

Andy Beshear
Governor

Rebecca W. Goodman
Secretary
Energy and Environment Cabinet



Commonwealth of Kentucky
Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, Kentucky 40602-0615
Telephone: (502) 564-3940
psc.ky.gov

Angie Hatton
Chair

Mary Pat Regan
Commissioner

John Will Stacy
Commissioner

MEMORANDUM

TO: Robert Stivers, Senate President
David W. Osborne, Speaker of the House

FROM: Linda C. Bridwell, PE
Executive Director
Kentucky Public Service Commission

A handwritten signature in blue ink that reads "Linda C. Bridwell".

DATE: November 30, 2024

RE: 2024 Electric Generation Retirement Report

Attached please find the report from the Kentucky Public Service Commission (PSC) with regard to Electric Generation Retirements. As you know, Senate Bill 4, an act relating to the retirement of fossil fuel-fired electric generating units, was enacted during the 2023 Regular Session of the Kentucky General Assembly. Section 2 of the act, codified as KRS 278.264, requires utilities regulated by the PSC to apply to the PSC for approval to retire fossil fuel-fired generating units and directed the PSC to prepare and submit an annual report to the Legislative Research Commission by December 1 of each year regarding such applications for retirement approval. This report is submitted as the second annual report in fulfillment of that legislative mandate.

Please do not hesitate to contact me if you have any questions or concerns.

Retirement of
Fossil Fuel-Fired
Electric Generating Units
in Kentucky

A Report to the
Kentucky General Assembly
Prepared Pursuant to
Kentucky Revised Statutes 278.264

by the
Kentucky Public Service Commission

December 1, 2024

Executive Summary

Senate Bill 4, an act relating to the retirement of fossil fuel-fired electric generating units, was enacted during the 2023 Regular Session of the Kentucky General Assembly. Section 2 of the act, codified as KRS 278.264, requires utilities regulated by the Kentucky Public Service Commission (PSC) to apply to the PSC for approval to retire fossil fuel-fired generating units and directed the PSC to prepare and submit an annual report to the Legislative Research Commission by December 1 of each year regarding such applications for retirement approval. This report is submitted as the first annual report in fulfillment of that legislative mandate.

KRS 278.264(4) required that the annual report detail the following items:

- (a) The number of requests by utilities to retire electric generating units in the Commonwealth, the nameplate capacity of each of those units, and whether the request was approved or denied by the PSC;
- (b) The impact of any PSC-approved retirement of an electric generating unit on the:
 - 1. Commonwealth's generation fuel mix;
 - 2. Required capacity reserve margins for the utility;
 - 3. Need for capacity additions or expansions at new or existing facilities as a result of the retirement; and
 - 4. Need for additional purchase power or capacity reserve arrangements; and
- (c) Whether the retirement resulted in stranded costs for the ratepayer that will be recovered by the utility through a surcharge or some other separate charge on the customer bill.

One application was received in 2023. As of November 30, 2024, no additional applications for the retirement of fossil fuel-fired generating units have been submitted.

Background

Pursuant to KRS Chapters 74, 278, 279, and parts of 61, the PSC is obligated to ensure that rates for electric, gas, water, sewer, and telecommunications services are fair, just and reasonable. In addition to its regulation of utility rates, the PSC is also responsible for ensuring that utility services are adequate, efficient and reasonable. The nearly 1,100 utilities under the PSC jurisdiction include investor-owned and cooperative electric companies, natural gas distributors and pipeline companies, water and sewer providers including districts, associations and investor-owned utilities, and cooperative telephone companies. The PSC does not regulate the rates and service of utilities subject to the control of cities or rural electric cooperatives served by the Tennessee Valley Authority (TVA).

The PSC also houses and staffs the Kentucky State Board on Electric Generation and Transmission Siting (Siting Board). Created by the Kentucky General Assembly in 2002, the Siting Board adjudicates the location and impact of merchant generation and transmission. These are electric facilities within the Commonwealth engaged in interstate commerce and not owned by Kentucky utilities. The three Commissioners of the PSC serve as ex officio members of the Siting Board.

The PSC is one of the few agencies in state government whose mission has the ability to financially and directly impact nearly every citizen in the Commonwealth. Utility service is a necessary but costly requirement for a 21st century economy. The PSC's mandate to ensure utility rates are fair, just and reasonable is as important today as it has been anytime over the PSC's almost 90-year history. As a regulatory agency, the PSC must adhere to its statutory mandates to protect customers while ensuring robust utility infrastructure; both of which are necessary for a vibrant economy. The Commission is responsible for performing in-depth financial, legal and operational reviews of every case filed.

Electric utility regulation is bifurcated. Retail regulation is conducted by the PSC, while transactions that are interstate in function are regulated at the federal level, by the Federal Energy Regulatory Commission (FERC). The PSC may need to approve a Kentucky utility to build a transmission line, but the rates charged to utilities across the country who may want to move their electricity across that line are regulated by FERC. As part of its regulation, FERC authorizes a number of regional transmission organizations, or RTOs. These RTOs are an accumulation of utilities and their generation and transmission, as well as merchant facilities not owned by incumbent utilities. This added layer of regulation and markets adds a significant amount of complexity to what the PSC does. Four of the PSC's jurisdictional electric utilities are members of RTOs: Duke Energy Kentucky, Inc. (Duke Kentucky), East Kentucky Power Cooperative, Inc. (EKPC) and Kentucky Power Company (Kentucky Power) are members of PJM Interconnection, LLC (PJM); and Big Rivers Electric Corporation (Big Rivers) is a member of the Midcontinent Independent System Operator, Inc. (MISO).

PJM is a regional transmission organization that coordinates the movements of wholesale electricity in all or parts of 13 states, including Kentucky, and the District of Columbia. PJM also operates a competitive wholesale electricity market and manages the high-voltage electricity grid to ensure reliability for customers within its footprint. Like PJM, MISO is a regional transmission organization that coordinates and controls the high-voltage transmission system in all or parts of

15 states, including Kentucky, and Manitoba, Canada. MISO also manages a competitive energy market.

This background information is intended only to outline some of the regulatory complexities faced in the electric generation regulatory environment.

Item 1

The number of requests by utilities to retire electric generating units in the Commonwealth, the nameplate capacity of each of those units, and whether the request was approved or denied by the PSC.

During 2024, the PSC received no applications to retire fossil fuel-fired generating units in Kentucky.

Item 2

The impact of any PSC-approved retirement of an electric generating unit on the: (1) Commonwealth's generation fuel mix; (2) Required capacity reserve margins for the utility; (3) Need for capacity additions or expansions at new or existing facilities as a result of the retirement; and (4) Need for additional purchase power or capacity reserve arrangements.

Since no retirements have been requested, the impact of any PSC-approved retirement on the electric generation fuel mix, required capacity reserve margins for any applicant utility, need for additional generation capacity as a result of a proposed retirement, or need for additional power or capacity purchases have remained unchanged. Data regarding the Commonwealth's generation fuel mix is from the Energy Information Administrations' Energy Atlas as provided by the Kentucky Office of Energy Policy. The Commonwealth currently has 53 generation facilities with a total nameplate GW capacity of 21.7. The GW capacity by primary fuel source and impact of the PSC-approved retirements in 2023, including the generation previously approved to replace the retiring units pursuant to the standard in Senate Bill 4, is listed in Table 1. Importantly, the Commonwealth's generation mix includes generation not owned by utilities regulated by the PSC, including merchant generation, and generation owned by the TVA and municipalities.

Table 1: Current Generation Mix and Effect of Approved Retirements and Replacement Capacity

Fuel	Current Capacity (GW)	Current Capacity Mix (%)	Impact of 2023 approved Retirements on Capacity (GW)	Impact of 2023 approved Retirements (%)
Coal	11.3	52.17	10.7	49.40
Natural Gas	9.0	41.55	9.6	44.32
Hydroelectric	1.1	5.08	1.1	5.26
Biomass	0.1118	0.52	0.1118	0.52
Solar	0.1292	0.60	0.1292	0.60
Petroleum	0.02	0.09	0.02	0.09

Item 3

Whether the retirement resulted in stranded costs for the ratepayer that will be recovered by the utility through a surcharge or some other separate charge on the customer bill.

The PSC has received no application to retire any fossil-fuel generation facility in 2024. Thus, no resulting stranded costs for the ratepayer have occurred as a result of a PSC-approved retirement.