

ORIGINAL

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

AN ELECTRONIC EXAMINATION BY THE)
PUBLIC SERVICE COMMISSION OF THE)
ENVIRONMENTAL SURCHARGE)
MECHANISM OF BIG RIVERS ELECTRIC)
CORPORATION FOR THE SIX- MONTH)
BILLING PERIOD ENDING JULY 31, 2018,)
AND THE PASSTHROUGH MECHANISM)
OF ITS THREE MEMBER DISTRIBUTION)
COOPERATIVES)

Case No.
2018-00338

DIRECT TESTIMONY

OF

NICHOLAS R. (NICK) CASTLEN

ON BEHALF OF

BIG RIVERS ELECTRIC CORPORATION,
JACKSON PURCHASE ENERGY CORPORATION,
KENERGY CORP., AND
MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

FILED: November 6, 2018

Case No. 2018-00338
Witness: Nicholas R. Castlen
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2 **Q. Please summarize your duties at Big Rivers.**

3 A. As the Manager of Finance, my primary responsibilities involve providing
4 direction and oversight to corporate accounting and finance activities
5 including financial reporting and analysis, debt administration, forecasting,
6 cash management, and taxes. Additionally, I am responsible for Big Rivers’
7 Fuel Adjustment Clause (FAC) and Environmental Surcharge (ES) rate
8 mechanisms and the related filings with the Kentucky Public Service
9 Commission (the “Commission”).

10 **Q. Have you previously testified before the Commission?**

11 A. Yes. I have served as witness, providing testimony and responses to data
12 requests, in Case Nos. 2012-00534, 2013-00139, 2013-00347, 2014-00097,
13 2014-00323, 2015-00124, 2015-00320, 2016-00124, 2016-00368, 2017-00345,
14 and 2018-00163 (reviews of Big Rivers’ ES mechanism). I have also served
15 as a witness, providing testimony and/or responses to data requests, in Case
16 Nos. 2012-00555, 2013-00266, 2013-00449, 2014-00230, 2014-00455, 2015-
17 00237, 2016-00006, 2016-00235, 2017-00006, 2017-00287, 2018-00023, and
18 2018-00221 (reviews of Big Rivers’ FAC mechanism).

19 **Q. On whose behalf are you filing this testimony?**

20 A. I am filing this testimony on behalf of Big Rivers and its three member
21 distribution cooperatives, which are Jackson Purchase Energy Corporation
22 (“Jackson Purchase”), Kenergy Corp. (“Kenergy”), and Meade County Rural

1 Electric Cooperative Corporation (“Meade County”) (collectively, the
2 “Members”).

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

4 A. The purpose of my testimony is to describe the application of Big Rivers’ ES
5 mechanism as billed from February 1, 2018, through July 31, 2018, (which
6 corresponds to Big Rivers’ expense months of December 2017 through May
7 2018). Additionally, I have coordinated with Big Rivers’ Members in the
8 preparation of this testimony and prepared responses to the Commission
9 Staff’s First Request for Information in this case, dated October 11, 2018,
10 (“Staff’s First Requests”) which accompany this testimony.

11 This testimony also includes information the Members have provided
12 me in support of their pass-through mechanisms which are also under review
13 in this proceeding, and that the Members use to pass through, to their retail
14 members, the costs Big Rivers charges to them under Big Rivers’ ES
15 mechanism. The review periods for the Members’ pass-through mechanisms,
16 which correspond to the February 2018 through July 2018 billing months for
17 Big Rivers’ ES mechanism, are the billing months of March 2018 through
18 August 2018 for retail, non-dedicated delivery point, customers (*i.e.*, there is
19 a one-month lag for non-dedicated delivery point customers) and February
20 2018 through July 2018 for large commercial and industrial, dedicated
21 delivery point, customers (*i.e.*, there is no billing lag for dedicated delivery
22 point customers).

1 **Q. Please provide a brief overview of Big Rivers' ES mechanism.**

2 A. Big Rivers' ES mechanism was approved by Order of the Commission dated
3 June 25, 2008, in Case No. 2007-00460, which was part of the transaction
4 that unwound Big Rivers' 1998 lease with E.ON U.S. LLC and its affiliates
5 (the "Unwind Transaction") that was approved by Order of the Commission
6 dated March 6, 2009, in Case No. 2007-00455. Big Rivers' ES went into effect
7 immediately following the July 16, 2009, closing of the Unwind Transaction
8 for service commencing July 17, 2009.

9 Big Rivers' environmental compliance plan, approved by the
10 Commission in Case No. 2007-00460 (the "2007 Plan"), consists of programs
11 and the related costs for controlling sulfur dioxide (SO₂), nitrogen oxide
12 (NO_x), and sulfur trioxide (SO₃). The environmental compliance costs, which
13 Big Rivers may recover under KRS 278.183 and its 2007 Plan, include the
14 costs of reagents, sludge and ash disposal, and emission allowances.

15 For the SO₂ program, Big Rivers recovers through its ES mechanism
16 the costs of reagents, the costs for the disposal of coal combustion byproducts
17 (fly ash, bottom ash, and scrubber sludge), and the costs of SO₂ emission
18 allowances used. For the NO_x program, Big Rivers recovers the costs of
19 reagents and the costs of NO_x emission allowances used. For the SO₃
20 program, Big Rivers recovers reagent costs.

21 Due to generating unit design differences and Big Rivers' compliance
22 plan, each of Big Rivers' generating units utilizes a different combination of

1 reagents. Depending on the unit facilities, various reagents are used to treat
2 the flue gas, thereby removing the three targeted emissions. The reagents
3 used to control SO₂ include emulsified sulfur, lime, fixation lime, limestone,
4 dibasic acid, and sodium bisulfite. The reagents used to control NO_x include
5 anhydrous ammonia and emulsified sulfur. The reagent used to control SO₃
6 is hydrated lime. Note that the 2007 Plan included only variable operations
7 and maintenance (O&M) costs.

8 In its Order dated October 1, 2012, in Case No. 2012-00063, the
9 Commission approved certain additions to Big Rivers' 2007 Plan relating to
10 the Mercury and Air Toxics Standards (MATS) rule. The additions (the "2012
11 Plan") included installing activated carbon injection and dry sorbent injection
12 systems and emission control monitors at Big Rivers' Coleman, Wilson, and
13 Green generating stations; and installing emission control monitors at
14 Henderson Municipal Power & Light's Station Two generating station, which
15 Big Rivers will operate until no later than February 1, 2019. The 2012 Plan
16 includes both capital and O&M costs associated with the projects, as well as
17 recovery of Big Rivers' actual costs incurred in Case No. 2012-00063
18 (amortized over three years).

19 Due to the terminations of retail power contracts with two aluminum
20 smelters, Big Rivers idled its Coleman generating station in May 2014. As a
21 result, Big Rivers does not plan to proceed with the MATS projects for the
22 Coleman station at this time. However, if Big Rivers decides to return the

1 Coleman station to service, it will be required to complete the MATS projects
2 before doing so.

3 Big Rivers' ES mechanism allows Big Rivers to recover costs related to
4 its 2007 Plan (which includes only variable O&M costs) and its 2012 Plan
5 (which includes both O&M and capital costs, as well as a rate of return on
6 the unrecovered portion of its capital costs), less proceeds from by-product
7 and emission allowance sales, plus or minus an ongoing cumulative under-
8 or over-recovery adjustment.

9 **Q. Please provide a brief overview of the Members' pass-through
10 mechanisms.**

11 A. The Members' pass-through mechanisms allow each Member to bill its retail
12 customers for the portion of Big Rivers' environmental surcharge that it was
13 billed. Jackson Purchase's pass-through mechanism was approved by the
14 Commission in Case No. 2008-00010; Kenergy's pass-through mechanism
15 was approved by the Commission in Case No. 2008-00009; and Meade
16 County's pass-through mechanism was approved by the Commission in Case
17 No. 2007-00470.

18 **Q. Have there been any changes to Big Rivers' ES mechanism since the
19 prior review?**

20 A. No.

21 **Q. Has Big Rivers' ES mechanism been accurately compiled, and is it
22 operating as intended?**

1 A. Yes.

2 **Q. Did Big Rivers sell any SO₂ or NO_x emission allowances during the**
3 **expense months corresponding to the billing periods under review**
4 **in this case?**

5 A. No, Big Rivers did not sell any SO₂ or NO_x emission allowances during the
6 expense months corresponding to the billing periods under review. However,
7 Big Rivers did receive \$55.29 from the U.S. Environmental Protection Agency
8 (EPA) in May 2018 for its allocated share of proceeds from the EPA's 2018
9 allowance auctions, which Big Rivers included in its ES filing for the May
10 2018 expense month as proceeds from "Allowance Sales" on ES Form 2.00.

11 **Q. Did Big Rivers recover any capital costs through its ES mechanism**
12 **during the period under review?**

13 A. Yes. Pursuant to the Commission's October 1, 2012 Order, in Case No. 2012-
14 00063, Big Rivers recovered capital costs through the monthly depreciation
15 of its 2012 Plan projects included in the calculation of Total E(m) in its
16 monthly ES filings during the period under review.

17 **Q. Did Big Rivers earn a rate of return on any capital expenditures**
18 **through its ES mechanism during the period under review?**

19 A. Yes. Pursuant to the Commission's October 1, 2012 Order, in Case No. 2012-
20 00063, Big Rivers' earned a rate of return on its Environmental Compliance
21 Rate Base (calculated on Form 2.00 of its monthly ES filing) equal to its
22 monthly weighted average cost of debt plus the application of a Times

1 Interest Earned Ratio (TIER) of 1.24. Detailed calculations of Big Rivers’
2 monthly Rates of Return on Environmental Compliance Rate Base for the
3 six-month period under review are provided in Big Rivers’ response to Item
4 4 of Staff’s First Request.

5 **Q. What Base Environmental Surcharge Factor (BESF) cost did Big**
6 **Rivers use during the review period?**

7 A. Big Rivers had no environmental surcharge related costs included in its base
8 rates during the review period (*i.e.*, Big Rivers’ BESF during the period under
9 review was 0.000000%).

10 **Q. Have the Members’ pass-through mechanisms been accurately**
11 **compiled, and are they operating as intended?**

12 A. The Members believe their pass-through mechanisms have been accurately
13 compiled and are operating as intended.

14 **Q. Were the amounts charged under Big Rivers’ ES mechanism during**
15 **the review period fair, just, and reasonable?**

16 A. Yes.

17 **Q. Were the amounts charged under the Members’ pass-through**
18 **mechanisms during the review period fair, just, and reasonable?**

19 A. The Members believe the amounts charged under their pass-through
20 mechanisms are just and reasonable.

21 **Q. Do Big Rivers and its Members have additional over- or under-**
22 **recovery amounts they believe need to be recognized?**

1 A. No. Big Rivers and its Members are not requesting any additional over- or
2 under-recovery amounts. The normal over-/under-recovery carry-forward
3 element of Big Rivers' ES mechanism is operating as intended.

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

5 A. Yes, it does.

BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION BY THE PUBLIC SERVICE
COMMISSION OF THE ENVIRONMENTAL SURCHARGE MECHANISM
OF BIG RIVERS ELECTRIC CORPORATION
FOR THE SIX-MONTH BILLING PERIOD ENDING JULY 31, 2018, AND
THE PASS THROUGH MECHANISM
OF ITS THREE MEMBER DISTRIBUTION COOPERATIVES
CASE NO. 2018-00338**

VERIFICATION

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



Nicholas R. (Nick) Castlen

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Nicholas R. (Nick) Castlen on this the 5th day of November, 2018.



Notary Public, Kentucky State at Large

My Commission Expires

October 31, 2020