

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In The Matter Of:

| | | |
|--|---|----------------------------|
| The Application Of Kentucky Power Company For: |) | |
| (1) A Certificate Of Public Convenience And Necessity |) | |
| Authorizing The Company To Close Big Sandy Plant |) | Case No. 2015-00152 |
| Coal Ash Impoundment; And (2) For All Other Required |) | |
| Approvals And Relief |) | |

DIRECT TESTIMONY OF
JOHN A ROGNESS
ON BEHALF OF KENTUCKY POWER COMPANY

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I. INTRODUCTION

1 **Q: PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.**

2 A: My name is John A. Rogness. My position is Director, Regulatory Services for Kentucky
3 Power Company (“Kentucky Power” or “Company”). My business address is 101 A
4 Enterprise Drive, Frankfort, Kentucky 40602.

II. BACKGROUND

5 **Q: PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**
6 **BUSINESS EXPERIENCE.**

7 A: I received a Bachelor of Science in Economics from the University of Chattanooga in
8 1980, a Master of Science in Economics from Vanderbilt University in 1984 and a Ph.D.
9 in Economics from the University of Kentucky in 1991.

10 In January 1990, I began working in the Kentucky Office of Financial
11 Management and Economic Analysis. From July 1991 – September 1998, I served as an
12 Economist with the Kentucky Public Service Commission (“Commission”). From
13 September 1998 – July 2010 I served as Manager of the Management Audit Branch at the
14 Commission. From August 2010 – September 2012 I served as the Director of the
15 Financial Analysis Division at the Commission. From October 2012 – March 2014, I
16 served as the Director, Energy Generation, Transmission and Distribution at the
17 Department for Energy Development and Independence in Kentucky’s Energy and

1 Environment Cabinet. On March 17, 2014, I began my duties as Director of Regulatory
2 Services for Kentucky Power Company.

3 **Q: WHAT ARE YOUR RESPONSIBILITIES AS DIRECTOR, REGULATORY**
4 **SERVICES?**

5 A: As Director of Kentucky Power’s Regulatory Services, I am responsible for the rate and
6 regulatory matters of Kentucky Power. This includes the preparation of and coordination
7 of the Company’s testimony and exhibits in rate cases and any other formal filings before
8 this Commission. In addition, I am responsible for assuring the proper application of the
9 Company’s rates and tariffs in all classifications of business.

10 **Q: HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

11 A: Yes. I testified in the Company’s two most recent fuel adjustment clause reviews, Case
12 Nos. 2014-00225 and 2014-00450, and in the in the Company’s base rate filing, Case No.
13 2014-00396. I also filed testimony in the Economic Development Rider proceeding,
14 Case No. 2014-00336.

III. PURPOSE OF YOUR TESTIMONY

15 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

16 A. The purpose of my testimony is two-fold. First, I generally describe the proposed closure
17 of the impoundment used by the Company to store fly-ash from the Big Sandy generating
18 station (“Big Sandy Impoundment”). Second, I outline the mechanism through which the
19 Company proposes to recover the costs associated with closing the Big Sandy
20 Impoundment.

21 **Q. ARE YOU SPONSORING ANY EXHIBITS IN THIS PROCEEDING?**

22 A. Yes, I am sponsoring the following exhibits:

1 Exhibit JAR-1 – Tab ARO from Attachment 1 to the Company’s response to
2 KIUC’s first data request Item No. 63 in Case No. 2014-00396

3 Exhibit JAR-2 – Settlement Agreement in Case No. 2014-00396

4 Exhibit JAR-3 – Tariff B.S.R.R. as amended in the Settlement Agreement in
5 Case No. 2014-00396

IV. BIG SANDY IMPOUNDMENT BACKGROUND

6 **Q. BRIEFLY DESCRIBE THE BIG SANDY IMPOUNDMENT.**

7 A. The Big Sandy Impoundment is a 140 acre wet fly ash impoundment located in Louisa,
8 Kentucky across US Highway 23 approximately 0.75 miles from the Big Sandy
9 generation station. It was constructed and placed into service in 1969 for the purpose of
10 receiving the fly ash generated by coal combustion at the two Big Sandy generation units
11 and captured by the electrostatic precipitators. Fly ash from the Big Sandy generating
12 units is mixed with water to create a slurry that is pumped to the impoundment where the
13 ash settles out. The Big Sandy Impoundment has a storage capacity of 8,302 acre-feet or
14 about 13.4 million cubic yards.

15 **Q. WHY IS THE COMPANY CLOSING THE BIG SANDY IMPOUNDMENT?**

16 A. As a result of emerging environmental regulations, notably the Mercury and Air Toxics
17 Standards (“MATS”), Kentucky Power cannot operate the Big Sandy generating units as
18 coal-fired power plants with the current environmental controls. In Case No. 2012-
19 00578¹, the Commission approved the Company’s proposal to retire Big Sandy Unit 2 no
20 later than May 31, 2015 and replace the generating capacity with a fifty percent
21 undivided interest in the Mitchell generating station. Additionally, the Commission

¹ Order, *In the Matter of: The Application Of Kentucky Power Company For (1) A Certificate of Public Convenience And Necessity Authorizing The Transfer To The Company Of An Undivided Fifty Percent Interest In The Mitchell Generating Station And Associated Assets; (2) Approval Of The Assumption By Kentucky Power Company Of Certain Liabilities In Connection With The Transfer Of The Mitchell Generating Station; (3) Declaratory Rulings; (4) Deferral Of Costs Incurred In Connection With The Company’s Efforts To Meet Federal Clean Air Act And Related requirements; (5) All Other Required Approvals and Relief*, Case No. 2012-00578 (October 7, 2013)

1 approved, in Case No. 2013-00430², the Company’s plan to convert Big Sandy Unit 1 to
2 a natural gas fired unit. The Mitchell acquisition and the Big Sandy Unit 1 conversion
3 were the lowest cost alternatives available to the Company to meet its customers’ needs
4 in light of the emerging environmental regulations. Big Sandy Unit 2 was retired
5 effective May 31, 2015, and the Company’s plan is to cease burning coal at the Big
6 Sandy generating station in November 2015.

7 **Q. HOW DOES CEASING TO BURN COAL AT THE BIG SANDY GENERATING**
8 **STATION AFFECT THE BIG SANDY IMPOUNDMENT?**

9 A. Closing the Big Sandy Impoundment as proposed by the Company is necessary in order
10 to comply with current environmental rules, including the coal combustion residual
11 (“CCR”) rule. As discussed in more detail in the testimony of Company Witness
12 DeRuntz, as long as the Big Sandy generating station burns coal and fly ash is deposited
13 into the ash impoundment, and provided the Company maintains substantial compliance
14 with its water discharge permit, Kentucky Power is authorized under a special waste
15 permit by rule to operate the Big Sandy Impoundment. However, once the station ceases
16 to burn coal and no longer actively deposits fly ash into the ash impoundment, the
17 Company is required by law to store the contents on a permanent basis. This entails
18 either moving the contents to another site or closing the site in accordance with the
19 applicable regulations. Once the Big Sandy Impoundment is closed, a different set of
20 environmental regulations will govern the site.

21 **Q. WHAT ARE THE COMPANY’S OPTIONS FOR CLOSING THE BIG SANDY**
22 **IMPOUNDMENT?**

² Order, *In the Matter of: The Application Of Kentucky Power Company For A Certificate Of Public Convenience And Necessity Authorizing The Company To Convert Big Sandy Unit 1 To A Natural Gas-Fired Unit And For All Other Required Approvals And Relief*, Case No. 2013-00430, (August 1, 2014).

1 A. As discussed more fully in the testimony of Company Witness DeRuntz, there are two
2 options available to the Company. First, the Company could transport the fly ash stored
3 at the Big Sandy Impoundment to another location for permanent disposal. In order to
4 proceed with this option, the Company would have to purchase, build, or lease an
5 alternate location suitable for fly ash disposal. The alternate location would need to be of
6 sufficient size and proximity to Big Sandy to keep costs reasonable. Generally, this
7 would require a large existing site. Then the fly ash would have to be dewatered and
8 transported to the alternate location. The second option is to close the Big Sandy
9 Impoundment in place. Essentially, this option entails draining the impoundment,
10 grading the fly ash, and installing a cover and monitoring equipment.

11 **Q. WHAT IS THE LEAST COST OPTION FOR CLOSING THE BIG SANDY**
12 **IMPOUNDMENT?**

13 A. A principal cost driver to close the fly ash impoundment is the amount and type of fly ash
14 handling. The more the existing material must be handled, the more expensive the
15 option. Dewatering the slurry (a more expensive process than draining the ash
16 impoundment in place), fly ash loading and unloading, and transportation all add very
17 significant costs to transporting fly ash to another facility that are not incurred, or are
18 incurred at higher levels, with closing the Big Sandy Impoundment in place. Because of
19 the sheer volume of material, lack of proximity to suitable landfills, and the overall size
20 of the fly ash impoundment, the Company has determined that closing the impoundment
21 at the existing site is the least cost option and will have the least cost impact on the
22 Company's customers.

1 **Q. WHAT IS THE TOTAL ESTIMATED COST OF CLOSING THE BIG SANDY**
2 **IMPOUNDMENT?**

3 A. The Company's most current cost estimates of closing the Big Sandy Impoundment in
4 place total \$62.3 million. As described more fully in the testimony of Company Witness
5 DeRuntz, and Exhibit JGD-3, this total amount includes \$59.1 million for closure
6 construction and \$3.2 million post-closure care and monitoring.

7 **Q. DID THE COMPANY INCLUDE AN ESTIMATED COST OF CLOSING THE**
8 **BIG SANDY IMPOUNDMENT IN ITS MOST RECENT BASE RATE CASE,**
9 **CASE NO. 2014-00396?**

10 A. Yes. As part of its analysis to determine the initial revenue requirement³ for the new Big
11 Sandy Retirement Rider ("B.S.R.R."), the Company developed an estimate for the cost of
12 closing the Big Sandy Impoundment.⁴ That total estimated cost of \$49.6 million
13 included an estimated ARO asset value of \$42.6 million plus accretion due to the passage
14 of time (measured by applying the discount rate to the liability balance) of \$7 million.

15 **Q. WHY DID THE COMPANY UPDATE ITS PREVIOUS ESTIMATE FOR**
16 **CLOSING THE BIG SANDY IMPOUNDMENT?**

17 A. A more detailed explanation of the Big Sandy Impoundment closure estimated costs is
18 provided in the testimony of Company Witness DeRuntz. However, in summary, the
19 Company updated its original construction cost estimate of \$45.2 million to close the Big

³ Under the terms of the April 30, 2015 Settlement Agreement among Kentucky Power, Kentucky Industrial Utility Customers, Inc. and Kentucky School Boards Association in the Company's pending base rate case, the B.S.R.R. was modified to provide for the deferral and recovery of actual Big Sandy coal-related retirement costs. As a result, no estimated Big Sandy Impoundment costs are included in the calculation of the initial revenue requirement under the Settlement Agreement's modified B.S.R.R. If the Settlement Agreement and B.S.R.R. are approved, and if the certificate of public convenience and necessity requested in this proceeding is granted, the Big Sandy Impoundment closure costs will be deferred, and subsequently recovered, only as they are incurred. The Company requested approval of the Settlement Agreement so that new rates and tariffs could become effective June 30, 2015.

⁴ See Attachment 1 to the Company's response to KIUC's first data request Item No. 63, Tab ARO in Case No. 2014-00396. A copy of Tab ARO from the Company's response is included as **Exhibit JAR-1**.

1 Sandy fly ash impoundment by \$17.1 million for three reasons. First, the Environmental
2 Protection Agency’s CCR rule contains a provision that will require a 30 year post
3 closure care and monitoring period once the impoundment has been closed and converted
4 to a landfill. Post closure care and monitoring includes mowing, maintenance of erosion
5 areas, if any, and monitoring groundwater. The estimated cost to monitor the fly ash
6 pond for 30 years is approximately \$3.2 million. These costs were not included in the
7 calculation of the B.S.R.R. initial revenue requirement. Second, the U.S. Army Corps of
8 Engineers (“Corps”) asserted jurisdiction in part over the wetlands surrounding the Big
9 Sandy impoundment. The Corps determined that the Company must conduct an
10 additional environmental assessment and engage in mitigation of the wetland and stream
11 impacts of the impoundment closure. The estimated cost of the additional wetland and
12 stream investigation and mitigation is approximately \$4.4 million. Again, these costs
13 were not part of the original estimate. Finally, the impoundment closure cost estimates
14 have been updated as project design progressed. The increase in cost is primarily
15 associated with additional geomembrane liner for the cap (\$4.4 million) and processing
16 and stockpiling of fill and protective cover material (\$5.1 million).

V. **RECOVERY OF THE BIG SANDY IMPOUNDMENT CLOSURE COSTS**

17 **Q. HOW IS THE COMPANY PROPOSING TO RECOVER THE COSTS OF THE**
18 **BIG SANDY IMPOUNDMENT CLOSURE?**

19 A. In accordance with the Stipulation and Settlement Agreement and subsequent
20 Commission Order dated October 7, 2013 in Case No. 2012-00578, the coal-related
21 assets at the Big Sandy generation station, including “other site-related assets retirement
22 costs that will not continue in use” were removed from the Company’s proposed rate base

1 in its pending base rate case, Case No. 2014-00396. The Big Sandy fly ash impoundment
2 is a component of the coal and site-related assets and costs removed from the rate base.
3 In accordance with the Stipulation and Settlement Agreement in Case No. 2012-00578, as
4 well as its application and the Settlement Agreement in the pending rate case, Kentucky
5 Power is proposing to recover the cost of the coal and site-related assets and costs,
6 including the cost of closing the impoundment, through the B.S.R.R.

7 **Q. HOW WILL THE COSTS ASSOCIATED WITH CLOSING THE BIG SANDY**
8 **IMPOUNDMENT BE RECOVERED THROUGH THE B.S.R.R.?**

9 A. Originally, the Company included the estimated cost subsequent to June 30, 2015 to close
10 and monitor the Big Sandy Impoundment as part of the calculation of the initial revenue
11 requirement to be recovered via the B.S.R.R. However, in the Settlement Agreement, the
12 parties agreed only to include costs in the B.S.R.R through June 30, 2015 as filed in
13 Exhibit 7 of the Settlement Agreement and to recover future costs when incurred (and
14 deferred) through annual true-ups to the rider.

15 **Q. WILL THE B.S.R.R. REVENUE REQUIREMENT BE UPDATED?**

16 A. Yes. No later than August 15 of each year, the Company will file for review by the
17 Commission and other the parties the amount of actual Big Sandy Retirement Costs (such
18 as costs are incurred in closing the Big Sandy Impoundment), incurred between July 1 of
19 the prior year and June 30 of the current year and supporting documentation. The annual
20 B.S.R.R. filings will reflect the revised B.S.R.R. rates to recover the unamortized balance
21 of the B.S.R.R. regulatory asset over the remaining life of the 25 year amortization period
22 (through 2040) for the Mitchell generation station. A copy of the Settlement Agreement

1 and Tariff B.S.R.R. proposed in accordance therewith are included as EXHIBITS JAR-2
2 and JAR-3, respectively.

3 **Q. WHEN WILL CUSTOMERS SEE THE IMPACTS OF THE PROPOSED BIG**
4 **SANDY IMPOUNDMENT CLOSURE?**

5 A. Under the Settlement Agreement, Big Sandy Impoundment closure costs will be added to
6 the unamortized balance of the B.S.R.R. regulatory asset as they are incurred. Revenues
7 produced by the B.S.R.R. will first be applied to the current month's pre-tax weighted
8 average cost of capital carrying charge and, to the extent available, then used to "pay
9 down" the unamortized balance of the B.S.R.R. regulatory asset. The B.S.R.R. rate will
10 be adjusted annually to permit the amortization on a levelized basis of that year's June 30
11 unamortized B.S.R.R. regulatory asset balance. Thus, there will up to a year's lag
12 between the date when the Big Sandy Impoundment closure expenses are incurred and
13 when they are reflected in the then-current B.S.R.R. monthly charge.

14 **Q. DOES THE COMPANY HAVE A SCHEDULE REFLECTING WHEN THE BIG**
15 **SANDY IMPOUNDMENT CLOSURE EXPENSES ARE EXPECTED TO BE**
16 **INCURRED?**

17 A. Yes. Exhibit JGD-2 to the testimony of Company Witness DeRuntz provides a timeline
18 of milestones for the various project categories and Exhibit JGD-3 provides a breakout of
19 the project category costs. Taken together, the exhibits show that the bulk of the
20 expenses for the Big Sandy Impoundment closure will be incurred over the next five
21 years through construction completion in 2020. The estimated post closure and
22 monitoring costs (\$3.2 million) will be incurred after 2020. As such, if Tariff B.S.R.R. is
23 approved as set forth in the Settlement Agreement, the Company anticipates

1 approximately \$59.1 million (based on current cost estimates) in Big Sandy
2 Impoundment closure costs will be added to the B.S.R.R. regulatory asset over the next
3 five years. These costs will, in turn, be recovered through the annual B.S.R.R. revenue
4 requirement over the remaining portion of the twenty-five year amortization period
5 (through 2040). As these costs are incurred, the Company will include appropriate
6 documentation in the annual actual cost updates filed with the Commission.

7 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

8 A. Yes.