EAST KENTUCKY POWER COOPERATIVE

April 7, 2023

President Joseph R. Biden
The White House
1600 Pennsylvania Avenue, N.W.
Washington, DC 20500

President Biden,

While Americans were preparing for 2022's Christmas holiday weekend, the eastern half of the United States was slammed by a winter storm that brought extreme cold temperatures and high winds, pushing electric generators to their limits. Grid operators scrambled to keep power – and heat – flowing to millions of homes and businesses. In some parts of the country, grid operators had to resort to controlled, rolling electric blackouts in order to prevent uncontrolled, cascading outages and possible damage to critical electric infrastructure. In other parts of the country, grid operators utilized an array of emergency operations procedures that, while avoiding rolling blackouts, were critical to reliably serving the electricity needs of customers during extreme cold temperatures. Had the severe temperatures and wind chill struck at some time other than a holiday, it is very likely that the impacts would have been more acutely negative and more customers would have experienced power outages.

Thankfully, the extreme cold temperatures of Christmas 2022 lasted only a few days, allowing most Americans to return to their normal routines following the holiday weekend. Indeed, most Americans are very likely unaware of just how close the electric grid came to widespread power outages. Of course, those of us in the electric industry were reminded of the 2021 Texas winter storm that left 250+ people dead due to power outages during an extreme cold-weather event. I am grateful that scene did not repeat itself here in Kentucky or in the population centers of the eastern United States.

The issues experienced during the Christmas 2022 winter storm further highlight how reliability is becoming more and more compromised by policies and regulations that ignore the **electric generation capabilities** and **fuel supply** needed to ensure sufficient power supplies to meet needs in all hours of the day, in all seasons of the year. The chorus of concerned electric industry stakeholders is growing. For instance, the entity responsible for establishing reliability criteria for the nation, the North American Electric Reliability Corporation (NERC), is echoing the

4775 Lexington Road 40391
P.O. Box 707, Winchester,
Kentucky 40392-0707
Tel. (859) 744-4812
Fax: (859) 744-6008
http://www.ekpc.com
A Touchstone Energy Cooperative

concerns I have previously voiced. In November, just one month prior to the Christmas 2022 storm, NERC released its winter reliability assessment for 2022-23. The key finding in the report was, "A large portion of the North American (bulk power system) is at risk for insufficient electricity supplies during peak winter conditions."[1]

The PJM Interconnection region bore the brunt of the Christmas 2022 winter storm. PJM had been undertaking an analysis of generation units at risk for retirements due to various federal and state policies as well as market economics to inform an ongoing discussion about market design reforms that are needed to ensure the region remains capable of providing reliable electric service. PJM released the report in February[2] and, very shortly afterward, its Board of Managers kicked off an expedited stakeholder process to develop the necessary market reforms.[3]

PJM's analysis looked at resource adequacy[4] between now and 2030, a significant period in the energy transition. The analysis found that 40 gigawatts (GW) of power plant capacity—a mind-boggling 21 percent of PJM's current installed capacity—is at risk of retirement in the next eight years.[5] An independent analysis indicates that, when taking into account the full impact of EPA regulations and the recently passed Inflation Reduction Act, coal retirements could be much higher than forecasted.[6] At the same time, demand for electricity will continue to grow; some zones are forecasted to see demand growth as high as 7 percent due to developing data centers alongside the continued electrification of sectors like transportation.[7]

The biggest driver of projected plant retirements in PJM's area is the ongoing regulatory assault on coal plants by federal and state regulators. The EPA's Coal Combustion Residuals rule, Effluent Limitation Guidelines and Good Neighbor Rule, along with aggressive state mandates in states like Illinois and New Jersey are having their intended effect; dependable coal plants are shutting down.

---

[1] NERC, "2022-2023 Winter Reliability Assessment," November 2022, page 4. Downloaded from https://www.nerc.com/pa/RAPA/ra/Pages/default.aspx

[2] PJM Interconnection, "Energy Transition in PJM: Resource Retirements, Replacements & Risks." Feb. 24, 2023. Downloaded from https://insidelines.pjm.com/pjm-details-resource-retirements-replacements-and-risks.

[3] Letter, M. Takahashi to PJM Stakeholders, Feb. 24, 2023. Downloaded from https://pjm.com/-/media/about-pjm/who-we-are/public-disclosures/20230224-board-letter-re-initiation-of-the-critical-issue-fast-path-process-to-address-resource-adequacy-issues.ashx

[4] "Maintaining an adequate level of generation resources, with the right operational and physical characteristics, is essential for PJM's ability to serve electrical demand through the energy transition." PJM, page 1.

[5] PJM, page 2.

[6] March 6, 2023 letter from America's Power President & CEO M. Bloodworth to PJM Chairman M. Takahashi & President/CEO M. Asthana. Downloaded from https://go.pjm.com/e/678183/r-re-pjm-coal-retirements-ashx/96g9v/760267915?h=nl8sXMVDIOHTj8gVvOmevMvcEU4uUOwJ4nHN_obeiQE

[7] PJM, page 2.

PJM's analysis indicates 90 percent of the power plants at risk of retirement are fueled by coal or natural gas. What will replace these dependable thermal resources? In the lineup of proposed generation projects in PJM's footprint, 94 percent are renewable projects and 6 percent are natural gas. While one may be tempted to take heart in the fact that PJM's queue features 290 GW of proposed projects to replace the forecasted 40 GW of retirements, the RTO warns, "[T]he historical rate of completion for renewable projects has been approximately 5%. The projections in this study indicate that the current pace of new entry would be insufficient to keep up with expected retirements and demand growth by 2030."[8]

Even if many of those renewable projects get built, the fact remains that a megawatt of renewable capacity simply is not the same as a megawatt of dependable gas, nuclear or coal capacity. "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."[9] Moreover, the new resources would need to be constructed and on-line before the existing resources retire. There are significant challenges to accomplishing that over the next eight to 10 years. Plus, it is likely that a large portion of those replacement resources will be needed in a much shorter timeframe as a large portion of retirements, with as much as 10 GW of coal retirements taking place by the end of 2025.[10] To summarize these findings from the experts charged with assuring the stable operation of the electric grid, when it comes to meeting the electricity demands of customers, the United States is losing ground for the first time in its history.

I have significant concern that doing nothing to change the course of projected retirements will lead to more frequent rolling blackouts, economic loss and potential loss of life. I also have concern that policy makers are not doing enough to secure the fuel supply needed for natural gas generators that are bearing more and more responsibility to ensure reliability. As America permanently closes and does not replace highly dependable coal and nuclear power plants with similar technologies, natural gas is filling the gap for always-available electricity. Natural gas has doubled its share of annual kilowatt-hour production over the last decade and is taking on rapidly increasing responsibility for keeping the lights, heat and air-conditioning running when the sun is not shining or wind is not blowing. For the most part, natural gas power plants receive fuel via pipelines as they use it. If something happens upstream to disrupt gas flow, as happened during the Christmas 2022 winter storm, power plants very quickly run out of fuel. Few power plants have significant on-site storage of gas or backup fuel, and the Christmas 2022

---

[8] PJM, page 2.
[9] PJM, page 1.
[10] M. Bloodworth letter.

winter storm demonstrated that even plants with some onsite fuel storage can only operate for just a few days without access to fuel from pipelines.

EKPC experienced this very issue during the Christmas 2022 winter storm. Mechanical issues caused pipeline companies to cut gas service to all of our natural gas power plants. Fortunately, EKPC has invested in on-site storage of backup fuel oil, providing a temporary reprieve to keep those plants running until warmer weather came and gas service was restored. If the extreme cold weather had lasted another day, however, we would have depleted our backup fuel and those plants would have been unavailable to make electricity.

Since America's policy-makers are methodically pushing 24/7/365 electricity generation to natural gas, it is reasonable to look at what the nation is doing to expand its natural gas pipeline infrastructure and to ensure that natural gas supplies are available to fuel gas generation when needed, including on extreme cold winter days. The answer is truly alarming: not much. In 2022, the U.S. added the least interstate natural gas pipeline capacity since record-keeping began.[11] Although The U.S. is doing little to build pipelines to move gas to its own power plants, the nation is rapidly building terminals to export natural gas overseas. Driven by the Ukraine war and Europe's energy struggles, the U.S. has become a key supplier of natural gas, leading to extreme price volatility for U.S. consumers. Moreover, there is no obligation on the part of natural gas suppliers to ensure that their supplies are reliably produced and injected into the pipelines. Unlike the electricity industry, there are no reliability standards for the gas industry. For electric providers increasingly dependent on natural gas, these trends paint an alarming scene of declining gas-delivery reliability alongside heightened price volatility.

We need your help to keep the electricity reliably flowing 24/7/365. I request your administration's assistance in protecting the reliability of America's power grid. As America transitions to renewables and reduces its carbon footprint, please ensure we do so at a pace that protects reliability. Keep dependable coal, nuclear and natural gas plants running until we are certain they are no longer needed, meaning we have resources in place to reliably store massive amounts of renewable energy and release it as needed, perhaps for a number of days with replenishing storage. In the interim, as we become more dependent on natural gas as the last line of defense for reliable electric service, ensure we have the pipeline infrastructure and reliability standards in place to ensure power plants can get the needed fuel. I strongly recommend a **U.S. Reliability Portfolio Standard** to ensure keeping the lights on receives the attention and priority it deserves during this transition.

---

[11] U.S. Energy Information Administration, "The least U.S. interstate natural gas pipeline capacity on record was added in 2022," March 2, 2023. Downloaded from https://www.eia.gov/todayinenergy/detail.php?id=55699

I agree with a statement made by Jim Matheson, CEO of the National Rural Electric Cooperative Association, just weeks before the Christmas 2022 storm: "As the demand for electricity risks outpacing the available supply during peak winter conditions, consumers face an inconceivable but real threat of rolling blackouts. It doesn't have to be this way. But absent a shift in state and federal energy policy, this is a reality we will face for years to come."[12] As the CEO of a rural electric cooperative that serves over 1.1 million Kentuckians who deserve reliable and affordable power in some of the nation's most economically challenged communities, I remain hopeful your administration will recognize, acknowledge and take responsible action.

Sincerely,

Anthony "Tony" Campbell
President & CEO

CC: Governor Andy Beshear
U.S. Energy Cabinet Secretary Jennifer Granholm
FERC Chairman Willie L. Phillips
Senate Minority Leader Mitch McConnell
U.S. Senator Rand Paul
U.S. Senator Joseph Manchin
Congressman Andy Barr
Congressman Hal Rogers
Congressman Brett Guthrie
Congressman James Comer
Congressman Thomas Massie
Congressman Morgan McGarvey
Kentucky Senate President Robert Stivers
Kentucky House Speaker David Osborne
Kentucky Attorney General Daniel Cameron
Kentucky Energy and Environment Secretary Rebecca Goodman
Kentucky PSC Chairman Kent A. Chandler
Kentucky PSC Vice Chairman Angie C. Hatton
Kentucky PSC Commissioner Mary Pat Regan

[12] NRECA, Nov. 17, 2022, "NRECA's Matheson: NERC Winter Reliability Assessment 'Clear and Constant Warning' to Policymakers." Downloaded from: https://www.electric.coop/nrecas-matheson-nerc-winter-reliability-assessment-clear-and-constant-warning-to-policymakers