Statement of Antonio Smyth
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Senate Committee on Energy & Natural Resources
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Chairman Manchin, Ranking Member Barrasso, and members of the Senate Committee on Energy and Natural Resources, thank you for the invitation to testify at today's hearing. My name is Antonio Smyth, and I serve as the Executive Vice President of Grid Solutions and Government Affairs at American Electric Power Service Corporation, which supports the utilities of American Electric Power Company, Inc. (AEP). Collectively, AEP is one of the largest electric utilities in the United States. We serve approximately 5.6 million customers across our 11-state footprint, and we develop, own, operate and maintain the largest transmission system in North America.

I. Executive Summary

Our nation's electricity system is in the midst of a fundamental transformation, driven by changes on both the supply side and the demand side. Electric generation is becoming less predictable and less dispatchable. Existing power plants are aging, their performance is changing, and requirements are shifting to ensure higher degrees of reliability under extreme weather conditions. Utilities, including AEP, are bringing more clean, intermittent renewable resources online.

Simultaneously, the demand for electricity is changing, driven by customer preferences for cleaner energy resources, changing weather patterns, electrification of the economy, evolving technologies, and customer usage patterns. Demand is also significantly increasing throughout areas of the country, driven by economic and new business development. These changes in generation (supply) and load (demand) mean far greater complexity for grid operators and planners, as we seek to make investments that balance system reliability with customer affordability, and environmental sustainability.

Maintaining a reliable electrical grid is critical. The nation's transmission infrastructure is essential to the safe, reliable and affordable delivery of electricity to

households and businesses. The enormous value of reliable electricity service, in terms of meeting critical human needs and underpinning all aspects of our economy, is dramatically demonstrated by the hardships caused when significant disruption of electric service occurs.[1]

In an ever-changing world, energy is vital for economic development and maintaining our competitive advantage as a nation. AEP is experiencing significant growth in demand due in part to the location and performance of its transmission system. As a result of the significant investments that AEP has made and continues to make in its system, we have been able to meet the aggressive timelines required to serve this new demand. In some instances, the demand of new customers seeking to interconnect to our system exceeds the amount of energy currently served by AEP in those areas. In the race to capitalize on technological transformation, industrial customers cannot wait for us to modernize our energy policies.[2] Sound policies will ensure that the grid of the future is reliable, affordable, and environmentally sustainable.

Today, it can take 10 or more years to plan, permit, and build transmission projects. Going forward, significant transmission investment will be needed to improve the resilience of the electric grid and meet future demand requirements. Without significant improvements over the next decade, our Nation's transmission system may fall short of the reliability standards our economy requires and will result in higher electricity costs to consumers.[3]

Sound transmission investment requires three key elements— (the three P's):

1. **Planning: Forward-looking regional and interregional planning;**
2. **Paying: Reasonable cost allocation that corresponds to the distribution of expected benefits; and**
3. **Permitting: Permitting and siting frameworks that allow for timely project development.**

[1] The economic cost of Winter Storm Uri alone is estimated at as much as $130 billion. *See e.g.*, https://comptroller.texas.gov/economy/fiscal-notes/2021/oct/winter-storm-impact.php.

[2] *See* Zero Emissions, Reliability Optimized Grid Initiative, *available at*: https://rmi.org/press-release/major-global-corporations-join-with-rmi-to-advance-electric-sector-transformation/.

[3] *See* Department of Energy's Draft National Transmission Needs Study, *available at*: https://www.energy.gov/sites/default/files/2023-02/022423-DRAFTNeedsStudyforPublicComment.pdf. The study finds that the highest value of new transmission is across the three electrical interconnections and during extreme weather events. *Id. See also* NERC 2023 Summer Reliability Assessment, *available at: https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_SRA_2023.pdf*

Planning: Regional and Interregional

First, Congress should encourage the Federal Energy Regulatory Commission (FERC) to reform both regional and interregional transmission planning processes to: (a) incorporate longer-term planning time horizons (*e.g.*, 20-years), (b) include standardized and expansive planning scenarios, and (c) consider a wider range of benefits over a long timeframe to better reflect the value of the life of the assets being put into service.

Modernized transmission planning is key to unlocking the full benefits of the electric grid. The current grid is planned to meet minimum industry standards and criteria. While these standards and criteria were adequate in the past, they now need to be adapted to consider an aging grid and changing modes of consumption and production of energy. Longer-term planning time horizons will encourage development of, and reduce barriers to, transmission infrastructure investment.

In addition to longer planning horizons, more scenarios (called *sensitivities*) need to be considered to assess the grid's adequacy. These sensitivities should include significant changes in demand, generation, outages, technologies, weather, commodity prices, and other key drivers. Uncertainty increases as we lengthen the planning time horizon and the best way to hedge against different futures is using broad sensitivity assessments in planning.

Transmission planning and development is a lengthy and iterative process, and it is critical that the enhanced planning processes described above be put in place now to plan and develop system investments needed in the years ahead. FERC has proposed rule changes to potentially implement regional planning reforms,[4] and the Committee should encourage FERC to act with all due haste to finalize and implement these needed changes.

In addition to forward-looking transmission planning, this Committee should encourage FERC to adopt policies to support needed interregional transmission expansion. Grid investments to interconnect the individual regions with each other have been insignificant.[5] This lack of interregional transmission can create bottlenecks that prevent the transmission of lower-cost power to customers, and leaves regions and their customers needlessly vulnerable to shortages and outages during extreme weather events. Robust interregional interconnections are a valuable hedge against extreme weather events, and as a country, we need to better leverage our geographical expanse and diversity in this regard. During Winter Storm Uri, certain regions experienced significant

[4] *Bldg. for the Future Through Elec. Reg'l Transmission Planning & Cost Allocation & Generator Interconnection*, Notice of Proposed Rulemaking, 87 Fed. Reg. 26,504 (May 4, 2022).
[5] *See infra*. at n.3.

outages, even though they were importing energy from neighboring regions and beyond,[6] demonstrating the need for additional transfer capability between regions. It was estimated that during this event, an additional 1,000 MW of transmission capacity between ERCOT and its surrounding regions would have saved $1 billion over the course of only four days.[7]

FERC has an open proceeding to consider whether to establish minimum interregional transfer capability requirements between adjacent transmission planning regions.[8] Additionally, Congress recently enacted a requirement for the North American Electric Reliability Corporation (NERC) to study the need for additional interregional transmission capacity between neighboring regions.[9] If Congressional or FERC action creates a minimum transfer capability requirement, it should allow for customization of the sizing of the requirement across key electrical boundaries. This is important because the optimal amount of interregional transfer capability, from both a reliability and customer cost perspective, depends upon the degree to which better connecting two neighboring regions is cost effective and can take advantage of diversity benefits between the regions. Whether or not minimum transfer capability requirements are established, it will be critical for FERC to create well-functioning policies and practices for joint planning and cost allocation for interregional projects.

Paying (Cost Allocation)

Second, this Committee should encourage FERC to ensure that cost allocation is aligned with benefits. However, the benefit metrics used for both regional and interregional projects need to be expanded to encompass all reliability, security, and economic benefits of the grid. Expanding and defining benefit metrics will help optimize transmission investments across the country.

The costs for regional and interregional projects should continue to be allocated in a manner roughly commensurate with the distribution of benefits. We believe that

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[6] *See* https://spp.org/documents/65037/comprehensive%20review%20of%20spp%27s%20response%20to%20the%20feb.%202021%20winter%20storm%202021%2007%2019.pdf.

[7] M. Goggin, and J. Schneider, *The One-year Anniversary of Winter Storm Uri: Lessons Learned and the Continued Need for Large-Scale Transmission*, 2022, p. 7, Table 1. *Available at*: https://gridprogress.files.wordpress.com/2022/02/the-one-year-anniversary-of-winter-storm-uri-lessons-learned-and-the-continued-need-for-large-scale-transmission.pdf. The value of expanding interregional transmission has also been estimated by the Lawrence Berkeley National Laboratory (LBNL). *See* https://emp.lbl.gov/publications/empirical-estimates-transmission and https://emp.lbl.gov/news/latest-market-data-show-potential-savings-new.

[8] *Establishing Interregional Transfer Capability Transmission Planning and Cost Allocation Requirements*, Docket No. AD23-3-000.

[9] H.R.3746 - Fiscal Responsibility Act of 2023, Section 322.

regional and interregional planning and cost allocation have a strong correlation. If we get planning and the assessment of benefits right, cost allocation is easier to implement. In our view, a well-defined set of common benefits, forecasted over the useful life of the assets under varying scenarios, will allow for clearer, consistent, and transparent determinations of cost allocation. Further, Congressional direction to FERC to undertake a rulemaking on interregional transmission planning and cost allocation would help drive needed action in that area.

Permitting

Finally, efficient, and effective siting and permitting processes are also needed. Reforms to streamline the issuance of federal permits are valuable, and we appreciate the work that this Committee and Members of Congress have undertaken to streamline federal reviews. Most of the projects we have been pursuing in the last decade have not required National Environmental Policy Act (NEPA) review. However, we support efforts to make the NEPA process more efficient and would welcome reforms to other federal permitting processes by establishing reasonable time limits for agency decisions, ensuring agencies have sufficient staff to review permits, and by initiating litigation reforms. Such reforms, designed to expedite the existing review processes, can be achieved without reducing the quality of the environmental review.

AEP has focused our transmission siting and permitting efforts on partnering with our states to obtain necessary permits. For most of the transmission projects we have built, permitting has not been a challenge that could not be overcome—although we recently were denied state authorization in Pennsylvania for an important congestion-relief project that was approved by both the regional grid planner (PJM) and the state of Maryland.[10]

States play a lead role in the siting of transmission facilities, and they should continue to do so. However, it's also important for federal law to provide a workable backstop siting process for transmission projects that deliver important regional or interregional reliability benefits. We urge Congress to streamline the existing backstop siting for such reliability projects under section 216 of the Federal Power Act[11] by removing the restriction that FERC can only use backstop siting authority for projects in National Interest Electric Transmission Corridors designated by the Department of Energy (DOE). Our recommendation here is intended to avoid and minimize duplicative

[10] Order, *In the Matter of Applications of Transource Pennsylvania, LLC for approval of the Siting and Construction of the 230 kV Transmission Line Associated with the Independence Energy Connection – East and West Projects in portions of York and Franklin Counties, Pennsylvania*, at 50, Docket No. A-2017-2640195 *et al.* (Pa. Pub. Util. Comm'n, May 24, 2021), available at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.puc.pa.gov%2Fpcdocs%2F1704597.docx&wdOrigin=BROWSELINK. This decision is currently being challenged by AEP.

[11] 16 U.S.C. 824p (2023)(section 216 of the Federal Power Act).

processes regarding environmental and agency reviews, while maintaining the integrity and quality.

In sum, the Nation may face challenges with maintaining adequate supply to meet electric power demand, but if we proactively address these challenges with appropriate and targeted transmission reforms, we can achieve a coordinated and reliable energy transition. AEP supports this Committee's efforts to efficiently and effectively reform siting and permitting processes.

We ask the Congress to:

(1) Encourage FERC to modernize and reform regional and interregional transmission planning to: (a) incorporate longer-term planning time horizons (*e.g.*, 20-years), (b) include standardized and expansive planning scenarios, and (c) consider a wider range of benefits over a longer timeframe to better reflect the value of the assets being put into service over their useful life;

(2) Encourage FERC to implement cost allocation mechanisms for regional and interregional transmission projects that continue to align beneficiaries and payers, but expand and define the determination of benefits to account for a broad and defined set of common benefits, forecasted over a longer planning horizon consistent with the useful life of the assets; and

(3) Streamline the process for using federal backstop siting authority under section 216 of the Federal Power Act by eliminating the requirement to utilize National Interest Electric Transmission Corridors designated by the Department of Energy (DOE) for projects that provide significant reliability benefits.

II. American Electric Power

AEP is one of the largest investor-owned electric public utility holding companies in the United States. AEP's electric utility operating companies provide generation, transmission, and distribution services to more than five million retail customers in Arkansas, Indiana, Kentucky, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia, and West Virginia. AEP's subsidiaries operate an extensive portfolio of assets including approximately 225,000 circuit miles of distribution lines that deliver electricity to 5.6 million customers, approximately 40,000 circuit miles of transmission lines, including approximately 2,200 circuit miles of 765 kV lines, the backbone of the eastern interconnection of the United States. Additionally, AEP ranks among the nation's largest generators of electricity, owning nearly 26,000 megawatts of generating capacity in the United States.

AEP has a broad and unique perspective as it operates in four Regional Transmission Organizations (RTOs): PJM Interconnection, Southwest Power Pool, Midcontinent Independent System Operator, and the Electric Reliability Council of Texas.

III. Transmission Investment Is Key to Electric Reliability

Modern society depends on a reliable grid as an essential resource for national security, human health, and a productive economy. It is at the heart of our systems for communications, healthcare, finance, transportation, food, and water supply. The grid assures access to our basic needs—we all expect and require electricity at the flip of a switch.

AEP works to maintain, enhance, and expand its transmission system—the largest in North America, to serve the needs of its customers. Today, the transmission system is encountering a brand-new set of challenges. The system is used in new ways as aging generation is retired and new resources, including renewable resources, are interconnected. The grid faces new threats from physical and cyberattacks and is increasingly strained by more frequent and more severe weather events. Providing a reliable and resilient transmission grid is thus more important—and challenging—than ever.

Transmission investment is essential to maintain reliable grid performance and address new challenges, including aging infrastructure. The drivers for transmission planning fall into three broad categories: (1) investment needed to maintain reliability and improve resiliency for existing and new customers (load and generators); (2) investment needed to enable markets and improve market efficiency; and (3) investments needed to enable public policy. Often, transmission projects provide benefits in two or more of these categories.

AEP's transmission grid has evolved over the last century in waves, matching the load growth in its regions. Over a quarter of AEP's transmission network is already, or will be, beyond its useful life over the next 10 years. This portfolio of aging facilities requires the development and implementation of a thoughtful program of renovation or replacement to ensure that the existing infrastructure on which we rely remains in good working order. AEP constantly assesses the condition, performance, obsolescence, and risk of its existing assets to make timely revitalization decisions. As a result, our existing infrastructure is enabling critical economic development in the regions we serve.

AEP is building new transmission lines to serve new load and connect new generation resources. Consumption trends, including commercial and industrial economic growth, such as the growth of large data centers, and increasing electrification, are driving changes in the location, timing, and size of loads. For example, AEP's

current load in central Ohio is roughly 4,300 MW. We have agreements in Ohio to interconnect an additional 4,500 MW of demand, and there is another 8,800 MW of demand under study. When we connect all of the pending demand, Columbus, Ohio will surpass New York City in electricity consumption.

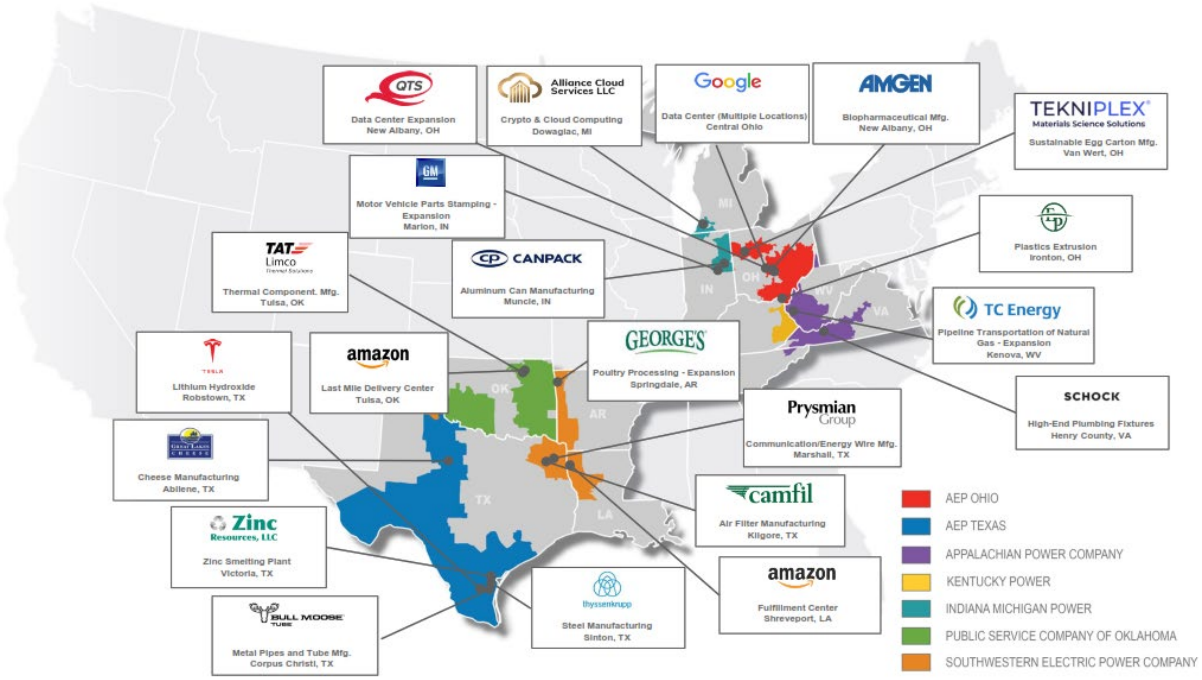

FIGURE 1

A snapshot of this growth is illustrated in the graphic above [**Figure 1**] and demonstrates that growth isn't limited to Ohio; we currently have requests to interconnect 7,000 MW of load in Indiana. The prospective load in Indiana will triple the demand that our company serves in the state. Additionally, the changes to generation mix—through plant retirements and the development of new resources, drive the need for both upgrading of existing facilities and new grid investment, especially where new generation is located more distant from load.

Generation capacity constraints can also present significant challenges for large loads that are deciding where to locate, underscoring the need for a thoughtful and orderly transition that considers dispatchable and renewable forms of generation, and balances system reliability, customer affordability, and environmental sustainability.

Nation-wide, transmission investment amounts to approximately $25 billion annually as shown in the chart below [**Figure 2**]. The map inserted into the top of the chart also shows the individual transmission planning regions, with colored regions representing Regional Transmission Organizations (RTOs) or Independent System

Operators (ISOs). AEP is one of the largest transmission owners in three of these RTO regions: PJM Interconnection, L.L.C. (PJM) (shown in yellow), the Southwest Power Pool Inc. (SPP, shown in light blue), and the Electric Reliability Council of Texas (ERCOT, shown in dark blue).

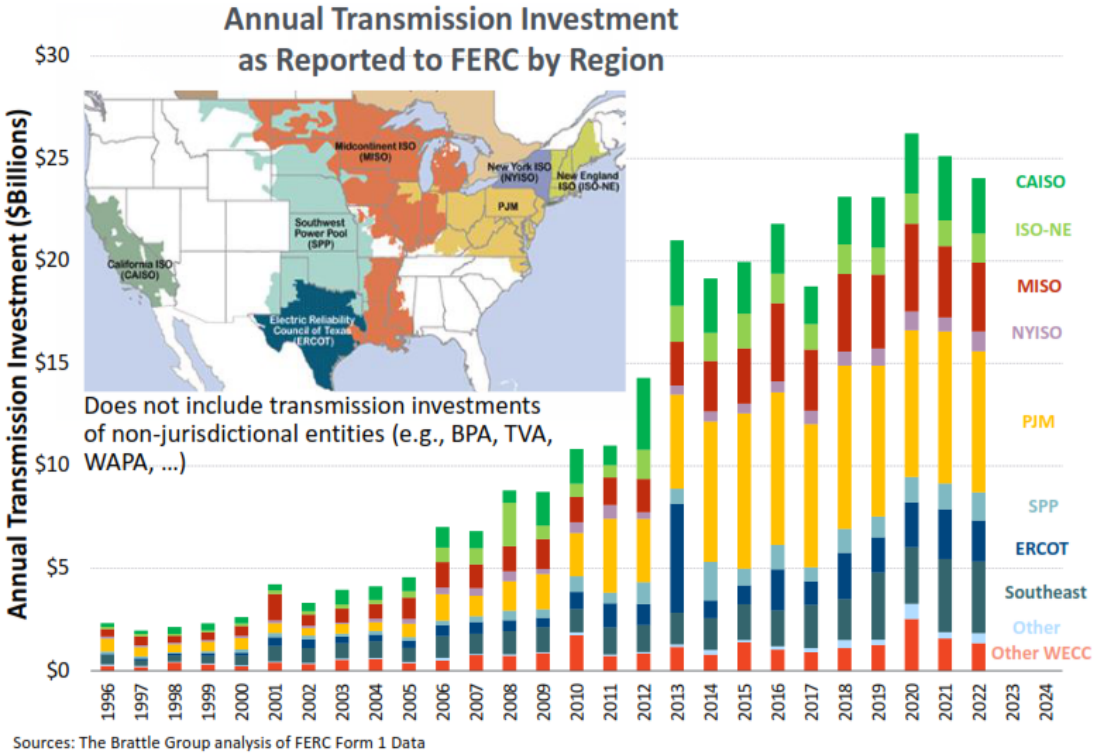

FIGURE 2

Despite this significant investment, the pace of interregional transmission investments that would expand the connections between regional markets has been very slow.[12] This lack of interregional transmission investment creates bottlenecks that hold up new generation investments, can prevent the transmission of lower-cost power to customers, can hinder economic growth, and leaves regions and their customers needlessly vulnerable to shortages and outages during extreme weather events.

IV. Congress Should Encourage FERC to Modernize and Reform Regional and Interregional Transmission Planning

With respect to transmission development, we would urge Congress to work with FERC to identify key regulatory obstacles to the cost-effective and timely development of needed transmission projects, and focus reform energies there. A well-designed

[12] *See infra.* at n.3.

regulatory framework is important to supporting the grid investments that the nation needs to support reliability, and transmission planning is the bedrock for such investment.

As Congress considers where statutory changes may be necessary, it is important to note that some key transmission-related reforms are under consideration at FERC. AEP has been an active participant in the ongoing FERC policy proceedings concerning regional planning and cost allocation, working to ensure that FERC policies support the transmission infrastructure investments we need for a safe and reliable transmission system.

In testimony before this Committee in May, FERC Chairman Phillips outlined recent actions related to maintaining the reliability of the grid, including cybersecurity standards, winter preparedness standards, supply chain standards, and incentives for certain cybersecurity investments. Chairman Phillips explained that "electric transmission is itself a reliability imperative. Transmission plays a critical role in facilitating the interconnection of new resources, while ensuring that the electric system remains reliable. And transmission is the key that can unlock the potential of so many of the energy security measures in the Inflation Reduction Act."[13]

Long-term regional transmission planning process reform will allow transmission providers to go beyond the "just in time" approach to transmission planning that focuses on addressing specific system needs as they occur, to plan projects that address a multitude of needs that are anticipated to develop over a long-term horizon more efficiently and cost-effectively for customers. The existing transmission planning processes relating to needs driven by reliability and economic considerations would remain in place and an additional planning process—that is longer-term and for multi-value projects that meet long-term needs would be added.[14]

AEP also supports requiring at least three standardized, robust long-term scenarios as part of the long-term regional transmission planning process, including assessment of conditions associated with significant changes in demand, generation, outages, technologies, extreme weather, commodity prices, and other factors.[15] Scenarios are a plausible set of parameters that are used in transmission planning to determine whether

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[13] *Full Committee Hearing to Conduct Oversight of FERC* (May 4, 2023); Witness Panel 1, The Honorable Willie L. Phillips, Chairman (https://www.energy.senate.gov/hearings/2023/5/full-committee-hearing-to-conduct-oversight-of-ferc).

[14] *See* FERC description of proposed Long-Term Regional Transmission Planning Process*, Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, 136 FERC ¶ 61,051 at P 68-78 (July 21, 2011).

[15] These scenarios should be reassessed every three years because regular reassessment is necessary to reflect updated data as to changing technologies, resource mix, markets, and demand.

potential reliability violations warrant transmission expansion.[16] A base case scenario is a "business as usual" scenario that can they be compared to alternative scenarios that are considered to be less likely to occur. These alternatives consider different assumptions.[17] Proactive, scenario-based long-term planning assists planners to consider the many ways the future may unfold and how to respond effectively and flexibly as the future becomes reality. This allows for "least regrets" transmission planning and will better enable us to meet the challenges of our energy transformation.

The benefits of regional transmission facilities should be evaluated collectively—through a "multi-value" analysis—to ensure that projects that provide benefits in multiple categories are properly identified and justified in the planning process. While not all benefits can be monetized for comparison in transmission planning studies, a number of the benefits can be quantified, including reduced system losses, the value of increased system reliability (or reduced reserve margin requirements), access to lower-cost conventional and renewable generation, and increased wholesale-market competition, among others. To the extent feasible, all types of benefits – reliability, congestion, and public policy – should be considered in transmission planning to account for the true cost and benefits of transmission projects.

AEP supports the adoption of a minimum set of required benefits by each region to standardize transmission planning, while still allowing regional flexibility as to other benefits.[18] These uniform benefits fall into the following five categories: (1) savings obtained due to avoided reliability or local reliability needs, (2) savings obtained due to reductions in planning and capacity reserve investments,[19] (3) production cost savings

[16] Scenario-based planning is a multi-step process: 1. Define scenarios of plausible futures by scanning the current reality, trends and forecasts, uncertainties, and important internal and external drivers 2. Develop a series of plans (initiatives, projects, policies, tactics) that support a certain scenario, work well in multiple scenarios, or are flexible and robust across all scenarios 3. Implement preferred plan and define indicators to alert planners that a certain future is likely to occur, so they can take action (e.g., change course to address the new developments).

[17] AEP supports requiring minimum criteria and modeling requirements for evaluation of scenarios in the transmission planning process. Requiring all RTOs to use a similar baseline of metrics and criteria, would enable regional results of the transmission planning process to be consistent and more easily understood from region to region.

[18] For example, benefits could include reduced loss of load probability, deferred generation capacity investments, access to lower-cost generation, avoided or deferred reliability transmission facilities and aging transmission infrastructure replacement.

[19] As a result of a more robust transmission network, zones and regions can share generation resources to supply demand, thus reducing planning and reserve requirements, resulting in savings to customers. Planning and capacity reserve requirements are the amount of generation resources needed to provide resource adequacy under reasonably anticipated conditions.

associated with the generation of electricity,[20] (4) net energy cost savings to customers, and (5) increased interregional transfers.[21]

The current absence of effective joint planning for interregional transmission projects presents structural obstacles to grid development. In Order No. 1000, FERC required interregional coordination but declined to require joint planning. FERC also did not propose reforms to planning and cost allocation for interregional projects in the Transmission Planning and Cost Allocation NOPR issued last year.[22] In the aftermath of major outages caused by extreme weather events, FERC Staff held a workshop in December 2022 to explore the possible establishment of minimum interregional transmission capacity requirements.[23]

This Committee along with Congress should require FERC to take this effort to the next level and undertake a rulemaking to establish procedures and policies for reform of interregional transmission planning. The goal is to go beyond coordination and expressly require true, integrated joint interregional planning that results in efficient transmission infrastructure developed on the seams between planning regions. This would require neighboring regions to harmonize their interregional planning processes to ensure synchronization on lines that cross their seams.

The NERC study language in the recently enacted debt ceiling bill does not obviate the need for this rulemaking – interregional planning and cost allocation will be needed to determine what projects will be built and how costs will be allocated, whether or not there is a minimum transfer capability requirement.[24] In conducting regional planning, regions need to focus not only on the inward and immediate needs of their own single region, but also outwardly on the planning needs of neighboring regions, in recognition of the interconnected nature of the grid.

In addition to these reforms, every reasonable attempt must be made to leverage value out of the existing transmission system with the use of grid-enhancing technologies. AEP assesses the viability of all technologies to improve the efficiency of

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[20] Transmission enables the supply of more economic generation, and this metric is intended to capture that value.

[21] Some benefits are inherently more difficult to calculate than others; the benefits AEP proposes as standard for all regions maximizes the informative power of benefits in proportion to the burden of calculating them.

[22] *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, 136 FERC ¶ 61,051 (July 21, 2011).

[23] *Establishing Interregional Transfer Capability Transmission Planning and Cost Allocation Requirements*, Notice of Staff-Led Workshop, Docket No. AD23-3-000 (Oct. 6, 2022).

[24] The Fiscal Responsibility Act of 2023 requires NERC to conduct a study of total transfer capability between transmission planning regions in consultation with regional entities and transmitting utilities. NERC will deliver that study to FERC in 18 months, following which the FERC will submit a report on its conclusions to Congress and include recommendations, if any, for statutory changes.

its grid while lowering costs. For example, AEP developed the Breakthrough Overhead Line Design (BOLD) to increase system transfer capability and maximize the use of existing rights-of-way.[25]

V. Congress Should Encourage FERC to Allocate Costs for Regional and Interregional Transmission Projects in a Manner that is Roughly Commensurate with Benefits and Expand the Determination of Benefits

Cost allocation should align with benefits—therefore, in order to achieve alignment on cost allocation there must first be alignment on transmission planning. The reliability of the power grid and the services that it delivers have been, and should continue to be, the primary driver for policy and planning on transmission investment. Beyond reliability, other factors, such as the facilitation of competitive wholesale power markets that lower customer costs and the facilitation of generation mix changes that more cost-effectively move us toward environmental sustainability, are also important drivers in transmission planning.

Congress should encourage FERC to implement cost allocation mechanisms for regional and interregional transmission projects that continue to align beneficiaries and payers. However, as explained above, the determination of benefits should be expanded and include a defined set of common benefits, forecasted over a longer planning horizon, consistent with the useful life of the assets.

Understanding the many ways in which transmission planning benefits customers (*e.g.*, through generation and reliability related cost savings) can inform cost allocation to ensure that benefits are at least roughly commensurate with costs and reduce potential litigation. The benefits considered in planning and the benefits then used as a check for the reasonableness of cost allocation should be the same and should include all reasonable reliable and economic benefits under a multi-value approach, including: (1) savings obtained due to avoided reliability or local reliability needs, (2) savings obtained due to reductions in planning and capacity reserve investments, (3) production cost savings associated with the generation of electricity, (4) net energy cost savings to customers, and (5) increased interregional transfers.

With respect to interregional transmission, the ability to move power between regions can produce a variety of benefits for customers, therefore the criteria that defines how to identify an interregional "need" must be expansive and not be based on the needs of a single region alone. Cost allocation for interregional transmission facilities is particularly complex as the benefits of interregional transfer capability may fluctuate over the long-term, based on changing flow patterns and responses to events. Therefore, cost

[25] *See* https://www.boldtransmission.com/.

allocation for such facilities should reflect broader, shared benefits between planning regions and not simply depend on calculations of directional flows.

Under current Order No. 1000 cost allocation, FERC did not require each transmission planning region to have the same interregional cost allocation method(s) with each of its neighbors.[26] This lack of uniform cost allocation is a potential barrier to interregional transmission. Congress should encourage FERC to undertake uniformity in cost allocation reform that reflects these planning reforms and corresponds to the distribution of expected benefits. Congressional direction to FERC to undertake a rulemaking on joint interregional transmission planning and cost allocation would help drive needed action.

VI. Congress Should Continue to Undertake Efforts to Improve Siting and Permitting Processes

As Congress considers permitting reform proposals with the goal of streamlining the process for regulatory approvals for important infrastructure projects, we note that most of AEP's transmission projects move through the required state permitting and siting processes successfully, although these processes can take a significant amount of time to complete and can involve lengthy and costly litigation. That said, reforms to improve the issuance of federal permits are valuable, and we appreciate the work that this Committee and Members of Congress have undertaken to streamline federal reviews.

While we strongly support efforts to simplify and improve permitting processes, AEP does not believe that a wholesale shift of transmission siting responsibility from state to federal regulators is warranted. State siting authorities should also be provided with an appropriate amount of time to complete a review of proposals for siting of electric transmission facilities through their state prior to the initiation of any backstop siting authority processes.

AEP has worked constructively with state agencies to obtain necessary siting and permit approvals in almost all cases. However, there may be limited circumstances where state regulatory actions are, for instance, preventing the development of transmission projects that provide significant reliability benefits to the grid. For instance, the Pennsylvania regulator recently denied an AEP affiliate a certificate in Pennsylvania for a multi-state congestion-relief project with significant reliability benefits that had been approved as a necessary economic project by both the regional grid planner (PJM) and the Maryland regulator.[27] However, the Pennsylvania regulator found that the need

[26] *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, 136 FERC ¶ 61,051 at P 580 (July 21, 2011) (Order No. 1000).

[27] Congestion often drives economic and reliability transmission projects. When congestion is not resolved, economic projects can develop into reliability projects.

for the project had not been established as required under state law,[28] a decision which AEP is currently litigating.

While many of the projects we have pursued in the last decade have not required NEPA review, we support efforts to make the NEPA process more efficient and would welcome reforms to other key permitting processes by establishing reasonable time limits for agency decisions, ensuring agencies have sufficient staff to review permits, and by initiating litigation reforms.[29] Permit reform need not diminish the underlying environmental requirements and standards. Moreover, AEP remains firmly committed to working closely with local communities where energy infrastructure will be deployed, ensuring the full and meaningful involvement of our neighbors, customers, and local organizations as we build our clean energy future.

Finally, federal law should provide for a workable backstop siting process for transmission projects that deliver important regional or interregional reliability benefits. DOE corridor designation is duplicative of the RTO planning process for determining necessity, does not add value, and adds considerable time.[30] We urge this Committee to streamline the processes for using backstop siting under section 216 of the Federal Power Act by removing the restriction that FERC can only use backstop siting authority for National Interest Electric Transmission Corridors designated by the DOE.

VII. Additional Issues

The focus of this testimony has been on transmission investment and the regulatory framework in which such investment is made. But AEP wants to touch on two additional issues: (1) generator interconnection reform, and (2) recent EPA proposals.

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[28] Order, *In the Matter of Applications of Transource Pennsylvania, LLC for approval of the Siting and Construction of the 230 kV Transmission Line Associated with the Independence Energy Connection – East and West Projects in portions of York and Franklin Counties, Pennsylvania*, at 50, Docket No. A-2017-2640195 *et al.* (Pa. Pub. Util. Comm'n, May 24, 2021), *available at*: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.puc.pa.gov%2Fpcdocs%2F1704597.docx&wdOrigin=BROWSELINK.

[29] Permitting modernization must address both delays in approvals under statutes such as the Endangered Species Act (ESA) and the Clean Water Act, and reviews under NEPA. For example, AEP has been working with congressional staff to create an enforceable timeline for the US Fish and Wildlife Service (USFWS) to complete their ESA review process. The Army Corps of Engineers cannot issue a permit to commence construction until this required process of consultation with the USFWS is concluded. The lack of an enforceable timeline for these reviews has resulted in delays for AEP substation construction in West Virginia and elsewhere.

[30] Other reforms to address these timing concerns might include running the state review and FERC prefiling process in parallel, not in sequence, and establishing reasonable deadlines for FERC action on the requested permit.

First, generator interconnection reform is a key step for enabling the additional generation resources to come online in a timely manner. FERC has proposed rule changes to shift from a first-come, first-served model for studying interconnection requests, to a first-ready, first served model.[31] The FERC proposal would also rely on cluster studies, instead of one-by-one reviews.[32] AEP generally supports these proposed changes as a constructive step toward reducing the delays associated with interconnection queues. However, additional reforms are necessary to ensure that load responsible entities can fulfill their obligations to customers. Interconnection queue reform should include a process to prioritize interconnection of resources owned or contracted by load responsible entities needed to meet reserve margin requirements to ensure reliability to end-use customers.

Second, we note that the EPA's recent proposals for new rules related to fossil-fueled power plants would drive further rapid changes in the generation resource mix, creating more challenges for reliable grid operation and likely more need for transmission investment. NERC observed in its recent testimony before this Committee that there is a risk that the pace of change is overtaking the reliability needs of the system.[33] NERC also noted that conventional generation is retiring at an unprecedented rate.[34] Given the critical importance of maintaining grid reliability, it will be important to ensure that any final actions by EPA are structured with assurances that rule implementation, and in particular retirement of resources needed to preserve grid reliability, can be scheduled in a manner that allows for reliable and affordable service to customers. Environmental regulation will not be sustainable if it, in practice, drives reliability problems.

VIII. Conclusion

AEP approaches transmission-related policy reforms with a customer-first focus and believes that reform should be limited to the elements of the current framework that present concrete, widespread problems. Existing institutional arrangements should remain undisturbed where there is not a problem to solve.

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[31] *Improvements to Generator Interconnection Procs. & Agreements, Notice of Proposed Rulemaking*, 179 FERC ¶ 61,194 at P 4 (2022).
[32] *Id.*
[33] *Full Committee Hearing to Examine the Reliability and Resiliency of Electric Services in the U.S. in Light of Recent Reliability Assessments and Alerts* (June 1, 2023); Witness Panel 1, Mr. James B. Robb, President & Chief Executive Officer (https://www.energy.senate.gov/hearings/2023/6/full-committee-hearing-to-examine-the-reliability-and-resiliency-of-electric-services-in-the-u-s-in-light-of-recent-reliability-assessments-and-alerts).
[34] *Id.*

As discussed above, AEP identifies three priorities for Congressional action:

(1) Encourage FERC to modernize and reform regional and interregional transmission planning to: (a) incorporate longer-term planning time horizons (*e.g.*, 20-years), (b) include standardized and expansive planning scenarios, and (c) consider a wider range of benefits over a longer timeframe to better reflect the value of the assets being placed into service over their useful life.

(2) Encourage FERC to implement cost allocation mechanisms for regional and interregional transmission projects that continue to align beneficiaries and payers, but expand and define the determination of benefits to account for a broad and defined set of common benefits, forecasted over a longer planning horizon consistent with the useful life of the assets; and

(3) Streamline the process for using federal backstop siting authority under section 216 of the Federal Power Act by eliminating the requirement to utilize National Interest Electric Transmission Corridors designated by the Department of Energy for projects that provide significant reliability benefits.

In summary, more robust planning processes with better articulation of benefits, especially for multi-value transmission investments, can lead to better outcomes in the siting and permitting processes.