



**Americans for a Clean Energy Grid Comments
on the Department of Energy’s Notice of Intent and
Request for Information Regarding the Establishment
of a Transmission Facilitation Program,
Reference No. 2022-10137**

Americans for a Clean Energy Grid (ACEG)—a not-for profit public interest advocacy organization that brings together a diverse coalition of stakeholders focused on the need to expand, integrate and modernize the high-voltage grid in the United States¹—appreciates this opportunity to comment on the Department of Energy’s (DOE’s) plans for implementing the Transmission Facilitation Program (TFP).²

Electricity is an essential service, and nearly all aspects of modern life depend on a robust and reliable power grid. But our nation’s existing grid is neither technically nor locationally sufficient to meet our modern needs. According to the American Society for Civil Engineers, most of the nation’s transmission and distribution lines were constructed in the 1950s and 1960s and have a 50-year life expectancy, meaning they have reached or surpassed their intended lifespan.³ Simply replacing old lines will not resolve current and expected future problems, however. Real-world experience suggests that generation shortfalls resulting from severe weather and other threats are occurring with greater intensity and frequency, and these events tend to be at their most extreme in areas smaller than fully interconnected power systems. Transmission can address the capacity shortfalls by enabling imports from areas less affected by the weather events. Similarly, a recent report by national security experts noted that “Our electricity grid’s resilience—its ability to withstand shocks, attacks and damages from natural events, systemic failures, cyber-attack or extreme electromagnetic events, both natural and man-made—has emerged as a major concern for U.S. national security and a stable civilian society.”⁴ The report described large scale transmission as a solution noting that “Transmission

¹ The ACEG coalition includes: multi- state utilities that develop, own, and operate transmission; trade groups that include transmission owners and transmission equipment manufacturers among their members; renewable energy trade groups, developers, and advocates; environmental and labor advocacy organizations; buyers of energy; and energy policy experts. ACEG seeks to educate the public, opinion leaders, and public officials about the needs and potential of the transmission grid. These comments do not necessarily reflect the views of individual members.

² Department of Energy, *Notice of Intent and Request for Information Regarding Establishment of a Transmission Facilitation Program*, 87 Fed. Reg. 29142 (May 12, 2022) (“Notice”).

³ American Society of Civil Engineers, “[Policy Statement 484 - Electricity Generation and Transmission Infrastructure](#),” Adopted by the Board of Direction on July 13, 2019.

⁴ National Commission on Grid Resilience, “[Grid Resilience: Priorities for the Next Administration](#),” at 1, 2020.

buildout is critical to resilience as it can relieve line overloading—or ‘congestion’ in industry jargon—on the existing system, lessening the compounding risks that come with a strained grid that could then be tested by an extreme weather event or an attack incident. Moreover, by enabling further development of renewable energy resources over wider geographic areas, well-planned transmission expansion can make targeted attacks on the grid more difficult to plan and carry out.”⁵ Indeed, large-scale transmission buildout is vital to achieving climate policies and bringing on the lower-cost and cleaner resources that utilities, states, and consumers have been calling for. Independent estimates indicate that high voltage transmission will need to double by 2030 and triple by 2050 at a cost of \$360 billion through 2030 and \$2.2 trillion by 2050 in order to achieve a zero-carbon future by 2050.⁶

Because both the need for transmission expansion, and the investment needed to achieve that goal, are significant, policies and incentives that support transmission buildout—such as the Transmission Facilitation Program at issue here—have the potential to deliver huge benefits for America. Indeed, between 2012 and 2014, SPP completed \$3.4 billion in transmission expansion projects to better integrate the power system’s eastern and western regions and reduce overall congestion on the SPP grid.⁷ SPP estimates that the net present value of all quantified benefits, including production cost savings, is expected to total over \$10 billion over the next 40 years. Similarly, the MISO MVP portfolio consists of 17 transmission projects distributed across the MISO footprint. At an estimated total cost of \$5.5 billion,⁸ the portfolio is estimated to generate \$12.1 to 52.6 billion in net benefits over the next 20 to 40 years and will enable 52.8 million MWh of wind energy to meet renewable energy goals and mandates through 2031.⁹ In short, the benefits generated by MISO’s Multi-Value Projects (MVPs) and SPP’s Priority Projects exceeded the costs by 2.2 to 3.5 times.¹⁰ This means a dollar spent on transmission enables access to generation that is \$3 to \$4 cheaper than would otherwise be available.

⁵ *Ibid.*, at 42.

⁶ Larson et al, *Net-Zero America: Potential Pathways, Infrastructure, and Impacts* at 108, (October 29, 2021), Princeton University <https://netzeroamerica.princeton.edu/the-report>; see also DOE, “DOE Launches New Initiative From President Biden’s Bipartisan Infrastructure Law To Modernize National Grid,” January 12, 2022.

⁷ SPP, “[The Value of Transmission](#),” at 5, January 2016.

⁸ MISO, “[Regionally Cost Allocated Project Reporting Analysis](#),” January 2021.

⁹ MISO, “[MTEP17 MVP Triennial Review](#),” at 4, September 2017.

¹⁰ SPP, “[The Value of Transmission](#),” at 5, January 2016, and MISO, “[MTEP17 MVP Triennial Review](#),” at 4, September 2017.



ACEG commends Congress for including the TFP in the Infrastructure and Jobs Act (IIJA)¹¹ and DOE for acting swiftly to implement the program. DOE's authorization to borrow up to \$2.5 billion in outstanding repayable balances at any one time for the purpose of carrying out the TFP will serve only a portion of the total investment needed to ensure that we have a secure, reliable, and affordable network, but every dollar is important, especially dollars that can bring projects to completion or that can reduce overall costs for ratepayers.

The IIJA authorizes the DOE to develop and implement a TFP to assist eligible entities with the construction of new, replacement, and upgraded high-capacity transmission lines through the following three financial mechanisms: capacity contracts, loans, and public-private partnerships.¹² In its Notice, DOE proposes to limit its initial solicitation to capacity contracts.¹³ ACEG supports DOE's proposed limitation as generally projects seeking such contracts are moving closer to their end stages of development, and are therefore more likely to come to fruition. ACEG also generally supports the direction DOE is taking in its Notice with respect to other program specifics but offers below some general comments and responses to a few select questions raised in the Notice to assist DOE with finalizing implementation details.

I. General Comments

a. DOE should clarify the intersection of the TFP program with other federal programs and acts.

As the TFP is a federal program, it is important that the DOE clarify the impact of a project using TFP funds on the eligibility and applicability of other federal programs. For example, while TFP assistance helps secure the financing that some projects need to start construction, the dollars available under the program are limited. Even with TFP implementation, other financing opportunities including federal and state loans, loan guarantees, grants, and tax incentives, will continue to play an integral role in transmission construction. As such, DOE should clarify that, except for the prohibitions listed in the IIJA,¹⁴ project applicants are not only allowed, but are encouraged, to access other options for funding support.

¹¹ Infrastructure Investment and Jobs Act, Public-Law 117-58, 135 Stat. 429, (November 15, 2021).

¹² IIJA Sec. 40106.

¹³ Notice at 29144.

¹⁴ 42 USC 18713, Sec 40106; IIJA Sec (j)(7)(B).



Similarly, ACEG appreciates DOE's confirmation that applications capacity contracts are not required to account for National Environmental Policy Act (NEPA) environmental impact review, because DOE's entry into a capacity contract does not independently trigger NEPA review.¹⁵ When, and if, DOE determines that it will issue solicitations for the second and third prongs of the TFP program, loans and public-private partnerships, ACEG encourages DOE to provide similar guidance on the applicability of NEPA to projects that are chosen for those programs.

b. ACEG supports the optimization of TFP funds and transparency regarding the use of the funds.

ACEG supports DOE's intention "to execute the TFP in a manner that optimizes the use of available funds" in order "to accelerate the deployment of transmission facilities that will best serve the national interest."¹⁶ In order to do so, DOE should target projects that will provide multiple and widespread benefits (discussed in more detail further below). DOE should pay particular attention to projects that will provide regional and interregional resilience and reliability benefits.

Moreover, ACEG encourages DOE to implement transparent processes for the public—who are funding the program—to understand which projects were awarded TFP assistance and the basis for the selection. Such processes should be designed to balance transparency considerations with confidentiality and Critical Infrastructure Information concerns.

II. Specific Questions

- a. Question 1: Please comment on the TFP solicitation process proposed in this NOI. What are the potential positive and negative impacts of limiting the initial solicitation to capacity contracts for projects that can be completed by December 31, 2027? Rather than conducting separate solicitation processes, should DOE request applications under a single solicitation that remains open for a rolling review and determination process? What are the merits and demerits of using one approach or another to achieve TFP's objectives?**

As discussed above, ACEG supports DOE's decision to tier the TFP program and limit the initial solicitation to capacity contracts for eligible projects that will commence

¹⁵ Notice at 29143.

¹⁶ Notice at 29143 & 46.



commercial operation no later than December 31, 2027.¹⁷ ACEG further supports DOE's proposal to establish a distinct solicitation window, though, encourages DOE to establish at the outset of the program the timelines for the next several solicitation windows. For example, DOE could establish a biannual solicitation for projects that will go online within 5 years of solicitation window closing date. Unlike a rolling application process, distinct solicitation windows will provide DOE with an opportunity to compare projects within a select time frame and will provide potential project applicants with both flexibility and notice and opportunity to plan for future submissions.

Though DOE has committed to first offering capacity contracts, ACEG encourages DOE to continue to investigate whether there are also concrete use cases for the loan and public-private partnership programs. And if so, DOE should timely issue implementation plans for these other forms of TFP assistance.

- b. Question 2: When considering the merits of TFP applications, how should DOE consider the impact a proposed project has on reliability and resilience, reducing greenhouse gas emissions, generating host community benefits, encouraging strong labor standards the growth of union jobs and expanding career-track workforce development in various regions of the country, improving energy equity and achieving environmental justice goals, maximizing the use of products and materials made in the United States, and maintaining or improving energy security? How should DOE evaluate eligible projects that include benefits that may vary across the set of preferred impacts? To what extent should DOE consider additionality of outcome on these dimensions? What information should DOE seek from applicants to inform such considerations? What metrics and methods are available for conducting such evaluations?**

ACEG encourages DOE to consider the benefits of proposed projects broadly, including, but not limited to the impact of the project on:

- reliability and resiliency;
- increasing resource adequacy which may be derived from relieving capacity constraints and connecting resource areas that diversify the regional portfolio or that would otherwise be stranded;

¹⁷ In assessing TFP applications for projects that will be constructed in organized market regions that do not use a contract-path methodology, ACEG encourages DOE to consider whether it should implement an option to enter into a non-traditional transmission capacity instrument that can serve as a proxy for capacity contracts, such as Capacity Interconnection Rights or long-term congestion revenue rights.



Americans for a Clean Energy Grid

- economic development, especially in rural areas and frontline communities, including, e.g. domestic manufacturing impacts, land lease and community revenues, and employment impacts on both a limited (e.g. planning, engineering, and construction) and long-term (operation and maintenance) basis;
- well-paying jobs;
- emissions reductions; and
- production cost savings.

Additionally, ACEG supports DOE’s intent to use the TFP “to support strong and equitable economic growth,” including by “supporting job growth through investments in domestic manufacturing.”¹⁸ Indeed, such support is one of the major benefits of transmission development. A recent analysis by the Brattle Group indicates that domestic content accounts for 82 percent of the total value of transmission investment, with 61 percent of materials sourced domestically.¹⁹ Brattle estimated that 65 percent of transmission wires and towers are sourced domestically, while 35 percent of transformers and circuit breakers are domestic.

As the need for, and benefits of, transmission projects may differ by their geographic location, it is unlikely that DOE will be able to conduct an apples-to-apples comparison of projected benefits of lines that are proposed in different locations. Instead of mandating the slate of specific benefits that a project must meet to qualify for TFP funds, DOE should establish a list of preferred public benefits and place the burden on the project proponent to clarify which public benefits—both direct and indirect—are expected to be derived from the project.

The project proponent should be required to provide evidence backing their claims, including a quantification of benefits and an explanation of the model, assumptions, and inputs used to calculate benefits. For example, resilience benefits can be measured by determining the load and net load diversity between the two ends of a line. And resource adequacy benefit can be estimated by determining the total generation capacity value that can be delivered through the line, compared to the region’s capacity needs. While applicants should be required to provide complete applications, DOE’s decision timelines should provide opportunity for DOE to seek clarification if needed.

- c. Question 3. To what extent should maximizing the benefit from federal expenditures be a factor considered when comparing eligible projects? How should the “benefit” be interpreted and measured, either in financial terms, in terms of system benefits, or in terms of policy outcomes as outlined in Question 2? Please provide**

¹⁸ Notice at 29142 & n.3.

¹⁹ Pfeifenberger and Hou, “[Employment and Economic Benefits of Transmission Infrastructure Investment in the U.S. and Canada](#),” at 20, May 2011.



recommendations for a methodology for making such comparisons of benefit.

While ACEG supports the maximization of benefits, the perfect should not be the enemy of the good. It is more important that DOE support as many well-planned, needed, and beneficial transmission projects as possible under the funding limits, than it is to limit funding disbursement in anticipation of a potentially more beneficial project. DOE should consider any lines to be a good candidate for the TFP program if they have demonstrated an expectation of benefits and need a little extra support to become viable and move forward.

In order to continue to refine how federal expenditures can be used to maximize the benefits of transmission, DOE should consider establishing a metric to compare the cost of the DOE investment to benefits achieved by the lines that are selected to be supported by the TFP program and are energized. Such metric could include using the capacity of new transmission deployed via the TFP program to calculate the regional/interregional value of each increment of transmission (e.g., achieved “system” benefits from decarbonization and resilience to extreme weather events).

- d. Question 5. Are there methods and approaches to implementing TFP that amplify and leverage the funding available through TFP, and accelerate the greatest quantity of new transmission development that will best serve the national interest, including by cost-effectively increasing resilience and reducing greenhouse gas emissions, while promoting economic growth and energy justice?**

In order to amplify and leverage the available funding, DOE should, to the best of its ability, concentrate on offering TFP assistance to projects that need additional security to move forward and that: (1) need only a small amount of funding to be built, (2) can redeploy funding received through the TFP in order to support construction of another transmission projects, (3) can provide evidence that there is economic potential for DOE to quickly recoup its investment (e.g. the line is connecting to a resource rich area), or (4) that facilitate the interconnection of other major projects.

- e. Question 9. Should DOE establish a standard format and methodology for each applicant to present economic data, projections, analysis, and other information in support of an application for TFP support? If so, please address the components that should be included as part of a standard format and methodology and what information should be required. Or alternatively, please identify methods or processes that are employed in other federal or non-federal programs, such as the DOE Loan Guarantee Program, that could be adopted by the TFP as standard methods for assessing applications.**



While ACEG encourages DOE to establish clear and transparent application and reporting guidelines, a standardized format and methodology for doing so is likely unnecessary. Moreover, the application and reporting guidelines that DOE does establish should be reasonable and not overly burdensome. If they are too onerous, it could create a regulatory barrier to project submissions and the money will sit unused despite the demonstrated need for support for transmission expansion.

- f. Question 10. The IJA calls upon DOE to consult with, and consider the views of, specific organizations in its considerations of capacity contracts. Before DOE can enter into a capacity contract, the statute requires DOE to consult with the relevant transmission planning region regarding the region’s identification of needs, and DOE is instructed to avoid duplication or conflict with a region’s needs determination when selecting projects. What information should DOE seek from an applicant, transmission owner or operator, or from a regional transmission organization or regional reliability organization to satisfy the consultation requirement in the statute? What are the appropriate points in the process when such consultation should occur?**

ACEG encourages DOE to require that TFP submissions: (1) identify the planning region(s) in which eligible project will be located, and (2) provide evidence demonstrating an involvement in, or reasonable attempts to be involved in, the regional planning processes. The DOE consultation with the planning region should begin soon after the initial vetting of applications and, depending on the extent of the planning region’s processes, could be used to help verify the applicants’ planning assumptions, including assumptions related to expected regional load requirements, existing resource and transmission capacity constraints, and expected resource availability. These verifications may be especially useful in circumstances where an applicant is seeking TFP assistance to “right-size” lines, e.g. increase capacity on an existing or planned line to meet expected future needs. To the extent the regional resource planner is privy to relevant information, DOE could also use this consultation process to vet the project applicants’ economic assumptions.

If a line underwent regional planning, DOE should confirm that the line was either selected for the regional plan or that the regional planner has not identified an alternative transmission solution that would be more cost-effective in solving the need that the applicant proposed to address. To the extent a line did not undergo regional planning, DOE should use best available evidence to verify that consistent with a region’s needs, including state requirements for the electric resource mix established by statute or administratively, there is not an alternative transmission solution that would be more cost-effective.



- g. Question 11. Please identify any regulatory or business barriers that might impede the implementation of the TFP. Please propose solutions to eliminate or mitigate any identified barriers.**

One potential regulatory barrier concerns DOE's management of the capacity it procures through the TFP program. ACEG encourages DOE to treat the capacity that it owns through the TFP program as if it were FERC-jurisdictional, including by subjecting that capacity to Open Access Transmission Tariff (OATT) standards. By so doing, DOE will avail itself of long-established transparent policies and procedures, and all parties, including transmission developers and transmission customers will be aware of the rules of the road.

- h. Question 12. Recognizing that transmission projects are located based on the availability of generation, and ultimately customers to buy that generation, and have limited long term direct employment impacts: What equity, energy and environmental justice concerns or priorities are most relevant for the TFP? How can these concerns or priorities be addressed in TFP implementation?**

Equity and environmental and energy justice considerations will play a role in the buildout of our modernized grid. The most notable impact of these considerations is with respect to project siting and public participation and engagement during the project planning process. But these considerations also play a role in assessing the benefits of projects.

For example, a recent study of significant transmission expansion in the Eastern half of the country found, "investing in transmission and renewable energy can improve public health by greatly reducing or eliminating a range of harmful air pollutants over the next decade. These localized air pollutants increase the risk of illness or death from a range of health problems and have even been linked to increased risk of death from COVID-19. By delivering clean energy to densely populated areas to replace polluting sources of energy, transmission plays a particularly important role in displacing harmful emissions. Many of the most polluting power plants are located in economically disadvantaged communities."²⁰ Transmission combined with renewable energy enables near-elimination of harmful air pollutants, including sulfur dioxide, nitrogen oxides, and particulate matter which cause asthma and other public health problems.²¹

Moreover, according to DOE's own Low-Income Energy Affordability Data (LEAD) Tool the energy burden, or percentage of gross household income spent on energy costs

²⁰ Clack, Goggin, Choukulkar, Cote, and McKee, "[Consumer, Employment, and Environmental Benefits of Electricity Transmission Expansion in the Eastern U.S.](#)," at 17, October 2020.

²¹ *Ibid.*



Americans for a Clean Energy Grid

“for low-income households is 8.6%, three times higher than for non-low-income households . . . depending on location and income, energy burden can be as high as 30%.”²² While there is no single solution to resolve energy burden concerns, transmission is one potential tool for reducing overall energy costs. Indeed, a recent study found that large-scale transmission combined with a large-scale buildout of renewable energy can cut consumer electric bills by over \$100 billion cumulatively and decreases the average electric bill rate by more than one-third, from over 9 cents per kilowatt-hour (kWh) today to around 6 cents per kWh by 2050, saving a typical household more than \$300 per year.²³

While it is undeniable that these issues are critical, ACEG encourages DOE to clarify that it will *consider* these issues, but that eligible projects will not be mandated to achieve particular equity, or energy and environmental justice outcomes. The industry has not yet adopted clear and measurable quantification methodologies. As such, discussions around equity considerations may be qualitative. Moreover, certain benefits such as emissions reductions, may serve multiple purposes including as a proxy for decarbonization and justice considerations. By considering equity, environmental and energy justice impacts, DOE can ensure that the issues are respected while avoiding the potential to inadvertently reject projects based on vague standards when those projects can provide a wealth of benefits.

²² Department of Energy, Office of Energy Efficiency & Renewable Energy, [Low-Income Community Energy Solutions](#), last accessed June 12, 2022.

²³ Clack, Goggin, Choukulkar, Cote, and McKee, “[Consumer, Employment, and Environmental Benefits of Electricity Transmission Expansion in the Eastern U.S.](#),” at 4, October 2020.



III. Conclusion

The TFP program has the potential to play an important role in advancing transmission projects that need an extra boost of assurance to cross the finish line. ACEG again commends DOE for acting swiftly to act on its TFP authorization and appreciates the opportunity to provide these comments. ACEG hopes DOE considers and incorporates the recommendations provided herein when setting forth the next steps of the TFP program.

Sincerely,

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AMERICANS FOR A CLEAN ENERGY GRID

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