

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)	

APPLICATION

Kentucky Power Company (“Kentucky Power” or the “Company”) moves the Public Service Commission of Kentucky (“Commission”) for an Order: (1) granting the Company a Certificate of Public Convenience and Necessity pursuant to KRS 278.020(1) and 807 KAR 5:001, Section 15 to close in place the Company’s existing Big Sandy Plant coal ash impoundment (“Big Sandy Impoundment”); and (2) granting all other required relief or approvals. In support thereof Kentucky Power states:

INTRODUCTION

1. The Company owns and operates the Big Sandy Plant which consists of the 278 MW coal-fired Big Sandy Unit 1 and the 800 MW coal-fired Big Sandy Unit 2. In order to comply with the 2012 Mercury and Air Toxics Standard (“MATS”), Kentucky Power retired Big Sandy Unit 2 effective May 31, 2015¹ and will convert Big Sandy Unit 1 to a natural gas-fired unit.² Big Sandy Unit 1 is expected to cease operating as a coal-fired unit in November 2015.

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;*

2. Fly ash, a coal combustion byproduct from Big Sandy Units 1 and 2, is currently stored in the Big Sandy Impoundment in compliance with the permit by rule requirements set forth in 401 KAR 45:060, Section 1(4) and the Company's Kentucky Pollution Discharge Elimination System ("KPDES") Permit No. KY0000221. With the May 31, 2015 retirement of Big Sandy Unit 2, and upon the conversion of Big Sandy Unit 1 to natural gas, the Big Sandy Impoundment will no longer qualify for the permit by rule provisions of the Kentucky solid waste regulations and must be closed.

3. Closing the Big Sandy Impoundment in place as proposed in this application is the least cost alternative for addressing the applicable environmental standards affecting the storage of coal combustion byproducts from the Big Sandy Plant.

4. The Company has elected to file this application and proceed as an electronic case pursuant to 807 KAR 5:001, Section 8.

APPLICANT

5. Kentucky Power was organized in 1919 under the laws of the Commonwealth of Kentucky.³ The Company's mailing address is 101A Enterprise Drive, P.O. Box 5190, Frankfort, Kentucky 40602-5190. Its electronic mail address is kentucky_regulatory_services@aep.com. Kentucky Power is engaged in the generation, purchase, transmission, distribution and sale of electric power. The Company serves approximately 170,000 retail customers in the following 20 counties of eastern Kentucky: Boyd, Breathitt, Carter, Clay, Elliott, Floyd, Greenup, Johnson,

(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 (Ky. P.S.C., Oct. 7, 2013)
² Order, *In the Matter of: The Application of Kentucky Power Company For: (1) A Certificate Of Public Convenience And Necessity Authorizing The Company To Convert Big Sandy Unit 1 To A Natural Gas-Fired Unit; And (2) For All Other Required Approvals And Relief, Case No. 2013-00430 (Ky. P.S.C. Aug. 1, 2014).*

³ A certified copy of the Company's Articles of Incorporation and all amendments thereto was attached to the Joint Application in *In the Matter Of: The Joint Application Of Kentucky Power Company, American Electric Power Company, Inc. And Central And South West Corporation Regarding A Proposed Merger*, P.S.C. Case No. 99-149. The May 22, 2015 Kentucky Power "Certificate of Existence" issued by the Secretary of State of the Commonwealth of Kentucky is filed as **EXHIBIT 1** to this Application.

Knott, Lawrence, Leslie, Letcher, Lewis, Magoffin, Martin, Morgan, Owsley, Perry, Pike and Rowan. In addition, the Company also supplies electric power at wholesale to other utilities and municipalities in Kentucky for resale. Kentucky Power is a utility as that term is defined at KRS 278.010. [807 KAR 5:005, Section 14].

6. Kentucky Power is a direct, wholly-owned subsidiary of American Electric Power Company, Inc. (“AEP.”) AEP is a multi-state public utility holding company whose operating companies provide electric utility service to customers in parts of eleven states – Arkansas, Indiana, Kentucky, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia and West Virginia.

BACKGROUND

The Proposed Closure Project

7. The Big Sandy Impoundment is a 140 acre wet fly ash impoundment formed by the construction of the Horseshoe Creek Dam. The impoundment was constructed and placed in service in 1969 and has a total storage capacity of 8,302 acre-feet (13.4 million yd³) when the level of the fly ash in the impoundment reaches an elevation of 705 ft. msl (mean sea level). The Big Sandy Impoundment is located near Louisa in Lawrence County, Kentucky, approximately 0.75 miles northwest of and across US Highway 23 from the Company’s Big Sandy Plant.

A. Coal Combustion Byproduct Storage.

8. Coal combustion byproducts (“CCBs”) are the residual material that remains after burning coal to generate electricity. One of the CCBs produced at Big Sandy Plant is fly ash, a fine powdery ash captured in the plant’s electrostatic precipitators. To facilitate transportation and storage, water is combined with the fly ash to create a slurry. The Company pumps the slurry mixture to the Big Sandy Impoundment via piping. Once placed in the Big Sandy

Impoundment, the fly ash settles out of the mixture and the water is discharged to Blaine Creek in accordance with the Company's Kentucky Pollution Discharge Elimination System ("KPDES") permit. The Big Sandy Impoundment is sized to accommodate the volume of fly ash produced with no need for further handling of the fly ash.

B. Regulation of Coal Combustion Byproduct Storage.

9. The Big Sandy Impoundment is regulated under Kentucky's solid waste management rules and the Clean Water Act. Under Kentucky's solid waste management rules, in particular KRS 224.50-760(1)(a), CCBs such as those stored at the Big Sandy Impoundment are considered a special waste. The Big Sandy Impoundment is authorized through a permit by rule in accordance with 401 KAR 45:060, Section 1(4). This regulation provides for permits by rule to "special waste surface impoundments in substantial compliance with KPDES permits." Kentucky Power also operates the Big Sandy Impoundment in accordance with KPDES Permit number KY0000221. In addition, the Horseshoe Creek Dam is authorized by Dam Permit 186 issued by the Kentucky Division of Water ("KDOW").

10. With the cessation of coal-fired generation at the Big Sandy Plant, the Big Sandy Impoundment will no longer be required and must be closed either in place or by excavating the fly ash and transporting it to permitted landfill. In the absence of a specific pond closure permitting protocol, and with the concurrence of the Kentucky Division of Waste Management ("KDWM"), the closure of the Big Sandy Impoundment is being pursued via KDWM's Special Waste Landfill permitting process.

11. Kentucky Power submitted its Application for a Special Waste Landfill Permit (Application Number APE20130002) to the Kentucky Division of Waste Management ("KDWM") on July 9, 2013. The permit application is under technical review by KDWM. As

part of this process, the Company and its affiliate, American Electric Power Service Corporation (“AEPSC”), are working with KDWM to resolve and respond to technical questions raised by the agency. The Company expects the permit to be issued by the end of 2015.

12. In March 2014, KDOW’s Dam Safety Section issued a permit revision authorizing Kentucky Power to modify the Horseshoe Creek Dam. The revised permit allows the Company to lower the dam and construct a new spillway in connection with its closure of the Big Sandy Impoundment. Kentucky Power is also in the process of securing a permit from the US Army Corps of Engineers under Section 404 of the Clean Water Act. The Section 404 Permit will require mitigation of impacts to wetlands and streams associated with closure of the fly ash impoundment. Along with the Section 404 permit from the Corps of Engineers, the Company will require a water quality certification under Section 401 of the Clean Water Act from KDOW. While not a requirement to close the Big Sandy Impoundment, the existing KPDES permit must be modified to account for the change in discharges from Big Sandy Plant. The application to modify the Big Sandy Plant KPDES permit will be submitted at the end of 2015.

C. Big Sandy Impoundment Closure Project.

13. The Big Sandy Impoundment Closure Project will occur in a step-wise fashion. First, the Big Sandy Impoundment will be drained of surface water by digging temporary drainage channels in the deposited ash. The surface water will be discharged in accordance with the Company’s current KPDES permit for the Big Sandy Impoundment. Once the impoundment has been drained to the point where the ash is able to support heavy earth moving equipment, the Company will begin grading the ash. The grading process will establish the subgrade that sets the elevations needed to channel the storm water flow across the closed impoundment. Once the

subgrade is established, the impoundment will be capped with a flexible membrane liner (“FML”), protective cover soil layer, and, finally, a topsoil layer that will be seeded to establish a vegetative cover. A network of ground water monitoring wells will be installed to support the post closure care and monitoring requirements in the permit.

14. Following receipt of the KDWM permit and all other required approvals, the Company anticipates beginning construction in early 2016. The anticipated completion date for the Project is the end of 2020.

15. The proposed project represents the least cost alternative for the Company to meet its obligation to close the Big Sandy Impoundment. The only other alternative to closing the Big Sandy Impoundment in place would be to excavate and dewater the ash and then transport it to a suitable facility. There are however, no existing permitted landfills in the vicinity of the Big Sandy Impoundment capable of receiving ash from the facility. More importantly, the volume of ash that would have to be dewatered and transferred from the Big Sandy Impoundment makes off-site disposal cost-prohibitive. AEPSC estimates that the costs for dewatering, staging, loading and hauling the volume of ash at the Big Sandy Impoundment (between 8.5 million and 10 million cubic yards of fly ash) would range between \$149,600,000 and \$176,000,000. These estimated costs do not include any landfill development or disposal costs, or the costs to restore the Big Sandy Impoundment property itself. The Company would be required to restore the Big Sandy Impoundment Property if it disposed of the ash off-site.

16. AEPSC, on behalf of Kentucky Power, and URS, a large national consulting firm, evaluated cap design and site drainage configuration for the Project. This evaluation was designed to minimize to the greatest extent possible the excavation and placement of the fly ash

when establishing the subgrade and borrow material when constructing the cap itself. By doing so, the final Project design is the lowest cost alternative for closing the Big Sandy Impoundment.

D. Recovery of Project Costs Through the Big Sandy Retirement Rider.

17. Kentucky Power estimates that the cost to close the Big Sandy Impoundment as outlined in this Application totals \$62.3 million. The cost estimate includes \$59.1 million for closure construction and \$3.2 million for post closure care and monitoring.

18. By Order dated October 7, 2013 the Commission approved, subject to four modifications accepted by the Company, the July 2, 2013 Stipulation and Settlement Agreement among Kentucky Power, Kentucky Industrial Utility Customers, Inc. and Sierra Club in Case No. 2012-00578.⁴

19. Paragraph 14 of the July 2, 2013 Stipulation and Settlement Agreement provides:

The Company shall be authorized to recover the coal-related retirement costs of Big Sandy Unit 1, the retirement costs of Big Sandy Unit 2, and other site-related retirement costs that will not continue in use. The costs shall be recovered on a levelized basis, including a weighted average cost of capital (WACC) carrying costs, over a 25 year period beginning when base rates are set in the Base Rate Case. The term "Retirement Costs" as used in this agreement are defined as and shall include the net book value, materials and supplies that cannot be used economically at other plants owned by Kentucky Power, and removal costs and salvage credits, net of related ADIT. Related ADIT shall include the tax benefits from tax abandonment losses. The Company will use its best efforts to minimize the cost of dismantling and to maximize salvage credits. Such retirement costs will be recovered in the Asset Transfer Rider-2.⁵

⁴ 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 A Fifty Percent Undivided 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; And (5) For All Other Required Approvals And Relief*, Case No. 2012-00578 (Ky. P.S.C. Oct. 7, 2013).

⁵ In the Company's pending base rate case, Case No. 2014-00396, it has proposed to change the name of Asset Transfer Rider-2 to Big Sandy Retirement Rider to avoid customer confusion with the current Asset Transfer Rider.

20. The Company plans to recover the costs to close the Big Sandy Impoundment through the ATR-2, now denominated the Big Sandy Retirement Rider (“BSRR”). Kentucky Power currently is seeking in Case No. 2014-00396 approval of the BSRR as modified by the April 30, 2014 Settlement Agreement among Kentucky Power, Kentucky School Boards Association, and Kentucky Industrial Utility Customers, Inc. The costs incurred by the Company in closing the Big Sandy Impoundment are “site-related retirement costs that will not continue in use,” as the term is used in Paragraph 14 of the July 2, 2013 Stipulation and Settlement Agreement, and thus may be recovered through the BSRR.

THE PUBLIC CONVENIENCE AND NECESSITY MANDATE THE IN-PLACE
CLOSURE OF THE BIG SANDY IMPOUNDMENT

21. A utility seeking a certificate of public convenience and necessity must “demonstrate a need for ... [the proposed] facilities and the absence of wasteful duplication.”⁶

Need in turn requires a demonstration:

of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated.

[T]he inadequacy must be due either to a substantial deficiency of service facilities, beyond what could be supplied by normal improvements in the ordinary course of business; or to indifference, poor management or disregard of the rights of consumers, persisting over such a period of time as to establish an inability or unwillingness to render adequate service.⁷

⁶ *In The Matter Of: Joint Application Of Louisville Gas And Electric Company And Kentucky Utilities Company For A Certificate Of Public Convenience And Necessity And Site Compatibility Certificate For The Construction Of A Combined Cycle Combustion Turbine At The Cane Run Generation Station And The Purchase Of Existing Simple Cycle Combustion Turbine Facilities From Bluegrass Generation Company, LLC In LaGrange, Kentucky*, Case No. 2011-00375 at 13-14 (Ky. P.S.C. May 3, 2012).

⁷ *Id.* at 14.

22. Closure of the Big Sandy Impoundment is required by the applicable environmental regulations. The in-place closure proposed in this application is the least cost alternative for meeting these obligations and requirements.

23. The proposed closure will not result in wasteful duplication. “‘Wasteful duplication’ is defined as ‘an excess of capacity over need’ and ‘an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.’”⁸ The in-place closure of the Big Sandy Impoundment is the least cost, reasonable alternative for meeting those obligations.

REGULATORY REQUIREMENTS – 807 KAR 5:001, SECTION 15

24. The facts demonstrating that the proposed closure in place of the Big Sandy Impoundment is required by the public convenience or necessity are set forth above. [807 KAR 5:001, Section 15(2)(a)].

25. Kentucky Power anticipates obtaining the necessary permit to close the Big Sandy Impoundment from KDWM in the fourth quarter of 2015. A copy of the Company’s application for the KDWM permit is attached as **EXHIBIT 2**. Kentucky Power has already received from the Kentucky Division of Water (“KDOW”) the revision to the Horseshoe Creek Dam permit necessary for the Project. A copy of the Horseshoe Creek Dam permit is attached as **EXHIBIT 3**. Kentucky Power has applied to the US Army Corps of Engineers for a permit under Section 404 of the Clean Water Act to authorize and mitigate necessary wetland and stream impacts from the Project. A copy of the Company’s application for the 404 permit is attached as **EXHIBIT 4**. Finally, the Company has also sought a water quality certification under Section 401 of the Clean Water Act from KDOW as required upon issuance of the 404 permit from the Corps of Engineers. A copy of the Company’s application for the 401 water quality certification is

⁸ *Id.*

attached as **EXHIBIT 5**. The Company is not required to seek any franchises in connection with the Project. [807 KAR 5:001, Section 15(2)(b)].

26. The Big Sandy Plant is located at 23000 Highway 23 North, Louisa, KY 41230. The Big Sandy Impoundment is located approximately 0.75 miles northwest of and across Highway 23 from the plant. The proposed construction will take place in and around the existing Big Sandy Impoundment. [807 KAR 5:001, Section 15(2)(c)].

27. It is not anticipated that the proposed Project will compete with any other utility, corporation or person as described in the regulation. [807 KAR 5:001, Section 15(2)(c)].

28. Maps to suitable scale showing the location of the Big Sandy Impoundment, as well as the location and ownership of like facilities in the area displayed on the maps are attached as **EXHIBIT 6** to this Application. The plans for the Big Sandy Impoundment closure are attached as **EXHIBIT 7** to this Application. [807 KAR 5:001, Section 15(2)(d)].

29. The proposed Project will be financed through Kentucky Power's internally generated funds. [807 KAR 5:001, Section 15(2)(e).]

30. The estimated annual operation and maintenance cost for the converted Big Sandy Impoundment after the converted facility is placed into service as proposed in this Application is approximately \$110,000. [807 KAR 5:001, Section 15(2)(f).]

31. Other information necessary to afford the Commission a complete understanding of the proposed Project is set forth above and in the exhibits and testimony filed with this application.

Exhibits And Testimony

32. The exhibits and testimony listed in the Appendix to this Application are attached to and made a part of this Application.

Communications

33. The Applicant respectfully requests that communications in this matter be addressed to:

Mark R. Overstreet
STITES & HARBISON PLLC
421 West Main Street
P.O. Box 634
Frankfort, Kentucky 40602-0634
moverstreet@stites.com

Kenneth J. Gish, Jr.
STITES & HARBISON PLLC
250 West Main Street, Suite 2300
Lexington, Kentucky 40507-1758
kgish@stites.com

Kentucky Power Company
P.O. Box 5190
Frankfort, Kentucky 40602-5190
kentucky_regulatory_services@aep.com

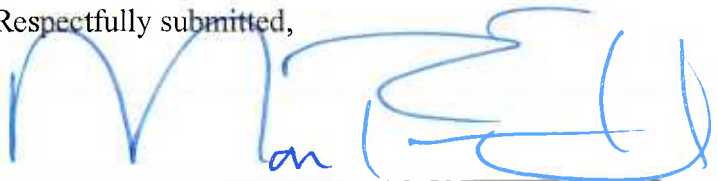
ON BEHALF OF KENTUCKY POWER COMPANY

WHEREFORE, Kentucky Power Company requests that the Commission issue an Order:

(a) Granting Kentucky Power a Certificate of Public Convenience and Necessity pursuant to KRS 278.020(1) and 807 KAR 5:001, Section 15 approving the closure in place of the Big Sandy Impoundment; and

(b) Granting Kentucky Power such other relief or approvals as may be appropriate or required.

Respectfully submitted,



Mark R. Overstreet
STITES & HARBISON PLLC
421 West Main Street
P.O. Box 634
Frankfort, Kentucky 40602-0634
Telephone: (502) 223-3477
Facsimile: (502) 223-4387
moverstreet@stites.com

Kenneth J. Gish, Jr.
STITES & HARBISON PLLC
250 West Main Street, Suite 2300
Lexington, Kentucky 40507-1758
Telephone: (859) 226-2300
Facsimile: (859) 425-7996
kgish@stites.com

COUNSEL FOR:
KENTUCKY POWER COMPANY

CERTIFICATE OF SERVICE

I hereby certify that a true and accurate copy of the foregoing was served as indicated below upon:

Michael L. Kurtz
Jody Kyler Cohn
Boehm, Kurtz & Lowry
36 East Seventh Street, Suite 1510
Cincinnati, Ohio 45202

By Overnight Delivery

Jennifer Black Hans
Angela Goad
Lawrence W. Cook
Kentucky Attorney General's Office
1024 Capital Center Drive, Suite 200
Frankfort, Kentucky 40601-8204

By Overnight Delivery

on this the 15th day of June, 2015.



Mark R. Overstreet

APPENDIX

TESTIMONY

Joseph G. DeRuntz

Provides a summary of the applicable environmental regulations, planned project, alternatives evaluated, the project schedule, and development of the project cost estimate.

John A. Rogness

Provides overview of application, and the proposed cost recovery mechanism in compliance with the Commission-approved July 2, 2013 Stipulation And Settlement Agreement in Case No. 2012-00578.

LIST OF EXHIBITS

- EXHIBIT 1: The May 22, 2015 Kentucky Power “Certificate of Existence” issued by the Secretary of State of the Commonwealth of Kentucky.
- EXHIBIT 2: Copy of Kentucky Power’s application for approval from KDWM for the closure of the Big Sandy Impoundment.
- EXHIBIT 3: Copy of the dam permit revision from KDOW for the Horseshoe Creek Dam.
- EXHIBIT 4: Copy of Kentucky Power’s application to the US Army Corps of Engineers for a permit under Section 404 of the Clean Water Act.
- EXHIBIT 5: Copy of Kentucky Power’s application to KDOW for a water quality certification under Section 401 of the Clean Water Act.
- EXHIBIT 6: Maps to suitable scale showing the location of the Big Sandy Impoundment, as well as the location and ownership of like facilities in the area (paper version).
- EXHIBIT 7: Plans for the closure of the Big Sandy Impoundment (electronic version).