

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF DUKE ENERGY)	
KENTUCKY, INC. FOR A CERTIFICATE OF)	
PUBLIC CONVENIENCE AND NECESSITY TO)	
CLOSE ITS EAST LANDFILL AT THE EAST BEND)	CASE NO.
GENERATING STATION AND FOR APPROVAL)	2021-00290
TO AMEND ITS ENVIRONMENTAL COMPLIANCE)	
PLAN FOR RECOVERY BY ENVIRONMENTAL)	
SURCHARGE MECHANISM)	

ORDER

On September 9, 2021, Duke Energy Kentucky, Inc. (Duke Kentucky) filed an application pursuant to KRS 270.020, KRS 278.183, and 807 KAR 5:001, Section 15, seeking (1) a Certificate of Public Convenience and Necessity (CPCN) for the construction activities necessary for the closure of the East Landfill located at its East Bend Generating Station (East Bend); (2) amendment of its Environmental Compliance Plan (ECP) to include closure costs and other asset retirement obligations (ARO's), including ongoing groundwater monitoring and other landfill and basin maintenance activities related to environmental compliance; (3) recovery of the costs through its Environmental Surcharge Mechanism (ESM), including costs related to the active West Landfill; and (4) any other necessary relief and approvals.¹ Duke Kentucky estimates the

¹ Application at 1.

cost of closing the East Landfill at approximately \$22.6 million.² Yearly maintenance is estimated at \$234,458 for the East Landfill, and \$1,025,000 for the West Landfill.³

The Commission issued an Order on September 22, 2021, establishing a procedural schedule for the processing of this case. The procedural schedule provided for, among other things, a deadline for intervention requests and two rounds of discovery upon Duke Kentucky's application. No party requested intervention in this proceeding. Commission Staff issued, and Duke Kentucky responded to, three rounds of discovery, and on December 9, 2021, Duke Kentucky filed a statement requesting that the matter be submitted for a decision based upon the existing record.

LEGAL STANDARD

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.⁴ To obtain a CPCN, the utility must demonstrate a need for such facilities and an absence of wasteful duplication.⁵

"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

² *Id.* at 6.

³ *Id.* at 7.

⁴ KRS 278.020(1). Although the statute exempts certain types of projects from the requirement to obtain a CPCN, the exemptions are not applicable.

⁵ *Kentucky Utilities Co. v. Pub. Serv. Comm 'n*, 252 S.W.2d 885 (Ky. 1952).

establish an inability or unwillingness to render adequate service.⁶

"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."⁷ To demonstrate that a proposed facility does not result in wasteful duplication, the Commission has held that the applicant must demonstrate that a thorough review of all reasonable alternatives has been performed.⁸ Although cost is a factor, selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication.⁹ All relevant factors must be balanced.¹⁰

Further, Duke Kentucky's ESM and ECP are governed by KRS 278.183 which states:

(1) . . . [A] utility shall be entitled to the current recovery of its costs of complying with the Federal Clean Air Act as amended and those federal, state, or local environmental requirements which apply to coal combustion wastes and by-products from facilities utilized for production of energy from coal in accordance with the utility's compliance plan . . .

(2) Recovery of costs pursuant to subsection (1) of this section that are not already included in existing rates shall be by environmental surcharge to existing rates imposed as a positive or negative adjustment to customer bills in the second month following the month in which costs are incurred. Each

⁶ *Id.* at 890.

⁷ *Id.*

⁸ 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).

⁹ 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.

¹⁰ Case No. 2005-00089, *East Kentucky Power Cooperative, Inc.* (Ky. PSC Aug. 19, 2005), final Order at 6.

utility, before initially imposing an environmental surcharge pursuant to this subsection, shall thirty (30) days in advance file a notice of intent to file said plan and subsequently submit to the commission a plan, including any application required by KRS 278.020(1), for complying with the applicable environmental requirements set forth in subsection (1) of this section. The plan shall include the utility's testimony concerning a reasonable return on compliance-related capital expenditures and a tariff addition containing the terms and conditions of a proposed surcharge as applied to individual rate classes. Within six (6) months of submittal, the commission shall conduct a hearing upon the request of a party, and shall, regardless of whether or not a hearing is requested:

- (a) Consider and approve the plan and rate surcharge if the commission finds the plan and rate surcharge reasonable and cost-effective for compliance with the applicable environmental requirements set forth in subsection (1) of this section;
- (b) Establish a reasonable return on compliance-related capital expenditures; and
- (c) Approve the application of the surcharge.

Therefore, the Commission must determine whether (1) the need for this CPCN arose from compliance with coal combustion waste disposal laws pursuant to its ECP, (2) the costs of compliance were not already included in existing rates, and (3) the ECP and ESM were reasonable and cost-effective. If so, Duke Kentucky is entitled to amend its ECP and recover via an ESM rider.¹¹

BACKGROUND

¹¹ Duke Kentucky's ECP and ESM were approved in Case No. 2017-00321, *Electronic Application of Duke Energy Kentucky, Inc. for: 1) An Adjustment of the Electric Rates; 2) Approval of an Environmental Compliance Plan and Surcharge Mechanism; 3) Approval of New Tariffs; 4) Approval of Accounting Practices to Establish Regulatory Assets and Liabilities; and 5) All Other Required Approvals and Relief* (Ky. PSC Apr. 13, 2018), Order at 81; and amended in Case No. 2018-00156, *Electronic Application of Duke Energy Kentucky, Inc. for a Certificate of Public Convenience and Necessity to Construct Phase Two of Its West Landfill and Approval to Amend Its Environmental Compliance Plan for Recovery by Environmental Surcharge Mechanism* (Ky. PSC Dec. 10, 2018), Order at 11.

East Bend's East Landfill began receiving coal power production waste in 1981.¹² The East Landfill received various forms of waste, including, but not limited to, flue gas desulfurization (FGD) waste, fly ash, and bottom ash.¹³ The East Landfill covers approximately 162 acres, and is nearing its waste disposal capacity.¹⁴ In anticipation of the East Landfill reaching capacity, Duke Kentucky has constructed Cells 1 and 2 of the West Landfill, which was built to replace the East Landfill. Duke Kentucky received Commission approval to begin construction of the West Landfill Cell 1, in Case No. 2015-00089,¹⁵ and approval for construction of Cell 2 in Case No. 2018-00156.¹⁶

In the instant case, due to the East Landfill nearing its disposal capacity, Duke Kentucky requested a CPCN for the construction activities necessary for closure in place of the East Landfill, arguing that closure of the East Landfill is necessary to comply with federal environmental regulations¹⁷ and Kentucky groundwater law.¹⁸ Once a landfill designed to be closed in place reaches capacity, the owner is required to complete

¹² Testimony of Adam S. Deller (Deller Testimony) at 2.

¹³ *Id.*

¹⁴ *Id.* at 2–3.

¹⁵ Case No. 2015-00089, *Application of Duke Energy Kentucky, Inc. for a Declaratory Order That the Construction of a New Landfill Constitutes an Ordinary Extension in the Usual Course of Business or, in the Alternative, for a Certificate of Public Convenience and Necessity* (Ky. PSC July 24, 2015), Order at unnumbered 11.

¹⁶ Case No. 2018-00156, *Duke Energy Kentucky, Inc.* (Ky. PSC Dec. 10, 2018), Order at 11.

¹⁷ Testimony of Tammy Jett at 3–4, referencing the Clean Air Act (CAA) 42 U.S.C. § 7401 et seq. (1990), Hazardous and Solid Waste Management System, Disposal of Coal Combustion Residual (CCR Final Rule), 40 C.F.R. § 257.100 et seq. (2020), Mercury and Air Toxics Standard (MATS Rule), 40 C.F.R. § 60.1 et seq. (1997), Cross State Air Pollution Rule (CSAPR), 40 C.F.R. § 42.01 et seq. (1997), and Steam Electric Effluent Limitation Guidelines (ELG Final Rule), 40 C.F.R. § 423.10 et seq. (1982).

¹⁸ *Id.* at 16–17, referencing 401 KAR 46:110, Section 8–9.

closure within six months.¹⁹ The closure in place plan proposed by Duke Kentucky includes demolition, installation of a drainage system, installation of the final cover system, and required groundwater remediation and protection²⁰ at a total estimated cost of \$22.6 million.²¹ This project will be performed by an outside contractor procured through competitive bidding,²² following issuance of Requests for Information to companies known to have relevant experience, and Requests for Proposals to available and capable contractors.²³ After closure, planned and required yearly maintenance for the East Landfill includes inspection and repair of the final cover system, maintaining the leachate collection and removal system,²⁴ and monitoring groundwater²⁵ at an estimated yearly cost of \$234,458.²⁶ Planned and required yearly maintenance for the West Landfill includes groundwater monitoring, road and ditch maintenance, surface water control features, soil cover installation and erosion filling, landscaping, and inspection at an estimated cost of \$1,025,000.²⁷

According to Duke Kentucky, it did not consider alternatives to the closure in place plan due to the excessive time and cost that would be required to complete closure via

¹⁹ 40 CFR § 257.102(f)(i). Two one-year extensions are permitted for reasons beyond the owner's control. 40 CFR § 257.102(f)(2)(i).

²⁰ *Id.* at 17, referencing 40 C.F.R. § 257.97; 401 KAR 46:110 Section 8.

²¹ See Deller Testimony, Attachment ASD-1 for complete cost breakdown.

²² Deller Testimony at 5.

²³ Duke Kentucky's Response to Commission Staff's Third Request for Information (Staff's Third Request) (filed Feb. 2, 2022), Item 1.

²⁴ *Id.* at 18, *citing* 40 C.F.R. § 257.70.

²⁵ *Id.*, *citing* 40 C.F.R. § 257.90-98.

²⁶ See Deller Testimony, Attachment ASD-2 for complete cost breakdown.

²⁷ Deller Testimony, Attachment ASD-3.

removal of the waste and decontamination.²⁸ Upon questioning by Commission staff, Duke Kentucky explained that the landfill was designed to be closed in place, and the coal ash was mixed with other substances to form poz-o-tec, a concrete-like substance that limits ash contaminants from becoming airborne or leaching into the ground.²⁹ Duke Kentucky asserted that removal would require excavation of 26.4 million tons of this material, crushing it to fit on dump trucks, and transporting it to the nearest commercial landfill over 15 miles away.³⁰ Duke Kentucky estimated that the task would be completed in approximately 22 years if it were to excavate and load trucks with landfill debris 24 hours per day, 365 days per year.³¹ Duke Kentucky stated that, although Federal guidelines allow up to 15 years to close an ash pond via removal if extensions are warranted,³² the deadlines for landfills are significantly shorter. Duke Kentucky claimed that the excavation of this material would also result the risk of contaminant dust entering the air or ground.³³ Duke Kentucky further claimed that, at an estimated \$20 per ton minimum transportation cost and \$33 to \$35 per ton disposal cost,³⁴ the cost of removal would range between \$1.399 billion and \$1.452 billion, excluding the significant cost of excavation.

²⁸ Duke Kentucky's Response to Staff's Third Request, Items 1 and 5.

²⁹ *Id.*, Item 8.

³⁰ *Id.*, Item 5.

³¹ *Id.*, Item 7.

³² *Id.*, Item 2(b), *citing* 40 CFR § 257.102(f)(ii). Extensions of up to 10 additional years are available.

³³ *Id.*, Item 8.

³⁴ *Id.*, Item 5.

In addition to the CPCN, Duke Kentucky also requested amendment of its ECP as a result of the proposed closure of the East Landfill.³⁵ Duke Kentucky sought to recover the costs of the environmental protection measures via its ESM rider, by updating the rider to reflect the cost of the East Landfill closure and the yearly maintenance costs for both landfills. Duke Kentucky provided a calculation of the amortization of the ESM,³⁶ including a calculation of billing increases ranging from 1.1604 percent to 4.8468 percent over the first two years then between 0.2067 percent and 0.3678 percent for subsequent years until 2053, depending on rate class.³⁷

DISCUSSION AND FINDINGS

The Commission notes that Duke Kentucky constructed the East Landfill to ensure continued operation of East Bend and mitigate its cost of waste disposal by eliminating transportation costs and third-party disposal rates. As a result, Duke Kentucky is subject to federal and state environmental protection laws and associated permitting that dictate the steps, requirements, and conditions related to landfill closure. The Commission finds that Duke Kentucky has established a need to close the East Landfill due to it reaching its disposal capacity and that the closure must be completed following federal and state environmental mandates. Duke Kentucky also established, after Commission staff explored the issue, a lack of wasteful duplication by demonstrating that its proposal is a reasonable, least-cost alternative when compared to other alternatives. The purported

³⁵ Testimony of Cecil T. Gurganus, Attachment CTG-1; See Case No. 2018-00156, *Duke Energy Kentucky, Inc.* (Ky. PSC Dec. 10, 2018), Order at 11.

³⁶ Testimony of Theodore H. Czupik, Jr. (Czupik Testimony), Attachments THC-1, THC-2, and THC-3.

³⁷ Czupik Testimony, Attachment THC-3. Residential rates would increase from current rates by 1.9613% in 2022, 4.8468% in 2023, 0.3678% in 2024, and 0.3489% yearly from 2035 to 2053.

22-year time period required for closure by excavation would prevent timely compliance with federal law, and the excavation and removal cost would be significantly higher than onsite disposal. Further, the use of a competitive bidding system involving issuance of Requests for Information to companies known to have relevant experience and issuance of Requests for Proposals to available and capable contractors supports the reasonableness of the final costs to be incurred. For the reasons set forth above and having reviewed the record and being otherwise sufficiently advised, the Commission finds that Duke Kentucky's request for a CPCN for the construction activities necessary for the closure of the East Landfill is approved.

The Commission also finds that Duke Kentucky's requests to amend its ECP and recover associated costs via ESM rider are approved. The construction activities approved by this Order and the existing West Landfill CPCN³⁸ were required by environmental laws regulating coal combustion and the associated costs have not otherwise been recovered in Duke Kentucky's rates. The approval of these CPCNs was based on findings that the landfill closure and maintenance plans chosen were reasonable, least-cost options. Therefore, the Commission finds that the ECP and ESM rider are also reasonable and cost effective and are approved pursuant to KRS 278.183. Duke Kentucky shall modify its ESM tariff to change the tariff issue and effective date, and to include the costs for the East Landfill closure and maintenance and West Landfill maintenance.³⁹

IT IS THEREFORE ORDERED that:

³⁸ Case No.2018-00156, *Duke Energy Kentucky, Inc.* (Ky. PSC Dec. 10, 2018), Order at 11.

³⁹ K.Y.P.S.C. No. 2, Sheet No. 76.

1. Duke Kentucky's request for a CPCN for the construction activities related to closure of the East Landfill as described in its application is granted.

2. Duke Kentucky's request to amend its ECP for purposes of recovering the costs of the closure and maintenance of the East Landfill and the maintenance of the West Landfill through its ESM is granted.

3. Duke Kentucky's request to recover its unrecovered construction, maintenance, closure, and post-closure maintenance costs of the East Landfill and unrecovered maintenance costs of the West Landfill through its ESM is granted.

4. Within 20 days of the date of this Order, Duke Kentucky shall file with the Commission, using the Commission's electronic Tariff Filing System, revised tariff sheets setting forth the rates, charges, and modifications approved or as required in this Order, and reflecting their effective date and that they were authorized by this Order.

5. Duke Kentucky shall submit status update reports on the closure project every three months from the date of this Order, which shall include, among other things, detailed information regarding the amount spent to date, the amount spent during the reporting period, the projected budget for the next reporting period, the total projected cost of the project, construction activities that occurred during the reporting period, and the construction activities for the next reporting period.

6. Any documents filed in the future pursuant to ordering paragraph 5 shall reference this case number and shall be retained in the utility's general correspondence files.

7. This case is closed and is removed from the Commission's docket.

By the Commission

ENTERED
MAR 04 2022 rcs
KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:

Nancy Vinsel for
Executive Director

Case No. 2021-00290

*Debbie Gates
Duke Energy Kentucky, Inc.
139 East Fourth Street
Cincinnati, OH 45201

*Duke Energy Kentucky, Inc.
139 East Fourth Street
Cincinnati, OH 45202

*Minna Sunderman
Duke Energy Kentucky, Inc.
139 East Fourth Street
Cincinnati, OH 45201

*Rocco O D'Ascenzo
Duke Energy Kentucky, Inc.
139 East Fourth Street
Cincinnati, OH 45201