KIUC, Kenergy and Big Rivers agree that this Stipulation, viewed in its entirety, is a fair, just and reasonable resolution of all the issues in the above-referenced proceedings, and Sierra Club has agreed not to oppose this Stipulation; and

**WHEREAS**, it is the position of the parties hereto that this Stipulation is supported by sufficient and adequate data and information, and should be approved by the Commission.

**NOW THEREFORE**, for and in consideration of the premises and conditions set forth herein, the parties hereto, excluding Sierra Club, stipulate and recommend and Sierra Club agrees not to oppose as follows:

## **SECTION 1**

**Section 1.01** Big Rivers, KIUC and Kenergy recommend the Commission enter an Order on or before October 2, 2012,

- (A) granting Big Rivers Certificates of Public Convenience and Necessity ("CPCNs") to permit the construction of Project 6, the conversion of Reid

Unit 1 to burn natural gas; and Projects 8, 9 and 10, activated carbon injection, dry sorbent injection & monitors at Coleman, Wilson and Green stations;

- (B) finding that Project 11, Monitors at HMP&L Station Two Units 1 and 2, do not require a CPCN or alternatively, granting a CPCN for Project 11;
- (C) approving the addition of Projects 8, 9, 10 and 11 to Big Rivers' Environmental Compliance Plan and approving the recovery of the costs of those projects, as revised by this Stipulation, through the environmental surcharge as proposed by Big Rivers;
- (D) approving the establishment of a regulatory account for Big Rivers' actual costs (and accruals for estimated amounts until actual costs can be determined) associated with this case, for expenses up through and including August 31, 2012, which are estimated not to exceed \$900,000;
- (E) approving the amortization of the aforementioned regulatory account amount over three years, and approving the recovery of those costs through the environmental surcharge tariff; and
- (F) approving the revised Environmental Surcharge ("ES") Tariff, to become effective upon issuance of a Final Order in this proceeding approving this Stipulation, and approving the proposed ES monthly filing forms supporting the revised ES Tariff, as provided in Big Rivers' response to the Commission Staff's Second Request for Information Item 12, including the proposal to allocate environmental surcharge costs based on Total Adjusted Revenues, as



described in the Direct Testimony of John Wolfram. (The AG will not oppose the recommendation in this subsection F.)

**SECTION 1.02** Big Rivers withdraws its application for CPCNs for Projects 4, 5 and 7 and for inclusion of those projects in the environmental surcharge. Big Rivers also withdraws its application to include the costs of Project 6 in the environmental surcharge. Big Rivers retains its right to seek authority to pursue Projects 4, 5 and 7 in a future filing with the Commission and to seek cost recovery of Projects 4, 5, 6 and 7 in a future filing with the Commission.

**Section 1.03** Before incurring any costs associated with Projects 8, 9 and 10 (“MATS Projects”) except those relating to testing, Big Rivers will perform testing, while injecting activated carbon and dry sorbent, to ensure that the MATS Projects will achieve compliance with all applicable MATS particulate limits at Coleman Units 1, 2, and 3, Wilson Unit 1, and Green Units 1 and 2 and will not necessitate Electro-Static Precipitators (“ESP”) upgrades or the addition of other particulate matter controls at Coleman Units 1, 2 and 3, Wilson Unit 1, and Green Units 1 and 2. At this time, Big Rivers estimates this testing will cost approximately \$1,000,000. If this testing demonstrates that the MATS Projects will not achieve compliance with any applicable MATS particulate limit at any unit or will necessitate ESP upgrades or the addition of other particulate matter controls, Big Rivers will not proceed with the respective MATS Project for that unit, but will seek an amendment to its Environmental Compliance Plan that will ensure compliance with all applicable MATS particulate limits. Big Rivers will file the results of the above described testing with the Commission and serve it on all parties after testing on each unit. All parties will have thirty (30) days from the date each testing is provided to file comments with the Commission relating to the testing provided, and Big Rivers will not incur any costs associated with the MATS Projects except those relating to testing until 15 days after

the close of the comment period for the unit for which testing data was provided. Big Rivers will include the costs associated with this testing in the MATS Projects costs, and will recover those costs through the environmental surcharge.

**Section 1.04** The Commission retains jurisdiction to review the 2012 Plan if MATS is modified in a manner that materially affects Big Rivers' compliance plan prior to Big Rivers' completion of Projects 6, 8, 9, 10 or 11. Further, the parties agree that Big Rivers or any other party may bring a material change to the MATS regulation to the attention of the Commission for action.

**Section 1.05** The AG and Sierra Club agree to not oppose the requests for relief in Section 1.

## **SECTION 2. Miscellaneous Provisions**

**Section 2.01** The signatories hereto, except Sierra Club, agree that the foregoing stipulations and agreements represent a fair, just and reasonable resolution of the issues addressed herein and request the Commission to approve the Stipulation. Sierra Club signs to evidence its agreement not to oppose this Stipulation.

**Section 2.02** The signatories hereto agree that, following the execution of this Stipulation, the signatories shall cause the Stipulation to be filed with the Commission by August 22, 2012, together with a request to the Commission for consideration and approval of this Stipulation.

**Section 2.03** The signatories hereto agree that this Stipulation is subject to the acceptance of and approval by the Kentucky Public Service Commission. The signatories hereto further agree to act in good faith and except for Sierra Club, to use their best efforts to recommend to the Commission that this Stipulation be accepted and approved. Sierra Club agrees not to oppose

this Stipulation, and all parties waive any right to appeal, file an action seeking review of, or seek reconsideration of any Order of the Commission issued in accordance with this Stipulation.

**Section 2.04** The signatories hereto agree that, if the Commission does not accept and approve this Stipulation in its entirety, then: (a) this Stipulation shall be void and withdrawn by the parties hereto from further consideration by the Commission and none of the parties shall be bound by any of the provisions herein, provided that no party is precluded from advocating any position contained in this Stipulation; and (b) neither the terms of this Stipulation nor any matters raised during the negotiations of this Stipulation shall be binding on any of the signatories to this Stipulation or be construed against any of the signatories.

**Section 2.05** The signatories hereto agree that this Stipulation shall inure to the benefit of and be binding upon the parties hereto, their successors and assigns.

**Section 2.06** The signatories hereto agree that this Stipulation constitutes the complete agreement and understanding among the parties hereto, and any and all oral statements, representations or agreements made prior hereto or contained contemporaneously herewith shall be null and void and shall be deemed to have been merged into this Stipulation.

**Section 2.07** The signatories hereto, except Sierra Club, agree that, for the purpose of this Stipulation only, the terms are based upon the independent analysis of the parties to reflect a fair, just and reasonable resolution of the issues herein and are the product of compromise and negotiation. Sierra Club signs to evidence its agreement not to oppose this Stipulation.

**Section 2.08** This Stipulation shall not have any precedential value in this or any other jurisdiction.

**Section 2.09** The signatories hereto warrant that they have informed, advised and consulted with the respective parties hereto in regard to the contents and significance of this

Stipulation and based upon the foregoing are authorized to execute this Stipulation on behalf of the parties hereto.

**Section 2.10** The signatories hereto agree that this Stipulation is a product of negotiation among all parties hereto, and no provision of this Stipulation shall be strictly construed in favor of or against any party. Notwithstanding anything contained in this Stipulation, the parties recognize and agree that the effects, if any, of any future events upon the operating income of Big Rivers is unknown and this Stipulation shall be implemented as written.

**Section 2.11** The signatories hereto agree that this Stipulation may be executed in multiple counterparts.

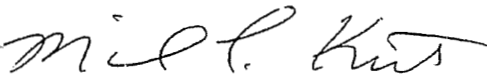
**Section 2.12** Big Rivers believes that with the MATS projects, Big Rivers will need to additionally install an HCl monitor at Wilson to demonstrate compliance with MATS. This HCl monitor is not part of the 2012 Plan, and Big Rivers is not seeking in this proceeding to recover the costs associated with this monitor through its environmental surcharge.

**Section 2.13** The motions to dismiss filed on August 21 and 22, 2012 by KIUC, Sierra Club, and the AG are hereby withdrawn.

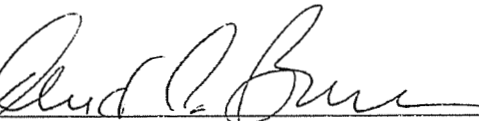
The Attorney General of Kentucky, by and through  
his Office of Rate Intervention Division

By: 

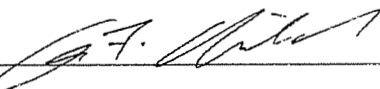
Kentucky Industrial Utility Customers, Inc.

By: 

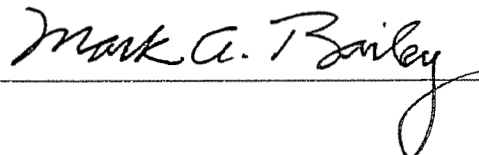
Alcan Primary Products Corporation

By: 

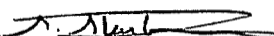
Sierra Club and Ben Taylor

By: 

Big Rivers Electric Corporation

By: 

Kenergy Corp.

By: 

Joe Childers  
Joe F. Childers & Associates  
300 Lexington Building  
201 West Short Street  
Lexington, KENTUCKY 40507

Honorable James M Miller  
Attorney at Law  
Sullivan, Mountjoy, Stainback & Miller, PSC  
100 St. Ann Street  
P.O. Box 727  
Owensboro, KENTUCKY 42302-0727

Shannon Fisk  
Earthjustice 1617 JFK Boulevard, Suite 1675  
Philadelphia, PENNSYLVANIA 19103

Greg Starheim  
President and CEO  
Kenergy Corp.  
P. O. Box 18  
Henderson, KY 42419

Jennifer B Hans  
Assistant Attorney General's Office  
1024 Capital Center Drive, Ste 200  
Frankfort, KENTUCKY 40601-8204

Kristin Henry  
Staff Attorney  
Sierra Club  
85 Second Street  
San Francisco, CALIFORNIA 94105

J. Christopher Hopgood  
Dorsey, King, Gray, Norment & Hopgood  
318 Second Street  
Henderson, KENTUCKY 42420

Honorable Michael L Kurtz  
Attorney at Law  
Boehm, Kurtz & Lowry  
36 East Seventh Street  
Suite 1510  
Cincinnati, OHIO 45202

Christopher Kin Leung  
Earthjustice 156 William Street, Suite 800  
New York, NEW YORK 10038