Americans for a Clean Energy Grid Comments on the
Department of Energy's Title XVII Loan Guarantee Program Request for Information

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 States[1]—appreciates this opportunity to provide input to the Department of Energy (DOE) on ways to improve its Title XVII Innovative Technologies Loan Guarantee Program (Title XVII Loan Program)[2] and to implement provisions of the Energy Act of 2020 and the Infrastructure Investment and Jobs Act (IIJA) that expand or modify the authorities applicable to the Title XVII Loan Program.[3]

Title XVII authorizes the Secretary of Energy to make loan guarantees for projects that ''avoid, reduce, utilize, or sequester air pollutants or anthropogenic emissions of greenhouse gases'' and ''employ new or significantly improved technologies as compared to commercial technologies in service in the United States.'' DOE's authorization includes the authority to fund projects that include "efficient electrical generation, transmission, and distribution technologies."[4]

According to the Energy Information Administration, nearly 70% of US carbon dioxide emissions come from the electric power and transportation sectors.[5] In order to decarbonize these sectors and bring on the lower-cost and cleaner resources that utilities, states, and consumers have been calling for, we need large-scale transmission buildout. Indeed, independent estimates indicate that high voltage transmission will need to double

[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] Public Law 109–58, title XVII (2005); 42 USC § 16511 et seq.
[3] Department of Energy, *Request for Information Regarding the Innovative Technologies Loan Guarantee Program*, 87 Fed. Reg. 33141 (June 1, 2022) ("Notice").
[4] 42 USC § 16513 (a) & (b)(6).
[5] Energy Information Administration, What are U.S. energy-related carbon dioxide emissions by source and sector?, Last updated: May 17, 2022, with preliminary data (32% from electric power, and 37% from transportation).

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]

While both the need for transmission expansion—and the associated required investment—are significant, well-planned transmission can deliver huge benefits for America. Indeed, between 2012 and 2014, the Southwest Power Pool (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 recently approved first tranche of the Midcontinent Independent System Operator's (MISO) Long-Range Transmission Planning (LRTP) includes 18 projects. The projects have a net cost of $10.3 billion dollars but are expected to deliver a benefit-to-cost ratio of at least 2.2 for all MISO Midwest resource zones.[8] In short, every dollar spent on high-speed regional transmission an enable access to generation that is $3 to $4 cheaper than would otherwise be available.

The Title XVII Loan Program can play a pivotal role in supporting the modernization and expansion of the Nation's transmission system.[9] To date, however, the Title XVII Loan Program has funded only one transmission project—and that was under DOE's now-expired Section 1705 authority.[10] The Title XVII Loan Program was developed to facilitate bold action and to encourage and accelerate, not erect hurdles to and slow down, investments in needed energy technologies, including transmission. For developers to use, and customers to benefit from, the Title XVII Loan Program, the Program's policies and requirements must be flexible and nimble. The comments offered herein are in the spirit of reducing barriers and maximizing the impact of available funds.

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[6] Larson et al, Net-Zero America: Potential Pathways, Infrastructure, and Impacts at 108, (October 29, 2021), Princeton University; *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, "Tranche 1 Portfolio Focused on Midwest Subregion," July 25, 2021.

[9] 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. American Society of Civil Engineers, "Policy Statement 484 - Electricity Generation and Transmission Infrastructure," Adopted by the Board of Direction on July 13, 2019.

[10] DOE LPO, Storage and Transmission Projects,

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I. General Comments

As a threshold matter, the Title XVII Loan Guarantee Program can provide important gap funding to support needed transmission buildout, especially when project construction can take longer than the pre-deployment period that load serving entities or private financing institutions will agree to finance. But the current Title XVII Loan Program rules may be too constraining to be viable for transmission developers as transmission projects can be subject to unique challenges. For example, in contrast to many single-site infrastructure projects (e.g. generation and storage resources, research and development projects, etc.), high voltage transmission infrastructure projects can involve multiple state jurisdictions and often require longer time horizons (e.g. 8-10 years). Further, because transmission corridors involve monopoly investments (e.g. once a line is sited a parallel competing line would not be sited in the same corridor), utilities and the customers that pay for the projects in their rates, want to see proven technologies before they are implemented on a large scale.

Project developers must invest time and money to apply for federal funding. Eligibility guidelines that are overly limiting or confusing can be a deterrent for project developers who may otherwise benefit from federal loan guarantees. ACEG encourages DOE to review the impact of the Title XVII Loan Program rules on developing efficient transmission projects and to provide further clarity on eligibility guidelines specific to transmission applications.

Of particular concern is the Title XVII Loan Program rule definition of "commercial technology." While the statute defines a "commercial technology" broadly as "a technology in general use in the commercial marketplace" the rules take a more limited view and define the term "as one that is in being used in three or more facilities that are in commercial operation in the United States for the same general purpose as the proposed project."[11] Under the rules, the first two facilities using a specific technology would be eligible for loan guarantees, the third facility that enters commercial operation would not be. But transmission facilities do not enter "commercial operation" until they are energized, and as mentioned earlier the project horizon for transmission facilities can be long. Project developers have been deterred from submitting applications due to the uncertainty around whether their project would be deemed to exceed the two-project limit notwithstanding the fact that lines had yet to be energized. In order to provide needed flexibility and transparency, ACEG encourages DOE to amend the numerical limit and, instead, provide a time-limited (e.g. five-year) window for funding considerations.

[11] 10 CFR § 609.2.

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Additionally, the Title XVII Loan Program statutory eligibility requirements mandate that projects ‘‘employ new or significantly improved technologies as compared to commercial technologies in service in the United States,” but allow “projects that employ elements of commercial technologies in combination with new or significantly improved technologies” to apply for funding.[12] ACEG encourages DOE to interpret the term “new or significantly improved technologies” as flexibly as possible. DOE should include within that ambit technologies that improve the functionality of transmission (e.g. weather-proofing technologies that protect infrastructure from low frequency high impact events, grid enhancing technologies that maximize the capacity or efficiency of the transmission lines).

II. Comments on Specific Questions

a. Question A–1: *With respect to costs incurred for DOE’s use of its third-party advisors, should DOE consider other applicant fee structures or arrangements not currently contemplated by the Title XVII Rule that are consistent with the provisions of the Energy Act of 2020?*

ACEG encourages DOE to provide flexibility with respect to fee structures and arrangements and to consider the size of the loan and overall project costs when determining reimbursement requirements to ensure that the fee structures and arrangements are equitable.

b. Question A–2. *What criteria should the Secretary consider when identifying specific regions of the United States and the effect of regional variation on technology deployment for the purposes of implementing this provision of the Energy Act of 2020?*

The Energy Act of 2020 provided DOE with the authority to guarantee up to 6 projects deploying the same or similar technology if regional variation significantly affects deployment, so long as no more than 2 guaranteed projects that use the same or similar technology are located in the same region of the United States. In defining ‘‘regions’’ or ‘‘regional variation,” DOE should incorporate flexibility to encourage the broad deployment of new and improved transmission technologies. Further in developing the definitions, DOE should consider that interregional transmission lines provide high value to customers—including resource availability, reliability, resiliency benefits. The definitions of “regions” and “regional variation” should not be so narrow that an interregional line would reduce the number of projects that are eligible for federal funding.

[12] 42 USC § 16513 (a)(ii)

c. Question B–1. *What types of entities should be considered ''State energy financing institutions'' for the purposes of implementing these amendments to the Title XVII Loan Guarantee Program?*

Pursuant to modifications made in the IIJA, DOE now has explicit authority to provide loan guarantees to projects that "receive financial support or credit enhancements from a State energy financing institution"[13] and that ''avoid, reduce, utilize, or sequester air pollutants or anthropogenic emissions of greenhouse gases.''[14]

The structure and name of state financing institutions can vary by state and can include, but not be limited to, green banks, business finance authorities, and community development finance authorities. In order to maximize the impact of the federal loan guarantees, ACEG encourages DOE to take a broad view of state financing institutions and propose a rule that comports with, but does not extend beyond, the statutory definition of:[15]

> a quasi-independent entity or an entity within a State agency or financing authority established by a State—
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> (i) to provide financing support or credit enhancements, including loan guarantees and loan loss reserves, for eligible projects; and
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> (ii) to create liquid markets for eligible projects, including warehousing and securitization, or take other steps to reduce financial barriers to the deployment of existing and new eligible projects.

Moreover, to the extent a state has delegated financing or credit enhancement authority to a municipality or local government, such local institutions should fall within the scope of the term "state financing institution" for purposes of project eligibility under Title XVII.

d. Question C 1-4. *Title XVII Financing Structures and Collateral Security*

ACEG encourages DOE to foster innovative approaches to setting collateral eligibility guidelines. For example, utilities and investors place a value on increasing

[13] 42 USC § 16512(a), as amended through Public Law 117–58 § 40401(c)(2)(A) (2021).
[14] 14 USC § 16512(r)(1). Projects that receive support or credit enhancements from State energy financing institutions need only comply with 42 USC § 16512(a)(1) and are not required to comply with the second eligibility prong under 42 U.S.C. §16512(a)(2) (requiring eligible projects to "employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued. . .")
[15] 42 USC § 16511.

efficiency and flow over transmission lines. DOE should consider whether the value of these gains could be used as collateral to access the Title XVII Loan Program.

e. Question D-4. *How else can DOE modify its application process or requirements in a manner that improves its implementation of the Title XVII Loan Guarantee Program?*

As part of its implementation processes, ACEG encourages DOE to invest resources into educating transmission developers, decisionmakers, and stakeholders on the opportunities and public benefits of the loan guarantee program. In particular, DOE should communicate with state regulators, regional transmission organizations, generation developers, and consumer representatives on the potential for the Title XVII Loan Guarantee Program to lower overall costs and accelerate deployment. To that end, ACEG offers its hand in assisting DOE with outreach as ACEG's network of diverse stakeholders have well-established communication channels that can be leveraged for this effort.

III. Conclusion

DOE's Title XVII Loan Guarantee Program has the potential to play an important role in advancing the construction of needed high-voltage transmission projects but could benefit from improvements to encourage projects to apply and utilize the funding opportunity. ACEG again commends DOE for seeking stakeholder input on ways to improve the program and encourages DOE to consider and incorporate the recommendations provided herein when setting forth the next steps of the Loan Guarantee Program.

Sincerely,

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