

ACORE Comments on DOE Speed-to-Power RFI

RE: RFI Response – Accelerating Speed to Power

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ACORE respectfully submits these comments in response to the request for information (RFI) issued by the Department of Energy, “Accelerating Speed to Power/Winning the Artificial Intelligence Race: Federal Action to Rapidly Expand Grid Capacity and Enable Electricity Demand Growth.” ACORE is a national nonprofit organization that unites finance, policy and technology, with a membership that includes energy infrastructure investors, developers, and manufacturers; electric utilities; corporate buyers of energy; and professional services firms

Introduction

To ensure that energy is reliable and abundant, as envisioned in President Trump’s *Unleashing American Energy* executive order, grid operators must be able to affordably move low-cost electrons from the source of their generation to demand centers.¹ The grid should enable, not stymie, job creating infrastructure investment in artificial intelligence (AI) data centers and advanced manufacturing facilities. Data center development is outpacing the ability of grid operators to cost-effectively add new electricity generation and transmission capacity. Challenges to how U.S. electric grid operators plan new transmission lines and interconnect power generation are threatening the nation’s ability to win the AI race. In key markets, data centers are facing interconnection wait times of seven years or longer.² The shortcomings in how U.S. transmission is planned, permitted, and paid for are not new, although newly illuminated by increasing demand.

New transmission lines can take over a decade to build. The full process from utility planning to electrification of a new, high-voltage regional line takes an average of ten years.³ High-voltage, long-distance powerlines which cross multiple planning regions face additional challenges and are often delayed by litigation. SunZia, Boardman-Hemingway, and the TransWest Express are just three prominent examples of the many potentially cost-

¹ President Donald J. Trump, Exec. Order, *Unleashing American Energy* (Jan. 20, 2025), <https://www.whitehouse.gov/presidential-actions/2025/01/unleashing-american-energy/>

² Bloomberg, “*Data Centers Face Seven-Year Wait for Dominion Power Hookups*,” August 29, 2024, <https://www.bloomberg.com/news/articles/2024-08-29/data-centers-face-seven-year-wait-for-power-hookups-in-virginia?embedded-checkout=true>

³ Brian Potter, Inst. for Progress, *How to Save America's Transmission System* (Feb. 22, 2024), <https://ifp.org/how-to-save-americas-transmission-system/>.

saving lines which have taken more than fifteen years to complete.⁴ In 2024, America built just 322 new miles of high-voltage (345kV+) transmission.⁵ In 2013, the U.S. completed nearly 4,000 miles of such projects. This is in spite of the fact that in the 2010s load growth was nearly flat, compared to significant projected demand increases this decade.⁶ Accelerating the pace of development of high-voltage regional and interregional transmission is critical to enabling the lowest-cost new power generation and to serve the increasing load.⁷ In the last two years, grid operators have announced historic transmission investments to help ensure system reliability in this period of load growth -- \$6.7 billion of transmission investment in PJM, \$7.7 billion in SPP, and \$33 billion in ERCOT.⁸ These projects are necessary to accommodate both new generation and new large loads.

Investment in higher-voltage systems is often significantly more efficient than incremental investments in lower voltage upgrades. Higher voltage transmission captures economies of scale, reducing power losses and reducing the need for more expensive, redundant investments in low-voltage transmission or new generation.⁹ MISO estimates that 765kV transmission saves \$2,575 per-megawatt mile, versus \$1,414 for a 345kV line.¹⁰ However, over the past decade, most new projects have been lower-voltage 'local' projects that avoid regional planning processes.¹¹

Interregional transmission development faces significant challenges. Although its expansion is well demonstrated to reduce congestion, improve reliability and expand generation development. The President's Council of Economic Advisers has recognized the value of interregional transmission in reducing consumer costs by enabling the transfer of

⁴ Comments of Grid Action on Federal Permitting Reform, S. Comm. on Env't & Pub. Works (Mar. 21, 2025), <https://gridaction.org/wp-content/uploads/2025/04/Final-Grid-Action-Permitting-Reform-Comments-for-Senate-EPW-Committee-3-21-25.pdf>.

⁵ GRID STRATEGIES LLC, Fewer New Miles: Strategic Industries Held Back by Slow Pace of Transmission (July 2025), https://gridstrategiesllc.com/wp-content/uploads/ACEG_Grid-Strategies_Fewer-New-Miles-2025_vF.pdf.

⁶ ENERGY INFO. ADMIN., After More Than a Decade of Little Change, U.S. Electricity Consumption Is Rising Again, TODAY IN ENERGY (May 13, 2025), <https://www.eia.gov/todayinenergy/detail.php?id=65264>.

⁷ Zach Zimmerman, Michael Goggin, Rob Gramlich & Gretchen Kershaw, *Large-Scale Transmission Deployment Saves Consumers Money* (Grid Strategies, June 2025) (sponsored by Americans for a Clean Energy Grid), https://cleanenergygrid.org/wp-content/uploads/2025/06/GS_Transmission-Deployment-Saves-Consumers-Money_vf.pdf.

⁸ *Id.*, at 7.

⁹ GRID STRATEGIES, LARGE-SCALE TRANSMISSION DEPLOYMENT SAVES CONSUMERS MONEY (June 2025), https://gridstrategiesllc.com/wp-content/uploads/GS_Transmission-Deployment-Saves-Consumers-Money.pdf.

¹⁰ *Id.*,

¹¹ CLAIRE WAYNER, CHAZ TEPLIN, & KAJA REBANE, RMI, Mind the Regulatory Gap: How to Enhance Local Transmission Oversight (2024), <https://rmi.org/insight/mind-the-regulatory-gap/>.

the lowest cost power available from where it is produced to where it is consumed.¹² In late 2024, NERC reported that the United States must build at least an additional 35 GW of interregional transfer capability to avoid blackouts during the hottest and coldest hours of the year.¹³

The growth of the economy, electricity demand, and transmission are inextricably linked. AI promises productivity gains but requires a significant amount of power which in turn necessitates greater transmission capacity. One recent study projects that load growth will increase by 32 percent by 2030, meaning the market needs to build roughly 65GW of new electric generation in just four years.¹⁴ At the same time, there is 2,230 GW of generation and storage waiting in interconnection queues.¹⁵ Which is more than enough power to keep the lights on--if grid operators can get it connected.

Meeting these challenges requires not just accelerated investment in grid expansion but also maximizing the performance of the existing system. Advanced transmission technologies (ATTs), including grid-enhancing technologies (GETs) and high-performance conductors (HPCs), can quickly improve grid capacity. GETs such as dynamic line ratings (DLR), topology optimization, and advanced power flow control can bring near-term benefits. Many of these technologies can be installed in less than a year and increase transmission capacity significantly. Existing lines can be reconducted with HPCs in half the time it takes to construct new greenfield transmission.¹⁶

Some progress is being made. FERC Order Nos. 1920 and 2023 promise to make much-needed changes to transmission planning and interconnection processes, respectively. Both FERC orders mandate consideration of certain GETs and HPCs.¹⁷ Many of the nation's

¹² COUNCIL OF ECON. ADVISERS, *The Economic Benefits of Unleashing American Energy* (July 2025), <https://www.whitehouse.gov/wp-content/uploads/2025/03/The-Economic-Benefits-of-Unleashing-American-Energy.pdf>.

¹³ North American Electric Reliability Corporation, *Interregional Transfer Capability Study Final Report* (Nov. 19, 2024), https://www.nerc.com/pa/RAPA/Documents/ITCS_Final_Report.pdf.

¹⁴ John D. Wilson, Sophie Meyer, Zach Zimmerman, & Rob Gramlich, *Grid Strategies, Power Demand Forecasts Revised Up for Third Year Running, Led by Data Centers* (Nov. 2025), <https://gridstrategiesllc.com/wp-content/uploads/Grid-Strategies-National-Load-Growth-Report-2025.pdf>.

¹⁵ *Maps of Active Interconnection Requests by Region, State, and County*, <https://emp.lbl.gov/maps-projects-region-state-and-county> (last visited Nov. 21, 2025).

¹⁶ T. Bruce Tsuchida, Linquan Bai, S. Ziyi Tang, and Jay Caspary, *Incorporating GETs and HPCs into Transmission Planning Under FERC Order 1920*, The Brattle Group and Grid Strategies, LLC, prepared for the American Council on Renewable Energy (April 2025), available at: <https://acore.org/resources/incorporating-gets-and-hpcs-into-transmission-planning-under-ferc-order-1920/>

¹⁷ T. Bruce Tsuchida et al., *Incorporating GETs and HPCs into Transmission Planning Under FERC Order 1920* (Am. Council on Renewable Energy Apr. 2025), https://acore.org/wp-content/uploads/2025/04/Report__Incorporating-GETs-and-HPCs-Under-FERC-Order-1920__April-21-2025.pdf.

grid operators are considering 765kV "backbone" transmission systems.¹⁸ DOE should prioritize facilitating the highest-leverage investments – ATTs the short-term, and new high-voltage regional and interregional transmission in the long-term – to accelerate the infrastructure needed for data centers and control ratepayer costs.

3. Use of DOE Funding, Financing, and Technical Assistance

- a. In what specific ways can DOE support the development and deployment of large-scale generation and transmission projects?*

DOE can enable innovative solutions from states and grid operators, who are most familiar with their own constraints and opportunities. Financial assistance through tools like the Grid Resilience and Innovation Partnership (GRIP) program and the Transmission Facilitation Program (TFP) is critical, and those programs can be optimized to best support the highest leverage infrastructure. While the Transmission Siting and Economic Development (TSED) program was largely rescinded in the One Big Beautiful Bill Act, grants already announced under that program should be executed to facilitate the siting of critical interregional transmission.

The GRIP program allows DOE to financially support states, tribes, utility commissions, and utilities in projects to improve grid resiliency. Roughly \$3 billion of the initial \$10.5 billion in funds remains unallocated.¹⁹ Improving grid resiliency and supporting speed to power are interlinked goals—aging systems are more vulnerable to extreme weather and less able to support rapid growth. DOE should prioritize investments in ATTs, particularly HPCs, to demonstrate their net benefits given the greater scrutiny that these technologies often receive from state regulators.²⁰

Many GRIP grants announced in the previous administration are undergoing lengthy review with unclear timetables. These projects need clarity. Quickly making final announcements will allow projects to either move forward or find alternative paths. As always, industry needs certainty.

¹⁸ James Amato et al., Burns & McDonnell, From Bottleneck to Breakthrough: How 765-kV Transmission Could Save the Grid (Sept. 30, 2025), <https://info.burnsmcd.com/benchmark/from-bottleneck-to-breakthrough-how-765-kv-transmission-could-save-the-grid>.

¹⁹ Grid Resilience and Innovation Partnerships (GRIP) Program, U.S. Dep't of Energy, <https://www.energy.gov/gdo/grid-resilience-and-innovation-partnerships-grip-program> (last visited Nov. 16, 2025).

²⁰ Rahul Anilkumar et al., Quanta Tech., Advanced Transmission Technologies Planning Guide (July 2025), <https://quanta-technology.com/download-report/?post=5764>.

The TFP is an innovative program that allows for DOE to serve as an anchor tenant in large-scale transmission projects (including reconductoring).²¹ While the \$2.5 billion program is now fully subscribed, it is a revolving fund and DOE can ensure its continued progress by selling its capacity shares and reinvesting the funds.

Much interregional transmission will be built by entrepreneurs and innovators – non-incumbent developers who see the business case for new lines. Their role is made necessary by historic shortcomings in the interregional planning process. The joint PJM-NYISO-ISO-NE planning process, for example, has failed to advance a single new line in the last decade.²² The PJM-MISO process has been similarly limited in accounting for the full scope of benefits – recommending only targeted reliability upgrades that fall short of the transfer capacity needed to lower costs and protect reliability.²³

TFP should be considered for greater support. To support the minimum reliability need for 35 GW of interregional transfer capability, DOE can, in the congressional appropriations process, seek additional funds to maximize the benefits of this program.

In addition to funding tools, DOE’s technical assistance will be essential for achieving the goals of this RFI. The Grid Deployment Office (GDO) is assisting numerous states in the FERC Order No. 1920 compliance process. Under Order No. 1920-A, there are important roles for states at every step: building models, determining assumptions, and agreeing on cost allocation. The consultation process with relevant state entities is underway in all planning regions but DOE’s assistance offers only a single window for its “deep dive” (200+ hours) of support.²⁴ While timelines are rapidly shrinking (most 1920 compliance filings will be submitted in summer 2026), DOE should seriously consider offering a second window of deep-dive assistance.

b. What specific authorities, programs, or initiatives within DOE are best positioned to provide this support?

In addition to the tools detailed above, DOE can achieve further benefits to the grid by soliciting proposals for transmission projects. Section 50403 of the OBBBA provided \$1

²¹ Grid Deployment Off., U.S. Dep’t of Energy, Transmission Facilitation Program (TFP): Fact Sheet (Oct. 2023), https://www.energy.gov/sites/default/files/2023-10/DOE_GDO_TFP_Fact_Sheet.pdf.

²² New England States Committee on Electricity, *U.S. Northeastern RTOs ISO-NE/NYISO/PJM Inter-Regional Transmission Planning Landscape* (June 11, 2024), <https://nescoe.com/resource-center/interregional-transmission-planning-landscape/>.

²³ Grid Strategies and ACORE, *Billions of Benefits: A Path for Expanding Transmission Between MISO and PJM*, Nov. 2023, available at <https://acore.org/wp-content/uploads/2023/11/ACORE-Billions-in-Benefits-A-Path-for-Expanding-Transmission-Between-MISO-and-PJM.pdf>.

²⁴ U.S. DEP’T OF ENERGY, *Utility TA Application and Selection Criteria*, GRID DEPLOYMENT OFF. (May 13, 2024), <https://www.energy.gov/gdo/utility-ta-application-and-selection-criteria>.

billion in new appropriations for LPO and created a new category: Energy Dominance Financing Authority. The October 2025 closing of a loan guarantee with utility AEP to reconductor and rebuild 5,000 miles of transmission was a welcome announcement.²⁵ DOE should pursue the dual imperative of maximizing our existing grid while expanding rapidly. In addition to reconductoring and rebuild projects, DOE should prioritize High-Voltage Direct Current (HVDC) transmission wherever possible.

HVDC is the next-generation technology for the power grid. It is directly controllable, supports greater resiliency, and has much lower losses than traditional AC over long distances.²⁶ HVDC is controllable in intervals as small as fractions of a second. Operators can use this feature to bolster essential grid services, including voltage support and black start capability, necessary to reboot the grid if it is ever fully taken offline. The same is not true of standard Alternating Current (AC) transmission.²⁷ HVDC also offers the ability to connect asynchronous grids, such as the Eastern and Western Interconnections.

China has deployed over 30,000 miles of ultra-high voltage DC at 1,000kV or above, whereas the United States has deployed zero. This gap shows no sign of closing – in 2024, China announced plans to fast-track an additional 37 high-voltage transmission lines and start another 33 within the year.²⁸ This lead in HVDC transmission is a major enabler of China's ability to rapidly interconnect all new generation sources. From 2023 to 2024, China added roughly 455 GW of new generation.²⁹ The U.S. added just under 50 GW in that same period.³⁰

Early support of HVDC is also important to send a demand signal to expand domestic manufacturing capability. There are significant backlogs in the western supply chain,

²⁵ U.S. Dep't of Energy, Energy Department Closes Loan Guarantee to Strengthen U.S. Grid Reliability (Oct. 16, 2025), <https://www.energy.gov/articles/energy-department-closes-loan-guarantee-strengthen-us-grid-reliability>.

²⁶ Robin Allen & Rachel Levine, Unlocking HVDC: How Congress Can Enable a More Resilient Grid, Niskanen Ctr. (July 24, 2025), <https://www.niskanencenter.org/how-congress-can-enable-a-more-resilient-grid/>.

²⁷ <https://grainbeltexpress.com/wp-content/uploads/2023/01/HVDC-Transmission-A-National-Security-and-Energy-Resilience-Imperative-122022.pdf>

²⁸ M.Y. Yang et al., China Energy Transition Review 2025 (Ember Sept. 9, 2025), <https://ember-energy.org/app/uploads/2025/09/China-Energy-Transition-Review-2025.pdf>.

²⁹ Enerdata, China Installs Record Capacity for Solar (+45%) and Wind (+18%) in 2024, Daily Energy & Climate News (Jan. 22, 2025), <https://www.enerdata.net/publications/daily-energy-news/china-installs-record-capacity-solar-45-and-wind-18-2024.html>.

³⁰ FED. ENERGY REGULATORY COMM'N, OFFICE OF ENERGY POLICY AND INNOVATION, 2024 State of the Markets Staff Report (Mar. 20, 2025), https://www.ferc.gov/sites/default/files/2025-03/25_State-of-the-Market_0320_1200.pdf.

particularly for voltage source converters, stretching into the early 2030s.³¹ Existing manufacturing capacity is largely dedicated to production for European nations who coordinated their transmission planning and purchasing, enabling purchase commitments far into the future. DOE should conduct a formal study on whether similar purchasing models might be appropriate for combinations of states, utilities, and the federal government. In the interim, DOE can use its financial tools to help advance promising HVDC projects so that they might secure critical components as soon as possible.

- c. *How should DOE prioritize or structure its financial and technical support to advance high-impact generation, transmission, and grid infrastructure projects to serve large electric loads? How can Federal support best de-risk early-stage infrastructure investment to attract private or other public capital?*

As discussed previously, the Transmission Facilitation Program is an innovative model for derisking capital intensive projects. Non-incumbent developers are behind many of the largest, most innovative and highest-value interregional transmission projects. Transmission owning utilities can recover the costs from their rate base. Non-incumbents have no such certainty. Despite their well demonstrated benefits, independently developed interregional projects are particularly risky and benefit from the certainty provided by a TFP award.

HVDC transmission is a nascent technology in the United States as compared to the rest of the world. As discussed previously, DOE investment can stimulate the demand signal for original equipment manufacturers (OEMs) to invest in the United States' market. Alternating current will still make up the vast majority of transmission lines built in the United States, but HVDC has unique attributes that make it attractive for the longer, higher voltage and interregional projects that add the most value to the grid.³² Accelerating the HVDC revolution will require more than one-off project investment, and will benefit from direct supply chain support. The HVDC Cost Reduction (CORE) Initiative, operated by DOE's Office of Electricity, should be maintained and expanded.³³ And when Congress

³¹ Johannes P. Pfeifenberger et al., The Operational and Market Benefits of HVDC to System Operators (The Brattle Grp. & DNV Sept. 2023), <https://acore.org/wp-content/uploads/2023/09/The-Operational-and-Market-Benefits-of-HVDC-to-System-Operators.pdf>.

³² Johannes Pfeifenberger, Interregional Transmission Planning with HVDC (Brattle Grp. presentation, Mar. 19, 2024), <https://www.brattle.com/wp-content/uploads/2024/03/Interregional-Transmission-Planning-with-HVDC.pdf>

³³ U.S. DEPT OF ENERGY, OFFICE OF ELECTRICITY, High-Voltage Direct Current (HVDC) Cost Reduction (CORE) Initiative (Aug. 30, 2023), https://www.energy.gov/sites/default/files/2023-08/HVDC%20CORE%20Initiative_FINAL.pdf.

reauthorizes the Defense Production Act (DPA), DOE should consider whether to recommend that DPA be invoked for HVDC technology, as it has been previously.³⁴

d. Are there gaps in capital availability (e.g., for utilities, project developers, or certain type of infrastructure) that DOE funding could help bridge?

DOE can help align incentives so that all parties – ratepayers, developers and utilities – benefit from the adoption of ATTs. Any new technology imposes some level of risk. To fairly compensate transmission owners for taking that risk, DOE should conduct a study as to whether rate incentives, particularly shared savings incentives, can be implemented in a way that accelerates the adoption of new technology while protecting ratepayers. A shared savings incentive rewards utilities for saving ratepayers money. Utilities would receive a portion of the savings derived from use of ATTs as determined through a standard cost-benefit analysis. This incentive could save consumers billions of dollars per year.³⁵

DOE can also work in partnership with Congress to find long term solutions to the gap in building new high-voltage transmission. While the AI revolution is currently challenging our electricity grid, load growth will extend beyond data centers.³⁶ Reshoring of advanced manufacturing, including critical mineral refining, electrification of transportation and buildings, will drive further load growth in the next decade. Congress has previously investigated an investment tax credit (ITC) for transmission.³⁷ An ITC would massively accelerate transmission buildout – stimulating billions in investment and creating over 600,000 jobs.³⁸ Given the costs to the economy, consumers and reliability of an insufficient transmission system, DOE should investigate and report to Congress on the potential benefits of an ITC as a policy tool.

e. What forms of technical assistance or planning support (e.g., power flow modeling, capacity expansion planning, load forecasting, interconnection studies, technology

³⁴ Nadia Schadlow, Rebooting the Defense Production Act, HUDSON INST. (Sept. 10, 2025), <https://www.hudson.org/defense-strategy/rebooting-defense-production-act-nadia-schadlow>.

³⁵ Gramlich, Rob et al., “A Roadmap for Advanced Transmission Technology Adoption,” September 2024, <https://ceepr.mit.edu/wp-content/uploads/2024/09/MIT-CEEPR-RC-2024-06.pdf>.

³⁶ PA Consulting, A Reliable Grid for an Electric Future (Nat'l Elec. Mfrs. Ass'n Jan. 2025), <https://www.makeitelectric.org/wp-content/uploads/2025/04/grid-reliability-study-nema-deck.pdf>.

³⁷ Press Release, Off. of Rep. Steven Horsford, Horsford, Heinrich, Lee Introduce Bicameral Bill to Build A More Resilient, Reliable 21st Century Electric Grid (Apr. 8, 2021), <https://horsford.house.gov/media/press-releases/horsford-heinrich-lee-introduce-bicameral-bill-to-build-a-more-resilient-reliable-21st-century-electric-grid>.

³⁸ Michael Goggin & Rob Gramlich, Investment Tax Credit for Regionally Significant Electricity Transmission Lines: A Description and Analysis (Am. Council on Renewable Energy May 2021), <https://acore.org/wp-content/uploads/2021/05/Investment-Tax-Credit-for-Regionally-Significant-Electricity-Transmission-Lines-ACORE.pdf>.

operational assessments, technology implementation roadmaps, etc.) would help states, utilities, and project developers more effectively use Federal funding to meet demand?

The grid, as often noted, is the world's largest and most complex machine. Transmission and interconnection planning requires highly technical knowledge of both the engineering and physics of grid operations and the economics and legalities of open access tariffs. It is difficult for states and municipalities to develop and retain this kind of talent. DOE and the National Labs should continue to provide technical assistance including job training and recruitment across all the listed priorities.

In addition to the listed areas, DOE can consider how to support states in quickly moving projects through environmental permitting regimes. The National Environmental Policy Act (NEPA) and other federal statutes can delay all forms of energy infrastructure. State and local permitting also play an important role. A significant portion of these delays are driven by understaffed agencies at all levels of government.³⁹ State permitting officers often manage overwhelming caseloads or have insufficient training to quickly process the applications they receive. DOE can support both further training efforts and additional staff at the state agency level.

New AI-powered tools hold potential for improving interconnection and transmission planning. Long interconnection wait times are largely a function of the complexity of the study process as well as restudies that occur when individual projects exit the queue or underlying assumptions change. Grid operators are already looking to AI to tackle this challenge. MISO, PJM and SPP have all announced partnerships with technology providers, and early results are promising.⁴⁰ DOE can help accelerate the development and uptake of these tools. Last year, GDO announced \$30 million in grant funding towards this goal under the AI for Interconnection program (AI4IX).⁴¹ That grant program should move forward, and policymakers should consider expanding the initiative.

DOE can also play a key role in supporting the rollout of next-generation grid technologies. The federal government should leverage institutions, such as the national labs, to lead on establishing a knowledge base and documentation of these technologies' benefits. For

³⁹ Devin Hartman, Josiah Neeley & Philip Rossetti, R Street Inst., State and Local Permitting for the Energy Sector: Challenges and Opportunities (Nov. 19, 2024), <https://www.rstreet.org/research/state-and-local-permitting-for-the-energy-sector-challenges-and-opportunities/>.

⁴⁰ Ethan Howland, PJM, Google Partner to Speed Grid Interconnection Using AI, UTILITY DIVE (Apr. 10, 2025), <https://www.utilitydive.com/news/pjm-google-tapestry-grid-interconnection-ai/744982/>.

⁴¹ U.S. DEPT OF ENERGY, GRID DEPLOYMENT OFF., AI for Interconnection (AI4IX) (Nov. 25, 2024), <https://www.energy.gov/gdo/ai-interconnection-ai4ix>.

example, they should be considered in assessments of technology readiness such as the NREL's Annual Technology Baseline.⁴² As new grid technologies – such as long duration storage and solid-state transformers – become commercially available DOE should similarly aim to accelerate their dissemination.

- g. What additional coordination is needed between DOE and other Federal to align funding, permitting, or policy with emerging electric load challenges? Are there successful examples of interagency coordination that should be expanded to address grid capacity and load growth?*

Permitting reform is well-suited for collaboration. Transmission projects may require permits from multiple different federal agencies. The Coordinated Interagency Transmission Authorizations and Permitting (CITAP) program is still in the early stages of implementation but provides a good model to move projects towards completion. CITAP designates DOE as the lead agency for qualified transmission projects and charges DOE with shepherding applications through other federal agencies. CITAP can be made more transparent, for example by posting project milestones on a publicly available dashboard, as is standard practice for FAST-41 projects.

AI can be a powerful tool in the permitting process – both for scoping the project impacts and writing the technically complex interim and final reports. The Pacific Northwest National Laboratory is already working on AI-powered tools to ease the permitting process.⁴³ PermitAI, and similar projects, can play an important role in the Department's Speed-to-Power strategy. Industry should be brought into the process as early as possible to ensure that any new AI tools are built with a full understanding of market participants' needs and concerns.

Categorical exclusions (CEs) are another area where DOE can collaborate with other agencies. In July 2025, President Trump signed an Executive Order directing all permitting agencies to work with the Council on Environmental Quality on new CEs that can expedite the construction of AI data centers and associated energy infrastructure.⁴⁴ As a part of this effort, DOE should consider expanding the CE for transmission infrastructure built on previously disturbed rights-of-way. The CE is currently limited to projects less than 20 miles

⁴² GridLab, "Supporting Advanced Conductor Deployment: Barriers and Policy Solutions," April 9, 2024, <https://www.2035report.com/wp-content/uploads/2024/05/5.3-Reconductoring-policy-report.pdf>.

⁴³ PAC. NW. NAT'L LAB., PermitAI (2025), <https://www.pnnl.gov/projects/permitai>.

⁴⁴ Accelerating Federal Permitting of Data Center Infrastructure, Exec. Order No. 14318, 90 Fed. Reg. 35,385 (July 28, 2025).

long.⁴⁵ Rebuilds and reconducting in previously disturbed areas should not trigger lengthy new study processes – regardless of the length of the line.

Lastly, all federal agencies can continue to improve their permitting processes. All energy infrastructure developers share similar frustrations: understaffed agencies take too long to process applications, requirements vary from office to office, and there is limited ability for developers to appeal individual decisions.⁴⁶ Permitting agencies need to be well staffed and well-trained. Developers need clarity at all steps of the process, and there needs to be accountability for permitting officials.

4. Load Growth Trends

- a. *What types of new electric load are driving demand increases in your service area or region?*

While the magnitude of future load growth will be significant, there is uncertainty around the precise scale and speed of the increasing demand. As then-FERC Chairman Rosner wrote in a letter to the RTOs/ISOs, “improving forecasts by even a few percentage points in the right direction—up or down—can impact billions of dollars in investments and customer bills.”⁴⁷ DOE can work with the Commission and grid operators to align on best practices for demand forecasting and ensure that projections are, from region to region, based on similar methodology and grounded in market reality.

The Energy Information Administration (EIA) is a well-respected and trusted source of power industry data. It is well suited to produce projections of load growth. Data centers are such a significant portion of new demand that they warrant their own set of tracking tools. EIA currently tracks data center load as just a subset of commercial load.⁴⁸ Data center load growth should be disaggregated and regularly reported upon – not just in the Commercial Buildings Energy Consumption Survey.

5. Grid Infrastructure Constraints

⁴⁵ Comments of Am. Council on Renewable Energy on Nat'l Env't Pol'y Act Implementing Procedures, Dep't of Energy, DOE-HQ-2023-0063 (Jan. 17, 2024), <https://acore.org/resources/acore-comments-on-doe-proposed-expansion-of-categorical-exclusions/>.

⁴⁶ Comments of Am. Council on Renewable Energy on Improving the Federal Environmental Review and Permitting Process, S. Comm. on Env't & Pub. Works (Mar. 21, 2025), <https://acore.org/resources/acore-permitting-comments-for-senate-environment-and-public-works-committee/>.

⁴⁷ Letter from David Rosner, Chairman, Fed. Energy Regul. Comm'n, to R.T.O.s/I.S.O.s (Sept. 18, 2025), <https://www.ferc.gov/news-events/news/chairman-rosners-letter-rtosisos-large-load-forecasting>.

⁴⁸ U.S. ENERGY INFO. ADMIN., Electricity Use for Commercial Computing Could Surpass Space Cooling, Ventilation, TODAY IN ENERGY (June 25, 2025), <https://www.eia.gov/todayinenergy/detail.php?id=65564>.

- a. *What generation, transmission, or distribution constraints are limiting the ability to serve this demand?*

A lack of transmission infrastructure is the primary barrier to bringing on both new generation and meeting the needs of new load. In much of the country, the transmission system is so oversubscribed that new customers are being quoted extraordinary wait-times and exorbitant system upgrade costs. This is doubly true in the regions where AI data centers are most concentrated.⁴⁹

- b. *What are the primary challenges and barriers to expanding infrastructure and deploying large-scale generation and transmission projects?*

Transmission expansion will require improved regional and interregional planning processes that recognize the full scope of benefits, fully integrate interconnection processes with transmission planning, and greater efficiency in state, federal and local permitting. As discussed previously, there are additional supply chain and market challenges to address to achieve the needed buildout of HVDC lines.

Grid planners and operators are making progress towards improving transmission planning and interconnection processes. Order Nos. 1920 and 2023, if properly implemented, will provide significant improvements over the status quo. DOE can provide technical assistance to help states and utilities faithfully execute these new requirements. Both Orders require the expanded consideration of ATTs in the planning and interconnection processes. ATTs hold the potential to defer billions in upgrade costs which would otherwise be paid by consumers.⁵⁰ DOE would be correct to prioritize GETs and HPCs in their technical assistance as these technologies can accelerate speed to power while controlling ratepayer costs.

Siting and permitting pose significant obstacles to transmission expansion. Projects may require the approval of multiple state utility commissions or municipal planning boards, and community engagement is essential. The Transmission Siting and Economic Development (TSED) grant program provides benefits to communities that host nationally significant projects. Previous grants funded apprenticeship training programs in New Jersey

⁴⁹ ABIGAIL WEEKS ET AL., RMI, PJM's Speed to Power Problem and How to Fix It: Overlooked Interconnection Improvements Are Key to Alleviating PJM's Cost and Capacity Crises (Nov. 4, 2025), <https://rmi.org/pjms-speed-to-power-problem-and-how-to-fix-it/>.

⁵⁰ T. Bruce Tsuchida et al., Incorporating GETs and HPCs into Transmission Planning Under FERC Order 1920 (Am. Council on Renewable Energy Apr. 2025), https://acore.org/wp-content/uploads/2025/04/Report__Incorporating-GETs-and-HPCs-Under-FERC-Order-1920__April-21-2025.pdf.

and municipal water infrastructure upgrades in rural Montana.⁵¹ Any remaining funds in this program should be spent to ease the process of building these essential transmission projects.

The Secretary of Energy has authority, under the Federal Power Act, to designate National Interest Electric Corridors (NIETCs) where there is an urgent need for transmission to alleviate grid congestion. A NIETC designation identifies these important transmission needs and unlocks FERC backstop siting authority. However it requires two separate NEPA processes, one for the corridor designation and another for project construction.⁵² In April 2025, GDO received comments on Phase 3 of a NIETC designation process for potential corridors in the southwest, the Dakotas, and across Lake Erie.⁵³ It is important that DOE continue that process. As DOE scopes the forthcoming 2027 Transmission Needs Study, leadership should consider how it might inform potential NIETC designations at the front-end.

Conclusion

The proliferation of large loads poses challenges to the grid but also offers opportunity. The transmission system has long been overlooked and is in dire need of upgrade. Investments in our grid made now will not only accelerate speed to power – they will help lower costs, protect reliability and encourage electricity intensive businesses to expand in the future. DOE’s Speed to Power RFI is a promising step in the right direction and ACORE is grateful for the opportunity to comment.

⁵¹ U.S. DEPT OF ENERGY, Transmission Siting and Economic Development Grants Program, GRID DEPLOYMENT OFF. (July 24, 2024), <https://www.energy.gov/gdo/TSED>.

⁵² Aidan Mackenzie, IFP, How NEPA Will Tax Clean Energy: The National Environmental Policy Act Has Become a Barrier to Environmental Policy (July 25, 2024), <https://ifp.org/how-nepa-will-tax-clean-energy/>.

⁵³ Notice of Early Public and Governmental Engagement for Potential Designation of Tribal Energy Access, Southwestern Grid Connector, and Lake Erie-Canada National Interest Electric Transmission Corridors; Reopening of Comment Period, 90 Fed. Reg. 14,648 (Apr. 3, 2025).

Respectfully Submitted,

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