

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

IN THE MATTER OF 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)**

CASE NO. 2012-00063

RECEIVED

JUN 06 2012

**PUBLIC SERVICE
COMMISSION**

**JOINT MOTION OF KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.,
BEN TAYLOR AND SIERRA CLUB, AND ATTORNEY GENERAL
TO COMPEL OR, IN THE ALTERNATIVE, TO ISSUE SUBPOENA DUCES TECUM**

Kentucky Industrial Utility Customers, Inc. (“KIUC”), Ben Taylor and Sierra Club and the Attorney General (collectively, “Intervenors”) hereby move the Kentucky Public Service Commission (“Commission”) to enter an Order requiring Big Rivers Electric Corporation (“Big Rivers”) to request and require the production of certain information from its affiliate, ACES Power Marketing (“ACES”), and to provide that information to the parties in this proceeding or, in the alternative, to issue subpoena duces tecum pursuant to KRS 278.320 to require the production of the information directly from ACES. In particular, Intervenors seek production of the data base and input files that ACES developed and fed into the production cost modeling upon which Big Rivers’ April 2, 2012 Application (“Application”) is based. The information Intervenors seek balances the confidentiality concerns of Big Rivers with the minimum requirements of transparency and is necessary to the Commission’s ultimate determination of whether the Application filed by Big Rivers in this case satisfies the standards set forth in KRS 278.020 and 278.183, and to the Intervenors’ ability to fully review and evaluate that Application.

MEMORANDUM IN SUPPORT

In CPCN proceedings, the Commission, its Staff, and intervenors attempt to validate the veracity of an applicant's conclusions. This audit process requires parties to examine key assumptions and analyses of the applicant to determine if they are reasonable, meaning that an auditor could reasonably follow key assumptions and derivations, analysis mechanisms, and conclusions drawn from those analyses. If the assumptions and/or analyses are flawed, then the resulting conclusions are typically not reasonable. In a typical CPCN case involving a retrofit, a reasonable audit should be able to review: (1) the company's estimate (or bid) for their environmental upgrade and the estimate (or bid) for replacement capacity; (2) a logically structured modeling analysis in which the Commission or intervenors may examine both input assumptions and output results; (3) sensitivity analyses that demonstrate robust conclusions, including explicit sensitivity inputs and outputs; (4) a clearly defined analytical framework for comparing the results of model runs; and (5) a justification of the project based on model results.

Transparency on the part of the applicant is an essential element of this audit process. An applicant must disclose information regarding input and output results, the modeling and analytical structure utilized, which sensitivities were used, including inputs and outputs, and how those sensitivities were selected. Without transparency regarding these issues it is impossible for the Commission or any party to verify, much less rely on, the applicant's assumptions and conclusions.

As part of the audit process of this CPCN application, Intervenors propounded specific discovery so that it could either review and verify or reject Big Rivers' analyses and conclusions. However, Big Rivers' responses to such requests for information were obstructive and evasive. Specifically, Big Rivers has failed to require or request ACES to produce the database ACES designed to run the Ventyx Planning and Risk ("PAR") model used in its production cost modeling for Big Rivers' Application. Intervenors submit that such database is plainly relevant to this proceeding, and responsive to their data requests. In addition, the lack of this data would render it impossible for the Commission to determine with certainty whether Big Rivers' Application meets the standards set forth in KRS 278.020 and KRS 278.183.

The essence of this Motion is straightforward: the only acceptable method for Intervenors and the Commission to examine and verify the accuracy and completeness of this Application is to be able to replicate Big Rivers' modeling and then test the output through sensitivity runs. To do this, it is necessary to have the exact inputs to the modeling carried out by ACES. Otherwise the Commission will be confronted with Big Rivers' conclusions (apples) and the Intervenors' conclusions (oranges).

The modeling in this case was a multi-step process involving three parties: Big Rivers, PACE Global ("PACE") and ACES.¹ PACE Global provided Big Rivers with its projections of forward energy prices, monthly coal prices, monthly natural gas prices and monthly allowance prices. This data, along with Big Rivers' plant specific data, were supplied to ACES which was contracted to run the production cost model. ACES then took the PACE and Big Rivers' data and from that information developed a data base or inputs that were fed into the Ventyx Planning and Risk ("PAR") model that ACES used in its production cost modeling. The ACES production cost model outputs were then sent back to Big Rivers which fed the information into the Big Rivers financial model. Based on these three-tiered modeling analyses, Big Rivers claims that the retrofits it is proposing are the least cost alternative.

Intervenors' propounded discovery for each of the modeling phases, including the ACES phase. For instance, KIUC 1-21 explicitly states: "Provide copies of all models and spreadsheets developed containing input assumptions and output results. Provide these electronically, with all formulas intact." KIUC First Set of Data Requests to Big Rivers 1-21. In addition, SC 1-53 states:

Refer to p. 7 line 20 to p. 8 line 5 of the testimony of Mark Hite. Identify and produce:

- a. All forward pricing data received from PACE Global for the production cost modeling.
- b. All Big Rivers plant specific data that was supplied to ACES Power Marketing.
- c. Please identify which financial model ACES Power Marketing used, who is the vendor of the model, and whether the model is a proprietary model that requires a license in order to gain access to the files.
- d. Please produce, in machine readable format, all of the production cost modeling (including input and output files) and workpapers used to determine the NPVRR for each scenario generated by ACES Power Marketing

¹ Direct Testimony of Mark Hite, pages 7-8

- e. Please identify any changes to the input files that may be required to reproduce the modeling.
- f. If changes are required, please explain why such changes were made.
- g. Please identify the assumptions, including any supporting documentation, Big Rivers or its agents used in each base case and sensitivity scenario that you modeled
- h. If a license is required to obtain access to any information in this request, please explain how Sierra Club could obtain that license or, if they already have a license, who they should provide information to regarding the license to obtain the files.

Ben Taylor and Sierra Club's First Request for Information to Big Rivers at 1-53; *see also*, KIUC First Set of Data Requests to Big Rivers KIUC 1-4, KIUC 1-20, and KIUC 1-22; Attorney General First Set of Data Requests Item 15.

Despite the specificity of these requests, Big Rivers and ACES have refused to provide all of the requested information. *See* Big Rivers' Response to KIUC Initial Request for Information; Big Rivers' Response to Sierra Club Initial Request for Information. While it is true that Big Rivers has provided Intervenors all the data that it provided to ACES, Big Rivers has not produced the database and inputs that ACES created and fed into the production cost model. In fact, Big Rivers has failed to require or request ACES to produce the database because it claims it is not obligated to do so as they are the proprietary work of ACES. Without such database and inputs, there is no way for the parties or the Commission to recreate the modeling performed by ACES and used by Big Rivers.

ACES is not an unaffiliated entity so there is no reason why Big Rivers should not have required ACES to provide this database. Big Rivers is actually a partial owner of ACES and a member of its Board. *See* Big Rivers Response to the Staff's Initial Request for Information, Item 1; *see also* Big Rivers' website at <http://www.bigrivers.com/power.aspx>. "As a member of ACES, Big Rivers has an annual bilateral agreement with ACES under which ACES provides a wide array of services to Big Rivers, including the production cost modeling for the multiple scenarios analyzed in the development of this filing." *See* Big Rivers Response to KIUC Initial Request for Information number 33. It strains credulity for Big Rivers to claim that it cannot obtain the database that ACES used in its production cost modeling. The crux of the issue is that the ACES database and inputs to the Ventyx software are formatted differently than and therefore not the same as the data supplied to

ACES by Big Rivers. In addition, in creating the database and inputs from the information provided by Big Rivers, ACES invariably made decisions regarding various factors, often referred to as “switches” or “vectors,” that the parties and Commission could only evaluate if the database is produced. For example, in a conference call held on June 4, 2012 among Big Rivers, ACES, Ventyx, KIUC, Sierra Club and the Attorney General’s office, ACES representatives suggested that the inputs it used included some of its own projections of future market power price curves that were presumably intended to supplement if not modify the market price forecasts provided by PACE.

Prior to formal discovery, KIUC also attempted to seek this information through a letter sent via email to Big Rivers on May 11, 2012 in which KIUC specifically requested “[t]he input data assumptions, and all supporting documents associated with the development of the input data assumptions” used by ACES as well as “[t]he actual production cost model that ACES used, as well as all input files that went to the model at the time the runs were performed.”² KIUC also proposed another solution under which KIUC’s consultants would travel to ACES’ office and work directly with ACES staff to make data changes to KIUC’s input files to then perform KIUC’s production cost runs, but Big River’s refused to accommodate this approach as well.

In addition to informal attempts to procure the data, as noted above, a number of questions in Intervenors’ first sets of discovery requests filed May 22, 2012 were sufficiently broad to have warranted the production of the Big Rivers-specific data used by ACES in its production cost modeling. See, KIUC Initial Request for Data from Big Rivers at KIUC 1-4, KIUC 1-20, KIUC 1-21, KIUC 1-22; Ben Taylor and Sierra Club’s Initial Request for Information at 1-53; and Attorney General Initial Request 15.

KIUC has gone to the expense of licensing the Ventyx PAR software to replicate Big Rivers’ modeling and test the Big Rivers outputs, but the software is useless without the ACES designed database. The impasse has occurred because Intervenors cannot run the Ventyx model and therefore assure the integrity of Big Rivers’ conclusions without the ACES database; and Big Rivers says it does not have the ACES database and will not request ACES to produce it. In the June 4, 2012 conference call ACES took the position that the specific files

² The May 11, 2012 letter is attached.

sought were the proprietary work product of ACES and that ACES was not obligated to provide the information in the specific format that Intervenors requested. Intervenors respectfully submit that this response requires action by the Commission.

Big Rivers' refusal to provide the ACES database of Big Rivers-specific inputs in the format used in its production cost modeling prevents both Intervenors and the Commission from being able to verify the results of the ACES production cost modeling that Big Rivers' Application is based upon. Big Rivers has suggested that the information it has provided should be sufficient³ to approximate the results produced by ACES. Even if theoretically true, it is an unnecessary burden for Intervenors to have to expend an undeterminable amount of work to attempt to identically reproduce what ACES has already created.

Even if there were adequate time for Intervenors to perform that work, there would be no assurance that identical results would be produced. In modeling efforts such as this, the modeler sets various "switches" or "vectors" that play a significant role in determining the outputs from the modeling exercise. Intervenors would have no idea how those switches or any other similar types of switches were set by ACES modelers without the database. Thus, without the specific input files from ACES, it would be only by chance that Intervenors could reproduce ACES' results identically.⁴

Further, even if Intervenors or Staff were to obtain a license of the production cost modeling software used by ACES, there is insufficient time to recreate the PAR model input files in the exact way that ACES already constructed them to enable the Intervenors to replicate the ACES results, which is a necessary starting point for Intervenors' work. KRS 278.183 provides that a hearing must be conducted within six months after an application is filed. Because of time limitations imposed by statute, it is critical that Big Rivers provide the

³ Big Rivers has not facilitated that process by providing all of the communications between Big Rivers and ACES reflecting directions to be followed, or assumptions to be applied, answers to questions posed by ACES to Big Rivers about the work. KIUC requested this information, *see* KIUC Initial Request for Information 1-4, and such information would facilitate replication of the ACES work product.

⁴ The importance of such switches or vectors was seen in the recent CPCN proceeding regarding Kentucky Power Company's then-proposed flue gas desulfurization project at the Big Sandy Unit 2 generating plant. Upon evaluating the modeling input database used by KPC, Sierra Club's expert witness in that proceeding discovered that the company had erroneously left on an energy demand vector that overstated demand by 20%. When KPC re-ran the model without that vector on, the results showed that the company's initial modeling had overstated the cost of future energy purchases under various alternatives by \$1 to \$2 billion. *See* Scott C. Weaver Rebuttal Testimony at 27-28 filed in Docket No. 2011-0401.

information necessary for parties to verify the production cost modeling results presented in Big Rivers' Application. Without a method by which to verify the accuracy of the information presented in Big Rivers' Application within the time constraints imposed by law, the Commission cannot make a final determination with certainty regarding whether Big Rivers' Application satisfies the requirements of KRS 278.183 or KRS 278.020. KRS 278.183 requires the Commission to determine whether an environmental compliance plan and rate surcharge are "reasonable and cost-effective" for compliance with certain environmental requirements. Additionally, KRS 278.020 requires the Commission to determine whether "public convenience and necessity require" projects proposed in Big Rivers' Application. The Commission should not proceed to determine whether Big Rivers' Application meets these standards without an examination of the accuracy of the modeling results that form the basis for Big Rivers' Application.

KIUC has previously voiced its concern regarding Big Rivers' failure to produce a witness to provide information regarding the assumptions used by ACES in its production cost modeling.⁵ The continued lack of critical data necessary to this case is a result of Big Rivers' failure to provide such a witness. Intervenors recognize that the ACES information requested in this Motion may need to be treated as confidential, and agrees to such treatment for all legitimately confidential information,⁶ but such information is vital to the Commission's ultimate determinations in this case and cannot be withheld.

⁵ KIUC Motion to Dismiss filed April 23, 2012.

⁶ On the June 4, 2012 call, Intervenors informed Big Rivers that they were willing to enter into a confidentiality agreement to protect the ACES information. Big Rivers failed to explain why such an agreement would not sufficiently protect ACES' interests.

WHEREFORE, Intervenor respectfully requests that the Commission enter an Order requiring Big Rivers to request the database of Big Rivers-specific data used by ACES in its production cost modeling and to provide that database to the parties in this proceeding or, in the alternative, to issue a subpoena duces tecum to obtain the information directly from ACES.

Respectfully submitted,



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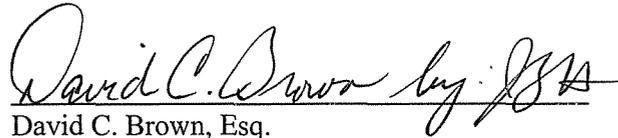
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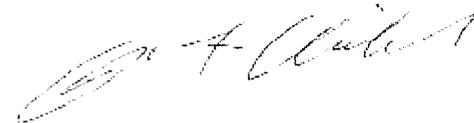
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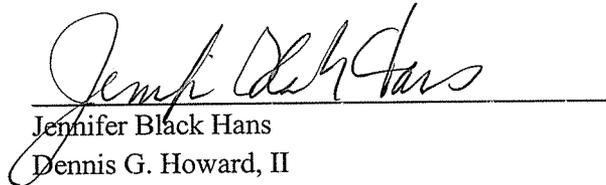
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June 6, 2012

Certificate of Service and Filing

Counsel certifies that an original and ten photocopies of the foregoing were served and filed by hand delivery to Jeff Derouen, Executive Director, Public Service Commission, 211 Sower Boulevard, Frankfort, Kentucky 40601; counsel further states that true and accurate copies of the foregoing were mailed via First Class U.S. Mail, postage pre-paid, to:

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Via Electronic Mail

May 11, 2012

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Re: *Big Rivers 2012 Environmental Compliance Plan, KPSC Docket No. 2012-00063*

Dear Jim:

KIUC has retained J. Kennedy and Associates, Inc. and Hayet Power System Consulting to review the Company's environmental compliance options and its proposed projects in this proceeding. They will review the data and analyses performed by Sargent & Lundy, the data and projections developed by Pace Global Insight, the Big Rivers plant data, the data used and the projections developed by Aces Power Marketing, and the Company's selection and modeling of various options and sensitivities.

The short time frame of this proceeding requires that we obtain access to this data and the models used and developed by both your consultants/contractors and Company personnel, as soon as possible. To the extent that we will need to obtain licenses or sign confidentiality or other agreements with the Company's consultants/contractors, we would like to complete that process as soon as possible, even before we issue discovery on May 21, 2012 or wait for the responses.

In the interest of expediting this process, we would appreciate your cooperation in obtaining following information and access to the various models (inputs, outputs and models) that were used in support of the Company's proposed projects:

Pace Global

Mark Hite's testimony at page 7 states, "Big Rivers acquired forward pricing data from Pace Global..." With regard to Pace Global data we would like the following items:

- The input data assumptions and all supporting documents associated with the development of the input data assumptions.
- The actual model that Pace Global used, as well as all input files that went into the model at the time the runs were performed and output files, as well as any other documents that Pace Global generated based on the output results.
- Any documentation concerning requirements to install the Pace Global model on our own computers and a copy of the User's Manual.

ACES Power Marketing

At page 7, Mr. Hite stated, "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." We would like to obtain the following information:

- The input data assumptions, and all supporting documents associated with the development of the input data assumptions
- The actual production cost model that ACES used, as well as all input files that went to the model at the time the runs were performed.
- All output files, as well as any other documents that ACES developed based on the output results.
- Documentation concerning requirements to install the ACES model on our own computers.
- A copy of the User's Manual.

Sargent & Lundy

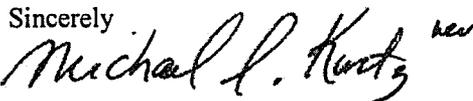
At page 13 of Mr. DePriest's testimony, he stated, "S&L used models and worksheets developed in-house to generate the capital and O&M cost estimates used in the compliance study." We would like to obtain the same input information, models, and output information as described in the bullets above regarding the S&L models.

"Build", "Partial Build" and "Buy" Cases

Finally, at pages 6-7, Mr. Hite described the Company's development of a financial model to evaluate various options (scenarios) that the Company considered. You previously provided that model to the parties. In addition to the model and the related files, we would like to obtain the input assumptions and all supporting documents associated with the development of the input assumptions.

In other proceedings in which our consultants have been involved, the utility has assisted them in obtaining any licenses that are required in order to obtain and use the software models. We would like to find out what requirements and costs may be required for them to acquire the models as soon as possible, as well as the process by which the models can be requested and obtained. Most likely a confidentiality agreement will be required as well.

Since there will be various processes required to go through to obtain these models and the relevant information used for and produced by these models, we would appreciate your cooperation and immediate attention to our request. We can arrange to have a conference call with Company and/or consultant/contractor personnel to expedite this process.

Sincerely

Michael L. Kurtz, Esq.
BOEHM, KURTZ & LOWRY

MLKkew

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