

Commonwealth of Kentucky

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ROBERT STIVERS
PRESIDENT OF THE SENATE

August 18, 2023

Kent A. Chandler
Chairman
Kentucky Public Service Commission
P.O. Box 615
211 Sower Boulevard
Frankfort, KY 40601-0615

Angie Hatton
Vice Chairman
Kentucky Public Service Commission
P.O. Box 615
211 Sower Boulevard
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Mary Pat Regan
Commissioner
Kentucky Public Service Commission
P.O. Box 615
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Frankfort, KY 40601-0615

Dear Chairman Chandler, Vice Chairman Hatton, and Commissioner Regan:

I am submitting the following comments regarding the matter of *Electronic Joint Application of Kentucky Utilities Company Louisville Gas and Electric Company for Certificates of Public Convenience and Necessity and Site Compatibility Certificates and Approval of a Demand Side Management Plan and for Approval Seven Fossil Fuel-Fired Generating Unit Retirements*, Case No. 2022-00402.

I have grave concerns regarding the Applicants' request for an order authorizing the retirement of seven (7) fossil fuel-fired electric generating units. Credible industry projections and recent experiences in Kentucky and Texas demonstrate that our nation is moving far too quickly to shut down fossil fuel-fired units and especially those units fired by coal. This precipitous movement away from coal-fired units poses a serious and imminent risk to our power grid. The citizens and businesses throughout the Commonwealth of Kentucky deserve fair, just and reasonable rates from the utilities that serve them. They also deserve a reliable energy source that they can always

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depend on. Authorizing the premature retirement of the Applicants' fossil fuel-fired electric generating units will severely compromise our electric energy grid and result in the denial of reliable energy to our citizens and businesses. It is imperative that the Public Service Commission ("PSC") carefully scrutinize the Applicants' applications and all testimony and other proof taken in this action and deny their requests if they are unable to meet their burden set forth in KRS 278.264 to rebut the presumption against the retirement of their fossil fuel-fired electric generating units.

As you are aware, during its 2023 Regular Session the Kentucky General Assembly engaged in considerable debate and discussion regarding the importance of maintaining a reliable and resilient electric energy grid that provides the citizens and businesses throughout the Commonwealth of Kentucky with reliable and affordable energy. This debate and discussion culminated in the enactment of Senate Bill 4 (An Act relating to the retirement of fossil fuel-fired electric generating units and declaring an emergency.) that is codified at KRS 278.264. This case is the first case filed with the PSC pursuant to KRS 278.264 which states in part:

- (2) There shall be a rebuttable presumption against the retirement of a fossil fuel-fired electric generating unit. The commission shall not approve the retirement of an electric generating unit, authorize a surcharge for the decommissioning of the unit, or take any other action which authorizes or allows for the recovery of costs for the retirement of an electric generating unit, including any stranded asset recovery, unless the presumption created by this section is rebutted by evidence sufficient for the commission to find that:
 - (a) The utility will replace the retired electric generating unit with new electric generating capacity that:
 1. Is dispatchable by either the utility or the regional transmission organization or independent system operator responsible for balancing load within the utility's service area;
 2. Maintains or improves the reliability and resilience of the electric transmission grid; and
 3. Maintains the minimum reserve capacity requirement established by the utility's reliability coordinator;
 - (b) The retirement will not harm the utility's ratepayers by causing the utility to incur any net incremental costs to be recovered from ratepayers that could be avoided by continuing to operate the electric generating unit proposed for retirement in compliance with applicable law; and
 - (c) The decision to retire the fossil fuel-fired electric generating unit is not the result of any financial incentives or benefits offered by any federal agency.

I am most concerned about the Applicants' ability to adequately demonstrate that they will replace the seven (7) fossil fuel-fired electric generating units with new electric generating capacity that maintains or improves the reliability and resilience of the electric transmission grid. Recent events in Kentucky and in Texas suggest that the Applicants will not be able to meet their burden of proof required to merit an order from the PSC authorizing the retirement of their seven (7) fossil fuel-fired electric generating units.

Recent catastrophic events, grid failures, energy supply and demand projections, and regulatory developments particularly at the federal level give us great concern that our electric grid is being threatened and that our citizens and businesses in the Commonwealth face the prospect of blackouts and brownouts and substantial increases in energy costs. For the health and safety of our citizens and for economic prosperity and growth in the Commonwealth, it is incumbent on all of us, including the PSC, to take appropriate action to maintain a reliable and resilient energy grid that consistently provides affordable energy.

History demonstrates that energy blackouts pose a substantial risk to the convenience, well-being, health, and safety of our citizens who rely upon the utilities to provide warmth in cold winter months, relief from the summer heat, the ability to cook meals, and countless other basic necessities. Blackouts also pose substantial risks to our businesses. Hospitals must have a reliable source of energy to properly protect and serve their patients. Industrial plants must have energy to consistently and efficiently produce their products and keep our citizens employed. The severe winter storm that hit Kentucky and the entire region just before Christmas of last year provided substantial reason for concern about the current and future reliability and resiliency of our electric power grid. Heavy snow and frigid temperatures lead to significant power outages in Kentucky rendering tens of thousands of our citizens without the ability to heat their homes. At least three (3) deaths in Kentucky were attributed to this winter storm. Many of the power outages were attributed to a single frozen valve on a natural gas pipeline. On February 2, 2023, representatives of the pipeline company appeared before our Senate Standing Committee on Natural Resources and Energy to speak about the circumstances surrounding the failure of the valve and the resulting pipeline shutdown. Utility representatives also appeared before the committee to speak about the planned electric service outages resulting from the December 2022 winter events. These events had a profound adverse impact on our citizens literally leaving them in the cold and on our businesses that were without power. While the impact of the Kentucky winter storm was substantial, the impact would have been far worse if these events had occurred at a time other than during the Christmas holidays when schools and many businesses are closed and manufacturing plants often reduce operations or shut down for plant maintenance substantially reducing the power demands. These events demonstrate the inherent risks associated with heavy reliance on natural gas transported by pipeline from in state or out of state for our energy needs.

The severe winter storm that hit Kentucky in December and the resulting power outages are reminiscent of the Texas power crisis in February of 2021 that resulted from three severe winter storms that swept across the United States. These storms caused the worst energy infrastructure failure in Texas state history in which 246 people died, over 13 million people were left without electricity, and insurance claims for property damage and other economic loss exceeded \$10 billion. If Kentucky's power grid is compromised by the retirement of one or more of the Applicants' seven (7) fossil fuel-fired electric generating units, Kentucky could face long-term blackouts that could have much more severe consequences to our citizens and businesses than the December 2022 event.

The Applicants propose to replace the retired electric generating unit with new electric generating capacity to be supplied by two (2) natural gas combined cycle (“NGCC”) units (621 MW each), two (2) solar facilities owned and dispatch by the Applicants (120 M Wac each), a 125 MW four-hour (500 M Wh total) battery energy storage system, and four (4) solar Power Purchase Agreements (“PPAs”) totaling 637 MW. The natural gas units will dependent on the transmission of gas from in state or out of state which is the same power generating system that failed in Kentucky in December of 2022 caused by a single frozen valve. There are many ways that a gas pipeline transmitting natural gas over hundreds or thousands of miles can be compromised including, but not limited to, a single frozen valve, accidental breach of the pipeline through farm or other equipment, earthquakes, and sabotage. In contrast, at a coal-fired unit, a thirty (30) to sixty (60) day supply of coal or longer is on the ground at the unit. The solar facilities and Power Purchase Agreements provide intermittent sources of energy that should not be relied upon to assure grid stability. This application raises the additional issue pursuant to KRS 278.264(2)(c) of whether the Applicants received financial incentives or benefits offered by any federal agency to provide solar power as a replacement for at a portion of the power provided by the fossil fuel-fired electric generating units. In any event, I do not believe that substituting two (2) natural gas combined cycle units and solar energy for seven (7) fossil fuel-fired electric generating units maintains or improves the reliability and resilience of the electric transmission grid as required by KRS 278.264 for the PSC’s approval of the retirement of the fossil fuel-fired electric generating units.

On February 14, 2023, PJM, which as you know is one of the regional transmission organizations (RTO) that coordinates the movement of wholesale electricity in Kentucky, issued a white paper entitled *Energy Transmission in PJM: Resource Retirements, Replacements & Risks*. PJM notes four troubling trends that pose risks to the power grid.

“Our research highlights four trends below that we believe, in combination, present increasing reliability risks during the transition, due to a potential timing mismatch between resource retirements, load growth and the pace of new generation entry under a possible ‘low new entry’ scenario:

- The growth rate of electricity demand is likely to continue to increase from electrification coupled with the proliferation of high-demand data centers in the region.
- Thermal generators are retiring at a rapid pace due to government and private sector policies as well as economics.
- Retirements are at risk of outpacing the construction of new resources, due to a combination of industry forces, including siting and supply chain, whose long-term impacts are not fully known.
- PJM’s interconnection queue is composed primarily of intermittent and limited-duration resources. Given the operating characteristics of these resources, we need multiple megawatts of these resources to replace 1 MW of thermal generation.”

This report confirms my concern expressed in the mandates set forth in Senate Bill 4 regarding the premature retirement of fossil fuel-fired generating units in Kentucky and the threats that these retirements pose to maintaining a reliable and resilient electric energy grid.

On August 3, 2023, Asim Z. Haque, Vice President of State & Member Services for PJM and Timothy C. Burdis, Senior Manager of State Policy Solutions for PJM appeared before our Interim Joint Committee on Natural Resources and Energy on the topic of “Ensuring a Reliable Energy Transition.” Mr. Haque testified that PJM’s primary focus is reliability of the electric power grid. He expressed concerns regarding being in an energy “supply crunch” by the end of this decade. He anticipates significant load growth because of the movement to electrification and data systems. He also anticipates the retirement of 40 GW of power in the PJM system by the end of this decade with approximately 60% of those retirements being coal-fired units. With load increasing and the anticipated retirements there are serious questions concerning the reliability of the energy grid.

I trust that you will carefully and thoroughly review the Applicants’ application, the testimony and other proof presented and strictly hold the Applicants to their burden of proof set forth in KRS 278.264. The reliability of our electric power grid at all times is essential to protect the health, safety, and welfare of the citizens of our Commonwealth, to support our businesses and their employees, and to allow for continued economic prosperity and growth.

Sincerely,



Robert Stivers
President of the Senate
25th Senatorial District