

# BUILDING TRANSMISSION TO SECURE A CLEAN & EQUITABLE ELECTRICITY GRID

Transmission plays a central role in achieving a 100% clean electricity grid. To accelerate the essential transition from fossil fuel-fired power plants to renewable energy, we need to build more transmission to move clean energy across the country in addition to scaling up local, distributed clean energy resources.

Transmission is also critical to ensuring grid reliability and resilience, particularly as we face extreme weather events caused by climate change. However, we are not building transmission at the pace and scale needed today: The current annual growth rate of transmission infrastructure is just 1 percent. The result is a backlog of roughly 8,000 generators waiting to connect to the grid and significant uncertainty for clean energy developers about whether and when their projects will be able to provide power to homes and businesses. The transmission bottleneck leaves huge climate benefits on the table, including those made possible through the Inflation Reduction Act. To fully realize the IRA's emissions reductions benefits and transition to a clean grid, we need to at least double current transmission capacity by the end of this pivotal decade.

We urgently need policy reform. We need to modify and improve the rules of the road for planning, paying for, and siting transmission. And we need to create a federal pathway for siting transmission lines that are essential to bringing new renewable generators online. But we must also reject the false choice between quickly ramping up transmission

and protecting communities from harmful permitting decisions. Urgency cannot become a pretext for gutting the requirements of environmental review and public engagement as we embark on what could be the greatest U.S. infrastructure build-out in nearly a century. To build transmission faster and more fairly, we need smart reforms that target the drivers of the transmission bottleneck while preserving critical environmental, health, and community protections and enhancing community engagement.

This whitepaper offers a solution set for building transmission to advance an equitable clean energy future. The recommendations described below were first issued in late 2022 in [The Principles for Accelerating Clean Energy Deployment Through a Transmission Buildout in an Equitable Clean Energy Future](#) (Transmission Principles), a roadmap for building transmission to achieve our climate goals and prevent harm to impacted communities.<sup>1</sup> As discussed in the Transmission Principles, many of the reforms needed can be implemented under existing legal authorities. For example, the Federal Energy Regulatory Commission (FERC) has the authority to account for the full benefits of transmission; ensure meaningful public engagement



<sup>1</sup> The following groups released the Transmission Principles in December 2022: Center for American Progress, Environmental Defense Fund, Earthjustice, League of Conservation Voters, National Hispanic Medical Association, Natural Resources Defense Council, Sierra Club, Union of Concerned Scientists, and WE ACT for Environmental Justice.

and consultation, particularly in environmental justice and tribal communities; and require interregional planning. Other reforms require legislative action, such as creating a pathway for federal siting of large, interregional transmission projects that support new renewable generation and codifying and expanding methods for identifying the costs and benefits of transmission projects and deciding who pays. Taken together, these reforms can help us solve the transmission bottleneck and secure a clean and equitable energy future. Notably, none of these proposed reforms erode bedrock environmental protections that are essential to building an equitable clean energy economy.<sup>2</sup>

## I. Transmission Planning

To build the clean energy future we need, we must plan for it. While the energy transition is underway, the failure to comprehensively and holistically plan for changes to the grid—including the transmission we need to support clean energy coming online—is a serious threat to reliable, affordable electricity service and to reaching our climate goals. FERC has the authority and responsibility to require effective transmission planning and to improve the interconnection process. Currently, FERC has rulemakings underway to implement regional planning and interconnection reforms and is expected to initiate another proceeding soon on interregional planning. FERC must finalize strong rules that support the identification and construction of new transmission projects and help to connect new energy projects to the grid.

### A. FERC must finalize strong transmission planning and interconnection rules to address transmission needs, maximize consumer benefits, and ensure meaningful opportunities for community engagement.

FERC is undertaking an effort to reform its transmission planning rule to make transmission

planning broader, more forward-looking, fairer, and more cost-effective. FERC must move quickly to finalize this rule and require transmission planners to participate in regional transmission planning processes that take a long-term look at transmission needs driven by changes in the resource mix.

While FERC's proposal is a good start, FERC must strengthen its proposed rule in several ways. First, transmission planners must offer meaningful opportunities for interested stakeholders, including potentially affected communities, to help guide the planning determination. Planning processes should be designed and equipped to solicit and receive public input early on and throughout the planning process relating to identifying transmission needs and proposed solutions, including cost-benefit analyses and non-wires project solutions. Meaningful and informed stakeholder engagement early in the planning process can help surface community concerns about potential siting locations and allow the planner to identify less burdensome transmission solutions at the outset. Evidence has shown that prioritizing early and meaningful stakeholder engagement has helped speed the execution of transmission projects.<sup>3</sup>

Second, FERC's proposed rule does not establish minimum requirements for scenario assumptions and benefit assessments. But such requirements are the only way to fully understand the costs and benefits of transmission. FERC must establish a minimum set of transmission benefits and must require transmission planners to calculate all such benefits, including reasonably foreseeable greenhouse gas emissions data.

Third, transmission planning should also consider, minimize, and aim to avoid as far as possible, local environmental and social impacts from siting transmission, especially impacts in environmental justice (EJ) and Tribal communities. While many of these impacts will not be known until the transmission goes through siting and permitting, the transmission planning process should at least

<sup>2</sup> In addition to the reforms discussed in this whitepaper, ensuring adequate agency capacity to conduct effective and efficient environmental reviews is essential.

<sup>3</sup> Marian Swain, *Managing Stakeholder Conflicts Over Energy Infrastructure: Case Studies from New England's Energy Transition 93-95* (2019) (Master's Dissertation, Mass. Inst. Tech. available at <https://dspace.mit.edu/bitstream/handle/1721.1/123922/1140072907-MIT.pdf?sequence=1&isAllowed=y>); Paul Joskow, *Facilitating Transmission Expansion to Support Efficient Decarbonization of the Electricity Sector*, MIT Ctr. For Energy and Env't. Policy Rsch. Working Paper Series), June 2021, at 44-47.

recognize where a proposed transmission solution may be sited in sensitive environmental areas or environmental justice or Tribal communities when assessing the costs of such projects and whether they can be built.

Finally, the transmission planning process should prioritize solutions that make use of any existing rights of way, for any type of infrastructure, to the extent reasonably feasible but without impairing its mandate to assess and minimize environmental impacts on environmental justice and Tribal communities. Generally, siting transmission projects in existing rights-of-way that include existing infrastructure may reduce adverse environmental impacts, in comparison to siting transmission projects in undisturbed areas. And this has precedent—for example, the Midwest Independent System Operator (MISO) recently approved the largest suite of transmission projects in the U.S., 90% of which will use existing and adjacent rights of way.

### **B. FERC must establish Environmental Justice Liaisons to support consultation and planning in environmental justice communities and tribal nations.**

The Principles of Environmental Justice call for the community’s right to “participate as equal partners at every level of decision making, including needs assessments, planning, implementation, enforcement and evaluation.”<sup>4</sup> As the nation faces one of the largest transmission development opportunities in nearly a century, regulators and developers must adopt a just, equitable, and community-forward approach that centers environmental justice communities and other affected stakeholders throughout a project’s lifecycle.

Environmental justice communities and advocates have historically called upon FERC to strengthen procedural justice through increased transparency, accessibility, and the facilitation of meaningful engagement between affected communities, FERC, and project developers. FERC must use its existing authority to advance that goal. Specifically, we

recommend that FERC establish Environmental Justice Liaisons (“EJ Liaisons”). EJ Liaisons would be employees of the Commission and housed within the Office of Public Participation (“OPP”). They would be charged with helping foster first, early, and ongoing engagement between affected communities, the Commission, and project developers; creating clear and accessible pathways for engagement; and ensuring that information is clearly and adequately communicated to stakeholders. Indeed, affected communities are the foremost experts on the best interests and needs of their specific region, as well as best practices for engagement, and EJ Liaisons would work closely alongside communities to develop trust and partnership.

EJ Liaisons would ensure that project developers are contacting affected stakeholders as an initial step, to maximize opportunities for communication and early identification of concerns. EJ Liaisons would also increase FERC’s capacity to build partnerships with affected stakeholders through engagement that reflects the specific characteristics of the community. Environmental justice communities are not monolithic, and best practices for engagement in one community may not necessarily apply to all communities. One such example is identifying where the environmental advocates are located within a community. In some communities, environmental advocates may sit on advisory boards or within traditional environmental organizations; in others, advocates may be school board members, social service, media, or small business professionals, religious or spiritual leaders, or members of other community-based organizations. The EJ Liaison role would increase FERC’s capacity to identify and work closely with those individuals. Another example is identifying the most effective and accessible method of communication for local residents. Some communities may rely on physical postings or newspaper announcements for information, while others may rely on online platforms.

Lastly, as agents of the Office of Public Participation, EJ Liaisons would provide key services, such as

<sup>4</sup> *The First National Environmental People of Color Environmental Leadership Summit, The Principles of Environmental Justice* <https://www.ejnet.org/ej/principles.pdf> (October 1991).

trainings and workshops; providing information on proceedings and working with developers to communicate about projects; and responding to technical assistance needs.

### **C. FERC must require interregional transmission planning.**

It is extremely difficult to build interregional transmission in the U.S., even though such projects can provide significant benefits to consumers, increase reliability and resilience, and support new renewable generation across the country. The reality is that planning regions have failed to plan for and build interregional lines because they have struggled to communicate and coordinate across differences in planning criteria, modeling approaches, and cost allocation practices. To overcome existing barriers and ensure reliability in the face of increasing impacts from climate change, FERC must mandate that planning regions account for a minimum amount of interregional transfer capacity and establish effective interregional planning and cost allocation policies.

FERC should require interregional planning using common assumptions, methods, and timelines for action as well as uniform modeling approaches. With a consistent approach to assessing project benefits, for example, adjoining regions will be able to evaluate an interregional transmission project on an even playing field. Interregional lines will no longer need to go through at least two separate regional transmission planning processes, with different underlying assumptions and benefits calculations, in addition to an interregional coordination process—the so-called “triple hurdle.” And where projects face a split vote across regions, FERC must act as the default decision maker. Finally, FERC should consider creating a new interregional planning body, which could be tasked with developing long-term plans and cost-allocation practices for interregional projects.

## **II. Transmission Siting**

Fundamentally, any effort to build more transmission to rapidly bring online clean energy, which is necessary to meet climate goals and limit harmful pollution from fossil fuels, will require improvements in the transmission siting process. Among the most important improvements needed to the transmission siting process are strong environmental review and a more proactive engagement of impacted communities, both of which can help build consensus around line siting and design. In addition, the federal government can and should also take action to improve the regulatory atmosphere by nurturing an efficient federal siting process for certain large interstate transmission projects with robust federal review; this process should offer a limited set of high-priority transmission projects an alternative to state and local processes that may not be able to consider regional and interregional benefits of transmission and can impose unnecessary delay or barriers to project development.

### **A. One federal siting pathway exists under current DOE and FERC authority: NIETCs and expanded backstop.**

The existing rules governing transmission siting already offer the federal government, specifically DOE and FERC, an avenue for expediting the siting and approval of high priority transmission lines. Through the National Interest Electric Transmission Corridor (NIETC) designation process, the DOE is authorized to designate NIETCs, over which FERC is then given backstop siting authority if a state lacks the authority to approve siting, denies a siting application, or fails to act on a siting application for a project in the NIETC. The NIETC and backstop siting provisions have been recently strengthened by the Infrastructure Investment and Jobs Act (IIJA), as a result of which there are tangible steps the DOE and FERC can and should be taking to site certain high-priority transmission lines within a NIETC.

At the DOE, more should be done to improve the process for identification and designation of NIETCs based on the Department’s expanded authority under the IIJA. The DOE recently has moved forward to implement its expanded authority, including by establishing its Building a Better Grid Initiative and issuing a draft National Transmission Needs Study. The draft Needs Study is a strong start to support the need to expand transmission planning, particularly interregional transmission, enhance reliability, support electrification efforts, and reduce costs for consumers. However, the draft fails to account for clean energy development and associated transmission needs that the Inflation Reduction Act supports. DOE should finalize the study quickly, adopting a baseline that incorporates high load and high clean energy assumptions and the potential for offshore wind. In addition, DOE should fulfill the promise of the Better Grid Initiative by working with Native Tribes, environmental justice communities, and other stakeholders “to increase coordination and transparency; to employ available tools and resources to support the development of nationally significant transmission projects; and to improve transmission siting, permitting, and authorization processes.”<sup>5</sup>

At FERC, the Commission is revisiting its backstop siting authority in the wake of IIJA through a rulemaking. Specifically, FERC’s backstop siting rule proposes to formally implement the agency’s authority to act in the face of state siting denials; to begin implementing its backstop authority concurrently with state processes that first year; to require more effective engagement with landowners by project developers; and to require an environmental justice engagement plan. All of these are useful plans, but FERC can and should do more to effectively implement its backstop authority. Specifically, it should more effectively coordinate with overlapping state processes to reduce the burden on impacted communities; establish permanent effective liaison positions to better engage environmental justice and tribal communities;

and formalize a more effective coordination with DOE of its NEPA and other federal environmental obligations.

If DOE and FERC act expeditiously and equitably to implement their strengthened transmission siting authorities post-IIJA, there is potential for significant improvement in the siting process, which could lead to an urgently needed acceleration of the transmission planning and construction process. Comprehensive federal rules will not just offer developers of certain high-priority projects the confidence to move forward with transmission plans; they will also offer an implicit warning to states not to needlessly withhold siting approval. This should yield significant transmission buildout over the next decade and beyond.

### **B. One federal siting pathway requires new authority by amending FPA: New direct FERC siting authority for certain high voltage interstate projects.**

The legislative arena offers an even more effective pathway to equitably approve siting applications for high-capacity transmission projects. As we proposed in the Transmission Principles, the most efficient strategy is to amend the Federal Power Act to establish a new avenue for federal siting/permitting for certain large-scale projects that meet the following bright-line definitions:

- Serving two or more states
- Having a capacity of 1000 MW or larger
- Enabling renewables, reducing congestion, or improving reliability
- Selected via an equitable and inclusive transmission planning (or equivalent) process

Under this legislative proposal, FERC would have siting authority over projects meeting these criteria without first having to go through state processes; but such new authority would not need to displace the NIETC designation process, which could still serve

<sup>5</sup> *Building a Better Grid Initiative To Upgrade and Expand the Nation’s Electric Transmission Grid To Support Resilience, Reliability, and Decarbonization*, 87 Fed. Reg. 2,770 (Jan. 19, 2022).



as a tool for the DOE to coordinate the planning, siting, and construction of particularly high-priority transmission corridors. Creating another federal pathway, as proposed here, would also empower FERC to enforce stronger protections and access for all impacted stakeholders—especially landowners and tribal and environmental justice communities—than are currently available.

### III. Cost Allocation

Current court precedent provides that the costs of transmission must be “roughly commensurate” with the benefits of that transmission. Yet most transmission planning processes fail to meet this standard because they do not evaluate the comprehensive benefits of transmission. This failure is driven in large part by FERC’s existing regional transmission planning and cost allocation rule,<sup>6</sup> which expressly permits planning authorities to arbitrarily silo the evaluation of transmission needs, solutions, and benefits into three separate categories—economic, reliability or public policy—that fail to consider multiple types of benefits by definition. Because of this flawed premise, the economic benefits of so-called reliability projects are not generally considered in cost allocation, nor are economic and reliability benefits of so-called public policy projects. The result is that the benefit assessment and proposed cost allocation of any given transmission project only accounts for a narrow slice of benefits for that project. The proposed FERC transmission planning rule does not fully fix this—instead, it would allow planning authorities to limit which benefits they choose to assess and proposes to rely on states to agree to cost allocation without requiring a default cost allocation that would broadly allocate the costs to all beneficiaries.

While FERC has authority to broadly allocate costs roughly commensurate with benefits, it has not yet chosen to do so as broadly as it should. Congress should step in by amending the FPA to require

transmission planning that evaluates future needs under multiple scenarios that take into account expected future generation resources, potential climate change impacts, and compliance with public policy goals. The FPA should also require such planning to assess the multiple benefits provided by proposed portfolios of transmission solutions and to allocate costs for those projects commensurate with those benefits. Such authority—even if just a reaffirmation of FERC’s existing authority—would require FERC to adopt a cost allocation methodology for regional and interregional lines that holistically reflects the multiple benefits provided by transmission solutions, including economic, reliability, operational, public policy, resilience to extreme weather, and environmental benefits (including reductions in carbon emissions and reducing harm to environmental justice communities). To provide FERC with a straightforward way to implement this mandate, Congress should revise the FPA to allow FERC to allocate costs in proportion to share of energy demand to any region accruing calculable benefits.

Finally, offshore transmission facilities built to facilitate the integration of offshore wind are not located in any FERC-jurisdictional transmission planning region. Therefore, Congress could provide certainty about FERC’s authority to allocate costs for such facilities by amending the FPA to make clear that FERC can require planning and cost allocation for these offshore wind transmission facilities.

<sup>6</sup> *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, 136 FERC ¶ 61,051, (2011).