

Attachment—Additional Questions for the Record

The Honorable Jeff Duncan

1. During the hearing, we heard that reliably planning and operating the system are increasingly more difficult when new reliable generation and accompanying infrastructure like pipelines are not being added. Despite state and federal policies that limit the ability to use existing resources and add new capacity, the importance of these resources is growing due to the intermittent nature and weather dependence of renewables, like wind and solar.

a. What are the biggest challenges to adding new thermal infrastructure, like natural gas pipelines and generation? What can Congress do to reduce challenges to building this infrastructure?

Two challenges that impede the construction of new thermal infrastructure are delays in the permitting for natural gas pipelines and regulatory uncertainty regarding possible future significant environmental compliance requirements on fossil fuel powered units. Congress may be able to reduce these challenges by providing clarity on infrastructure siting authority and consolidation, including environmental review timelines and finality of decision reviews. Furthermore, siting authority reform for transmission construction projects can enhance the ability to use all forms of generation more effectively, and expanding the country's transmission system can improve both economic and reliability outcomes.

b. Can you explain the importance of prudence over pace with respect to adding renewables and explain how adding solar and wind resources requires additional thermal resource capacity?

Any transition must acknowledge both the past and the future as we manage the present. Having a well-managed, thoughtful generation transition is critical to maintaining both affordability and reliability for the electric grid. The electric system requires the provision of multiple characteristics by its portfolio of resources. Not all resources provide the same attributes to meet the system's holistic needs. In the scenario where a new resource lacks a required attribute provided by a resource it is replacing, the system requirement must be met through another means. The variability of wind and solar resources require resources, often thermal, to provide the attributes not otherwise provided by other electric system resources.

c. Is building redundant generation simply to meet aspirational policy goals prudent and cost effective? What effect does this have on customer bills?

Energy policy decisions can and do have an impact on costs for ratepayers. Integrated resource planning processes can help evaluate these costs and serve customer-specific economic concerns best when their outcomes are driven by economic considerations. Deviations from an objective function of providing the system required attributes in the least-cost manner through the application of non-economic policy criteria will inherently move the result away from a least-cost solution. Indiana's integrated resource planning process evaluates the performance of different resource portfolios over a 20-year planning horizon, looking at a wide range of criteria that account for reliability, affordability, resiliency, stability, and environmental sustainability. While these plans do not provide definitive answers, they do provide information for decision-makers to consider when evaluating next steps and the impacts policies have on ratepayers.

2. An increase in the number of data centers, new manufacturing, and electrification are expected to greatly increase electricity demand in the coming years. How are state commissions positioning themselves to handle this load growth while protecting ratepayers from unnecessary rate increases and the potential for stranded costs?

The Indiana Utility Regulatory Commission is working with our partner agencies, utilities, and RTOs to keep apprised of possible future load growth in Indiana. Communication and ensuring a level of certainty regarding economic development projects is key to protecting ratepayers and minimizing stranded costs while still welcoming these projects. This level of load growth may require new regulatory tools and methods to protect ratepayers from unnecessary rate increases and the potential for stranded costs. For example, large near-term load additions require careful drafting of service contracts between the utility and the developer that must address a range of uncertainties and risks, and which entity bears a specific risk. These risks change as the project moves from the concept stage to full scale construction to commercial operation. Decision-makers, such as state commissions, must carefully consider the likelihood of project delays and whether actual load will be consistent with the projected load when commercial operation is achieved, which are all complex considerations.

3. The Environmental Protection Agency's latest electric generating unit proposal requires coal and natural gas resources to retire or to employ carbon capture and storage or co-fire with hydrogen. In your opinion, are these technologies commercially viable and the best systems of emissions reduction?

The Environmental Protection Agency's proposal is lacking on multiple levels. Indiana's comments filed on this rule are premised upon the degree to which these technologies have not been proven to be commercially viable nor have they been demonstrated to be the best systems of emissions reduction.

a. Are you able to estimate the costs to comply and would you be able to justify the costs to comply to your ratepayers?

While we are unable to give a general figure, the costs for either the environmental compliance projects or to replace generation units earlier than expected would likely be significant for Indiana ratepayers. These costs are imbued into utility integrated resource plans, which can evaluate the performance of different compliance actions over a range of potential futures. Ultimately, ratepayers with lower incomes will be hit the hardest by these additional costs.

b. Is this proposed rule workable without causing severe and widespread reliability issues?

As conveyed in our joint letter to the EPA regarding this rule, the Indiana Utility Regulatory Commission has serious concerns with the workability of the rule and its possible impacts on reliability and affordability.

4. The Federal Energy Regulatory Commission (FERC) is considering changes to transmission planning and cost allocation. Among the most pressing concerns related to transmission projects is the question of "who pays," commonly referred to as cost allocation. Along with rates needing to be just and reasonable, assigning costs for transmission commensurate with the benefits received is a bedrock principle of the Commission's orders. However, the Commission's proposed transmission Rule appears to broaden what constitutes "benefits" as a means to socialize the costs of expensive transmission lines that will be paid by captive customers who may not actually "benefit" from the transmission lines and the electric energy flowing through them. In other words, customers likely will be required to pay for transmission lines built for the benefit of certain subsidized generation, special interests, and/or other state public policy goals rather than for reliability and a demonstration of need.

a. Who is best positioned, individual states or FERC, to determine overall end-use customer bill impacts of various energy policy choices?

The different jurisdictional responsibilities between the FERC and the Indiana Utility Regulatory Commission often require that the end-use customer's bill is impacted by the decisions of both. Federal-state cooperation is key to either jurisdictional authority, understanding the impact of their decisions on end-use customers, big and small.

- b. Would FERC adopting policies that promote or presume a large transmission buildout result in FERC effectively choosing for all states what their generation resource mixes will or should be? Does the Federal Power Act give this authority to FERC or the states?**

A large transmission buildout may help improve grid reliability and help lower electric costs for consumers, but ratepayers should pay for transmission projects that they directly benefit from. Generation economics are certainly impacted by the markets in which they operate, but generation decisions are under state jurisdictional authority. A large transmission buildout could serve as a complement to, and a substitute for, generation resources depending on the specific circumstances. These transmission projects can enhance the reliability and stability of the grid while also increasing the competition in the wholesale power market.

Our understanding of the Federal Power Act and current legal precedence is that FERC regulation of transmission and wholesale energy markets is allowed under the Federal Power Act even if it affects states' retail prices and generation.

- c. Are you concerned that cost-causing states will shift costs to customers in states that have no interest in pursuing such transmission for other states' public policy decisions?**

Cost-causation in a multi-state market arena is a complex challenge to address. Markets serve their members, but physics can intervene on how any market benefits, or costs of the service, are shared. Accordingly, large cost allocations, including the significant level of investments being considered, currently, require heightened consideration, and those allocations should take cost-causation into account. Historically, Indiana has supported transmission buildout, especially in the MISO footprint, but judgment is required to allocate these costs as benefits to individual states can vary depending on the circumstances and time.

- d. Should states be able to opt-out of cost allocation methodologies that either undermine their own valid state public policies, or that will result in their state's customers subsidizing the public policy choices of other states?**

Market participation is a balance of costs and benefits. Markets disciplined by voluntary participation allow states to consider the quality of that balance. States that have RTO-member utilities must abide by the cost allocation of each RTO. The authority over those allocations varies across the RTOs and are approved by FERC.

- 5. As Congress looks to identify relevant statutory provisions relating to reliability and resource adequacy, from the state commission perspective, are there any updates to the Public Utilities Regulatory Policies Act of 1978, the Federal Power Act, or Department of Energy Organization Act of 1977 that may assist you in your work to assure reliability and resource adequacy?**

As mentioned above, clarity removes the risk cost of investment decisions. The current jurisdictional boundaries of these Acts has served the electric ecosystem well and any changes should be thoroughly vetted by all stakeholders. Additional clarity that may prove helpful is to recognize the Environmental Protection Agency as a stakeholder in industry regulatory processes but to clearly state that the agency is not the economic or system regulator for the electric or gas industries.

The Honorable Robert E. Latta

- 1. For a number of years we have been seeing reliable, "always available" electric generating facilities retiring, being replaced by "sometimes available" electric generating facilities. The alarm bells about resource adequacy are starting to ring louder. Responsibility for reliability has been divided among a variety of entities, some of whom show signs of decision-making paralysis because of contrasting interests and responsibilities. In your opinion, are reliability and affordability better served when the responsibility for keeping the lights on and the responsibility for the investment decision are aligned so that the entities making the decision are responsible for both?**

The Indiana Utility Regulatory Commission is required by state statute to ensure electric utilities are providing safe and reliable service at just and reasonable rates. The Commission accomplishes this by being the economic regulator of electric utilities, all of which have been granted a monopoly over their retail service territories. Ultimately, Indiana's regulatory framework of providing a reasonable expectation of a return on and of a utility's investments into their system while holding utilities financially accountable for failing to meet their side of the regulatory compact – their obligation to serve – in providing safe and reliable service has served Indiana well for decades.

- 2. Electricity regulation has always been centered around maintaining affordability and reliability. In addition to "affordable" and "reliable", "clean" has become the priority for many. However, we've done that through environmental law, not through electric service. But in recent decades there have been pushes, at both the State and Federal level to make "clean" the priority of electricity regulation, not just environmental regulation. I assume you would agree that unless it is "affordable" and "reliable," electric service doesn't serve the public interest. How do we incorporate "clean" without damaging the other two?**

Trying to balance these three factors is similar to the business maxim of having to pick two of the three qualities for a project – speed, quality, and cost. Trying to

incorporate “clean” while maintaining affordability and reliability will require a prudent, thoughtfully managed transition. Indiana policymakers have tried to balance these factors by enacting the “Five Pillar” framework and requiring utility integrated resource plans to consider these five attributes – reliability, affordability, resiliency, stability, and environmental sustainability – in their plans.

- 3. Many have suggested that it was a flaw that the obligation to serve—a standard that utilities must adhere to—was taken away when some states restructured the electricity sector in their states. The removal of the obligation to serve may have changed the incentives of market participants. The removal of the obligation to serve may also have disincentivized bringing into the system resources with necessary capabilities to reliably serve into the system, especially at a pace that keeps up with rate of load growth we are seeing. Your state is still regulated and the utilities serving those states still have the obligation to serve. With this obligation to serve, is your state better positioned to address this threat?**

Yes, we believe so. Having a traditionally regulated electric utility framework provides utilities with the reasonable chance to recover their investment costs to provide safe and reliable service while that regulatory certainty reduces the financial risk and therefore financing costs of those investments, helping reduce the overall costs of the system for our ratepayers as compared to other regulatory systems.

The Honorable H. Morgan Griffith

- 1. Utility ratemaking requires a careful balance of principles, such as reliability and affordability. In response to the Environmental Protection Agency's proposed Greenhouse Gas Power Plant Rule, do you believe that a compliance waiver program administered by the EPA, another federal agency, or federal regulator, would be prudent?**

Yes, having a compliance waiver program would be a prudent step to ensuring the proposed rule does not negatively impact the reliability or affordability of electric service. If such a program were established, there should be weighted considerations given to both reliability and affordability of electric service. Indiana regulated utilities are required to employ an integrated resource planning process that works to optimize reliability and affordability. These plans aim to balance the existing usefulness of ratepayer supported resources with the timely transition to replacement resources over a 20-year review horizon. The use of state-sanctioned utility-specific planning as support for reasonable alteration of compliance dates should be considered a reasonable means of providing reliable electric service at affordable rates.

The Honorable Debbie Lesko

- 1. Can you please elaborate on the significance of attributes that dispatchable resources like coal and gas provide the grid, such as ramping, operating reserves, frequency regulation, voltage control, system inertia for stability, buffering against variable energy sources, etc.?**

Put succinctly, the ability for generation resources to provide these ancillary services for the electric grid is of critical importance to the normal and safe operations of the electric grid. These services ensure the electric grid has enough supply to meet demand while remaining stable, keeping frequency and voltage levels within their designed limits.

Maintaining the frequency of the grid at a constant 60 Hz helps ensure that all electrical equipment operate within their proper parameters, and maintaining a stable voltage is critical as higher or lower voltage levels can result in equipment breaking. Having operating reserves and resources able to ramp ensures that there is a proper level of power and reactive power available in the electric grid to maintain both frequency and voltage.

It is important to keep in mind though that each individual generation resource cannot provide all the attributes the electric grid requires, meaning that the entire resource portfolio needs to be considered when evaluating the necessary attributes to keep the electric grid reliable. Some attributes must be provided locally while others can be provided over a much larger geographic area.

- a. Do you think that a mechanism put into place within the energy and/or capacity markets to compensate or ensure the availability of resources that possess such attributes would enhance grid reliability and affordability?**

Yes, it would, and the Indiana Utility Regulatory Commission is reassured that RTOs are considering implementing these types of mechanisms.

- 2. At the state level you regulate with a tool called an Integrated Resource Plan or IRP. It requires a utility to look into the future and plan for grid reliability and affordability. Currently these RTOs/ISOs are not required to do this type of planning even though their territories span large regional areas of the U.S. Do you think it would be helpful for these RTOs/ISOs to provide FERC plans that are similar in scope to IRPs?**

Yes, having RTOs engage in regional planning forecasting would be helpful to understand how individual state policy decisions and individual utility decisions are projected to impact generation capacity and electric prices in the future. MISO engages in a similar process already called the Regional Resource Assessment which

provides helpful information for member states and utilities to see potential resource gaps. These reports can be accessed at the following URL:
<https://www.misoenergy.org/library/#nt=%2Flibrarydoctype%3APlanning%2Fplanningtype%3AResource%20Adequacy&t=10&p=0&s=FileName&sd=asc>.

3. Should merchant generators in RTOs/ISOs have a similar policy such as "an obligation to serve"?

Merchant generator obligations are contractual rather than statutory, and these contracts are mostly tied to obligation-to-serve utilities. In this manner, merchant generators have a measured obligation to service and are subject to penalties for failing to meet the terms and conditions set in their contract.

4. Utility Commissions are responsible for assuring reliable utility service at fair, just, and reasonable rates. How do you consider factors like reliability and affordability when pursuing climate and emissions goals?

As mentioned in the written and oral testimony, Indiana's General Assembly has set a "Five Pillar" framework for the Indiana Utility Regulatory Commission to use for any electric ratemaking construct decision. Those "Five Pillars" are reliability, affordability, resiliency, stability, and environmental sustainability. All of these factors must be considered and balanced when evaluating utility petitions before the Indiana Utility Regulatory Commission. Furthermore, these factors must be considered by the utilities during their integrated resource planning processes, which provides a forecast over a 20-year review horizon and seeks to optimize for reliability and affordability. Overemphasizing one or two pillars over the others would result in deficiencies elsewhere in the system, which would violate Indiana's energy policy and statutory directive to the Indiana Utility Regulatory Commission. The historic generation transition the electric industry is going through requires a prudent and well-managed timeline to provide the best level of assurance that the aforementioned considerations are given their proper weight and not over- or under-emphasized.

a. How do you reconcile these factors with state goals when they conflict?

Indiana state legislators have taken a holistic approach and given the Indiana Utility Regulatory Commission wide latitude to consider the aforementioned factors in totality when evaluating the petitions before us. Reconciling these factors hinges upon the individual facts and evidence presented before us in the case and how parties can demonstrate the benefits, or drawbacks, to emphasizing one factor over another.

5. Although states set individual climate and emissions goals, actions by one state could affect other states due to the interconnected nature of the electric grid and the natural gas pipeline system.

a. How are individual states' energy policies affecting regional or national reliability? Resource adequacy?

Individual state energy policies can have a noticeable impact on regional and national reliability, but the reliability and resiliency of the bulk power system across a large region is dependent upon multiple states and stakeholders. State Commissions and utilities must make the best decisions about resource choices in an environment where they have limited knowledge of the actions being undertaken by other states. To the extent that state policies reduce access to and the ability of RTOs to utilize dispatchable generation resources to meet demand throughout a region inherently impairs the reliability of the electric grid. This negative impact on reliability is highlighted by NERC's reliability assessment reports, in which they warn "much of [the] [country] is at an elevated risk of having insufficient energy supplies to meet demand in extreme operating conditions." This elevated risk will likely persist until technological advancements are made that provide intermittent generation resources like wind and solar with characteristics that are provided by more dispatchable resources like natural gas fueled generators.

The Indiana Utility Regulatory Commission has attempted to take other state policies into account in our own state processes, as highlighted by General Administrative Order 2022-01, which set out guidelines for utilities submitting petitions for new generation facilities to include evidence from the appropriate RTO regarding the generation facility's potential impact on resource adequacy and reliability. This GAO may be found here: [https://www.in.gov/Indiana Utility Regulatory Commission/files/ord_GAO2022-01_070622.pdf](https://www.in.gov/Indiana%20Utility%20Regulatory%20Commission/files/ord_GAO2022-01_070622.pdf)

b. How are your Commissions managing divergent state approaches to energy policy?

Commissioners and Commission staff engage in robust and fruitful discussions through a number of different avenues to understand and learn from other states, their actions, and impacts from their decisions. These include conferences, multi-state working groups, individual meetings, and the sharing of reports. These methods, and more, are incredibly beneficial for each Commission to understand not only the statutory framework that other Commissions must follow but how those Commissions are thoughtfully approaching and implementing those policies in order to ensure they meet their respective charges.

6. EPA's power plant proposal effectively requires carbon capture and storage (CCS) or clean hydrogen, two commercially unproven technologies, to reduce carbon emissions by 90%. Since these technologies are unproven, can you discuss the potential reliability problems EPA's proposal would create for Indiana?

Indiana utilities have a significant number of generation units that would be impacted by this proposed rule. The proposed rule could have at least two possible impacts on these generation units: making them uneconomical to continue to run and therefore subject to an earlier than expected retirement or suffer from technological or operational issues while running these new technologies, forcing plants offline due to mechanical or technological issues. Both possible impacts would result in these dispatchable generation units being unavailable to fulfill their purpose, thereby reducing reserves margins the utilities maintain to ensure they have adequate supply. This scenario could have significant costs attached to it and could cause Indiana electric rates to go up.

7. PJM Interconnection has identified the need to reform its markets and procedures, including risk modeling, enhancing accreditation for reliability contributions, and paying capacity suppliers for purchasing fuel necessary to run during extreme weather events.

a. What is the status of these necessary reforms?

PJM has seen reform proposals both approved and rejected by FERC recently. In FERC Docket No. ER 24-99, PJM's reforms to improve their risk modeling, enhance their accreditation process, and continue to use an annual market design were approved on January 30, 2024. An important part is the move to a marginal Effective Load Carrying Capability (ELCC) approach that is a blend of summer and winter capabilities. In FERC Docket No. ER 24-98, PJM's proposal to change their capacity performance penalties was rejected by FERC on February 6, 2024. This filing also contained a proposal—which was also rejected—to eliminate the physical cure and netter for Fixed Resource Requirement (FRR) participants. We followed this proposal closely as our load-serving utility, Indiana & Michigan Power, is an FRR participant in the PJM capacity construct.

The issue of PJM paying for fuel procured in advance of, and during, extreme weather events has been debated in the PJM stakeholder processes, but there is no active change to the current policy in place. Since the Polar Vortex in 2014, and after other extreme weather events, PJM has developed and implemented many reforms in this area, so the inaction on paying for fuel procurement should not be interpreted as inaction on PJM nor on the part of its stakeholders.

8. Some of the problems that occurred during Winter Storm Elliott appear to be the result of a lack of notice from PJM that a generator must run. Natural gas generators had little, if any, heads up that PJM expected them to run and so were scrambling to procure gas and deliver it at a time when no gas was available, and pipelines were running full.

a. If PJM notified its generators early enough that they could purchase natural gas during a liquid period, wouldn't this help ensure that the generators would run?

Any time an RTO can provide more advance notice to generators about potential times of higher load demand is beneficial to helping ensure the reliability of the grid.

b. How can PJM better incentivize generators to purchase firm pipeline services so that they know gas will be delivered even in extreme circumstances?

This highlights the balancing act RTOs, utilities, and state commissions have to engage in to provide the best value to ratepayers. Firm pipeline services contracts have higher costs that would need to be passed along to ratepayers but not having these firm contracts in place may increase reliability issues during extreme conditions on the electric grid. PJM could help incentivize generators by placing greater capacity market value for dispatchable generation resources and also continuing to issue non-performance penalties for generators who fail to meet their generation obligations during emergencies.