



Americans for a Clean Energy Grid

RESPONSES TO THE COMMITTEE ON ENERGY AND COMMERCE'S REQUEST FOR STAKEHOLDER INPUT ON COMPREHENSIVE CLIMATE CHANGE LEGISLATION

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 stakeholders 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 responses to (questions #1, 2, 3, 6, 7, and 8) the Committee's inquiry.

1. **What are the key policy, regulatory, and market considerations that should inform the development of comprehensive climate legislation? Please provide specifics.**
 - **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.
2. **Please describe any innovative concepts for climate policy design, including both sector-specific and economywide measures, that you believe the Committee should consider.**
 - **Facilitate State Decision-Making:** Congress should provide financial and technical support to state and local regulators, planning agencies, and administrators, often under-funded and under-staffed 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 not longer than two years after the filing of the application for assistance.

3. If you work in, advise, or are familiar with sectors that are particularly challenging to decarbonize, have you identified any effective (and scalable) solutions that should be included in comprehensive climate legislation?

- While perhaps less difficult to decarbonize technologically than other sectors, our electric grid infrastructure is perhaps the most constrained sector 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 Study.¹ 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 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.
- In order to achieve this vision, ACEG recommends policymakers focus on the following potential approaches:
 - **Planning:** ACEG supports direction to FERC and regional planning entities to produce inter-regional plans that reduce congestion, improve remote energy delivery, and improve reliability and resilience.
 - **Cost Allocation:** ACEG supports broad cost allocation that accounts for the many benefits that clean energy transmission lines bring to electricity customers, as

¹ Aaron Bloom, *Interconnections Seam Study*, (NREL, July 2018). <https://www.nrel.gov/analysis/seams.html>

demonstrated, documented, and quantified in studies by Brattle², London Economic Research Group³, and others.

- **Siting:** ACEG supports streamlining the transmission siting process to reduce the time needed to build clean energy transmission infrastructure.
- **Permitting:** ACEG supports improving the transmission permitting process without unduly weakening environmental protections. This should include fully implementing the provisions passed in December 2015 as part of the *FAST Act* to streamline the federal permitting process.
- **Transmission Incentives:** ACEG supports the use of public-private partnerships to catalyze and optimize the construction of clean energy transmission lines. Specifically, the federal government could help “future-proof” transmission lines by offering support to help “right-size” them. The investment incentives for privately financed transmission lines are such that transmission lines are often built to accommodate the energy needs of today, rather than planning for the electricity needs of tomorrow. Federal support could incentivize project developers to add capacity to transmission lines before there are customers to fill that capacity.
- **Advanced Technologies:** ACEG supports federally funded research, development, and deployment initiatives to promote the adoption of advanced transmission technologies that improve the flexibility, reliability, and sustainability of the electric grid.
- **Power Marketing Administrations:** ACEG believes that federal power marketing administrations and similar transmission-owning/operating federal agencies (i.e., BPA, WAPA, SWPA, SEPA, and TVA) should 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.

6. What have been the challenges or barriers to making meaningful carbon pollution reductions, and how have you responded to those challenges or barriers?

- Both our federal and state electricity regulatory systems are based on an early 20th-century model of self-sufficient or lightly interconnected local distribution utility systems. That model no longer describes the existing grid, much less the grid of the future. Clean, competitive generation can be brought online within two years; meanwhile, a new transmission line still takes ten years to develop. Multi-state, multi-level regulation is expensive, slow, and deters capital investment. The grid must become more integrated, as this will provide a range of economic, environmental, public policy, and reliability benefits to society as a whole that are often overlooked by planners or regulators. An expanded, modernized, and integrated grid will link all markets, lower consumer prices and lessen risky technology investment. Improving the grid is vital to our electrified economy and America’s further progress towards a clean energy future.

7. How can the Federal Government assist you in reducing carbon pollution?

- The following potential oversight hearings would illuminate viable regulatory and legislative pathways to improve interregional transmission development:

² Judy Chang, Johannes Pfeifenberger, J. Michael Hagerty, *The Benefits of Electric Transmission: Identifying and Analyzing the Value of Investments*, (WIRES/Brattle Group, July 2013).

<http://www.wiresgroup.com/docs/reports/WIRES%20Brattle%20Rpt%20Benefits%20Transmission%20July%202013.pdf>

³ London Economics International, LLC, “*Market Resource Alternatives: An Examination of New Technologies in the Electric Transmission Planning Process*”, prepared for WIRES, 2014.

https://www.energy.gov/sites/prod/files/2015/04/f21/Final%20MRA%20report_0.pdf

- Hearing 1: Ask its authors, FERC, DOE, and other experts to present and comment on the National Renewable Energy laboratory's (NREL's) recently completed Interconnections Seam Study (ISS), which found benefits dramatically exceeding the costs of expanding electric transmission across the seams of the Eastern and Western U.S. interconnections, effectively creating a national high-voltage grid for the first time. Examine the reasons the study has not been publicly released by DOE and its authors told not to present it. ACEG believes the ISS provides an opportunity to start a critical conversation about achieving the ultimate and optimum future for an interconnected continental grid, one that will allow a fully national market for power, upgrade our infrastructure, improve the reliability, provide market access to all remote as well as intermittent generating resources, and support a move toward a clean energy future.
- Hearing 2: Ask FERC, RTOs, ISOs, and state regulators to address the failure of the interregional planning provisions of FERC Order 1000 to yield significant proposals or plans, probing how best to improve the planning process for interregional transmission and outline concrete steps that FERC or Congress could take to overcome obstacles at regional seams and to identify multi-jurisdictional approval processes. This would serve as a legislative hearing for the proposed actions in the response to question #1.
- Congress should Direct DOE 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 decreasing the environmental impact and lead-times of siting and permitting new transmission lines.

8. Are there any additional comments or feedback you would like to add?

- Expanded high-voltage transmission will make America's electric system more affordable, reliable, and sustainable. Further, it will allow America to tap all economic energy resources, overcome system management challenges, and create thousands of well-compensated jobs. But an insular, outdated, and often short-sighted regional transmission planning and permitting system stands in the way of achieving those goals.
- **The benefits of a strong, modern grid include⁴:**
 - **American jobs:** Every \$1 billion of investment in U.S. transmission directly and indirectly supports 13,000 full-time-equivalent years of employment.
 - **Lower electric bills:** Investing in transmission lines reduces electricity production costs, decreases energy losses in the transmission process, reduces congestion, increases reliability, and encourages competition – all of which lower consumers' utility bills.
 - **Clean energy growth:** With clean, low cost renewable energy sources often located in remote areas, strategic growth of the electric grid will help deliver that power to the families and businesses that need it.
 - **Numerous other benefits, including:** reduced costs of meeting public policy goals, increased market liquidity, reduced emissions from air pollutants, reduced costs of cycling power plants, and more
- **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

⁴ Judy Chang, Johannes Pfeifenberger, J. Michael Hagerty, *The Benefits of Electric Transmission: Identifying and Analyzing the Value of Investments*, (WIRES/Brattle Group, July 2013).
<http://www.wiresgroup.com/docs/reports/WIRES%20Brattle%20Rpt%20Benefits%20Transmission%20July%202013.pdf>

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.