

201 Third Street P.O. Box 24 Henderson, KY 42419-0924 270-827-2561 www.bigrivers.com

#### RECEIVED

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**PUBLIC SERVICE** COMMISSION

May 8, 2009

Jeff DeRouen **Executive Director** Public Service Commission of Kentucky 211 Sower Blvd., P.O. Box 615 Frankfort, KY 40602-0615

> Big Rivers Electric Corporation, Re:

> > Administrative Case No. 2000-00387

Dear Mr. DeRouen:

Attached you will find Big Rivers Electric Corporation's filing in accordance with Administrative Case No. 2000-00387. By Order dated October 7, 2005 in this proceeding, the Commission directed Big Rivers to file annually, as a supplement to the filer's annual report, all updated information that is currently required to be filed periodically in this case. The annual report was submitted to the Commission on April 29, 2009. Big Rivers requested, on that date, an extension of the April 30, 2009 deadline for the filing of the updated information, as required in Administrative Case 2000-00387, to May 11, 2009. This submission is filed in compliance with the requested extension.

Sincerely yours,

Senior Vice President

External Relations & Interim Chief Production Officer

DAS/bh Enclosure

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

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MAY 11 2009

PUBLIC SERVICE

COMMISSION

# SUPPLEMENT TO BIG RIVERS ELECTRIC CORPORATION'S ANNUAL REPORT PURSUANT TO THE COMMISSION'S ORDER DATED OCTOBER 7, 2005 IN ADMINISTRATIVE CASE NO. 2000-00387

calendar year. Sales should be disaggregated into native load sales and off-system sales. Off-system sales should be further disaggregated into full requirements sales,

firm capacity sales, and non-firm or economy energy sales. Off-system sales shall be

further disaggregated to identify separately all sales where the utility acts as a reseller,

or transporter, in a power transaction between two or more other parties.

Actual and weather-normalized energy sales for the just completed

5 6

Item 1-G)

**Response)** Table 1-G shows the native and off-system sales for 2008 and the further breakdowns as applicable to Big Rivers. Big Rivers supplies power to be used for back-up of the Domtar (formerly Weyerhaeuser) cogeneration facility. However, this back-up power is received by Big Rivers through a separate back-up power supply agreement and is not included in Table 1-G.

Please note that "TOTAL NATIVE LOAD & OFF-SYSTEM ENERGY SALES" category in Table 1-G represents energy associated with Big Rivers' power supply only. The category 'LOAD NOT SERVED BY BIG RIVERS" represents additional energy that is on the Big Rivers' transmission system. The "Control Area" load is composed of energy provided by others to Kenergy Corp. for resale to the aluminum smelters as well as part of the load for the City of Henderson and Big Rivers acts as the "transporter" for control area load. In addition, Big Rivers acts as transporter for energy from Big Rivers' generators sold off-system by LG&E Energy Marketing. Big Rivers does not track megawatt hours for these transports.

Witness) C. William Blackburn

Travis D. Housley, P.E.

David G. Crockett, P.E.

Table #1G

age # 10

**BIG RIVERS ELECTRIC CORPORATION** 

| 3Y BIG RIVERS                   |             |         | Wheeling          |         | MWh        | 5,920   | 4,233   | 5 294   | 900.4   | 4,500   | 2,702   | 780     | 855     | 660     | 935     | 286     | 206     | 556     |         | 1,041   | 27.514      |           |
|---------------------------------|-------------|---------|-------------------|---------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|-----------|
| LOAD NOT SERVED BY BIG RIVERS   |             | Control | Area Load         |         | MWh        | 621,775 | 583,919 | 624 673 | 2/0/170 | 602,532 | 622,134 | 602 780 | 001,000 | 216,129 | 625,727 | 600,117 | 621,240 | 600 472 | 002,113 | 622,387 | 7 348 368   | 225,040,1 |
|                                 |             |         |                   |         | Reseller   |         |         |         |         |         | 2,400   |         | •       | •       | 20,400  | •       |         |         |         | •       | 22 800      | 77,000    |
| ALES (MWh)                      | Off-System  |         | Off-System Energy |         | Non-Firm   | 62,070  | 71 565  | 000,1   | 123,393 | 153,888 | 128.725 | 00000   | 00,040  | 46,160  | 45,749  | 68.330  | 84 106  |         | 62,223  | 49,561  | 000 700     | 904,000   |
| & OFF-SYSTEM ENERGY SALES (MWh) | JJO OH:     |         | Off-Sys           |         | Firm       | 57,641  | 58 136  | 20,130  | 65,772  | 67,422  | 66.133  | 00,00   | 02,331  | 73,831  | 77,961  | 78.461  | 84 733  | 001,40  | 82,033  | 82.815  | 0000        | 857,768   |
|                                 | Load        |         | nergy             | Weather | Normalized | 299 866 | 207,000 | 284,192 | 273,926 | 240.427 | 254 085 | 200,400 | 273,777 | 312,713 | 311,637 | 272 695 | 252,250 | 232,230 | 254,014 | 287.381 | . 00' (00') | 3,316,963 |
| TOTAL NATIVE LOAD               | Native Load |         | Total Energy      |         | Actual     | 228 880 | 320,000 | 292,960 | 272,529 | 797,966 | 225 244 | 117,007 | 287,330 | 309.652 | 200 056 | 252,022 | 440,707 | 700,747 | 264.226 | 210 541 | 10,010      | 3,339,714 |
| TC                              |             |         |                   |         | Month      | 00 20   | Jail-00 | Feb-08  | Mar-08  | Apr.08  |         | May-U8  | Jun-08  | .lul-08 | 00-201V | 00 and  | on-dac  | 20-t-02 | Nov-08  | 90 000  | on-par      | Total     |

Note 1: Big Rivers off-system sales are market blocks of power. Therefore, the off-system sales cannot be weather normalized.

Item 2-G) A summary of monthly power purchases for the just completed calendar year. Purchases should be disaggregated into firm capacity purchases required to service native load, economy energy purchases, and purchases where the utility acts as a reseller, or transporter, in a power transaction between two or more other parties.

**Response)** Table 2-G shows energy purchases, both firm and economy, which came through Big Rivers' Power Supply for 2008. Table 2-G also shows additional energy purchased for the control area by others and it shows the quantity of wheeling for 2008.

Witness)

C. William Blackburn

Travis D. Housley, P.E.

David G. Crockett, P.E.

Item 2-G Page 1 of 2

TABLE # 2G

Load Not Served By Big Rivers Wheeling 55,799 52,200 50,925 58,800 55,800 53,665 327,189 Area Load Control MWh **BIG RIVERS ELECTRIC CORPORATION** 2,400 20,400 Energy Resell MWh Monthly Power Purchases by Big Rivers 130,875 191,074 121,035 104,525 145,949 120,954 194,763 132,538 170,604 133,100 148,201 224,097 1,817,715 Economy Energy MWh 299,956 328,880 292,960 272,529 257,044 229,797 235,217 309,652 264,226 319,541 3,339,714 287,330 242,582 Native Load Capacity MWh Firm Dec-08

7,075

8,181

4,450 4,540

4,573

MWh

1,913

917 1,174 795 518 364

6,821 41,321

Item 2-G Page 2 of 2

May-08

Jun-08

Jul-08

Jan-08 Feb-08 **Mar-08** Apr-08

Month

Aug-08 Sep-08

Oct-08 Nov-08

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just completed calendar year. Demands should be disaggregated into (a) native load

and the off-system coincident demand for 2008. Big Rivers sells its surplus power into

the market and therefore the off-system sales cannot be weather normalized. Please see

demand (firm and non-firm) and (b) off-system demand (firm and non-firm).

second paragraph of the response to Item 1-G for additional explanation.

Actual and weather-normalized monthly coincident peak demands for the

Table 3-G shows the actual and weather normalized native load demand

Item 3-G)

Response)

Witness)

C. William Blackburn

TABLE#3G

**BIG RIVERS ELECTRIC CORPORATION** 

| TAL NA        | TIVE LOAD & | TOTAL NATIVE LOAD & OFF-SYSTEM COINCIDENT PEAK DEMANDS (MW) | CIDENT PEAK D | EMANDS (MW)       | Load Not Serve | Load Not Served By Big Rivers |
|---------------|-------------|---|---------------|-------------------|----------------|-------------------------------|
|               | Native L    | ve Load   | Off-Sys       | Off-System Sales  |                | 330                           |
| -             | ¥           | All Firm  |               |                   | Control        | Off System                    |
|               | Peak De     | Demand  | Off-Syste     | Off-System Demand | Area Load      | Firm(OPC)                     |
| ;             |             | Weather   | Ï             |                   | (MM)           | WW                            |
| Month         | Actual      | Normalized  | ELL           | NOII-FILLI        |                |                               |
| 9             | 640         | 609   | <del>-</del>  | 0                 | 849            |                               |
| Jan-00        | 0 1         | 0 10  | . 8           | _                 | 852            |                               |
| 80-q          | 554         | 554   | 3             | >                 | 0.47           |                               |
| ar-08         | 534         | 208   | 33            | 9/                | 047            |                               |
| r-08          | 443         | 458   | 113           | 111               | 845            |                               |
| 90-ye         | 477         | 514   | 0             | 131               | 848            |                               |
| 90-0          | 562         | 605   | 55            | 0                 | 849            |                               |
| 8 2           | 616         | 656   | 0             | 0                 | 851            |                               |
| 20-03         | 595         | 649   | 09            | 0                 | 842            |                               |
| 90-03<br>0-03 | 566         | 609   | 9             | 0                 | 844            |                               |
| Oct-08        | 443         | 447   | 113           | 30                | 847            |                               |
| %-08<br>-v-08 | 518         | 513   | 113           | 0                 | 845            |                               |
| Dec-08        | 612         | 578   | 113           | 10                | 851            |                               |

Note: Big Rivers off-system sales are market blocks of power. Therefore, the off-system sales cannot be weather normalized.

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**Item 4-G)** Load shape curves that show actual peak demands and weathernormalized peak demands (native load demand and total demand) on a monthly basis for the just completed calendar year.

**Response)** Graph 4-G shows the monthly native load demand with the monthly weather normalized native load demand for 2008. The total curve represents the native load demand plus the actual firm off-system sales.

Please note this graph represents power that comes through Big Rivers' power supply and does not represent the activity of others in the Big Rivers' control area. Big Rivers does not have the data to supply the remaining power for the control area.

Witness)

C. William Blackburn

Travis D. Housley, P.E.

David G. Crockett, P.E.

Graph #4G

BIG RIVERS ELECTRIC CORPORATION

Ö Sep NATIVE LOAD AND TOTAL COINCIDENT PEAK DEMANDS (MW) - 2008 Aug Ju Jun May Apr Feb Jan Weather Normalized --- Native Demand - Total Demand

Item 4-G Page 2 of 2

Item 5-G)

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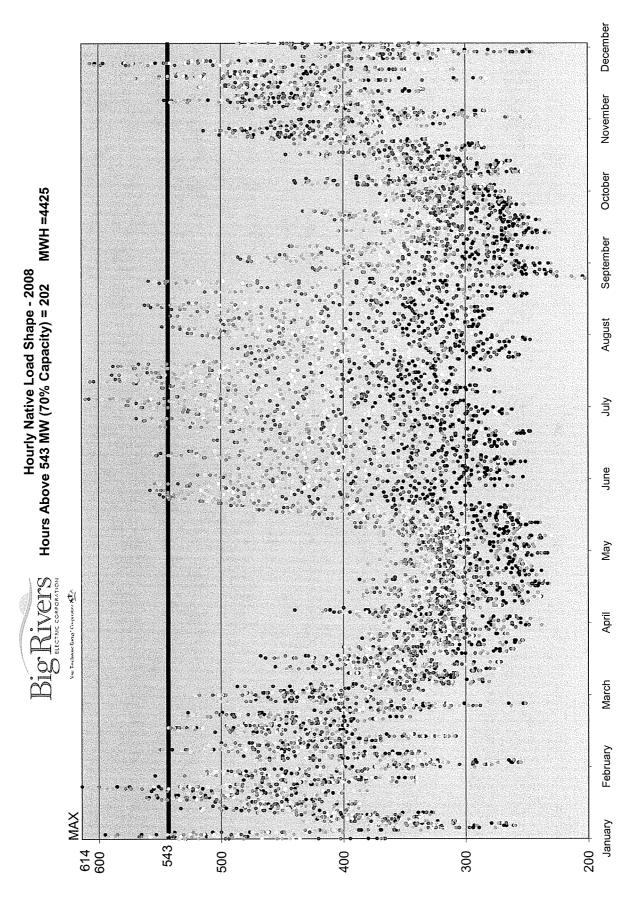
exceeded these levels during the just completed calendar year: (1) 70% of the sum of installed generating capacity plus firm capacity purchases; (2) 80% of the sum of installed generating capacity plus firm capacity purchases; (3) 90% of the sum of installed generating capacity plus firm capacity purchases.

Load shape curves showing the number of hours that native load demand

Response) Graphs 5-G (pages 2 - 4 of 4) show the hourly native load demand for 2008 with each dot representing the demand for that hour. They also show the lines representing 70%, 80%, and 90% of Big Rivers' total capacity. Big Rivers exceeded 70% of its capacity for a total of 202 hours during the year, which may be seen as all of the dots above the 543 MW line on the graph. Big Rivers did not exceed 80% of its capacity during 2008, which is illustrated by the lack of dots above the 620 MW line on the graph. Additionally, at 90% of Big Rivers' capacity, the maximum native load did not exceed the 698 MW level.

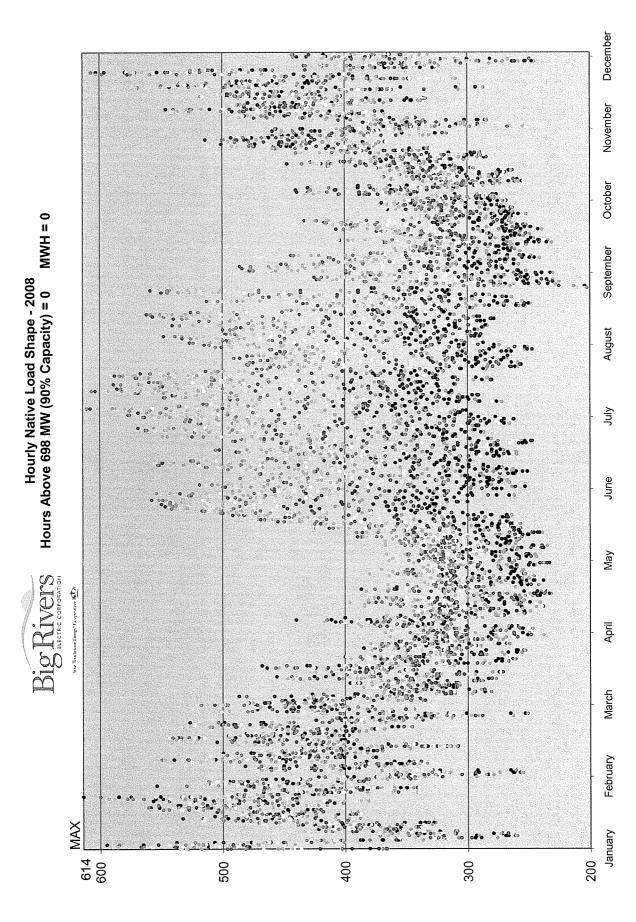
Please note these graphs represent power that came through Big Rivers' power supply and does not represent the activity of others in the Big Rivers' control area. Big Rivers does not have the data to supply the remaining power for the control area.

Witness) C. William Blackburn



Item 5-G Page 2 of 4

December November October MWH = 0September Hourly Native Load Shape - 2008 Hours Above 620 MW (80% Capacity) = 0 July June May April January 614 MAX 600 500 300 Item 5-G Page 3 of 4



Item 5-G Page 4 of 4

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Based on the most recent demand forecast, the base case demand and

4 5

Item 6-G)

Witness)

energy forecasts and high case demand and energy forecasts for the current year and the following four years. The information should be disaggregated into (a) native load (firm and non-firm demand) and (b) off-system load (both firm and non-firm demand).

Response) Table 6-G tabulates the forecasted base case and high case demand and

energy in the associated demand breakdowns as requested. Big Rivers does not have

Please note this table represents power that came through Big Rivers' power supply and does not represent the activity of others in the Big Rivers' control area. Big Rivers does not have the data to supply the remaining power for the control area.

C. William Blackburn

any native non-firm demand.

TABLE # 6G

**BIG RIVERS ELECTRIC CORPORATION** 

TOTAL NATIVE LOAD & OFF-SYSTEM LOADS BASE & HIGH CASE FORECASTS

| m Sales**          | High Case<br>FIRM NON-FIRM | Demand Demand<br>(MW) (MW)  | 143 0     | 0 0       | 0 0       | 0 0       | 0 0       |
|--------------------|----------------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|
| Off-System Sales** | Sase<br>JON-FIRM           | Demand<br>(MW)              | 0         | 0         | 0         | 0         | 0         |
|                    | Base Case<br>FIRM NON-FIRM | Demand Demand<br>(MW) (MW)  | 143       |           | 0         | 0         | 0         |
|                    | High Case                  | Energy<br>(MWh)             | 3,575,128 | 3,623,345 | 3,680,873 | 3,751,835 | 3,830,815 |
| re Load            | High                       | Demand Energy<br>(MW) (MWh) | 717       | 728       | 741       | 752       | 765       |
| Native I           | Base Case                  | Energy<br>(MWh)             | 3.457.703 | 3,504.677 | 3,558,099 | 3 607 209 | 3,662,944 |
|                    | Base                       | Demand<br>(MW)              | 677       | 687       | 669       | 602       | 721       |
| Year               |                            |                             | 2009      | 2010      | 2011      | 2042      | 2013      |

\*The forecasted demand for off-system sales is assumed to be at the time of the native load coincident peak demand.

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**Item 7-G)** The target reserve margin currently used for planning purposes, stated as a percentage of demand. If changed from what was in use in 2001, include a detailed explanation for the change.

**Response)** When Big Rivers operated its own generation, a generation planning reserve margin was calculated using output data from statistical calculations for loss of load probabilities and loss of generation expectations for various outage states of the generators.

Big Rivers is a unique utility in Kentucky because it leases all of its generation capacity and purchases most of its power requirements as liquidated damages firm (LD firm) power. Reserve margins are calculated from historical generator operating characteristics and various states of generator outages. Big Rivers native load is now supplied with LD firm power from LG&E Energy Marketing and firm power from the Southeastern Power Administration. Because of this, Big Rivers has no formal planning reserve margin.

Witness) C. William Blackburn

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demand for the current year and the following 4 years. Identify projected deficits and current plans for addressing these. For each year identify the level of firm capacity

Projected reserve margins stated in megawatts and as a percentage of

Item 8-G)

**Response)** Please see Response to Item 7-G relative to reserve margins. Big Rivers has projected small deficits for the current year due to the relationship with SEPA and the safety issues at the Wolf Creek Dam. For approximately the next 3 to 4 years, Wolf Creek Dam will be undergoing repairs, which will keep the reservoir levels low and will only allow SEPA to provide run-of-the-river hydro. Any shortages throughout these years will be corrected with market purchases. Big Rivers' level of firm capacity purchases for the current year is 597 MW, and for the next 4 years (2010-2013) the level of firm capacity purchases projected is 597, 717, 800, and 800 MW, respectively.

Witness) C. William Blackburn

purchases projected to meet native load demand.

year when reserve margin was less than the East Central Area Reliability Council's

resources that were available, the actual demand on the system, and their reserve margin,

stated in megawatts and as a percentage of demand. Also identify system conditions at

("ECAR") 1.5% spinning reserve requirements. Include the amount of capacity

By date and hour, identify all incidents during the just completed calendar

 Item 9-G)

the time.

as requested.

**Response)** Big Rivers Electric Corporation is a member of Midwest Contingency Reserve Sharing Group ("MCRSG") administered by the Midwest Independent System Operator (MISO). Big Rivers was assigned a new spinning reserve requirement of 19 MW as defined by the protocol for the MCRSG. The table attached lists the incidents for 2008 when spinning reserves were less than the minimum of 19 MW. This table contains the available generation capacity, system demand, reserve margin, and system condition

Witness) David G. Crockett, P.E.

|   |      |            | ä                       | d Rivers Flectric Corporation |   | System demand CA load +positive INS       | ad +positive Not        |
|---|------|------------|-------------------------|-------------------------------|---|---|-------------------------|
|   |      |            |                         | מ                             |   | Capacity Reserves=capability+Negative NSI | pability+Negative NSI   |
| 2008                                    |      |            |                         |                               | 1 I                                       |   |                         |
| Month Day                               |      | Hour CPT C | Capacity Resources (MW) | System Demand ( MW)           | Reserve Margin (MW)                       | Reserve Margin (%)                        | System Conditions       |
| ~                                       | 5    | 1800       | 1608                    | 1624                          |   | -2.0                                      | R-1, CT off             |
|   | 9    | 1800       | 1621                    | 1630                          |   |   |                         |
|   | 13   | 1800       | 1461                    | 1473                          | 3 -12                                     | 7.7                                       | ~                       |
|   | 10   | 1900       | 1560                    | 1568                          | 8-  | -1.0                                      | C-1 off line, CT off    |
| 0                                       | _    | 1900       | 1674                    | 1673                          | 1   | 0.1                                       | CT off                  |
| 1                                       |      | 0020       | 1670                    | 1668                          |   |   | CT off                  |
|   | 1 4  | 1900       | 1623                    | 1641                          | -18                                       |   | CT off                  |
| C                                       | 10   | 0060       | 1322                    |                               |   | 0.1                                       | W-1 off CT off          |
| 2                                       |      | 1900       | 1523                    |                               | -18                                       |   | W-1 off CT off          |
|   | - 00 | 0000       | 1346                    |                               | -15                                       |   | H1,CT,Wilson,Domtar off |
|   | 2 0  | 2100       | 1457                    |                               | 4   |   | C2,H1,CT, Wilson off    |
|   | 2 2  | 0020       | 1383                    |                               | -18                                       | -2.3                                      | C2,H1,Wilson off        |
|   | 23   | 2100       | 1386                    | 1389                          | 6-3                                       |   | W-1 off CT off          |
|   | 22   | 0200       | 1320                    | 1340                          | 0 -20                                     |   | W-1 off CT off          |
|   | 27   | 2100       | 1317                    | 1338                          |   |   | W-1 off CT off          |
|   | 29   | 1000       | 1354                    | 1382                          |   | -3.5                                      |                         |
| 4                                       |      | 2100       | 1351                    | 1355                          |   |   | 5                       |
|   |      | 2000       | 1363                    | 1380                          |   |   | Green2,R-1,CT off       |
|   | 5    | 0060       | 1299                    | 1325                          | 5 -26                                     | -3.3                                      | Green2,R-1,CT off       |
|   | 9    | 0060       | 1334                    | 1350                          |   |   | Green2,R-1,CT off       |
|   | 000  | 2100       | 1304                    | 1337                          |   | -4.1                                      | . 1                     |
|   | σ.   | 2100       | 1343                    | 1340                          | 3   |   |                         |
|   | 12   | 2100       | 1346                    | 1356                          |   |   | Green1,R-1,CT off       |
|   | 14   | 2100       | 1426                    | 1439                          |   |   | C3,R-1,CT off           |
|   | 16   | 0200       | 1453                    | 1455                          | 5 -2                                      | •   | C3,R-1,CT off           |
|   | 17   | 2100       | 1431                    |                               |   |   |                         |
|   | 19   | 2100       | 1293                    | 1305                          | -12                                       |   | C3,R-1,Wilson,CT off    |
|   | 23   | 2100       | 1486                    | 1487                          | 1-  |   | C1,R-1,CT off           |
|   | 24   | 2100       | 1487                    | 1508                          | -21                                       | •   | C1,R-1,CT off.          |
| *************************************** | 25   | 1800       | 1484                    | 1481                          |   |   | C1,R-1,CT off           |
|   | 28   | 2100       | 1487                    | 1483                          | 4   |   | C1,R-1,CT off           |
|   | 29   | 0020       | 1487                    |                               |   |   |                         |
| 5                                       |      | 2100       | 1454                    | 1482                          |   |   | C1,R-1,CT off           |
|   | ဖ    | 2100       | 1486                    |                               | A. C. |   | C1,R-1,CT off           |
|   | ω    | 2100       | 1480                    | 1493                          | -   |   | C1,R-1,CT off           |
|   |      | -          |                         |                               |   | ( (                                       |                         |

| 11    | 2100 | 1443 | 1449 | <u>φ</u>   | -0.8 | C1,R-1,CT off                 |
|-------|------|------|------|------------|------|-------------------------------|
| 12    | 2100 | 1470 | 1486 | -16        | -2.0 | C1,R-1,CT off                 |
| 13    | 2100 | 1484 | 1484 | 0          | 0.0  | C1,R-1,CT off                 |
| 19    | 2100 | 1325 | 1326 | -          | -0.1 | C1,Wilson,CT off              |
| 20    | 2100 | 1315 | 1332 | -17        | -2.1 | C1,H1,Wilson,CT off           |
| 6 13  | 1500 | 1501 | 1500 |            | 0.1  | C1,H1,H2,CT OFF               |
|       | 1800 | 1528 | 1521 | 7          | 0.9  | C1,R-1,CT off                 |
| 00    | 1400 | 1557 | 1555 | 2          | 0.3  | C1,R-1,CT off                 |
| 7     | 1700 | 1563 | 1578 | -15        | -1.9 | C1,R-1,H1,CT off              |
| 17    | 1800 | 1575 | 1586 |            | -1.4 | C1,CT off                     |
| 10    | 1500 | 1549 | 1545 | 7          | 0.5  | C-1 off, R-1 off              |
| 14    | 1800 | 1482 | 1477 | 2          | 9.0  | R-1 off G-2 off               |
|       | 2100 | 1453 | 1453 | 0          | 0.0  | W-1 off CT off                |
| 15    | 2100 | 1390 | 1383 | _          | 6.0  | R-1, CT, G-1 off              |
|       | 2000 | 1348 | 1343 | 5          | 9.0  | H-2 off, CT off, W-1 off      |
|       | 2000 | 1320 | 1331 |            | -1.4 | H-2 off, CT off, W-1 off      |
| 12 19 | 2200 | 1369 | 1377 | <b>φ</b> - | -1.0 | C-2 off, H-1 off, R-1 off, C1 |
|       | 2100 | 1593 | 1586 | 7          | 6.0  | H-1 off, R-1 off, CT off      |
| 23    | 1000 | 1513 | 1512 |            | 0.1  | H-1 off, R-1 off, CT off      |

**Item 10-G)** A list identifying and describing all forced outages in excess of 2 hours in duration during the just completed calendar year.

Response) Big Rivers Electric Corporation entered into various agreements with Western Kentucky Energy Corp. ("WKE") and with WKE Station Two Inc. ("WKE Station Two") which require the two companies to operate and maintain Big Rivers' generating stations and Henderson Municipal Power and Light's Station Two generating stations respectively. Those companies have been consolidated into WKE. The requested information cannot be provided by Big Rivers without written approval from WKE. Big Rivers is forwarding a copy of this response to WKE. Attention: Mr. Robert Toerne, Contract Manager, Western Kentucky Energy Corp., P.O. Box 1518, Henderson, KY 42419-1518.

Witness) David Spainhoward

A list that identifies scheduled outages or retirements of generating

Big Rivers Electric Corporation entered into various agreements with

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Item 11-G) capacity during the current year and the following four years.

Response)

42419-1518.

Witness)

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Western Kentucky Energy Corp. ("WKE") and with WKE Station Two Inc. ("WKE Station Two") which require the two companies to operate and maintain Big Rivers' generating stations and Henderson Municipal Power and Light's Station Two generating stations respectively. Those companies have been consolidated into WKE. The requested information cannot be provided by Big Rivers without written approval from WKE. Big Rivers is forwarding a copy of this response to WKE. Attention: Mr. Robert Toerne, Contract Manager, Western Kentucky Energy Corp., P.O. Box 1518, Henderson, KY

David Spainhoward

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|  | • |  |
|--|---|--|
|  |   |  |
|  |   |  |
|  |   |  |

Identify all planned base load or peaking capacity additions to meet

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as those by affiliates, if constructed in Kentucky or intended to meet load in Kentucky.

Response) Big Rivers presently has no plans to make base load or peaking capacity

additions to meet native load for the years 2010 through 2019.

size and site for all planned additions. Include additions planned by the utility, as well

native load requirements over the next 10 years. Show the expected in-service date,

Witness) C. William Blackburn

### SUPPLEMENT TO BIG RIVERS ELECTRIC CORPORATION'S ANNUAL REPORT PURSUANT TO THE COMMISSION'S ORDER DATED OCTOBER 7, 2005 IN ADMINISTRTIVE CASE NO.2000-00387 May 11, 2009

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system.

a) Total energy received from all interconnections and generation sources connected to the transmission system.

year and the forecast for the current year and the following four years:

b) Total energy delivered to all interconnections on the transmission

The following transmission energy data for the just completed calendar

- c) Peak load capacity of the transmission system.
- d) Peak demand for summer and winter seasons on the transmission system.

**Response)** The attached four tables list the Big Rivers' transmission system energy, capacity and demand responses.

Witness) David G. Crockett, P.E.

| Big Rivers Electric Corporation        |   |                         |              |  |
|--|---|-------------------------|--------------|--|
| Response to Item 13a                   |   |                         |              |  |
|  |   |                         |              |  |
|  | Transmission System Energy Received (MWh) |                         |              |  |
|  | Comondian                                 | Intonon a stinus        | Tatal        |  |
|  | <u>Generation</u>                         | <u>Interconnections</u> | <u>Total</u> |  |
| ·····                                  |   |                         |              |  |
| 2008                                   | 11,795,396                                | 4,999,145               | 16,794,541   |  |
|  |   |                         |              |  |
|  |   |                         |              |  |
| Projected System Energy Received (MWh) |   |                         |              |  |
|  |   |                         |              |  |
| 2009                                   |   |                         | 16,500,000   |  |
| 2010                                   |   |                         | 16,500,000   |  |
| 2011                                   |   |                         | 16,500,000   |  |
| 2012                                   |   |                         | 16,500,000   |  |
| 2013                                   |   |                         | 16,500,000   |  |

| Big Rivers Electric Corporation                            |  |  |  |
|--|--|--|--|
| Response   | Response to Item 13 b  |  |  |
|  |  |  |  |
| Transmission System Energy D                               | Transmission System Energy Delivered at Interconnections (MWh) |  |  |
|  |  |  |  |
|  | <u>Total</u>   |  |  |
| 2008   | 5,348,027  |  |  |
|  |  |  |  |
| Projected System Energy Delivered at Interconnection (MWh) |  |  |  |
|  |  |  |  |
| 2009   | 5,400,000  |  |  |
| 2010   | 5,400,000  |  |  |
| 2011   | 5,400,000  |  |  |
| 2012   | 5,400,000  |  |  |
| 2013   | 5,400,000  |  |  |

| Bi          | g Rivers Electric | Corporation      |
|-------------|-------------------|------------------|
|             | Response to       | Item 13c         |
| Tra         | nsmission Peak    | Capacity (MW)    |
| 2008        |                   | 2435             |
| Projected 1 | <br>              | ak Capacity (MW) |
| <u></u>     |                   |                  |
| 2009        |                   | 2435             |
| 2010        |                   | 2903             |
| 2011        |                   | 2903             |
| 2012        |                   | 2903             |
| 2013        |                   | 2903             |

| I     | Big Rivers Electric Co |              |
|-------|------------------------|--------------|
|       | Response to Iten       | n 13d        |
|       |                        |              |
| Trans | mission System Peal    | CDemand (MW) |
|       | Winter                 | Summer       |
|       |                        |              |
|       |                        |              |
| 2008  | 1671                   | 1553         |
|       |                        |              |
| Proj  | ected System Peak [    | Demand (MW)  |
|       | Winter                 | Summer       |
|       |                        |              |
| 2008  | 1800                   | 1800         |
| 2009  | 1800                   | 1800         |
| 2010  | 1800                   | 1800         |
| 2011  | 1800                   | 1800         |
| 2012  | 1800                   | 1800         |

#### SUPPLEMENT TO BIG RIVERS ELECTRIC CORPORATION'S ANNUAL REPORT PURSUANT TO THE COMMISSION'S ORDER DATED OCTOBER 7, 2005 IN ADMINISTRATIVE CASE NO.2000-00387 May 11, 2009

Include the expected in-service date, size and site for all planned additions and identify

addition plan. All the projects in this plan are for the purpose of meeting member

cooperatives load growth and if load patterns deviate from the current forecast, the plan

Identify all planned transmission capacity additions for the next 10 years.

The attached table lists Big Rivers' current ten-year transmission capacity

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Response)

Witness) 

David G. Crockett, P.E.

will be correspondingly altered.

the transmission need each addition is intended to address.

## PSC 387 - Item 14

# BIG RIVERS ELECTRIC TRANSMISSION ADDITIONS, 2009 – 2018

## **Project Description**

#### Notes

Year: 2009

Wilson To Hardinsburg – Paradise 161 kV line (13 miles) Cumberland – Caldwell Springs 69 kV line (10 miles) McCracken Co. – Olivet Church 69 kV Line (4 miles) Falls of Rough - McDaniels 69 kV Line (6 miles) Wilson 161 kV line Terminal

Relaying PLC to Reid Henderson & Reid Henderson & Daviess Co. White Oak Substation & Transmission Line Additions (50MVA) Reid EHV, Coleman EHV, Wilson EHV, RTUs

Jp-grading infrastructure to meet system load growth Jp-grading infrastructure to meet system load growth ncrease off-system import/export capability ncrease off-system import/export capability **Equipment Replacement** 

Jp-grading infrastructure to meet system load growth

Jp-grading infrastructure to meet system load growth **Equipment Replacement** 

Year: 2010

Hardinsburg 161 kV Substation modification Ensor Substation (50 MVA)

Coleman – Newtonville 161 kV Line (6 miles) Ensor 69 kV and 161 kV Lines (5 miles)

Paradise 161 kV line Terminal Upgrade

Reid & Henderson Co. Relay Block Carrier

Re-conductor Wilson tie – Paradise 161 kV Line (8miles) Re-conductor CEHV-Coleman 161 kV Lines (3 miles)

Livingston Co., McCracken Co., & Skillman RTUs Co-0p Substation 69 kV Line (2miles)

Jp-grading infrastructure to meet system load growth Fransmission Line to connect new Substation New Substation to meet system load growth Increase off-system import/export capability ncrease off-system import/export capability increase off-system import/export capability Member Substation tap line and metering **Equipment Replacement** Equipment Replacement

Up-grading infrastructure to meet system load growth

File: Ten Yr Construction 2009-2018

#### Year: 2011

Ensor Weberstown 69 kV Line (10 miles) Co-op Substation 69 kV Line (2 miles) Coleman & Skillman Relay Block Carrier

Up-grading infrastructure to meet system load growth Member Substation tap line and metering Equipment Replacement

#### Year: 2012

Hardinsburg Transformer Upgrades (100 MVA)
Corydon 161/69 kV Substation (50 MVA)
HMP&L #4 161 kV Line Terminal
Corydon-HMP&L #4 161 kV Line (9 miles)
Re-Conductor Meade Co. –Garrett 336 MCM (8.5 miles)
Custer Capacitor Bank
Sullivan Capacitor Bank

Up-grading infrastructure to meet system load growth New Substation to meet system load growth Transmission Line to connect new Substation Transmission Line to connect new Substation Up-grading infrastructure to meet system load growth Up-grading infrastructure to meet system load growth Up-grading infrastructure to meet system load growth

| 2013  |
|-------|
| Year: |

Co-op Substation 69 kV Line (2 miles) Sebree Capacitor Bank

Member Substation tap line and metering Up-grading infrastructure to meet system load growth

#### Year: 2014

Co-op Substation 69 kV Line (2miles)

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Member Substation tap line and metering

### Year: 2015

Co-op Substation 69 kV Line (2 miles) Bryan Road – Husband Rd. Tap Re-conductor 336 MCM (1m)

Member Substation tap line and metering Up-grading infrastructure to meet system load growth

#### Year: 2016

Co-op Substation 69 kV Line (2 miles) Re-Conductor Reid – Niagara with 336 MCH (6 miles) Re-Conductor Rome Jct.-W.Owensboro with 336 MCM(4.9 miles)

Member Substation tap line and metering Up-grading infrastructure to meet system load growth Up-grading infrastructure to meet system load growth

#### Year: 2017

Re-Conductor Henderson Co. – Zion tap with 556 MCM (1.6 miles) Up-g Re-Conductor Zion Tap - Wolf Hills Tap 556 MCM (1.2 miles) Up-g Co-op Substation 69 kV line (2 miles) Mer Re-Conductor Corydon-Geneva to 336 MCM (6.1 miles) Up-g Ensor Transformer Addition (50 MVA)

Up-grading infrastructure to meet system load growth Up-grading infrastructure to meet system load growth Member Substation tap line and metering Up-grading infrastructure to meet system load growth Up-grading infrastructure to meet system load growth

#### Year: 2018

Wilson – Sacramento 69 kV Line (10.9 miles)
Re-Conductor Thruston Jct.-E. Owensboro with 336 MCM (3.5 miles)
Re-Conductor Daviess Co. Philpot Tap with 336 MCM (9.9 miles)
Custer Substation and Transmission Line Additions (50 MVA)

Up-grading infrastructure to meet system load growth Up-grading infrastructure to meet system load growth Up-grading infrastructure to meet system load growth Up-grading infrastructure to meet system load growth