

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY POWER)	
COMPANY FOR: (1) A CERTIFICATE OF)	
PUBLIC CONVENIENCE AND NECESSITY)	CASE NO.
AUTHORIZING THE COMPANY TO CLOSE)	2015-00152
THE BIG SANDY PLANT COAL ASH)	
IMPOUNDMENT; AND (2) FOR ALL OTHER)	
REQUIRED APPROVALS AND RELIEF)	

ORDER

On June 30, 2015, Kentucky Power Company (“Kentucky Power”) filed an application pursuant to KRS 278.020(1) and 807 KAR 5:001, Section 15, seeking a Certificate of Public Convenience and Necessity (“CPCN”) to close in place the company’s coal ash impoundment (“Big Sandy Ash Pond”) located at its Big Sandy Generating Station.¹ The Big Sandy Generating Station comprises two coal-fired generating units. In order to comply with the Mercury and Air Toxics Standards (“MATS”), Kentucky Power has made significant changes at the Big Sandy Generating Station. Big Sandy Unit 1 has ceased operating as a coal-fired unit and is being converted to a natural-gas fired unit.² In addition, Big Sandy Unit 2 was retired on May 31, 2015. Because the Big Sandy Generating Station will no longer burn coal, the Big Sandy Ash Pond will no longer actively receive coal combustion residuals (“CCRs”) and,

¹ The application was tendered on June 15, 2015, along with a motion for leave to deviate from certain filing requirements. By Order, entered June 30, 2015, the application was deemed filed on June 30, 2015.

² Kentucky Power’s response to Commission Staff’s Initial Request for Information (“Staff’s First Request”), Item 1.

as a result, will lose its permit-by-rule status and will need to be closed. Kentucky Power asserts that closing the Big Sandy Ash Pond in place is the least-cost reasonable alternative to address the need for a long-term solution to dispose of the CCRs currently being stored in the Big Sandy Ash Pond.

The Commission issued an Order on August 13, 2015, establishing a procedural schedule that provided for, among other things, two rounds of discovery on Kentucky Power's application, intervenor testimony, and discovery upon intervenor testimony. Kentucky Industrial Utility Customers ("KIUC") is the only intervenor in the instant proceeding. On November 5, 2015, Kentucky Power filed a motion requesting that the case be decided on the existing record. Alternatively, Kentucky Power requested that a hearing be scheduled at the earliest date practicable so that it can begin the closure of the fly ash pond as soon as possible. KIUC filed a response noting that it did not object to having the matter decided without the need for a hearing. Based on a review of the record and finding no further outstanding factual issues, the Commission finds that Kentucky Power has established good cause to have the matter be decided on the record, and, therefore, its motion should be granted.

BACKGROUND

The Big Sandy Ash Pond is an approximately 140-acre wet fly ash impoundment formed by the Horseford Creek Dam.³ The Saddle Dam, a 62-foot high embankment located at the southeast portion of the valley, also defines the impoundment.⁴ The Big Sandy Ash Pond was constructed and placed in service in 1969 and has a total storage

³ Application at 3.

⁴ *Id.*, Exhibit 2, Attachment 10.

capacity of 8,302 acre-feet (13.4 million cubic yards) when the surface of the impounded ash reaches an elevation of 705 feet above mean sea level.⁵ The impoundment is located in Lawrence County, Kentucky, and is approximately 0.75 miles northwest of Kentucky Power's Big Sandy Generating Station, which is across U.S. 23 from the impoundment.

CCRs are the materials remaining after coal is burned to generate electricity. One of the CCRs produced by the Big Sandy Generating Station was fly ash, which is a fine powdery ash captured by the plant's electrostatic precipitators from combustion gas as it passes through the plant's air pollution control system.⁶ The fly ash removal and transportation from the plant to its storage is facilitated by combining it with water and pumping the resultant slurry through piping to the Big Sandy Ash Pond.⁷ Once placed in the impoundment, the ash settles from the slurry mixture, and the water is discharged to Blaine Creek in accordance with Kentucky Power's environmental permits.⁸ The Big Sandy Ash Pond was constructed to accommodate the volume of fly ash produced by the plant and was designed so that no further handling of the fly ash was necessary.⁹

The Big Sandy Ash Pond is regulated under Kentucky's solid waste management regulations and the Clean Water Act. Under Kentucky's solid waste management regulations, CCRs are classified as special waste, and their surface impoundments, such as the Big Sandy Ash Pond, are authorized through a permit by rule and require

⁵ *Id.* at 3.

⁶ *Id.*

⁷ *Id.*

⁸ *Id.* at 3–4.

⁹ *Id.* at 4.

substantial compliance with Kentucky Pollution Discharge Elimination System (“KPDES”) permits.¹⁰ In addition, the Big Sandy Ash Pond is formed by utilizing the Horseford Creek Dam, which is authorized by a permit issued by the Kentucky Division of Water (“KDOW”).

With coal-fired generation ceasing at the Big Sandy Generating Station, the Big Sandy Ash Pond will lose its permit-by-rule status and must be closed. Since the Commonwealth of Kentucky does not have a specific ash pond closure permitting protocol, the closure of the Big Sandy Ash Pond is being pursued via the Kentucky Division of Waste Management’s (“KDWM”) Special Waste Landfill permitting process.¹¹ Closing the Big Sandy Ash Pond will also require Kentucky Power to obtain a Clean Water Act permit from the United States Army Corps of Engineers. This permit requires mitigation of impacts to the streams and wetlands related to the closure of the impoundment. In addition, Kentucky Power will have to meet and maintain a required water quality certification under the Clean Water Act from KDOW.¹² Although not a requirement to close the Big Sandy Ash Pond, Kentucky Power’s existing KPDES permit must be modified to allow for the water discharge changes occurring from the Big Sandy Generating Station.¹³ Lastly, KDOW’s Dam Safety Section has recently revised its permit that authorizes Kentucky Power to modify the Horseford Creek Dam. This

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.* at 5.

¹³ *Id.*

revision allows Kentucky Power to lower the height of the dam and construct a new spillway to facilitate closing in place the Big Sandy Ash Pond.¹⁴

PROPOSED PROJECT

Kentucky Power retained a professional and technical services firm, URS Corporation (“URS”), to examine and evaluate multiple aspects of the proposed project and the area impacted by it. Included in the scope of work performed by URS was the cap design and site drainage configuration needed for the closing in place of the Big Sandy Ash Pond. The actual closure of the Big Sandy Ash Pond will be done in a stepwise fashion over five years from 2016 until 2020.¹⁵ First, the impoundment will be drained of surface water by digging temporary drainage channels in the deposited fly ash. As the drainage occurs and as the accumulated dehydrated ash deposit is able to support earthmoving equipment, Kentucky Power will begin grading the exposed ash, establishing a subgrade that sets the elevations needed to channel storm water flow across the impoundment once it is closed.¹⁶ As the subgrade is established and additional fill is added to provide a positive grade, the area will be expanded to cover approximately 140 acres; this area will then be capped in order to prevent surface water from entering the underlying ash material. The capping system will include a flexible membrane liner, an 18-inch cover layer of protective earthen material, and six inches of topsoil to sustain vegetation and minimize surface erosion.¹⁷ Lastly, a ground water

¹⁴ *Id.*

¹⁵ Direct Testimony of Joseph G. DeRuntz (“DeRuntz Testimony”) at 10.

¹⁶ DeRuntz Testimony at 9.

¹⁷ *Id.* and Kentucky Power’s response to Staff’s First Request, Item 11.

monitoring network of wells will be installed to support the post-closure care and monitoring requirements for ensuring the integrity of the impoundment cap for a 30-year period following the completion of the closure construction.¹⁸ Once the Big Sandy Ash Pond is closed, the site will be regulated as a permitted Special Waste Landfill. The impoundment will also be subjected to the United States Environmental Protection Agency's Disposal of Coal Combustion Residuals from Electric Utilities Final Rule ("CCR Rule").¹⁹ Kentucky Power contends that the designed surface impoundment closure is consistent with the CCR Rule requirements.²⁰ Upon receipt of approval from the Commission, Kentucky Power anticipates beginning construction in early 2016 and completing the project by the end of 2020. The project's estimated total capital cost is \$62.3 million, with the closure construction accounting for \$59.1 million and the post-closure care and monitoring adding \$3.2 million.²¹ The cost of the proposed project will be recovered through the Big Sandy Retirement Rider ("BSRR"), which was approved in Kentucky Power's most recent rate case.²²

DISCUSSION

The Commission's standard of review regarding a CPCN is well settled. No utility may construct or acquire any facility to be used in providing utility service to the

¹⁸ Kentucky Power's response to Staff's First Request, Item 11.

¹⁹ *Id.*, Item 21.

²⁰ The CCR Rule was effective as of October 14, 2015, and imposes specific certifications, ground water monitoring, and post-closure care and monitoring requirements for the closed Big Sandy Ash Pond.

²¹ Application at 7, and DeRuntz Testimony at 13.

²² Case No. 2014-00396, *Application of Kentucky Power Company for: (1) A General Adjustment of Its Rates for Electric Service; (2) an Order Approving Its 2014 Environmental Compliance Plan; (3) an Order Approving Its Tariffs and Riders; and (4) an Order Granting All Other Required Approvals and Relief* (Ky. PSC June 26, 2015).

public until it has obtained a CPCN from this Commission.²³ To obtain a CPCN, the utility must demonstrate a need for such facilities and an absence of wasteful duplication.²⁴

“Need” requires:

[A] showing 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.²⁵

“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.”²⁶ To demonstrate that a proposed facility does not result in wasteful duplication, we have held that the applicant must demonstrate that a thorough review of all reasonable alternatives has been performed.²⁷ Selection of a proposal that ultimately costs more than an alternative does not necessarily result in

²³ KRS 278.020(1).

²⁴ *Kentucky Utilities Co. v. Pub. Serv. Comm'n*, 252 S.W.2d 885 (Ky. 1952).

²⁵ *Id.* at 890.

²⁶ *Id.*

²⁷ Case No. 2005-00142, *Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for the Construction of Transmission Facilities in Jefferson, Bullitt, Meade, and Hardin Counties, Kentucky* (Ky. PSC Sept. 8, 2005).

wasteful duplication.²⁸ All relevant factors must be balanced.²⁹ The statutory touchstone for ratemaking in Kentucky is the requirement that rates set by the Commission must be fair, just, and reasonable.³⁰

Having reviewed the record and being otherwise sufficiently advised, the Commission finds that the facts presented by Kentucky Power in this case demonstrate a need for Kentucky Power to address the disposal of fly ash currently being stored in the impoundment resulting from the loss of the permit-by-rule status because the Big Sandy Generating Station is no longer burning coal to generate electricity. The Commission also finds that the closure in place of the Big Sandy Ash Pond will not result in wasteful duplication of similar or alternative facilities or construction.

The Commission finds that Kentucky Power's closing of the Big Sandy Ash Pond is required in order to comply with the CCR Rule and other environmental regulations when the Big Sandy Generating Station ceases to burn coal. Since Big Sandy Ash Pond no longer receives additional deposits of fly ash as of November 2015, Kentucky Power must store the ash pond contents appropriately and permanently by law. Storing the ash pond contents means that those contents can be left in place by closing the site within the requirements of applicable environmental regulations, as proposed by Kentucky Power; or Kentucky Power could dewater the contents and move them to another suitable, permitted landfill site. Kentucky Power used a cost of \$17.60 per

²⁸ See *Kentucky Utilities Co. v. Pub. Serv. Comm'n*, 390 S.W.2d 168, 175 (Ky. 1965). See also Case No. 2005-00089, *The Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity to Construct of a 138 kV Electric Transmission Line in Rowan County, Kentucky* (Ky. PSC Aug. 19, 2005).

²⁹ Case No. 2005-00089, *East Kentucky Power Cooperative, Inc.* (Ky. PSC Aug. 19, 2005), Final Order at 6.

³⁰ KRS 278.190(3).

cubic yard of fly ash to estimate the cost that would be incurred to dewater, stage, load, and haul the fly ash from the Big Sandy Ash Pond.³¹ Utilizing the \$17.60-per-cubic-yard cost estimate, and given the 8.5 to 10 million cubic yards of current estimated ash pond volume, Kentucky Power stated that it would cost between \$149.6 million and \$176 million to handle and transport the fly ash a distance of approximately 35 miles to the nearest landfill permitted to accept fly ash.³² Moreover, these off-site landfill costs do not include any additional tipping fees charged by the receiving landfill for disposal of the fly ash or the cost for restoration of the Big Sandy Ash Pond area itself.³³ Therefore, the cost of moving the material to an off-site disposal facility would significantly exceed the estimated \$62.3 million cost of closing the impoundment in place.

Therefore, the Commission concludes that the Big Sandy Ash Pond closure is required under applicable environmental regulations, and that the proposed in-place closure is the least-cost reasonable solution in meeting those requirements.

IT IS THEREFORE ORDERED that:

1. Kentucky Power's request for a CPCN to close in place the Big Sandy Ash Pond as described in its application is granted.

³¹ DeRuntz Testimony at 8. Kentucky Power noted that the \$17.60 per cubic yard cost of ash handling was the cost employed by East Kentucky Power Cooperative, Inc. ("EKPC") in Case No. 2014-00252, *Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for Construction of an Ash Landfill at J.K. Smith Station, the Removal of Impounded Ash from William C. Dale Station for Transport to J.K. Smith and Approval of a Compliance Plan Amendment for Environmental Surcharge Recovery* (Ky. PSC Mar. 6, 2015), involving EKPC's evaluation of alternatives to closing its Dale Station ash pond and that the \$17.60 per cubic yard cost was comparable to the estimates made by Kentucky Power.

³² *Id.*, Application at 6, and Kentucky Power's response to Staff's First Request, Item 12.

³³ Application at 6.

2. Kentucky Power's motion to have this matter be decided on the record is granted.

3. Kentucky Power shall make quarterly filings with the Commission until the closure of the Big Sandy Ash Pond is substantially complete.³⁴ The quarterly filings shall be submitted on February 15 for the quarter ended December 31, May 15 for the quarter ended March 31, August 15 for the quarter ended June 30, and November 15 for the quarter ended September 30. The quarterly filings shall provide a detailed listing of each cost incurred to close the Big Sandy Ash Pond during that quarter, along with a description of each cost, which is to be recovered through the BSRR, and the cumulative total for each category of cost previously included in the BSRR. The first filing shall be submitted on May 15, 2016 and include all costs incurred through March 31, 2016, for the Big Sandy Ash Pond closure which are to be recovered through the BSRR.

By the Commission
ENTERED
JAN 27 2016
KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:


Executive Director

³⁴ The Commission's use of the term "substantially complete" means that construction is complete and all that remains of the closure is the post-closure care and monitoring which is required for 30 years pursuant to the CCR Rule.

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