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RECEIVED

SEP 29 2014

PUBLIC SERVICE
COMMISSION

Via Overnight Mail

September 26, 2014

Mr. Jeff Derouen, Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602

Re: Case No. 2014-00166

Dear Mr. Derouen:

Please find enclosed the original and ten (10) copies of KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.'s SUPPLEMENTAL SET OF DATA REQUESTS TO BIG RIVERS ELECTRIC CORPORATION for filing in the above-referenced matter.

By copy of this letter, all parties listed on the Certificate of Service have been served. Please place this document of file.

Very Truly Yours,



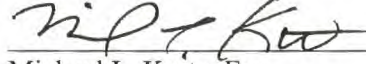
Michael L. Kurtz, Esq.
Kurt J. Boehm, Esq.
Jody Kyler Cohn, Esq.
BOEHM, KURTZ & LOWRY

MLKkew
Attachment

cc: Certificate of Service
Quang Nyugen, Esq.
Richard Raff, Esq.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served by electronic mail (when available) and by regular, U.S. mail, unless other noted, this 26TH day of September, 2014 to the following:



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COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED
SEP 29 2014
PUBLIC SERVICE
COMMISSION

IN THE MATTER OF: THE 2014 INTEGRATED
RESOURCE PLAN OF BIG RIVERS ELECTRIC
CORPORATION

: Case No. 2014-00166
:

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.'s
SUPPLEMENTAL SET OF DATA REQUESTS
TO
BIG RIVERS ELECTRIC CORPORATION

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UTILITY CUSTOMERS, INC.

September 26, 2014

DEFINITIONS

- 1 “Document(s)” is used in its customary broad sense and includes electronic mail and all written, typed, printed, electronic, computerized, recorded or graphic statements, memoranda, reports, communications or other matter, however produced or reproduced, and whether or not now in existence, or in your possession.
- 2 “Correspondence” is used in its customary broad sense and includes electronic email, including all attachments, and all written mail, messages and communications between the persons or parties named in the request.
- 3 “Study” means any written, recorded, transcribed, taped, filmed, or graphic matter, however produced or reproduced, either formally or informally, a particular issue or situation, in whatever detail, whether or not the consideration of the issue or situation is in a preliminary stage, and whether or not the consideration was discontinued prior to completion whether preliminary or final, and whether or not referred to in Big Rivers’ direct testimony.
- 4 If any document requested herein was at one time in existence, but has been lost, discarded or destroyed, identify such document as completely as possible, including the type of document, its date, the date or approximate date it was lost, discarded or destroyed, the identity of the person (s) who last had possession of the document and the identity of all persons having knowledge of the contents thereof.
- 5 “Person” means any natural person, corporation, professional corporation, partnership, association, joint venture, proprietorship, firm, or the other business enterprise or legal entity.
- 6 A request to identify a natural person means to state his or her full name and residence address, his or her present last known position and business affiliation at the time in question.
- 7 A request to identify a document means to state the date or dates, author or originator, subject matter, all addressees and recipients, type of document (e.g., letter, memorandum, telegram, chart, etc.), number of code number thereof or other means of identifying it, and its present location and custodian. If any such document was, but is no longer in the Company’s possession or subject to its control, state what disposition was made of it.
- 8 A request to identify a person other than a natural person means to state its full name, the address of its principal office, and the type of entity.
- 9 “And” and “or” should be considered to be both conjunctive and disjunctive, unless specifically stated otherwise.
- 10 “Each” and “any” should be considered to be both singular and plural, unless specifically stated otherwise.
- 11 Words in the past tense should be considered to include the present, and words in the present tense include the past, unless specifically stated otherwise.
- 12 “You” or “your” means the person whose filed testimony is the subject of these interrogatories and, to the extent relevant and necessary to provide full and complete answers to any request, “you” or “your” may be deemed to include any person with information relevant to any interrogatory who is or was employed by or otherwise associated with the witness or who assisted, in any way, in the preparation of the witness’ testimony.
- 13 “The Company” means Big Rivers Electric Corporation.

INSTRUCTIONS

1. If any matter is evidenced by, referenced to, reflected by, represented by, or recorded in any document, please identify and produce for discovery and inspection each such document.
2. These interrogatories are continuing in nature, and information which the responding party later becomes aware of, or has access to, and which is responsive to any request is to be made available to Kentucky Industrial Utility Customers. Any studies, documents, or other subject matter not yet completed that will be relied upon during the course of this case should be so identified and provided as soon as they are completed. The Respondent is obliged to change, supplement and correct all answers to interrogatories to conform to available information, including such information as it first becomes available to the Respondent after the answers hereto are served.
3. Unless otherwise expressly provided, each interrogatory should be construed independently and not with reference to any other interrogatory herein for purpose of limitation.
4. The answers provided should first restate the question asked and also identify the person(s) supplying the information.
5. Please answer each designated part of each information request separately. If you do not have complete information with respect to any interrogatory, so state and give as much information as you do have with respect to the matter inquired about, and identify each person whom you believe may have additional information with respect thereto.
6. In the case of multiple witnesses, each interrogatory should be considered to apply to each witness who will testify to the information requested. Where copies of testimony, transcripts or depositions are requested, each witness should respond individually to the information request.
7. The interrogatories are to be answered under oath by the witness(es) responsible for the answer.
8. Responses to requests for revenue, expense and rate base data should provide data on the basis of Total Company as well as Intrastate data, unless otherwise requested.

**KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.’s
SUPPLEMENTAL SET OF DATA REQUESTS OF
TO BIG RIVERS ELECTRIC CORPORATION
Case No. 2014-00166**

1. Please refer to your response to Attorney General 1-1. For each of the forward power sales that are listed, please provide the following:
 - a. Complete pricing information.
 - b. If Wilson has a planned or forced outage during any of the forward power sales please explain whether Big Rivers must cover the sale or whether the sale is temporarily excused.
 - c. Please update this response for any additional forward energy sales out of Wilson.

2. Please refer to your response to Attorney General 1-1. For each of the bilateral capacity sales and sales into the MISO Capacity Auction, please provide the following:
 - a. Complete pricing information.
 - b. If Wilson has a planned or forced outage during any of the forward power sales please explain whether Big Rivers must cover the sale or whether the sale is temporarily excused.
 - c. Please update this response with any additional capacity sales out of Wilson.

3. Please refer to your response to Staff 1-29.
 - a. For each month of 2014, please provide the operating margins earned from the Wilson Station. For purposes of this question, operating revenue should include all revenue from Wilson (e.g. forward energy sales, day ahead or real time energy sales, capacity sales, etc.) less total variable cost (e.g. fuel, variable O&M, allowances, etc.).
 - b. For each month of 2014, please provide the margin earned from the Wilson Station when all of the fixed and variable costs of Wilson are included. The revenue should include all revenue from Wilson (e.g. forward energy sales, day ahead or real time energy sales, capacity sales, etc.). The cost information for Wilson should be in the same format as contained in the RUS Financial and Operating Report Electric Power Supply for the Wilson Station that is filed with the Commission each month.

4. Please refer to your response to Staff 1-29 and the statement “Big Rivers anticipates that Wilson Station will be economic to operate for many years to come, adding value to our Members as projected in our Load Concentration Analysis and Mitigation Plan.”
 - a. Please provide all documents, studies and back-up material to support this statement.
 - b. Please provide all studies done by or for Big Rivers that estimate the expected margins that Big Rivers is projected to earn from the Wilson Station.

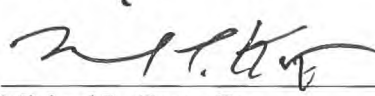
5. Please refer to your response to Staff 1-12. Please provide the economic development incentive rate as originally requested by Staff.

6. Please explain why Big Rivers is spending ratepayer funds on DSM, while at the same time is: 1) trying to market its excess capacity through Replacement Load; and 2) offering economic development discounts for new customers?

7. Please refer to your response to Sierra Club 1-19 and AG 1-7. This question refers to page 85 of the IRP which states: "If EPA implements CSAPR in its original form prior to it being vacated in 2012, it appears that CSAPR will not have a significant impact on Big Rivers' operations (based upon original allowance allocations) as the Coleman Station has been idled." Your answer refers to the Sargent & Lundy 2012 Environmental Compliance Study.
- Section 3.3.3 of the Sargent & Lundy study discusses retirement of existing units as a CSAPR compliance strategy that would last for only **four years**. It states: "Unit retirement is another potential strategy for compliance with the various EPA regulations. By retiring an existing unit, BREC will continue to receive that unit's CSAPR credit allocations for **four years** after the unit's last date of operation. Once the **four year** time period has elapsed, BREC will no longer have access to those credits and will have to adjust remaining plant operations to meet the reduced fleet-wide limits." For the period beginning four years after the idling of Coleman, is it still the position of Big Rivers that a newly implemented CSAPR would not have a significant impact on its operations? Please explain.
 - When was the last date of operation of Coleman and when does the four year period end?
 - Is it the position of Big Rivers that it can claim the use of Coleman's CSAPR credit allocations for an indefinite period of time since Coleman was only idled and not officially retired?
8. Your response to Sierra Club 1-19(c) states: "*The Sargent and Lundy 2012 Environmental Compliance Study indicated that additional SO2 emission reductions could be required under CSAPR if all Big Rivers units were in operation. One potential solution identified in the study was replacing the FGD at Wilson.*"
- Tables ES-1, ES-6 and 3-1 of the Sargent & Lundy study recommend a new \$139 million tower scrubber at Wilson for CSAPR compliance. Is \$139 million still the expected cost?
 - If CSAPR is implemented in its original form and the utilization of Coleman's CSAPR credit allocations lasts for only four years after it was last operated, would it be Big Rivers' plan to invest in a new scrubber at Wilson? Please explain.
 - Tables ES-1, ES-6 and 3-1 of the Sargent & Lundy study contain different assumptions than Big Rivers' post-hearing data response Item 14 in Case No. 2013-00199 (attached). For example, the Sargent & Lundy study lists the existing Wilson scrubber as having a 91% SO2 removal efficiency, an emission rate of 0.510 lbs. SO2/MMBTU and baseline SO2 emissions (tpy) of 9,438, whereas Item 14 lists Wilson's SO2 removal efficiency at 92%, an emission rate of 0.445 lbs. SO2/MMBTU and baseline SO2 emissions (tpy) of 7,483. Please reconcile these differences.
 - If Big Rivers is uncertain about the length of time it can continue to use Coleman's CSAPR credit allocations and whether a new scrubber would be needed at Wilson, then please explain why it would be reasonable to enter into long-term power supply contracts with out-of-state utilities as part of its Rate Mitigation Strategy.
9. Please refer to your response to Sierra Club 1-34 wherein Big Rivers states that it has not evaluated the retirement, rather than the idling, of generating units as an option for mitigating the impact of the termination of the smelter contracts
- Please explain why retirement was not evaluated.
 - Does Big Rivers agree that if a retirement study were performed, it would require comparing the projected net present value of the costs operating and maintaining the unit (including all future environmental upgrades) and avoidable fixed costs such as FDE, labor and depreciation, compared to the projected net present value of revenue from the unit? If no, then please explain.

- c. Please explain how Big Rivers can evaluate the economics of entering into long-term power contracts with out-of-state utilities as part of its Rate Mitigation Plan if it has not studied plant retirement as an alternative.

Respectfully submitted,



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**COUNSEL FOR KENTUCKY INDUSTRIAL
UTILITY CUSTOMERS, INC.**

September 26, 2014

ATTACHMENT

BIG RIVERS ELECTRIC CORPORATION
APPLICATION OF BIG RIVERS ELECTRIC CORPORATION
FOR A GENERAL ADJUSTMENT IN RATES
CASE NO. 2013-00199

Response to Post-Hearing Request for Information
Dated January 9, 2014

January 24, 2014

1 **Item 14) Provide a copy of spreadsheet analysis showing that using allowances**
2 **from Coleman would allow Big Rivers to avoid adding a scrubber at Wilson.**

3

4 **Response) Please see the attachment to this response for Big Rivers' emission allowance**
5 **allocations with Coleman idled and Wilson running.**

6

7 **Witness) Robert W. Berry**

8

BIG RIVERS ELECTRIC CORPORATION
CASE NO. 2013-00199
Response to Post-Hearing Request for Information
Dated January 9, 2014
Emission Allowance Allocation

CSAPR Estimate Unit Emissions (Wilson Running, Coleman Filled)													
Station Information - Inputs	Wilson	Green 1	Green 2	HMP/L 1	HMP/L 2	Coleman 1	Coleman 2	Coleman 3	Reid 1 (Coal)	Reid CT (Natural Gas)	System (Gen. Wild)	System (Cap. Wild)	Difference
Net Capacity, MW	417	231	223	151	159	146	146	151	50	65	1,741	1,741	
Annual Net Generation, MWH	3,200,000	1,700,000	1,800,000	1,100,000	1,100,000				0	5,000	8,905,000	8,905,000	
Ozone Season Net Generation, MWH	1,400,000	725,000	770,000	465,000	475,000				0	4,000	3,839,000	3,839,000	
Net Heat Rate, BTU/kWh	10,515	10,950	11,000	10,530	10,850	10,910	10,840	10,725	14,000	13,000	10,743	10,940	
Fuel Heating Value, BTU/lb	11,750	11,767	11,724	11,952	11,938	11,356	11,293	11,357	12,000				
% Sulfur in Fuel	3.35	3.66	3.66	3.19	3.20	2.90	2.93	2.89	3.12				
% SO ₂ Removal	92.0	97.0	97.0	96.0	96.0	96.0	96.0	96.0	0.0	0.0			
NO _x Emit Rate, lbs/MWh	0.065	0.230	0.230	0.076	0.076	0.330	0.330	0.330	0.500	0.700			
Station Calculations	Wilson	Green 1	Green 2	HMP/L 1	HMP/L 2	Coleman 1	Coleman 2	Coleman 3	Reid 1	Reid CT	System		
Annual Heat Input, MMBtu	33,648,000	18,615,000	19,800,000	11,605,000	11,935,000	0	0	0	0	65,000	95,668,000		
Ozone Season Heat Input, MMBtu	14,721,000	7,938,750	8,470,000	4,905,750	5,153,750	0	0	0	0	52,000	41,241,250		
Fuel Consumed, Tons	1,431,830	790,983	844,422	485,484	499,874	-	-	-	-	-	4,057,593		
Indic SO ₂ - lbs SO ₂ /MMBtu (97.5% S to SO ₂)	5.56	6.07	6.09	5.20	5.23	4.98	5.01	4.96	5.07	0.00			
Outlet SO ₂ - lbs SO ₂ /MMBtu	0.445	0.182	0.183	0.208	0.209	0.159	0.201	0.198	5.070	0.000			
Annual SO ₂ Emissions, Tons	7,483	1,694	1,808	1,208	1,248	0	0	0	0	0	13,440		Difference
CSAPR Phase 1 Annual SO ₂ Allocations, Tons	8,400	2,078	1,771	2,518	2,997	2,672	2,673	2,850	508	11	26,478	13,038	13,038
CSAPR Phase 2 Annual SO ₂ Allocations, Tons	3,614	1,964	1,771	1,251	1,289	1,150	1,150	1,226	219	9	13,643	283	283
Annual NO _x Emissions, Tons	1,094	2,141	2,277	441	454	0	0	0	0	0	6,479		Difference
CSAPR Phase 1 Annual NO _x Allocations, Tons	2,918	1,585	1,603	1,010	1,041	928	928	990	176	7	11,186	4,757	4,757
CSAPR Phase 2 Annual NO _x Allocations, Tons	2,645	1,437	1,453	916	944	841	842	898	160	6	10,142	3,713	3,713
Seasonal NO _x Emissions, Tons	478	913	974	186	196	0	0	0	0	0	2,766		Difference
CSAPR Phase 1 Seasonal NO _x Allocations, Tons	1,333	696	702	447	464	402	407	439	77	5	4,972	2,206	2,206
CSAPR Phase 2 Seasonal NO _x Allocations, Tons	1,180	616	622	396	411	356	360	389	68	4	4,402	1,636	1,636