

INTERIM JOINT COMMITTEE ON NATURAL RESOURCES AND ENERGY

Minutes of the 3rd Meeting of the 2023 Interim

August 3, 2023

Call to Order and Roll Call

The 3rd meeting of the Interim Joint Committee on Natural Resources and Energy was held on August 3, 2023, at 1:00 PM in Room 154 of the Capitol Annex. Representative Jim Gooch Jr., Chair, called the meeting to order, and the secretary called the roll.

Present were:

Members: Representative Jim Gooch Jr., Co-Chair; Senator Adrienne Southworth, Senator Johnnie Turner, Senator Robin L. Webb, Senator Phillip Wheeler, Representative John Blanton, Representative Adam Bowling, Representative Lindsey Burke, Representative Beverly Chester-Burton, Representative Myron Dossett, Representative Patrick Flannery, Representative Chris Fugate, Representative Al Gentry, Representative Daniel Grossberg, Representative DJ Johnson, Representative Bobby McCool, Representative Tom Smith, Representative Bill Wesley, and Representative Richard White.

Guests: Asim Z. Haque, Vice President, State & Member Services, PJM Interconnection, LLC (PJM); and Timothy C. Burdis, Senior Manager, State Policy Solutions, PJM.

LRC Staff: Stefan Kasacavage, Kayla Carroway, Tanya Monsanto, Rachel Hartley, and Emily Wiley.

Approval of minutes for the meeting of July 20, 2023

A motion to approve the minutes was made by Representative Fugate and seconded by Representative Johnson. The minutes were approved by voice vote.

Ensuring a Reliable Energy Transition

Asim Haque stated that PJM is the regional grid operator for 13 states, which includes about half of Kentucky, and the District of Columbia. Kentucky transmission owners include East Kentucky Power Cooperative, Duke Kentucky, and Kentucky Power. Mr. Haque briefly described the process of power delivery and PJM's involvement. PJM and nine other grid operators in North America are involved in the generation and transmission of power. Distribution of power is typically regulated by state and local governments. PJM's core mission is reliability. It accomplishes this goal through operations, planning, and markets to keep costs low for consumers.

In response to Chair Gooch, Mr. Haque affirmed that states that allow utilities to construct their own power generation facilities without state approval are considered deregulated or restructured.

Mr. Haque provided a breakdown of PJM's current energy sources, such as coal, natural gas, and nuclear, as well as a growing number of renewable resources. The largest number of applications in the queued capacity come from solar, storage, and natural gas. Given PJM's pending applications for prospective energy connections, Mr. Haque stated that there is an

energy transition occurring. This transition presents some energy reliability challenges, which have been identified by PJM, in a study they published titled Energy Transition to PJM: Resource Retirements, Replacements and Risks. The findings of experts at PJM show that there is concern of a supply crunch toward the end of this decade. PJM is expecting a period of load growth that will be attributed primarily to increased electrification, including in the automotive sector, and data center proliferation. Mr. Haque stated that PJM forecasts that 21 percent of its installed generation will be retired in the next decade.

In response to Chair Gooch, Mr. Haque stated that PJM's capacity is 180 gigawatts (GW). There may be a variance in the total number due to capacity. PJM projects losing 40 GW of the total 180 GW by 2030.

Mr. Haque stated that the projected retirements will not be matched with new generation resources, which will create resource adequacy concerns.

In response to Chair Gooch, Mr. Haque stated that thermal generation, which is nonrenewable capacity, is valued more highly than renewable energy sources because they offer baseload capacity that is dispatchable on demand.

Mr. Haque stated that PJM categorized concerns about renewable resources and their reliability. The immediate concern is supporting generator performance, and the near-term concern is ensuring resource adequacy, as it anticipates a supply crunch later in this decade. PJM's goal is to maintain and attract essential reliability services. Those services are currently thermal, but PJM would also like to attract new types of baseload services. PJM attempts to maintain reliability that is cost-effective.

PJM analyzed and crafted 16 critical actions, the Reliability Initiative, to preserve reliability and alleviate concerns. Mr. Haque encouraged the committee to visit pjm.com to view the details of the Reliability Initiative.

In response to Senator Wheeler, Mr. Haque stated that, in the PJM footprint, Kentucky is composed of more than 50 percent of coal resources and 40 percent natural gas resources. He stated that the organization has not found many renewable resources to support the state. PJM is conscious of the price of energy bills and operates relatively conservatively in that regard. PJM does not set distribution and generation rates to consumers. The Kentucky Public Service Commission (PSC) is responsible for setting those rates. PJM has less than 10 percent of renewables in their footprint. As integration of renewable generation sources increases, it will monitor the price of power. PJM is transparent about cost and will continue to interact with the Interim Joint Committee on Natural Resources and Energy. PJM ascribes a particular capacity value to each type of generation facility, based in part on the intermittency of the generation source. The net sum of those capacity values creates the overall value of those markets.

In response to Representative Blanton, Mr. Haque stated that PJM is concerned about the stability of the power grid as a result of policy decisions. PJM aims to ensure there are enough generation resources to provide essential reliability services at an affordable cost to consumers. While some other states may benefit from the reliability of electricity generation from Kentucky's thermal units, Kentucky residents derive the primary benefits, which can include greater economic development opportunities.

In response to Chair Gooch, Mr. Haque stated that, in vertically integrated states like Kentucky, utilities supply integrated resource plans to their commissions. In deregulated states, there is a capacity market to procure resource adequacy for the future. PJM is not contemplating a reliability surcharge, but is contemplating market reform to maintain reliability. This potential market reform could result in higher rates for deregulated states.

In response to Representative Wesley, Mr. Haque stated that the risk of not having resource adequacy will increase the risk of shedding load. This could force service outages in order to preserve overall system reliability unless there is adequate replacement.

Representative Smith stated that he is in favor of providing the lowest costs to consumers and continuing the utilization of fossil fuels.

In response to Senator Southworth, Mr. Haque stated that he will provide the report that the North American Electric Reliability Corporation released. There are regions in the country that are at a highly elevated risk to shed load during the summer. PJM is not in that zone. Kentucky has a few different grid operators. PJM covers Duke Energy and Kentucky Power.

In response to Representative Gentry, Mr. Haque stated that hydrogen power generation is in a research and development phase with several of PJM's member companies. PJM needs units that are deployable at a scale that can provide essential reliability services. PJM would be willing to have hydrogen power generation if it is safe and reliable.

In response to Senator Webb, Mr. Haque stated that PJM would create power outages specific to what is necessary for the engineering of the power grid. PJM does not deal on the retail side with end use customers. It can become dangerous to become people-centric regarding power outages. PJM is mission driven to keep the lights on and prioritize people.

In response to Representative Burke, Mr. Haque stated that PJM understands that some state and local economies are reliant on fossil fuel industries. There is a need for these thermal resources until they can effectively be replaced.

In response to Representative Johnson, Mr. Haque stated that load forecasts are consistently updated. He is unsure if the load forecasts are conservative, but retirement forecasts are. Mr. Haque stated that he cannot say with certainty if PJM will effectively prevent outages in the power grid and create an effective transition to renewable energy. Diversity of PJM's footprint gives it a fighting chance to rise above the upcoming issues in the industry. Mr. Haque stated that technology development is an unpredictable variable. The composition of PJM's energy generation queue suggests that PJM will become greener. However, it is unsure of how many projects in the queue will ultimately be constructed. Currently, there are 48 GW of energy that have come out of PJM's queue and are awaiting construction, which are now facing siting, supply chain, and financing issues. In the last year, there were only 2 GW of power generation added last year: 1,300 megawatts (MW) in natural gas and 700 MW in renewable resources.

In response to Representative Flannery, Mr. Haque stated that, with increased electrification and retirements, he is concerned that there may not be enough power generation. The power grid needs thorough analysis before more policy decisions are made. Mr. Haque recommended that the Kentucky General Assembly prioritize reliability and cost when proposing legislation. Thermal resources are needed for reliability until replacement technology exists to deploy at

scale.

In response to Representative Wheeler, Mr. Haque stated that local transmission projects are built out at the discretion of the local utility. PJM has created a venue where stakeholder and transmission owners can present projects they intend to construct. This serves as a public forum to emphasize transparency. PJM works on regional projects rather than local projects. The oversight of this has become a cost driver for Kentucky consumers.

In response to Representative McCool, Mr. Haque stated that PJM is regulated at the federal level by the Federal Energy Regulatory Commission (FERC). The Kentucky Public Service Commission is the primary regulator for electric rates and service in the state.

In response to Chair Gooch, Mr. Haque stated that PJM does not delineate between investor owned and merchant utilities. Some industrial sites are now placing generation on their property to ensure reliability. FERC has created an opportunity for these onsite generation sources to be aggregated and placed on wholesale markets.

Chair Gooch expressed his appreciation to PJM for raising the concerns of affordability and reliability.

Adjournment

There being no further business, the meeting was adjourned.