

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF DUKE ENERGY KENTUCKY, INC.)	
FOR A DECLARATORY ORDER THAT THE)	
CONSTRUCTION OF A NEW LANDFILL)	CASE NO.
CONSTITUTES AN ORDINARY EXTENSION IN THE)	2015-00089
USUAL COURSE OF BUSINESS OR, IN THE)	
ALTERNATIVE, FOR A CERTIFICATE OF PUBLIC)	
CONVENIENCE AND NECESSITY)	

ORDER

On March 19, 2015, Duke Energy Kentucky, Inc. ("Duke Kentucky") filed an application, pursuant to 807 KAR 5:001, Section 19, seeking an order declaring that the construction of a new landfill ("West Landfill") at the East Bend Generating Station ("East Bend Station") to replace the current landfill ("East Landfill") at East Bend Station constitutes an extension in the ordinary course of business. In the alternative, pursuant to KRS 278.020(1) and 807 KAR 5:001, Section 15, Duke Kentucky requests a Certificate of Public Convenience and Necessity ("CPCN") to construct the proposed West Landfill. The West Landfill will receive flue gas desulfurization ("FGD") waste, fly ash, and bottom ash from the East Bend Station and other generating sources. The proposed West Landfill will be constructed in eight phases, with a final cap over 30 years, with the first phase, or cell, to be completed in 2016 or early 2017. The total cost of the proposed West Landfill is approximately \$159 million, with the cost of the first cell to be approximately \$30 million.

On April 6, 2015, the Commission issued an Order establishing a procedural schedule for the processing of this matter. The procedural schedule established a deadline for requests to intervene, and provided for two rounds of discovery on Duke Kentucky's application, the opportunity for the filing of intervenor testimony, discovery upon intervenor testimony, and the opportunity for Duke Kentucky to file rebuttal testimony. The Attorney General of the Commonwealth of Kentucky, by and through his Office of Rate Intervention ("AG"), petitioned for, and was granted, intervention. The AG engaged in discovery but did not file any testimony. A formal evidentiary hearing was conducted on June 10, 2015. Duke Kentucky submitted responses to post-hearing data requests on June 24, 2015. The matter now stands submitted to the Commission for a decision.

BACKGROUND

East Bend Station is located along the Ohio River in Boone County, Kentucky.¹ The generating station consists of one base-load coal unit, which was commissioned in 1981 and is rated at 600 megawatts.² On December 5, 2003, the Commission approved Duke Kentucky's acquisition of a 69 percent interest in the East Bend Station, including the East Landfill, from Duke Energy Ohio; the acquisition was completed

¹ Direct Testimony of Joseph A. Miller, Jr. ("Miller Testimony") at 2.

² *Id.* at 2-3.

effective January 1, 2006.³ Pursuant to our approval in Case No. 2014-00201, Duke Kentucky acquired the remaining 31 percent of the East Bend Station.⁴

The East Landfill is permitted to receive FGD waste, fly ash, and bottom ash produced by the East Bend Station and other generating sources, including, but not limited to: Spurlock Generating Station, owned by East Kentucky Power Cooperative, Inc.; Ghent Generating Station, owned by Kentucky Utilities Company; and the Zimmer, Beckjord, and Killen Generating Stations, owned by affiliates of Duke Kentucky. These other generating sources will be collectively referred to herein as the “Permitted Stations.”⁵ Approximately 80 percent of the ash produced at the East Bend Station is dry fly ash, which is mixed with spent scrubber slurry and lime to make a stable material⁶ called Poz-o-tec that sets up like concrete and is placed in the East Landfill. The East Landfill was permitted to receive generator waste from the Permitted Stations, in addition to the East Bend Station, to ensure that Duke Kentucky has sufficient dry fly ash available, in that the East Bend Station does not consistently produce sufficient quantities of fly ash to make the Poz-o-tec. The remaining 20 percent of ash produced at the East Bend Station is bottom ash, which is treated in an ash pond located at the East Bend Station.⁷

³ Application at 4.

⁴ Case No. 2014-00201, *Application of Duke Energy Kentucky, Inc. for (1) A Certificate of Public Convenience and Necessity Authorizing the Acquisition of the Dayton Power & Light Company's 31% Interest in the East Bend Generating Station; (2) Approval of Duke Energy Kentucky, Inc.'s Assumption of Certain Liabilities in Connection with the Acquisition; (3) Deferral of Costs Incurred as Part of the Acquisition; and (4) All Other Necessary Waivers, Approvals, and Relief* (Ky. PSC Dec. 4, 2014).

⁵ *Id.* at 3 and 5.

⁶ *Id.* at 5.

⁷ *Id.*

The East Landfill is projected to reach its capacity in three to four years.⁸ To plan for that situation, Duke Kentucky examined two alternatives to replace the East Landfill.

1. Alternative 1 – Construct the West Landfill onsite, which would have a life expectancy of 30 years and a projected total cost of \$159 million.

2. Alternative 2 – Transport and dispose of the East Bend Generation waste at a third-party owned and operated landfill. The cost for this alternative is approximately \$1.26 billion.⁹ Duke Kentucky made market inquiries and determined that the costs of transporting and disposing of FGD waste in a commercial landfill would be approximately \$33-\$35 per ton.¹⁰ East Bend Station produces approximately 1.3 million tons of FGD waste per year.¹¹ Based upon disposal need over 30 years, which represents the life expectancy of a new landfill, Duke Kentucky calculated the total cost of the third-party disposal alternative at approximately \$1.26 billion, or \$42 million per year.¹²

PROPOSED PROJECT

Duke Kentucky maintains that constructing the proposed West Landfill represents the most prudent and least-cost alternative to address waste disposal for the East Bend Station. Duke Kentucky notes that maintaining an onsite landfill minimizes transportation expenses and disposal fees, and avoids limitations, such as volume

⁸ *Id.*

⁹ Miller Testimony at 9.

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*

constraints, that would be incurred for waste disposal at a third-party commercial landfill.

The West Landfill construction project includes construction of approximately 200 acres of lined landfill that is designed to accept approximately 30 years of generator waste from the East Bend Station and the Permitted Stations.¹³ The West Landfill will be constructed in eight separate phases, with the first phase completed in 2016 or early 2017.¹⁴ The additional seven phases will be constructed in two to four year increments, with a projected completion date of 2047 for all phases and the final cap.¹⁵ The first phase is expected to cost \$30 million, which includes construction of the landfill and all infrastructure required to operate and maintain the landfill. Phases 2-5 are projected to cost \$18 million each. Phases 6 and 7 are projected to cost \$12.5 million each. Phase 8 is projected to cost \$20 million, and construction of the final cap is to begin in 2045 at a projected cost of \$12.5 million. The total cost of the project is estimated to be \$159 million.¹⁶ Duke Kentucky has obtained the required permits to construct the West Landfill from Kentucky Division of Waste Management and Kentucky Department of Environmental Protection.¹⁷ The West Landfill is permitted to receive FGD waste, fly ash and bottom ash from the East Bend Station and from the Permitted Stations.¹⁸

¹³ Application at 6.

¹⁴ Miller Testimony at 7.

¹⁵ Duke Kentucky's response to Staff's First Data Request, Item No. 6.

¹⁶ Application, Miller Testimony at 8.

¹⁷ *Id.* at 10-11.

¹⁸ *Id.* at 5-6.

The West Landfill will be lined with a leachate collection system in accordance with applicable federal, state, and local requirements.¹⁹ Duke Kentucky must begin construction on the West Landfill by October 19, 2015, in order for the first phase to be grandfathered in under a new Coal Combustion Residual (“CCR”) rule issued by the U.S. Environmental Protection Agency.²⁰ The design of future phases and cap of the proposed landfill will be modified to meet the CCR rule requirements.²¹

Duke Kentucky will construct the proposed landfill on land located adjacent to the East Bend Station that Duke Kentucky acquired from its parent, Duke Energy Ohio, Inc., and an affiliate, Tri-State Improvement Company, at the land’s net book value of \$2,545,382.97, which is less than the market value of \$6.023 million as determined by an independent appraisal.²²

Duke Kentucky intends to finance the construction of the West Landfill through continuing operations and debt instruments.²³ Duke Kentucky may request the Commission’s approval of recovery of the project’s costs through a future base rate case or through a future environmental compliance recovery mechanism, but is not requesting cost recovery now in this application.²⁴

Duke Kentucky rejected using a third-party landfill for waste disposal after concluding that the costs associated with this alternative were significantly greater than

¹⁹ Application at 6.

²⁰ Direct Testimony of Tammy Jett at 14.

²¹ *Id.*

²² Application at 7.

²³ *Id.* at 12.

²⁴ Direct Testimony of William Don Wathem Jr. at 5.

the cost of the proposed landfill construction. The estimated annual expense for use of a third-party landfill is \$42 million, as compared to the estimated annual cost of \$8 million to \$9 million per year to construct and operate the proposed landfill.²⁵

DISCUSSION

Extensions in the Ordinary Course of Business

No utility may begin the construction of any facility to be used to provide utility service to the public without first obtaining a CPCN from the Commission, except as noted in KRS 278.020(1). That statute provides, in pertinent part, as follows:

No person, partnership, public or private corporation, or combination thereof shall . . . begin the construction of any plant, equipment, property, or facility for furnishing to the public any of the services enumerated in KRS 278.010, except retail electric suppliers for service connections to electric-consuming facilities located within its certified territory and ordinary extensions of existing systems in the usual course of business, until that person has obtained from the Public Service Commission a certificate that public convenience and necessity require the service or construction.

Of the two exceptions provided for in the CPCN statute, the first is for service connections to electric-consuming facilities and is not applicable here. The second exception is for ordinary extensions of existing systems in the usual course of business. 807 KAR 5:001, Section 15(3), provides that a CPCN shall not be required for construction projects that do not create wasteful duplication of facilities or conflict with the existing service of other jurisdictional utilities operating in the same area and that do

²⁵ Application at 11.

not involve sufficient capital outlay to materially affect a utility's existing financial condition or will not result in increased charges to its customers.

Having reviewed the record and being otherwise sufficiently advised, the Commission finds that the total scope of the proposed West Landfill, at a cost of approximately \$159 million, involves a significant financial investment that would not only materially affect Duke Kentucky's financial condition, but also would certainly result in increased rates to its customers. Even when considering the individual phases of the proposed West Landfill, the Commission finds that the nature of those individual phases would not constitute an extension in the ordinary course of business. We note that the future phases of the West Landfill extend a period of 30 years.²⁶ That being the case, it cannot be known with any degree of certainty whether the currently projected cost for each of the future phases is accurate and reasonable, or whether the scope of the engineering, design, and construction of each future phase will remain the same or be impacted by a future, unknown environmental regulation.

CPCN

Having determined that the proposed West Landfill is subject to the requirements of KRS 278.020(1), we now turn to Duke Kentucky's request for a CPCN to construct the West Landfill. The Commission's standard of review of a request for a CPCN is well settled. No utility may construct or acquire any facility to be used in providing utility service to the public until it has obtained a CPCN from this Commission.²⁷ To obtain a

²⁶ Phase 2 will begin construction in 2019; Phase 3 in 2022; Phase 4 in 2026; Phase 5 in 2030; Phase 6 in 2034; Phase 7 in 2036; Phase 8 in 2039; and the landfill cap in 2045. *See*, Duke Kentucky's response to Commission Staff's First Request for Information, Item 6.

²⁷ KRS 278.020(1).

CPCN, the utility must demonstrate a need for such facilities and an absence of wasteful duplication.²⁸

“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.²⁹

“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.”³⁰ 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.³¹ Selection of a proposal that ultimately costs more than an alternative does not necessarily result in

²⁸ *Kentucky Utilities Co. v. Pub. Serv. Comm’n*, 252 S.W.2d 885 (Ky. 1952).

²⁹ *Id.* at 890.

³⁰ *Id.*

³¹ Case No. 2005-00142, *Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Jefferson, Bullitt, Meade, and Hardin Counties, Kentucky* (Ky. PSC Sept. 8, 2005).

wasteful duplication.³² All relevant factors must be balanced.³³ The statutory touchstone for ratemaking in Kentucky is the requirement that rates set by the Commission must be fair, just and reasonable.³⁴

Having reviewed the record and being otherwise sufficiently advised, the Commission finds that Duke Kentucky has adequately demonstrated a need for an alternative site to store the generator wastes produced by the East Bend Station given that the existing East Landfill is anticipated to reach full capacity within the next three to four years. The Commission further finds that the first phase of the proposed West Landfill is the most reasonable least-cost alternative to address Duke Kentucky's need for a facility to store the East Bend Station generator waste. The Commission will therefore grant a CPCN for the construction of the first phase of the proposed West Landfill. Based on our previously stated concerns that the future phases of this project span a 30-year period, and there is some degree of uncertainty surrounding the cost estimates and the scope of those future phases, the Commission declines to authorize Duke Kentucky a CPCN to construct those phases at this time. Duke Kentucky will be required to obtain a CPCN for each of the future phases of the West Landfill prior to commencing construction on that particular phase of the landfill.

Lastly, the Commission notes that the West Landfill is permitted to receive waste from generating stations other than the East Bend Station. In particular, we note that

³² See *Kentucky Utilities Co. v. Pub. Serv. Comm'n*, 390 S.W.2d 168, 175 (Ky. 1965). See also Case No. 2005-00089, *Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for the Construction of a 138 kV Electric Transmission Line in Rowan County, Kentucky* (Ky. PSC Aug. 19, 2005), Final Order.

³³ Case No. 2005-00089, *East Kentucky Power Cooperative, Inc.* (Ky. PSC Aug. 19, 2005), Final Order at 6.

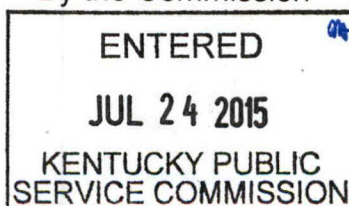
³⁴ KRS 278.190(3).

Duke Kentucky pays for fly ash to be transported from the Permitted Stations, such as Ghent and Spurlock, when needed to produce the Poz-o-tec material. In future CPCN proceedings involving the additional phases of the West Landfill, the Commission will closely examine whether the acceptance of the FGD waste, fly ash, and/or bottom ash from the Permitted Stations, and any other non-Duke Kentucky stations, is cost beneficial and its impact on the useful life of the particular cell of the West Landfill.


IT IS THEREFORE ORDERED that:

1. Duke Kentucky's request for a declaratory order that the construction of the proposed West Landfill constitutes an ordinary extension in the usual course of business is denied.
2. Duke Kentucky's request for a CPCN for the first phase of the proposed West Landfill as described in its application is granted.
3. Duke Kentucky's request for a CPCN for phases 2 through 8 including the landfill cap phase of the proposed West Landfill is denied without prejudice.
4. Duke Kentucky shall file an appropriate application and seek Commission approval for a CPCN prior to commencing construction on each of the phases 2 through 8 and the landfill cap of the proposed West Landfill.

By the Commission



ATTEST:



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