

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 JANUARY 31,)
2019 AND THE PASSTHROUGH)
MECHANISM OF ITS THREE MEMBER)
DISTRIBUTION COOPERATIVES)

Case No.
2019-00172

DIRECT TESTIMONY

OF

NICHOLAS (NICK) R. CASTLEN

ON BEHALF OF

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

FILED: July 12, 2019

Case No. 2019-00172
Witness: Nicholas R. Castlen
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**DIRECT TESTIMONY
OF
NICHOLAS R. CASTLEN**

5 **Q. Please state your name, business address, and position.**

6 A. My name is Nicholas R. Castlen, and my business address is Big Rivers
7 Electric Corporation (“Big Rivers”), 201 Third Street, Henderson, Kentucky,
8 42420. I am the Manager of Finance at Big Rivers.

9 **Q. Please summarize your education and professional experience.**

10 A. I received a Bachelor of Science in Accounting from the University of
11 Kentucky in 2006, graduating Magna Cum Laude with Departmental
12 Honors, and received a Master of Science in Accounting from the University
13 of Kentucky in 2007. I became a Certified Public Accountant (CPA) in the
14 state of Kentucky in 2009.

15 Before assuming my current position as Manager of Finance in July
16 2013, I was the Debt & Regulatory Accounting Analyst at Big Rivers,
17 primarily responsible for the accounting and administration of the
18 Company’s long- and short-term debt obligations and various rate
19 mechanisms. Prior to joining Big Rivers, I was employed by LG&E and KU
20 Energy LLC as a Revenue Accounting Analyst from 2009 to 2012, where I
21 was responsible for various financial accounting, reporting, and analytical
22 roles for retail and wholesale, electric and gas utility revenues. From 2006
23 to 2009, I was employed by PricewaterhouseCoopers LLP as an Audit and
24 Assurance Associate.

1

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 2018-00163, and 2018-00338 (reviews of Big Rivers’ ES mechanism). I have
15 also served as a witness, providing testimony and/or responses to data
16 requests, in Case Nos. 2012-00555, 2013-00266, 2013-00449, 2014-00230,
17 2014-00455, 2015-00237, 2016-00006, 2016-00235, 2017-00006, 2017-00287,
18 2018-00023, 2018-00221, and 2019-00007 (reviews of Big Rivers’ FAC
19 mechanism).

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

21 A. I am filing this testimony on behalf of Big Rivers and its three member
22 distribution cooperatives, which are Jackson Purchase Energy Corporation

1 (“Jackson Purchase”), Kenergy Corp. (“Kenergy”), and Meade County Rural
2 Electric Cooperative Corporation (“Meade County”) (collectively, the
3 “Members”).

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

5 A. The purpose of my testimony is to describe the application of Big Rivers’ ES
6 mechanism as billed from August 1, 2018, through January 31, 2019, (which
7 corresponds to Big Rivers’ expense months of June 2018 through November
8 2018). Additionally, I have coordinated with Big Rivers’ Members in the
9 preparation of this testimony and prepared responses to the Commission
10 Staff’s First Request for Information in this case, dated June 7, 2019, (“Staff’s
11 First Requests”) which accompany this testimony.

12 This testimony also includes information the Members have provided
13 me in support of their pass-through mechanisms which are also under review
14 in this proceeding, and that the Members use to pass through, to their retail
15 members, the costs Big Rivers charges to them under Big Rivers’ ES
16 mechanism. The review periods for the Members’ pass-through mechanisms,
17 which correspond to the August 2018 through January 2019 billing months
18 for Big Rivers’ ES mechanism, are the billing months of September 2018
19 through February 2019 for retail, non-dedicated delivery point, customers
20 (*i.e.*, there is a one-month lag for non-dedicated delivery point customers) and
21 August 2018 through January 2019 for large commercial and industrial,
22 dedicated delivery point, customers (*i.e.*, there is no billing lag for dedicated

1 delivery point customers).

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

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

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

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

22 Due to generating unit design differences and Big Rivers' compliance

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

9 In its Order dated October 1, 2012, in Case No. 2012-00063, the
10 Commission approved certain additions to Big Rivers' 2007 Plan relating to
11 the Mercury and Air Toxics Standards (MATS) rule. The additions (the "2012
12 Plan") included installing activated carbon injection and dry sorbent injection
13 systems and emission control monitors at Big Rivers' Coleman, Wilson, and
14 Green generating stations. The 2012 Plan also included the installation of
15 emission control monitors at Henderson Municipal Power & Light's Station
16 Two generating station, which Big Rivers previously operated and
17 maintained under a series of contracts with the City of Henderson, Kentucky
18 and the City of Henderson Utility Commission until January 2019, when the
19 Station Two units were retired from service. The 2012 Plan includes both
20 capital and O&M costs associated with the projects, as well as recovery of Big
21 Rivers' actual costs incurred in Case No. 2012-00063, which were amortized
22 over three years.

1 Due to the terminations of retail power contracts with two aluminum
2 smelters, Big Rivers idled its Coleman generating station in May 2014. As a
3 result, Big Rivers did not complete the MATS projects for the Coleman
4 station which were included in the 2012 Plan. However, if Big Rivers decides
5 to return the Coleman station to service, it will be required to complete the
6 MATS projects before doing so.

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

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

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

22 **Q. Have there been any changes to Big Rivers' ES mechanism since the**

1 **prior review?**

2 A. No.

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

5 A. Yes.

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

9 A. No, Big Rivers did not sell any SO₂ or NO_x emission allowances during the
10 expense months corresponding to the billing periods under review.

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?**

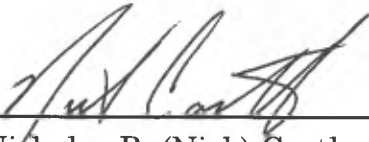
5 A. Yes, it does.

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 JANUARY 31, 2019,
AND THE PASS THROUGH MECHANISM
OF ITS THREE MEMBER DISTRIBUTION COOPERATIVES
CASE NO. 2019-00172**

VERIFICATION

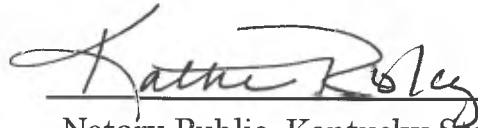
I, Nicholas R. (Nick) Castlen, verify, state, and affirm that I prepared or supervised the preparation of the Direct Testimony filed with this Verification, and that Direct Testimony is true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Nicholas R. (Nick) Castlen

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Nicholas R. (Nick) Castlen on
this the 11th day of July, 2019.



Notary Public, Kentucky State at Large
My Commission Expires October 31, 2020