



Americans for a Clean Energy Grid

RESPONSE TO THE SELECT COMMITTEE ON THE CLIMATE CRISIS REQUEST FOR INFORMATION

Americans for a Clean Energy Grid (ACEG) is the only non-profit broad-based public interest advocacy coalition focused on the need to expand, integrate, and modernize the North American high-voltage grid. ACEG's diverse stakeholders¹ include senior representatives from transmission developers, utilities, industry associations, and environmental organizations. Our supporters uniformly recognize the necessity to continue momentum toward a sustainable, decarbonized economy. We also understand that this goal can only be met if the grid is sufficiently integrated over large areas to access cost-effective clean energy resources. We respectfully submit the below response to question #1.b.ii of the Select Committee on the Climate Crisis' (Committee's) inquiry.

Question 1.b.ii: How can Congress expedite the permitting and siting of high-voltage interstate transmission lines to carry renewable energy to load centers?

While perhaps less difficult to decarbonize technologically than other sectors, our electric grid infrastructure is one of the most constrained sectors when it comes to existing policy barriers. However, by 2035, ACEG envisions a grid bringing to reality the potential revealed in the National Renewable Energy Laboratory's Interconnections Seam Study² (Seam Study) and Renewable Electricity Futures Study.³ Such an "American Super Grid" would save consumers more than \$47 billion and return more than \$2.50 for every dollar invested, according to the Seam Study. It would create a cleaner, more efficient, and more resilient high-voltage system for all Americans.

The development of an American Super Grid could, among other benefits:

- Reliably provide 80 percent of America's electricity from carbon-free sources—an objective which is technically and economically feasible using today's technology.
- Allow the growing number of electric utilities, corporate and institutional electricity buyers, and other consumers to meet carbon and clean energy goals affordably and reliably, potentially from currently remote resources.
- Enable clean electrification of other sectors of the economy, create jobs (especially in rural areas), spur innovation, and create a broader, more transparent power market.

Furthermore, according a recent study from the Brattle Group,⁴ electrification of transportation, heating, and other sectors will require increasing the current annual investment in transmission infrastructure from an average of \$15 billion a year to \$22 billion per year by 2030 and as much as \$40 billion per year through 2050. Therefore, in order to achieve the power sector decarbonization objectives of the Committee and given the current lead times for transmission planning and development, the Committee must make expanding the transmission grid a cornerstone of its policy recommendations to Congress.

ACEG request the Committee consider the following recommendations:

¹ <https://cleanenergygrid.org/the-coalition/>

² *Interconnections Seam Study*, (NREL, 2018). <https://www.nrel.gov/analysis/seams.html>

³ *Renewable Electricity Futures Study*, (NREL, 2012). http://www.nrel.gov/analysis/re_futures/.

⁴ *The Coming Electrification of the North American Economy*, (Brattle Group, 2019). http://wiresrebuild.wpengine.com/wp-content/uploads/2019/03/Electrification_BrattleReport_WIRES_FINAL_03062019.pdf

- **Require Effective Interregional Transmission Planning:** Congress should direct FERC to develop and implement interregional transmission planning and cost allocation processes and procedures, beyond the mere consultation stipulated by Order 1000, subject to certain baseline requirements:
 - RTOs and ISOs should be required to accept interregional proposals and conduct interregional planning on regular cycles of not less than once every three years.
 - Interregional and regional plans should be compared on a basis of multiple attributes and potential benefits including prospective delivered cost of energy, potential access to incremental energy resources, potential contribution to decarbonization of the electric sector, relative contributions to reliability, resilience, bulk power market liquidity, transparency, and stability, minimal environmental and cultural impact, etc., but not by the regulatory status or domicile of the project proposing entity.
 - FERC should require transmission planning regions to designate “generation development zones” through a review of generation queues and national laboratory assessments of energy generation potential, favoring regional and interregional projects that provide access to load for energy developed in such zones.
 - FERC should acknowledge the Interconnection Seams Study and the favorable benefit-to-cost ratios it cites for high-voltage links between the Eastern and Western interconnections as appropriate input to interregional planning, requiring ISOs, RTOs, and other jurisdictional entities and planning regions to consider the study’s conclusions in evaluating proposals.
 - Cost allocation methodologies must be proposed that account for broad and varied benefits offered by interregional and regional transmission solutions.⁵

- **Facilitate State Decision-Making:** Congress should provide financial and technical support to state and local regulators, planning agencies, and administrators, often under-funded and understaffed for the complex and controversial siting and permitting decisions they face. Specifically, Congress should create a program in the Department of Energy:
 - Allowing state regulatory and planning agencies which have received siting and permit applications for segments of new or expanded multi-state or interregional high-voltage transmission lines to apply for federal funding and technical assistance in meeting their obligations to perform environmental, social, regional, cultural, market, economic or other forms of impact analysis prior to reaching a timely decision on such applications.
 - Such assistance should cover up to 80% of the estimated cost of such analyses, to be performed by qualified public or private analysts mutually selected and agreed upon by DOE and the state agency involved.
 - Through this program, state decision-makers could request access to the specific expertise of Federal agencies such as DOE, FERC, EPA, the national laboratories, and the power marketing administrations to address technical and scientific issues arising in such applications. DOE would negotiate participation in the program by other federal agencies and compensate their costs of participating.
 - Analysis performed for and by states would be coordinated with any federal analysis performed pursuant to the National Environmental Policy Act or other requirements.
 - Such federal assistance would be predicated on the state’s agreement to perform its siting and permitting proceedings expeditiously, with a final decision grounded in the analysis performed and issued no longer than two years after the filing of the application for assistance.

⁵ *Well Planned Electric Transmission Saves Customer Costs*, (Brattle Group, 2016). <https://www.eesi.org/files/WIRES-Report-Well-Planned-Electric-Transmission-Saves-Customer-Costs.pdf>

- **Study Existing Transportation Corridors:** Congress should direct the Federal Energy Regulatory Commission (FERC) to study the feasibility of siting transmission along railroad rights-of-way, highways, pipeline rights-of-way, and other transportation corridors as a potential multiple-use solution to decrease the environmental impact and lead-times of siting and permitting new transmission lines.
- **Direct financial support:** The federal government can also provide direct financial assistance to transmission projects by providing:
 - Authorization to the DOE to offer government-backed direct loans or “bridge loans” to projects that meet certain criteria, similar to the highly successful Transportation Infrastructure Finance and Innovation Act (TIFIA) Program, or perhaps even as part of it.
 - Loan guarantees: Congress authorized the Department of Energy in Title XVII of the Energy Policy Act of 2005 to support innovative technologies through a loan guarantee program, and billions in funding remain unallocated.
 - Support for financing mechanisms allowing project developers to add capacity to transmission lines from areas with significant queues of energy generator projects where analysis indicates that there will be future demand for that capacity, advancing funds to be paid back through future tariffs when the capacity is in operation.
- **Power Marketing Administrations:** Congress can enable federal power marketing administrations and similar transmission-owning/operating federal agencies (i.e., BPA, WAPA, SWPA, SEPA, and TVA) to be leaders in clean energy transmission development. PMAs should invest and partner in right-sized clean energy transmission lines within their footprints using modern technologies. Additionally, Federal power marketing agencies could prepay to fulfill their power procurement needs up-front in order to boost major energy projects, similar to hydroelectric dams that they manage when not producing electricity.
- **Declare a National Transmission Grid Policy:** Congress should formally articulate and adopt a statement of policy favoring expanded, modernized, and integrated bulk power transmission as a preface to any relevant legislation, thereby declaring to federal agencies, states, reviewing courts, stakeholder utilities and companies, public-interest advocates, and the general public that it is in the public interest to overcome the regulatory and jurisdictional barriers to such a system to obtain the manifold benefits of transmission that have been analytically identified and documented. Such a statement of policy could allow regulators and other decision-makers a basis to discard anachronistic precedents and align decisions on transmission investments with the broader national interest.