Thank you, Chairman Carper and Ranking Member Capito for the opportunity to testify today. My name is Christy Goldfuss, and I am the Chief Policy Impact Officer for the Natural Resources Defense Council (NRDC). NRDC is a nonprofit organization of scientists, lawyers, and environmental specialists dedicated to protecting public health and the environment. Founded in 1970, NRDC has more than three million members and online activists nationwide. I have worked at NRDC since 2022. Previously, I have also served as the managing director of the White House Council on Environmental Quality (CEQ), where I helped develop and implement the Obama administration’s environmental and energy policies. Most recently, I was the senior vice president for energy and environment policy at the Center for American Progress, where I worked in close partnership with a broad range of stakeholders to develop a climate investment strategy. This incentives-based approach to addressing climate change became the cornerstone of President Biden’s climate agenda and was enshrined into law through the Inflation Reduction Act. I also served as the deputy director of the National Park Service, where I helped lead efforts to set and meet strategic goals related to conservation and preservation of the country’s natural and cultural heritage. I also created and directed the Public Lands Project at the Center for American Progress and worked on the legislative staff for the House Committee on Natural Resources.

I. Overview

To limit global warming to 1.5 degrees Celsius, the Biden administration has set long-term and interim goals to reduce climate change-causing greenhouse gas emissions, including achieving 100 percent carbon pollution-free electricity by 2035 and achieving net-zero greenhouse gas emissions economywide by 2050. Achieving these ambitious goals will require replacing fossil fuel-powered electricity with renewable energy on an immediate and massive scale. The Inflation Reduction Act (IRA) will provide unprecedented investment in our energy system, funding the development of new renewable energy projects and updates to our energy system that can help us reach these goals.

This isn’t just a chance to halt the climate crisis, it’s also a path to a clean energy future that benefits all Americans.

We can and must do this in a way that builds wealth in underserved communities, cleans the air and water in communities currently being polluted by fossil fuels, and protects and restores wildlife
habitat, sensitive lands, and critical ecosystems currently threatened by the impacts of climate change.

The current system of local, state, and federal permitting must be better designed and optimized to handle permitting at the speed and scale needed to achieve these climate and clean energy goals. At the same time, the process must take into account important wildlife conservation and environmental justice goals both to build the clean energy future for everyone and to create much-needed community support for clean energy projects. Project planning and development do not always do enough to both avoid impacts to communities and create benefits for them, nor is there enough planning to avoid highly sensitive areas and bake in community concern from the beginning. In addition, projects are often permitted at the local level, where more of the costs and fewer of the benefits can be seen. Local opposition also springs up as the result of misinformation and ideology. As a result, some communities are moving to preemptively prohibit wind, solar, and transmission and many projects are delayed or halted by time-consuming permitting fights and litigation.

To unlock the renewable revolution in a way that effectively addresses our climate, biodiversity and equity crises, the U.S. must shift the value proposition around clean energy deployment and transmission. We must move to a model that delivers more benefits directly to the communities that host the necessary clean energy infrastructure while providing the benefits of clean energy to everyone. These benefits should provide economic opportunity and conservation measures that will leave these communities stronger than they were before the infrastructure was built. This shift will lead to less opposition and therefore faster timelines for getting clean energy projects and transmission deployed at scale.

Broadly speaking, the way to achieve this is through the following steps: more comprehensive and better planning, ensuring that more of the benefits from clean energy projects and large multistate transmission to flow to the communities that host them, enhancing community involvement and maximizing conservation benefits in both the planning and permitting processes by early and sustained engagement and the use of “Smart from the Start” planning, and ensuring that local communities cannot unreasonably veto clean energy and large multistate transmission projects.

In my testimony, I will first discuss the scale of the opportunity presented by the IRA and then present a set of recommendations to optimize our federal planning and permitting process for clean energy. My recommendations cover four major topics: 1) enhancing coordination, accountability, and efficiency in clean energy permitting; 2) improving the process for permitting and siting large interstate transmission lines; 3) maximizing conservation benefits and mitigating impacts through “Smart from the Start” planning; and 4) addressing local barriers to clean energy projects.

Congress has already accomplished a tremendous amount to encourage the clean energy transition. Thus, many of my recommendations are for the executive branch and for states. However, there is more for Congress to do, and NRDC looks forward to working with the Committee on these important measures.
II. The Inflation Reduction Act Presents a Historic Opportunity to Build a Strong Clean Economy in the United States that Benefits All Americans

With the passage of the Inflation Reduction Act (IRA), the United States has a once in a generation opportunity to dramatically cut U.S. greenhouse gas (GHG) emissions by replacing a huge amount of fossil fuel energy with clean energy. If fully realized, by 2035, this unprecedented investment in the U.S. energy system will lead to increasing renewable energy and storage deployment by nearly four-fold over today’s levels. This clean electricity will drive out over 50 percent of the coal combustion and 17 percent of the natural gas we currently burn, reducing U.S. power sector annual CO₂ emissions by 80 percent compared to 2005 levels.

The massive clean energy investments from IRA have the potential to have a profound positive impact on the lives of people across the country. Taken as a whole, the IRA, which supports a range of clean energy investments across all sectors—transportation, industry, buildings, and power—will save thousands of lives annually. It is projected that by 2035, over 9,500 fewer people will die from air pollution each year, and cumulatively 63,000 premature deaths will be avoided over the next 13 years. During this period, the law is projected to create over 2.3 million new energy sector jobs. The IRA’s clean electricity tax credits will save U.S. households $60 billion on electricity bills over the next 15 years.

To deliver on the promise of the IRA, the United States needs to build clean energy projects at much greater speed and scale. By 2035, the U.S. needs to build approximately 564 gigawatts of renewable electricity and storage. That means doubling the rate of buildout of the U.S. electric transmission system while simultaneously shifting to building larger, interstate transmission lines instead of the small local lines that are mostly built today. And the U.S. must seize this opportunity to build a clean energy future that benefits all Americans. And as my testimony describes below, these projects must be compatible with the goals of dramatically increasing conservation of critical ecosystems and wildlife and helping to redress our nation's history of systemic environmental racism and deepening climate inequality.

III. Specific Recommendations for Improving the Planning and Permitting Process

A. Suggestions for Improving Federal Coordination, Accountability, and Efficiency of Clean Energy Permitting

While targeted reforms to current planning, siting, and permitting procedures are necessary to meet the Biden administration’s goals of a carbon-free power sector by 2035 and net zero emissions

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3 See id. at slide 18.
4 See id.
6 See id. at 6.
7 Jenkins et al., “Electricity Transmission Is Key to Unlock the Full Potential of the Inflation Reduction Act.”
economywide by 2050, broad claims that the system is “broken” are not helpful in identifying solutions. A survey of the Department of Defense, Department of the Interior, and Forest Service found that factors outside of the National Environmental Policy Act (NEPA) process (such as permits controlled by other agencies) were responsible for delays 68-84% of the time and that one of the strongest indicators of NEPA review duration was the adequacy of agency staffing and the complexity of the issues that a project presented. This means that arbitrarily requiring shorter page limits or timelines for an Environmental Impact Statement (EIS) will do little to speed up the review of complicated projects and may instead lead to more poorly documented decisions and, thus, more legal risk.

Nevertheless, there are ways to improve the coordination, accountability, and efficiency of clean energy permitting at the federal level without undermining early engagement or robust information gathering. Significant gains in the efficiency of environmental reviews can be found through increased agency resources, greater use of programmatic reviews, and permitting solutions that are tailored specifically for clean energy projects.

According to analysis of 16 years of U.S. Forest Service decision-making under NEPA, two important sources of delays on the part of federal agencies in reaching final decisions are the lack of staff generally and the lack of staff who are considered experts. There are currently more than 1,000 vacancies at federal agencies. While the IRA provides approximately $1 billion for project planning and permitting, the Biden administration must first fill the large number of vacancies left by the previous administration and then build up additional agency staffing to ensure that these projects can be reviewed and permitted in a timely manner.

President Biden should require all federal agencies involved in planning and permitting of renewables and transmission to submit and publicly report on updated workforce plans that include current data on overall staff and identify any lack of key expertise that is limiting the agency’s ability to plan or permit projects in a timely manner. Relevant staff capacity may include members of human resources departments. These workforce plans should explain how an agency will use existing and new IRA resources to attract a diverse pool of top talent, train staff members on relevant skills necessary to expand capacity, and retain qualified staff so that institutional knowledge stays within the agency. The President should also require annual public updates to the workforce plans and staffing data.

IRA and Infrastructure Investment and Jobs Act (IIJA) funds should be used to augment agency capacities with a focus on what will be most effective to speed planning and permitting of renewables and transmission. Investments should be directed towards greater agency transparency and accountability (e.g., the Federal Infrastructure Permitting Dashboard) and coupled with clear

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10 See “Evidence-Based Recommendations for Improving National Environmental Policy Act Implementation” at 306-10.
and upfront direction on expectations for timelines, agency coordination including lead agency authority, and early access to accurate and current data on land, water, and wildlife resources. Practices like early stakeholder engagement and pre-application meetings have contributed to a more efficient permitting process within the FAST-41 program and should be encouraged.

NRDC encourages the Federal Permitting Improvement Steering Council (FPISC) to take full advantage of its authority to disburse a portion of the $350 million that it received from the IRA to facilitate permitting coordination with Tribes and states in permitting processes, as it has begun to do. FPISC’s Executive Director also should use the discretion that the IIJA provided her to track many of the smaller—but vitally important—clean energy projects on the Permitting Dashboard in the interest of transparency. The President’s proposed FY24 budget, particularly for the FPISC, would make important and impactful investments in these directions.

Agencies should also be encouraged to make greater use of programmatic EISs to move toward a “design one, build many” model that decouples broad swaths of the environmental review from individual project timelines. A programmatic EIS can essentially do much of the work ahead of time and be incorporated in multiple project-level EISs by reference through a process known as tiering. By relying on a well-established public process, an agency can analyze issues across a landscape, technology, and/or species impact, for example, and then provide options and guidelines for addressing concerns (e.g., mitigation measures or best management practices) that individual project proponents and agencies can later rely on without having to start from scratch. Several utility-scale solar projects have been approved in a matter of months that were tiered to a programmatic EIS. In fact, the average permitting time for solar projects sited in solar energy zones went from 20.1 months to 9.7 months.

In the broader federal permitting context, CEQ should continue efforts centered on sector specific engagement to identify and facilitate targeted efficiency gains for agencies that are part of the permitting process for clean energy projects. As noted above, significant dividends can be gained because coordination among agencies is often the source of permitting delay. NRDC further encourages the Bureau of Land Management to fully staff up the recently reestablished Renewable Energy Coordinating Offices, as Congress required in the Energy Act of 2020. During the Obama

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administration, these offices were an effective one-stop shop and source of needed expertise to move renewable energy permits forward on public lands.

There are also a handful of permitting measures that could be codified into law to produce both better and more expedited permitting outcomes, including lowering the monetary threshold for “covered projects” that are tracked on the Permitting Dashboard and providing clear authority to FPIC to use IRA funds to facilitate the participation of interested parties—including frontline and disadvantaged communities—in permitting processes.

B. Congress Should Encourage the Federal Energy Regulatory Commission and the Department of Energy to Use Their Existing Authority and Consider Enacting Legislation to Improve the Transmission Planning and Siting Process

Lack of transmission is a critical barrier to accelerating the renewable energy buildout needed to achieve the Biden administration’s goals of a carbon-free power sector by 2035. Currently, although transmission planning happens under FERC regulation, the permitting for all transmission lines happens at the state and local level, meaning that each state (and in some cases each community) effectively has veto power over transmission lines that pass through its jurisdiction by either denying needed permits or refusing to accept any of the costs.

Permitting and allocating costs for large, interstate transmission at the federal level would fix the misalignment of costs and benefits caused by state-by-state permitting. As described below, the first order of business is for the Federal Energy Regulatory Commission (FERC) and the Department of Energy (DOE) to aggressively implement their current authority. A more robust solution will require Congressional action.

Existing law gives FERC and DOE authority to permit certain large interstate transmission lines if a state fails to do so, but this requires FERC and DOE to decide whether to exercise their authority, and they face stiff resistance from states, which view this as a usurpation of their right to site projects. Under authority that was strengthened by the IIJA, FERC has backstop authority to site lines within “corridors of national interest,” which DOE must designate.18 However, FERC can only act when states deny or do not act on a project after one year.

FERC and DOE should move quickly under this strengthened authority to designate new “national interest” corridors, using this process to plan transmission and engage communities early in the process. DOE has taken the first step of issuing a draft “transmission needs” study.19 Once the study is finalized, DOE should provide clear guidelines for which types of projects qualify for such designation. Meanwhile, FERC should finalize its proposed rules modifying its backstop siting regulations allowing it to start its pre-filing review of proposed lines in parallel with states.

Even when large transmission projects are planned, allocating the costs of such projects is a herculean undertaking. Current cost allocation rules fail to consider the multiple benefits of

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transmission and thus do not fairly allocate costs of transmission across all the beneficiaries. FERC can broadly allocate the costs of transmission but has not yet done so. If FERC does not act, Congress should pass legislation requiring FERC to adopt cost allocation rules that holistically reflect the multiple benefits of transmission, including economic, reliability, operational, public policy, resilience to extreme weather, and environmental benefits (including reductions in GHG emissions and reducing harm to EJ communities). New legislation should also explicitly allow FERC to establish cost allocation rules for offshore wind transmission.

FERC must also do a better job implementing its siting and permitting responsibilities with transmission than it has done with fossil gas infrastructure. FERC’s gas permitting process essentially rubber stamps nearly all projects and has been found illegal in multiple court cases. FERC should perform more robust environmental reviews and provide stronger landowner protections in siting transmission, including: 1) ensuring it accurately defines all impacted environmental justice communities, 2) assessing the impacts on environmental justice communities, 3) measuring changes in GHG emissions under NEPA, and 4) providing plain language public notice to all affected landowners and a meaningful opportunity for comment.

To avoid some of the infirmities in existing law, Congress should enact new legislation that specifies bright line eligibility criteria for FERC to assess and approve large-scale multistate transmission projects without the projects first being subject to state proceedings. These criteria should include a size threshold and a requirement that the transmission line traverses two or more states or FERC-designated regions. It should also include other criteria such as enabling renewables, reducing congestion, improving reliability, or reducing greenhouse gas emissions. Such legislation would establish a process for FERC to authorize the construction, modification, and operation of certain large interstate transmission facilities that bring regional benefits which the states often cannot consider in their siting processes, while leaving the majority of transmission siting decisions at the state level.

C. Embracing Smart from the Start Planning Will Ensure that Clean Energy Projects Deliver Conservation Benefits and Mitigate Impacts

Lessons learned from applying “Smart from the Start” on public lands and in the offshore wind context demonstrate how to deliver conservation benefits while efficiently permitting clean energy. NRDC recommends three focus areas to highlight and deliver on conservation benefits associated with the rapid clean energy buildout our country needs: 1) facilitate, integrate and uphold “Smart from the Start” principles in clean energy planning at all levels, including protecting high value and sensitive areas and directing development to areas of lower conflict like already degraded lands; 2) invest in robust science and data and the creation of science-based standards and guidelines for responsible permitting; and 3) explore durable mechanisms that directly tie responsible clean energy development to conservation dollars and other community investments.

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“Smart from the Start” means planning and siting development in ways that minimize potential impacts and conflict before project-by-project permitting even begins. Ultimately this means sharing the best information early in the process in a way that can be applied to and speed up the development of multiple projects. It includes applying the science, guidance, and best practices to address both environmental and community concerns and is one of the best options for threading the needle to scale clean energy while also protecting and elevating environmental and social concerns.

Decades of experience in protecting natural resource values from industrial development coupled with an urgency to find environmentally responsible pathways forward for clean energy deployment led to the genesis of “Smart from the Start,” which encompasses the following high-level principles:

- Conduct early and robust stakeholder engagement
- Undertake planning at a landscape level
- Conserve lands with important natural resource and cultural values
- Guide development to low-conflict areas with preferred development criteria
- Coordinate with transmission planning
- Integrate regional strategic mitigation

Following this approach to planning enables lead agencies at the local, state, regional or federal level to do the following: 1) amplify public input instead of shutting it down; 2) decrease potential project-level delays including litigation by addressing issues early in the process; and 3) integrate planning processes across technologies and jurisdictions (e.g., considering renewables and interstate transmission at the same time) through meaningful agency collaboration. This is why NRDC suggests doubling down on “Smart from the Start,” replicating what has been learned from successes on federal lands to other contexts and creating direct ties to financial incentives and permitting processes.

NRDC was a core member of the California Desert Renewable Energy Working Group, a collaborative effort comprised of representatives of the renewable energy industry, electric utility sector, and environmental community that developed joint recommendations and significantly shaped DOI and DOE’s 2009 Solar Programmatic Environmental Impact Statement (Solar PEIS) as well as the California Desert Renewable Energy Conservation Plan. These two efforts embraced “Smart from the Start” planning and demonstrated a proof of concept for balancing protections for ecosystems, landscapes, and species while supporting the timely development of renewable energy resources in the California desert.

21 The Desert Renewable Energy Conservation Plan (DRECP) was a joint federal state planning effort to balance clean energy and conservation in the Desert District of the Bureau of Land Management. Under the DRECP, three projects broke ground this past summer and two others reached completion. See https://www.blm.gov/press-release/biden-harris-administration-announces-full-operation-california-solar-project-will. The BLM’s approved plan identifies 388,000 acres of Development Focus Areas (DFAs) designed to prioritize renewable energy development, as well as more than 400,000 additional acres where renewable energy can be considered. See https://www.energy.ca.gov/sites/default/files/2019-12/DRECP_FAQs_ada_0.pdf.
“Smart from the Start” is designed to make permitting more efficient and to protect high-value lands by strategically focusing on regional or landscape level mitigation efforts. These larger mitigation efforts often produce greater conservation outcomes than disparate project-level mitigation. While the Biden administration appears poised to continue “Smart from the Start” for the public land holdings given BLM’s reopening of the aforementioned Solar PEIS to update and improve it, more can be done, particularly with respect to private lands and offshore wind.

We need more resources and agency expertise to incentivize broader state and landscape-level planning efforts that facilitate early identification of protected areas, mitigation requirements, and low conflict development zones. As an example, through its RE-Powering Initiative, EPA has identified and mapped more than 11,000 potentially contaminated sites, representing nearly 15 million acres with renewable energy potential. Siting renewables can also be an economic development strategy, e.g., by building these projects on unproductive agricultural land. DOE and EPA should work with other agencies (such as USDA and DOI) and states to identify contaminated sites and non-viable agriculture land where renewable energy development would be preferred by the local community and practical for developers.

Robust science and data are the foundation for effective and universally accepted standards and necessary for responsible permitting and delivering conservation benefits. DOI, DOE, and EPA should be encouraged to partner with state agencies to develop and share the best available data as well as best management practices, mitigation options, and guidance. It is important to recognize that this is resource intensive work that strains the capacities of many federal and state agencies, not to mention local jurisdictions. Federal agencies should ensure that funds from the IRA earmarked for planning are implemented in a way that helps states and localities in their planning and permitting processes.

In the offshore wind context, NRDC has focused on developing a suite of science-based environmentally protective measures and monitoring recommendations to ensure a strong start for the industry. We worked with industry and other conservation partners to design measures to protect the endangered North Atlantic Right Whale and to address other ocean ecosystem protections for the Block Island wind project, a demonstration project which was the first ever U.S. offshore wind project. We helped create similar agreements for two of the first U.S. large-scale offshore wind projects, Vineyard Wind 1 and South Fork Wind (both of which are currently under construction). These efforts helped set an early standard for responsible offshore wind in the United States. Lessons learned further underscore a significant need for broader adoption of science-based standards and guidance on key measures to avoid, minimize, and mitigate environmental impacts; robust offshore wind monitoring and research programs for a range of

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marine wildlife and habitats; and reliable mechanisms for adaptive management to ensure new information is incorporated into the development process and used to course correct for impacts.

One of the most efficient mechanisms to support “Smart from the Start” principles would be to tie responsible development to revenue sharing and other financial incentives that can in turn deliver conservation dollars and other community benefits to host communities. The bipartisan Public Lands Renewable Energy Development Act provides one example in this regard, albeit for public lands. The bill centers on the following core components: 1) establishment of a Renewable Energy Resource Conservation Fund to enhance natural resource conservation and stewardship; 2) establishment of priority areas for renewable energy development; and 3) sharing of revenues raised from renewable energy development on public lands in an equitable manner that benefits local communities near new renewable energy projects and supports the efficient administration of permitting requirements.

D. Overcoming Local Barriers to Clean Energy Projects

Importantly, some of the strongest opposition and barriers to developing large-scale wind and solar and transmission lines at speed and scale originates at the community level and must be addressed by state and local solutions. Community opposition to large-scale wind and solar projects is growing across the U.S. There are many reasons for this trend, including misinformation and disinformation about renewable energy, concerns about project impacts, lack of community capacity to engage in planning and siting processes, and concerns that most of the benefits of projects flow outside of the community while the perceived burdens of the projects fall within. Communities often see hosting renewable energy projects as an impediment to achieving community goals such as creating quality jobs and economic development, preserving community identity and land preservation, and, in some cases, conservation goals. Consequently, an alarming number of communities are adopting restrictive zoning and land use ordinances that effectively ban the siting of large-scale clean energy projects.

This growing opposition highlights the importance of ensuring that community members receive accurate information about potential projects and that the permitting process includes engagement from a broad range of voices so that decisionmakers can accurately assess the environmental impacts as well as benefits of projects. Furthermore, it is important to ensure that host communities share in more of the benefits of the projects in their back yards.

Several states, including New York, California, and Washington, have enacted legislation that improves the siting process for large-scale renewable projects and provides potentially powerful models for similar legislation in other states. Among other things, these laws streamline the

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26 See Exec. Ch. 18, Article 6, § 94-c (New York); Cal. Pub. Res. Code § 25545 et seq. (California); RCW 80.50.040 et seq. (Washington).
permitting process, explicitly provide benefits to host communities, and prevent localities from having unreasonable veto power over renewable projects. States should be encouraged to adopt model siting and permitting laws that expand community engagement while limiting the ability of localities to unreasonably ban all wind and solar projects.

Developers should be encouraged to adopt as best practices early, active, and informed engagement of all stakeholders. Where states are adopting siting and permitting laws or new incentives for renewables or in-state transmission, they should require developers to engage all stakeholders—project proponents, state and federal agencies, NGOs, community interests, etc.—early in the process. Where this is not required, developers should, as many do, adopt this as a best practice. This engagement should aim to identify and address potential conflicts as early as possible.

In addition, where states are adopting siting and permitting laws or new incentives for renewables or in-state transmission, they should require developers to share more of the benefits of these projects with communities. Alternatively, states should consider providing incentives directly to these communities. Some funds for this type of incentive were included in the IRA and Congress should increase and broaden this funding.27

Finally, in cases where a developer has engaged in early and thorough dialogue with the host community, listened to their concerns, and designed and sited the project in a way that addresses these concerns, NRDC believes that coalitions comprised of environmental and labor groups, local landowners and businesses, and other stakeholders should work together to support the project. A key part of this support should be focused on demonstrating the benefits that will accrue to the local community in terms of community benefit agreements, payments in lieu of taxes or other mechanisms for benefit sharing, the creation of local jobs, and addressing other ways to compensate local landowners for any perceived or actual diminution in property values.

**IV. Conclusion**

The IRA creates a tremendous opportunity to chart a path to a clean energy future that benefits everyone. By improving the permitting process for clean energy projects, making it easier to site and pay for the transmission lines necessary to get this clean energy to all areas of our country, utilizing “Smart from the Start” planning to maximize conservation benefits and mitigate the impacts of these projects, and addressing local barriers to clean energy projects through early engagement and sharing benefits with host communities, we can make this clean energy future a reality, with health, environmental and economic benefits for all Americans. NRDC looks forward to working with the Committee on these and other issues. Thank you for the opportunity to testify today on this important and timely matter.

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27 See, e.g., DOE’s Transmission Siting and Economic Development Grants program, which is funded with $760 million through the IRA to support states and local communities in the siting and permitting of interstate and offshore electricity transmission lines. According to DOE, these funds may be used to increase community and stakeholder engagement in siting and permitting processes, create quality jobs and ensure workforce continuity, address local community needs and impacts, and reduce conflicts that can stall the development of needed electric transmission infrastructure. See https://www.energy.gov/gdo/transmission-siting-and-economic-development-grants-program#:~:text=.