Permitting Reform for the Clean Energy Future

As the leaders of the House Sustainable Energy & Environment Coalition (SEEC), we are committed to advocating for the policies necessary to achieve a clean energy economy as rapidly and equitably as possible. In this policy brief, we seek to lay out our vision for what permitting reform is required to put the United States on an emissions reduction pathway consistent with the Biden Administration's goals of 50-52% emissions reductions below 2005 levels by 2030 and net-zero economy-wide emissions by 2050.

The passage of the Inflation Reduction Act (IRA) marks a turning point in our country's history on fighting climate change. For decades, inaction and gridlock have left the United States behind the curve in taking the necessary steps to prevent the worst consequences of the climate crisis. The IRA's historic climate investments have changed the game. No longer is the question, "will the United States act?" but rather, "how quickly will the United States transition to a clean energy economy?"

IRA provided the incentives and financing needed to accelerate the transition to a clean energy economy at the pace necessary to meet the crisis we face. With those investments now in hand, the next task ahead of us is ensuring that federal permitting laws that were written for the fossil fuel era work for the new clean energy age that we are now entering.

To this end, we have welcomed the many and varied voices who have shared both their concerns and support regarding various aspects of the permitting reform conversation that Congress has engaged in since the passage of IRA. Building out the requisite clean energy infrastructure as quickly and as equitably as possible can only be achieved if disadvantaged communities are properly engaged in the permitting process, rather than ignored and disproportionately burdened, as has happened all too often in the past. The need for this engagement is true not just for the permitting process but also for the legislative process. We have attempted to take into account what we have heard from these groups that share our goal of achieving a clean energy future and use that to inform this policy brief.

Through these discussions, we have determined there are two primary pillars that are central to any clean energy-focused permitting reform effort: electricity grid reform, particularly around transmission, and community engagement.

Regarding the grid, renewable energy is only as good as the electrical system upon which it relies. Multiple independent analyses concluded that the investments in IRA could reduce the United States' greenhouse gas emissions by approximately 40% by 2030.[1][2][3] By their own admission, though, this was premised on sufficient transmission buildout at a pace that exceeds the rate that is being built today. In particular, our grid is in need of high-capacity, long-distance transmission that can transport electricity from remote parts of the country where the sun shines the brightest and the winds blow the strongest, to denser parts of the country where most of the population lives.

The obstacles constraining the buildout of large-scale transmission projects are less about money or financing and more about systemic hurdles that dictate which transmission projects can be built – specifically decisions around the siting of where transmission lines should or can go and how to allocate the costs of transmission projects amongst those who benefit from them. There are also numerous other grid policy reforms that should be considered in the permitting reform context, such as improving the resiliency and efficiency of the grid, both of which reduce cost and improve reliability for consumers.

Regarding community engagement, it is too often presumed that increasing the level of engagement in a permitting process is synonymous with delaying the project. Rather, it has been shown that early engagement can facilitate more efficient completion of projects, by facilitating a way to address potential concerns early, heading off issues that may otherwise lead to time-consuming lawsuits.[4][5] Meaningful consultation would ensure that disadvantaged groups and communities will finally be given a voice in the process, allowing their concerns to be properly addressed in a timely and effective manner.

This policy brief breaks down some of the key legislative solutions that Congress should take up when considering reforming our laws to build a clean energy future. Because there are still active efforts underway to revive a permitting reform effort before the end of the year, we have tried to the extent possible in this brief to point to specific pieces of legislation that have language ready to go.

[1] https://rhg.com/research/climate-clean-energy-inflation-reduction-act/
[2] https://energyinnovation.org/wp-content/uploads/2022/08/Updated-Inflation-Reduction-Act-Modeling-Using-the-Energy-Policy-Simulator.pdf
[3] https://repeatproject.org/docs/REPEAT_IRA_Prelminary_Report_2022-08-04.pdf
[4] https://www.sciencedirect.com/science/article/pii/S0301421522001471?via%3Dihub
[5] https://crsreports.congress.gov/product/pdf/R/R42479

Grid and Transmission Reform

Improving Interstate Transmission Capacity

Many studies have found that the cheapest way to decarbonize our energy sector is through the construction of more high-capacity interstate transmission lines that can rapidly and efficiently transmit electricity from anywhere in the country—wherever the wind is blowing and the sun is shining—and smooth out the variability of renewable energy sources that experience peak generation at different times of day in different regions.[6][7][8] However, the current pace of transmission buildout has slowed considerably in the past decade. From 1978 to 2020, the U.S. electric grid saw an average expansion of around 2% per year, but when that is narrowed down to only the past decade, that growth rate has slowed to 1%.[9] We must return to or exceed that historical 2% rate if we're going to deploy clean energy at the pace needed.[10]

In discussing with stakeholders what the primary constraints are to returning to that level of deployment, three challenges stood above the rest as fundamentally crucial to address: the siting process, cost allocation of transmission projects, and minimum transfer capability requirements.

Siting Process

High-capacity interstate transmission lines have the potential to provide systemwide benefits, improving reliability, reducing the cost of electricity, and facilitating the decarbonization of the grid. However, as is often the case with long-term, large-scale infrastructure investments, the immediate benefit to individual states can sometimes be unclear.

Currently, however, the siting of transmission lines is a state-by-state process, even for high-capacity interstate lines that would provide benefits that go far beyond a single state. But if just one state along a proposed project disapproves, it can kill the entire project. Individual states are also often disincentivized to give approval to interstate transmission lines in cases where a large percentage of the benefits of those projects will be enjoyed by other states.[11] Notably, this is not how the siting process works for multi-state natural gas pipelines, which are sited exclusively at the federal level through the Federal Energy Regulatory Commission (FERC). Similar standards should be applied to high-capacity interstate transmission lines as well.

In particular, certain transmission lines should be automatically deemed to be in the national interest, and therefore solely subject to FERC authority if a project meets certain bright line

[6] https://netzeroamerica.princeton.edu/img/Princeton_NZA_Interim_Report_15_Dec_2020_FINAL.pdf
[7] https://www.nrel.gov/analysis/seams.html
[8] https://www.sciencedirect.com/science/article/pii/S2542435120305572
[9] https://repeatproject.org/docs/REPEAT_IRA_Transmission_2022-09-22.pdf
[10] https://www.woodmac.com/news/feature/deep-decarbonisation-the-multi-trillion-dollar-question/?utm_source=gtmarticle&utm_medium=web&utm_campaign=wmpr_griddecarb
[11] https://www.ourenergypolicy.org/clean-energy-needs-more-electricity-transmission-lines/

criteria, such as any line that crosses two or more states and the capacity of which exceeds 1000 MW. These criteria would limit federal siting authority to lines that are truly national in scope and leave upwards of 90% of transmission lines under the jurisdiction of state regulators, while still providing crucial systemwide benefits.[12] Giving FEFC exclusive siting authority for national interest transmission lines and enshrining clear eligibility criteria in law would also allow for much-needed long-term certainty on the part of transmission and generation developers alike. Giving FERC or the Department of Energy (DOE) too much discretion over what lines should be considered in the national interest would create unnecessary uncertainty, as standards may change from one administration to the next.

Legislation:

- SITE Act (H.R. 4971/S. 2651) – Rep. Mike Quigley/Sen. Sheldon Whitehouse

Cost Allocation

Transmission projects are often mired in fights over which electricity ratepayers will pay for projects and how costs will be divided among them.[13] It is imperative that FERC has the authority to broadly allocate the costs of transmission lines across all beneficiaries of a given project. FERC is currently updating the rules governing cost allocation agreements for regional lines, but it has not yet undertaken the necessary review for interregional projects.[14] Congress should direct FERC to broadly allocate costs of large-scale regional, interregional, and offshore transmission projects to all beneficiaries of the project. This "beneficiary pays" principle is expected to ultimately lead to cost savings for consumers as the costs of new and well-planned transmission projects will be offset by savings from having access to cleaner, cheaper renewable energy, improved system reliability and resilience, and reduced transmission congestion on the grid.

Interstate, interregional, and offshore projects of national importance should be automatically required to use broad cost allocation methods. This would incentivize the type of large-scale projects that are particularly needed for the decarbonization of the grid.

Legislation:

- Enhancing Electric Grid Resilience Act (H.R. 9326) – Rep. Kathy Castor

Minimum Transfer Capability Requirements

The U.S. grid is broken down into separate regions that have surprisingly little ability to transfer power back and forth between each other. This problem became readily apparent to all Americans during the Texas deep freeze of 2021, during which days of rolling blackouts cost the

[12] https://www.niskanencenter.org/what-to-keep-and-what-to-fix-in-manchins-permitting-proposal/
[13] https://gridprogress.files.wordpress.com/2022/09/grid-strategies-siting-bill-analysis-2.pdf
[14] https://www.niskanencenter.org/what-to-keep-and-what-to-fix-in-manchins-permitting-proposal/

state at least $195 billion and caused at least 146 deaths due to hypothermia.[15] Part of why this crisis became so severe is that Texas was unable to bring in power from other parts of the country to make up for lost generation that went offline during the freeze.[16] The Electricity Reliability Organization of Texas (ERCOT) is an isolated power island, with only a 1% transfer capacity with any of its neighboring regions. While ERCOT is an extreme example of the need for greater transfer capacity between regions, many other regions across the country would benefit from stronger connections as well.[17]

Congress should direct FERC to determine the existing transfer capacity between regions and to establish minimum levels of transfer capabilities between each region. Once that is done, FERC should require each transmission planning region to coordinate with its neighbors to plan for this required interregional transmission. This would be a gamechanger in terms of enhancing the reliability and resilience of our national electricity system. If one region is experiencing a severe weather event, whether it is another massive freeze or a severe heat wave, having sufficient interregional transfer capabilities would allow the affected region to pull power from other parts of the country, ensuring that region's grid has the capacity to continue providing power. This can mean the difference between life and death for people living in the affected region.

Legislation:

- Reinforcing the Grid Against Extreme Weather Act (H.R. 8303) – Rep. Sean Casten
- Section 5 of the CHARGE Act (S. 3879) – Sen. Ed Markey

Planning and Governance Reform

Current transmission planning processes do not adequately consider realistic projections of what the mix of power generating assets is likely to look like in the future. This problem will only become more acute with the passage of IRA, which is expected to super-charge the amount of clean energy deployment across the country. We also need to adequately account for the expected rise of severe weather events due to climate change and the strain that will put on our grid. The planning system today does not look far enough into the future and is too focused on business-as-usual trends.[18]

We are grateful for the ongoing work of FERC to address regional planning, interregional planning, and interconnection queue reforms. If ambitious proposals are finalized, they could play an important role—without Congressional action—in addressing some of the challenges to a rapid and orderly transition to a cleaner electricity system. However, we believe there are several policies that Congress can enact to complement FERC's efforts.

[15] https://doi.org/10.1057/s41599-022-01353-8
[16] https://acore.org/transmission-makes-the-power-system-resilient-to-extreme-weather/
[17] https://www.niskanencenter.org/ferc-is-coalescing-around-the-idea-of-minimum-transfer-capacity-but-needs-data-and-definitions/
[18] https://acore.org/wp-content/uploads/2021/10/Transmission-Planning-for-the-21st-Century.pdf

These policies respond to issues that are already plaguing the system, such as the interconnection queue, as well as issues that will likely arise in the future, such as the need to connect new offshore wind generation into the grid.

Create Office of Transmission at FERC

In recognition of the importance of transmission to the clean energy transition and to facilitate the increased focus that FERC will need to have on transmission over the upcoming years and decades, it is prudent to codify the Office of Transmission to ensure that the Commission has a dedicated office focused on coordinating the Commission's transmission priorities.

Legislation:

- Section 215 of the CLEAN Future Act (H.R. 1512) – Rep. Frank Pallone
- Section 9 of the CHARGE Act (S. 3879) – Sen. Ed Markey

Improve Interregional Transmission Planning

As part of its interregional transmission planning process, FERC should explicitly be required to consider multiple benefits when making decisions, including the economic, reliability, operational, environmental, and climate benefits that transmission projects pose. FERC should also facilitate stronger interregional collaboration and these multiple benefits should be consistently considered across regions.

Legislation:

- Interregional Transmission Planning Improvement (H.R. 2678/S. 1015) – Rep. Sean Casten/Sen. Martin Heinrich

Interconnection Queue Reform

The current approval process for new generation on our grid has doubled from 2 to 4 years, and now more than a terawatt of new generation capacity is waiting in interconnection queues because of transmission constraints.[19] There are many projects that enter the queue effectively shovel-ready, having already secured adequate financing, but by the time they make it to the front of the line, power purchase agreements have fallen apart, land use agreements have timed out, and other challenges prompt the full cancellation of the project.[20] Wind and solar developers are eager to meet the demand of achieving the clean energy future we need, but our interconnection process simply isn't up to the task of bringing all of these projects on board in a timely fashion.

[19] https://emp.lbl.gov/queues
[20] https://www.utilitydive.com/news/energy-transition-interconnection-reform-ferc-qcells/628822/

Part of the reason for the lengthy queue is that the interconnection process currently identifies transmission needs in a piecemeal fashion, which results in inefficient, small upgrades and higher costs to customers.[21] Instead of this project-by-project approach where the project developer pays for the interconnection to the grid, Congress should direct FERC to require electric utilities to allocate the cost of upgrades to the grid among all customers that benefit from these upgrades. This more streamlined approach would result in savings for everyone through access to cheaper, cleaner energy and the easing of transmission congestion.

Legislation:

- Section 3 of the Efficient Grid Interconnection Act (H.R. 4027) – Rep. Kathy Castor

Shared Offshore Wind Infrastructure Planning

President Biden has established an ambitious goal of deploying 30 gigawatts of offshore wind by 2030.[22] To achieve and exceed that goal, we need to quickly build offshore transmission capable of efficiently bringing power onshore and to do so in a way that maximizes cost effectiveness and minimizes environmental and other impacts. Instead of the current uncoordinated approach to offshore wind transmission in which radial lines are deployed to support a single offshore wind project, we need a coordinated approach that will create an interconnected network of offshore wind transmission lines that maximizes transmission capacity and is capable of transmitting power to different transmission planning regions. FERC should direct each region to plan for the development and use of shared infrastructure networks capable of supporting multiple offshore wind projects.

Legislation:

- Legislation in development

Alleviating Pressure on the Grid

There are methods to improve the U.S. grid without building additional transmission lines. This can help address some of the challenges currently facing the grid to bring on increasing amounts of renewable energy by using the grid we already have more efficiently. These "non-wires solutions" include increased use of distributed energy resources, energy efficiency, energy storage, and demand response.

[21] https://cleanenergygrid.org/wp-content/uploads/2021/01/Disconnected-The-Need-for-a-New-Generator-Interconnection-Policy-1.14.21.pdf

[22] https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/

Non-Wires Solutions

Utilities that own and build transmission are not as incentivized to consider non-wires solutions to make the grid more flexible, as they earn a rate of return on their capital expenditures rather than on how efficiently they run their systems.[23]

One subcategory of these are grid-enhancing technologies (GETs), which can make existing power lines more effective at transmitting electric power. Examples of these sorts of technologies include advanced power flow control, which can push power off overloaded facilities or pull power to under-utilized facilities, and dynamic line ratings, which adjust the thermal ratings of power lines based on weather conditions utilizing real-time monitoring of line behavior.[24] Under certain conditions, it may be possible for GETs to enable more than double the amount of new renewables to be integrated into the grid.[25]

Congress should direct FERC to allow utilities to allocate the costs associated with non-wires solutions for the purposes of cost recovery through transmission rates. Further, to help alleviate the interconnection queue issue, FERC should direct grid operators to study deploying GETs to reduce costs. These policies would have the net effect of lowering the cost of electricity for everyone by allowing for expanded deployment of cheaper, clean energy without the need to build new lines.

Legislation:

- Section 214 of the CLEAN Future Act (H.R. 1512) – Rep. Frank Pallone
- Section 4 of the Efficient Grid Interconnection Act (H.R. 4027) – Rep. Kathy Castor

Removing State-Level Bans on Aggregated Demand Response

Wholesale demand response aggregators reduce energy consumption and flatten peak demand while earning revenues for local businesses by paying large electricity users to reduce their electricity use during periods of peak demand.[26] Currently, FERC gives states the authority to eliminate wholesale demand response markets by prohibiting aggregators from selling their clients' reduction in energy consumption into wholesale electricity markets. Thirteen states have chosen to use this "opt out." Removing states' ability to opt out would allow consumers in these states to sell their energy reduction into the wholesale market, thereby earning additional streams of revenue while also reducing emissions and improving the reliability of the grid.

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[23] https://www.greentechmedia.com/articles/read/report-grid-enhancing-technologies-could-save-5b-per-year-double-u.s-renewables-capacity-growth

[24] https://watt-transmission.org/wp-content/uploads/2021/02/Brattle__Unlocking-the-Queue-with-Grid-Enhancing-Technologies__Final-Report_Public-Version.pdf90.pdf

[25] Ibid.

[26] https://www.energy.gov/oe/activities/technology-development/grid-modernization-and-smart-grid/demand-response

FERC has already ruled all other distributed energy resource types (energy efficiency, distributed generation, and energy storage) are eligible to participate in all wholesale energy markets regardless of the state in which they are located. This should be extended to include demand response as well.

Legislation:

- REDUCE Act (H.R. 8738) – Rep. Sean Casten

Community Solar

Community solar is any solar project or purchasing program within a defined area in which the benefits of the project are shared amongst multiple customers. Typically, community solar subscribers receive an electric bill credit for the electricity generated by their share of the community solar system they are subscribed to.[27] This form of distributed energy resource gives individuals an option to contribute to and benefit from clean energy even if they are not able to install rooftop solar panels themselves.

Distributed energy resources are an important driver of the clean energy transition by helping provide power supply and services close to where they are used, minimizing the need for transmission.[28] Community solar is a particularly accessible form of distributed energy resource that is far more affordable and one that is even available to non-homeowners. Community solar installations also have been shown to improve the reliability and resilience of the power grid, most recently demonstrated by the community of Babcock Ranch, Florida, which was built with community solar and never lost power during Hurricane Ian in 2022.[29] Congress should pass legislation to support the expansion of community solar and allow community solar projects to be included in existing DOE grant, loan, and financing programs.

Legislation:

- Community Solar Consumer Choice Act (H.R. 2764) – Rep. Kathy Castor

[27] https://www.energy.gov/communitysolar/community-solar
[28] https://www.aceee.org/topic/distributed-energy-resources
[29] https://www.npr.org/2022/10/05/1126900340/florida-community-designed-weather-hurricane-ian-babcock-ranch-solar

Community Engagement

There is broad agreement that we must more efficiently construct the infrastructure necessary to bring about the clean energy future.[30] But the way to do so is not by cutting communities out of the planning process. In fact, a number of studies have suggested that a key way for projects to be completed faster is to engage early with stakeholders who may be opposed to the project so that their concerns can be addressed early in the process and thereby avoid time-consuming litigation or other forms of delay. [31] [32]

Beyond allowing for more efficient deployment of clean energy, ensuring community voices are part of the process will also go a long way toward ensuring we don't repeat the same mistakes that our country has made in the past. Specifically, community engagement is crucial to ensuring disadvantaged communities are not disproportionately impacted or deliberately targeted for the creation of sacrifice zones, as they have been in the past. Our permitting laws need to be updated to enshrine the principle that the communities that will be affected by federal projects must have a seat at the table.

Environmental Justice Inclusion

The National Environmental Policy Act (NEPA) should be updated to require federal agencies to provide early and meaningful opportunities for community input for projects that may affect an environmental justice community. This should include requiring federal agencies to prepare a community impact report that assesses whether the proposed action will contribute to adverse health outcomes for that community. The report should evaluate alternatives or ways to mitigate the proposed action to eliminate or, where that is not possible, reduce the identified exposure to health or environmental hazards. It is important that all of these factors are on the table when a federal agency decides what alternative to pursue.

For actions that will affect environmental justice communities, certain levels of engagement should also be required under law, such as requiring any public comment period last at least 90 days and that multiple hearings in the affected community are held, including ones held in each prominent language within that community. Notice of any step or action in the process that involves public participation should be shared with representative entities or organizations within that community.

When an Environmental Impact Statement is required, the notice proposing the action should include a description of the proposed action, an outline of the anticipated schedule, an initial list of alternatives and potential impacts, an initial list of other existing or proposed sources of

[30] https://www.sierraclub.org/sierra/yes-we-need-build-lot-more-renewable-energy-lot-faster-scrapping-environmental-laws-isn-t
[31] https://www.sciencedirect.com/science/article/pii/S0301421522001471?via%3Dihub
[32] https://crsreports.congress.gov/product/pdf/R/R42479

exposure, an agency point of contact, timely notice of locations where comments will be received, and any telephone number or location where further information can be obtained.

For NEPA actions that may affect a tribal community, the federal agency must seek tribal representation in the process in accordance with the government-to-government relationship between the United States and tribal governments, including any treaty rights. A tribe should also be invited to hold the status of cooperating agency throughout the process.

Legislation:

- Section 14 of the Environmental Justice for All Act (H.R. 2021) – Rep. Raúl Grijalva – which passed the House as part of the Wildfire Response and Drought Resiliency Act (H.R. 5118)

Strengthening Community Protections

NEPA should be amended to specify in more detail what should be considered when developing alternatives to a proposed action. This should include developing alternatives that do not cause or contribute to adverse cumulative environmental pollution impacts on overburdened communities at an amount higher than those borne by other communities in the geographic area, except when the agency determines that the alternative would serve a compelling public interest in the affected overburdened community.

Legislation:

- Amendment to the Environmental Justice for All Act (H.R. 2021) to create a new Section 15 as adopted by the House Natural Resources Committee during its 7/27/22 committee markup on H.R. 2021 – Rep. Donald McEachin

Environmental Justice Liaisons

Congress should direct FERC to establish environmental justice liaisons (which could be either within or outside of the Office of Public Participation) to support ongoing consultation and advanced planning in environmental justice communities and tribal nations. This would build on the newly established environmental justice senior position FERC created in 2021. Environmental justice liaisons must establish a community partnership and communications program that employs the strengths of tribal, state, and local governments, as well as community-based organizations, faith-based organizations, schools, media, businesses, social services, ethnic organizations, and others to support transmission planning and implementation in affected communities.

Legislation:

- None currently introduced

Intervenor Funding at FERC Office of Public Participation

FERC's Office of Public Participation was originally authorized in 1978, but never established until Congress directed the Commission to set up the office in 2020. The purpose of the office is to help underrepresented parties with limited resources engage in FERC's proceedings.[33] This mission is vital as FERC's proceedings are highly complex but hugely impactful, so only well-resourced actors are functionally able to participate.[34]

Truly following through on that mission requires compensation of individuals or parties that intervene in the proceedings. Without this, things remain status quo with average citizens having limited ability to participate, as under-resourced intervenors don't have the means to take off work to attend hearings nor to pay for attorneys to engage in the technical aspects of FERC's work. This model of intervenor funding has been successfully deployed in several states, including California, which has allocated around $10 million per year in recent years for this purpose.[35]

The Public Utility Regulatory Policies Act of 1978 already authorized that FERC may provide compensation to intervenors. Congress should update this law to require FERC to promulgate rules to facilitate this.

Suggested Legislative Text:

- Replace "may" in 16 U.S. Code § 825q–1(b)(2) to "shall"

Reforming RTO/ISO Governance and Participation

Congress should require FERC to reform the governance and stakeholder participation practices of Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs). Proper reforms could ensure RTO/ISOs' processes are meeting the needs of a rapidly changing grid while also improving the public legitimacy of decisions made by their stakeholder processes.[36] This could be facilitated through a technical conference or permanent advisory committee to make recommendations that FERC would adopt via rulemaking. Whether this is done through a technical conference or advisory committee, representatives should be included across a broad spectrum of stakeholders, including environmental justice and tribal communities.

Legislation:

- Empowering RTO Stakeholders Act (H.R. 8302) – Rep. Sean Casten
- Section 12 of the CHARGE Act (S. 3879) – Sen. Ed Markey

[33] https://www.utilitydive.com/news/ferc-office-public-participation-intervenor-funding-compensation/621406/
[34] https://sustainableferc.org/4-keys-for-a-successful-ferc-office-of-public-participation/
[35] https://grist.org/energy/ferc-may-finally-help-the-public-understand-wtf-it-does/
[36] https://www.sciencedirect.com/science/article/abs/pii/S1040619021000452?via%3Dihub