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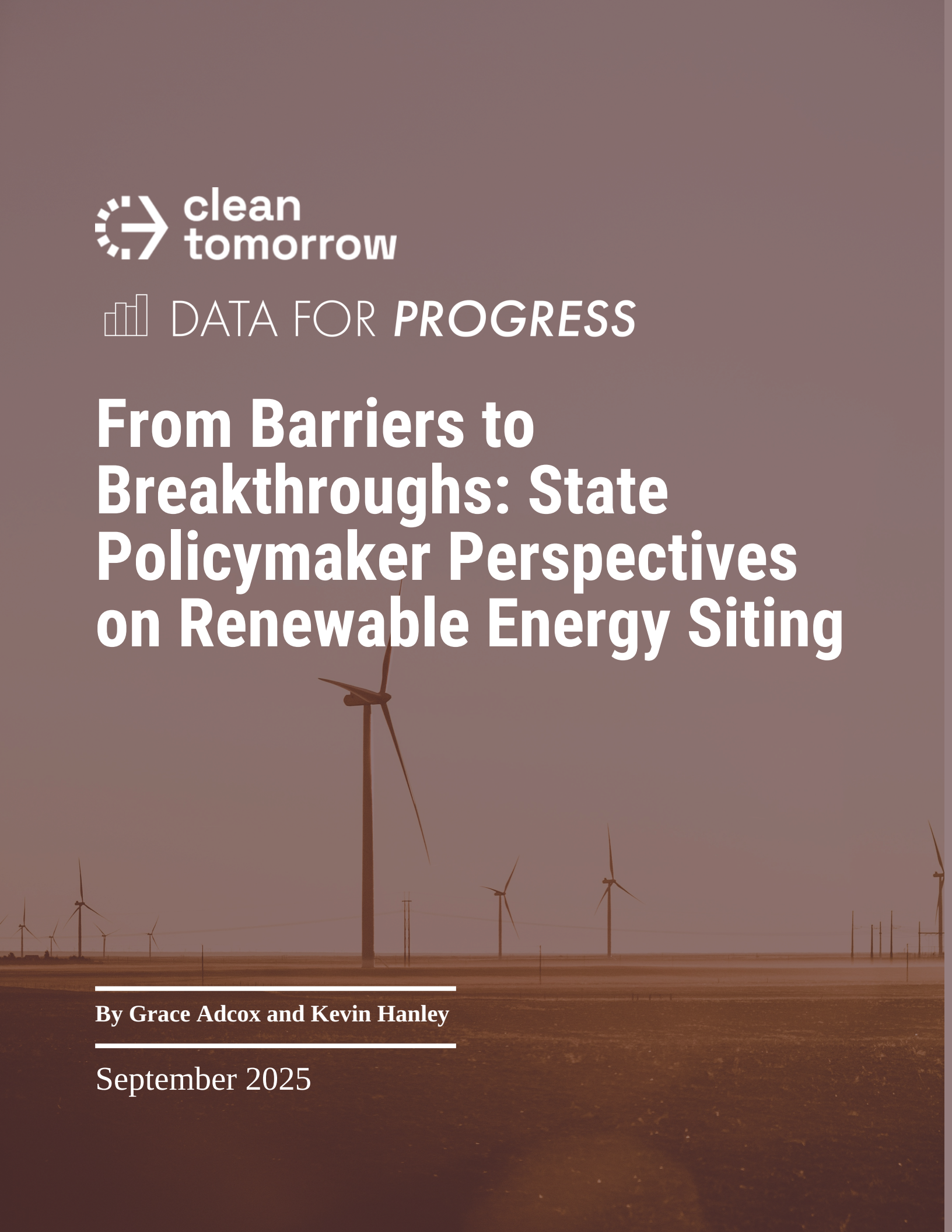
From Barriers to Breakthroughs: State Policymaker Perspectives on Renewable Energy Siting



By Grace Adcox and Kevin Hanley

September 2025

From Barriers to Breakthroughs: State Policymaker Perspectives on Renewable Energy Siting

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The U.S. urgently needs accelerated renewable deployment to address climate change, growing energy demand, and rising electricity costs. Yet, renewable energy in the U.S. is facing compounding challenges: Cuts in federal support, restrictive local siting ordinances, conflicts between state and local stakeholders, and local opposition are all increasing project costs and extending build times. To better understand how these dynamics are playing out on the ground, a new report by Clean Tomorrow and Data for Progress analyzed findings from 30 survey responses and nine in-depth interviews of state-level siting policy stakeholders across 17 states, including elected legislators and agency staff.

Key Takeaways

1. Siting policy stakeholders agreed that the siting process is challenging, and most frequently cited "indirect or social barriers," like community opposition and misinformation, and "direct or institutional barriers," such as restrictive local ordinances and difficulty securing transmission grid connections, as obstacles.

    ➔ **Recommendation:** Evaluate the siting policy landscape with an understanding that effective policy solutions must account for the full range of barriers that are impeding siting policy improvements at the state and local levels.

2. Existing barriers that inhibit siting policy improvements are compounded by underfunded political advocacy for renewables, fragmented siting policies across jurisdictions and technologies, and growing energy demands from data centers, which together highlight an urgent need for better-coordinated, well-resourced, and context-specific policy approaches.

    ➔ **Recommendation:** Consolidate and grow an organized political constituency for renewable energy at the state level.

3. Participants highlighted specific policy opportunities to improve siting and address local obstacles, such as mandating or incentivizing siting standards for local government adoption and prohibiting overly restrictive ordinances, and forging state-local government siting partnerships.

    ➔ **Recommendation:** Develop technical assistance programs or shared service models to expand local siting capacity in under-resourced areas.

    ➔ **Recommendation**: Adopt policy frameworks that effectively balance state priorities with local needs by establishing guardrails for local zoning while maximizing benefits for communities.

4. Survey respondents and interviewees expressed a strong need for resources, like best practices playbooks, case studies of successful siting policies, and messaging guidance focused on economic development and grid reliability, to overcome political polarization. Additionally, interviewees emphasized that limited state and local capacity remains a major barrier that requires attention.

    ➔ **Recommendation**: Pool resources, like siting policy workshops, model solar and wind siting ordinances, and other tools, and distribute them to siting stakeholders via easily accessible platforms.

    ➔ **Recommendation**: Produce effective research and messaging guidance to overcome local political divides on a variety of issues relating to renewable energy and siting, including framing renewable energy as both a necessary solution for grid reliability and a tool for economic development.

5. Even though survey respondents reported an increase in the number of projects approved and beginning construction, they highlighted that bottlenecks, like lack of transmission capacity, interconnection delays, and power purchase agreements (PPAs), still prevent many permitted projects from being built, suggesting that improving these bottlenecks may be just as critical as reforming siting policy.

    ➔ **Recommendation**: Establish consistent, coordinated siting governance models that align state and local roles, reduce duplication, and provide stable, predictable steps for all stakeholders engaged in the siting approval process.

    ➔ **Recommendation**: Assess the extent to which policy and process improvements not directly related to siting, such as proposals to address lengthy interconnection queues, could enhance the predictability and success of renewable energy deployment at the state level.

Introduction

Amid rising energy demand, soaring electricity costs, and worsening climate change, the United States urgently needs to accelerate the deployment of all available energy resources – and in particular, wind, solar, and battery storage, which can be built faster and more cost-effectively than new natural gas or nuclear power plants. Yet instead, this year the federal government has taken unprecedented action to undermine renewable energy development through a rapid-fire succession of executive orders, agency directives, and the passage of the One Big Beautiful Bill Act (HR1).

Against this backdrop, state legislatures have become a critical battleground for renewable energy siting and permitting policy. Clean Tomorrow's legislative tracking research and new report[1] show a divided national landscape: While some legislatures are exploring siting reforms to accelerate renewable deployment in the absence of federal leadership, others appear to be falling behind, introducing bills that would stall or further limit renewable deployment. Of the 305 siting-related bills introduced across 47 states during 2025 legislative sessions, legislation to restrict renewable energy development outnumbered more permissive legislation by a ratio of 2-to-1. Despite this flurry of legislative activity, only a handful of these bills passed, most with minimal impact on renewable energy buildout. Notably, in states like Texas, Oklahoma, and Louisiana, unlikely coalitions of business interests, landowners, veterans, industry, and clean energy advocates came together to defeat many of these regressive proposals as the year's legislative sessions came to a close.

But things are just starting to heat up for state siting policy. With the impending federal phaseout of the clean energy Investment Tax Credit (ITC) and Production Tax Credit (PTC), 2026 is poised to be a pivotal year for renewable energy siting and permitting policy in the states. As the federal government steps back on renewable energy, states are stepping forward, and the

[1] Alex Breckel & Nelson Falkenburg, "Insight Report: The State of Siting: 2025 Legislative Round-Up," Clean Tomorrow, August 2025. https://cleantomorrow.org/wp-content/uploads/2025/08/250806_ct_2025-legislative-round-up-report_v4-1.pdf

siting and permitting policies they adopt will play an increasingly central role in deploying renewable energy — or holding it back.

This new report, developed in partnership with Data for Progress (DFP), presents findings from a comprehensive research effort designed to illuminate the renewable energy siting and permitting barriers facing state legislatures and agency staff. Through a survey and in-depth interviews with legislators, agency officials, and policy stakeholders, we offer new insights into the political, procedural, and public perception challenges of siting policy that are top-of-mind for policymakers today, and outline how to equip policymakers to be more effective in the future.

Methodology

To carry out this research, Data for Progress and Clean Tomorrow first identified target stakeholders involved in the renewable energy siting and permitting processes at the state level. Through internal discussions, interviews with other academic and think tank researchers, and a review of past and ongoing research on renewable energy siting barriers, the authors identified members of state legislatures and agency staff as the focus for this project.

After determining the target universe of respondents, DFP, in collaboration with Clean Tomorrow, developed a contact list of 1,660 renewable energy siting stakeholders across the country, including elected officials, agency heads, staffers, and academics. Potential respondents were compiled from multiple sources, including state siting authority staff websites, LinkedIn, the National Association of Regulatory Utility Commissioners (NARUC) membership list, and existing proprietary lists managed or owned by DFP, Clean Tomorrow, and partner organizations. Stakeholders on the list were then further segmented into contact pools for survey research and interviews.

DFP worked with a qualified national recruiter to conduct survey and in-depth interview outreach, as well as to distribute financial incentives for participants. Outreach was conducted initially via email, with some contacts also receiving phone calls to encourage participation, and continued with biweekly reminders over the course of data collection. All participants were offered compensation for their participation in the survey or interview, either in the form of a personal financial incentive or a donation to a qualifying charity of choice, in order to adhere to ethics guidance for elected officials. For a more comprehensive discussion of the methodology, please refer to the Appendix of this report.

Survey

Data for Progress surveyed 30 renewable energy siting stakeholders between May 30 and July 10, 2025. Survey respondents had a range of backgrounds and experiences with renewable energy siting. A majority of respondents (53%) were currently or previously elected officials, and 40% either serve or have served as public sector employees working on renewable energy siting policy. Nearly three-quarters (73%) of respondents held executive-level, highly senior roles within their organizations.

A plurality of respondents worked in the West (47%), while 20% were in the Northeast and 20% in the Midwest. Slightly fewer respondents (17%) worked in the South, and 3% worked on renewable energy siting nationally. All respondents had experience with siting, permitting, or the policymaking/regulatory process of renewable energy projects, such as solar or wind energy projects or battery energy storage projects. In addition to direct experience with renewable energy siting policy, a strong majority (70%) of respondents also had experience with energy-related infrastructure, such as transmission lines, and a majority (53%) had experience with fossil fuel energy projects.

Interviews

Data for Progress also conducted nine in-depth interviews in June and July 2025 regarding barriers to renewable energy siting policy at the state level faced by elected officials and other key stakeholders involved in siting policy. Interviews lasted around 60 minutes and were moderated by DFP researchers. The nine participants represented a range of backgrounds, experience, and geographic locations. Four participants were current or former elected officials, and four were current or former state government policymakers and renewable energy siting stakeholders. Two participants came from the private sector, primarily with experience as energy developers, though each had experience in state-level energy policy on the public side earlier in their careers.[2]

Interviewees represented a swath of states, including Alabama, Colorado, Michigan, Oregon, Vermont, Virginia, and Wisconsin.[3]

[2] One of the private sector interviewees was also a former state legislator.

[3] Quotes were anonymized and attributions are generalized to adhere to confidentiality requirements for participants.

Findings

The survey and interviews were designed to:

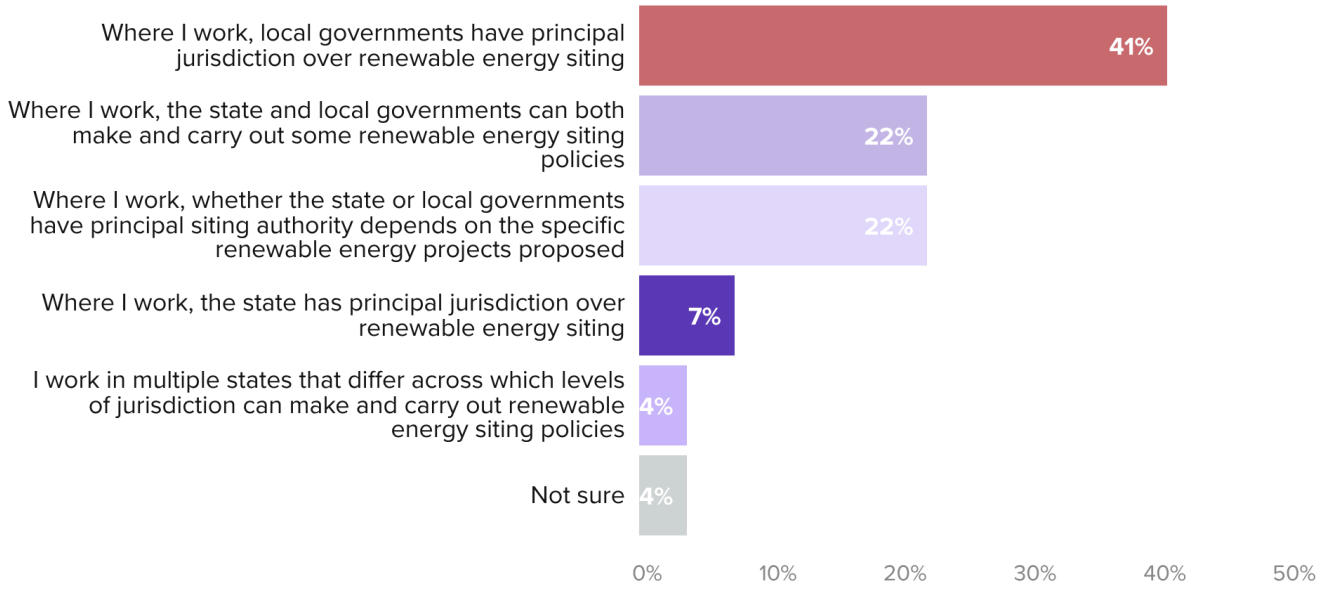
- ➔ Develop an understanding of the current renewable energy siting policy landscape at the state level;
- ➔ Diagnose key barriers to effective siting and permitting policy; and
- ➔ Conclude with a preliminary exploration of siting-related tools and resources that could aid policymakers and agency staff.

Current Environment

Jurisdictional authority over renewable energy siting varies significantly. A plurality of survey respondents (41%) reported that local governments have principal jurisdiction over siting decisions, while equal proportions said authority is mixed between state and local levels (22%) or variable depending on the project (22%). Few respondents (7%) indicated that their state holds primary jurisdiction over renewable energy siting.

A Plurality of Renewable Siting Stakeholders Reported Working in States With Local Siting Authority

To the best of your knowledge, in the state(s) where you work, do local governments make siting decisions for most renewable energy projects (i.e. through zoning ordinances and local governments), or are siting decisions mostly made at the state level (i.e. through state agencies)? Or, is it a combination of jurisdictions?



May 30–July 10, 2025 survey of 27 renewable energy siting stakeholders

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A plurality of respondents (35%) reported that recent changes to the siting process have resulted in an increase in state authority. Few respondents (9%) reported a shift toward greater local control in recent years.

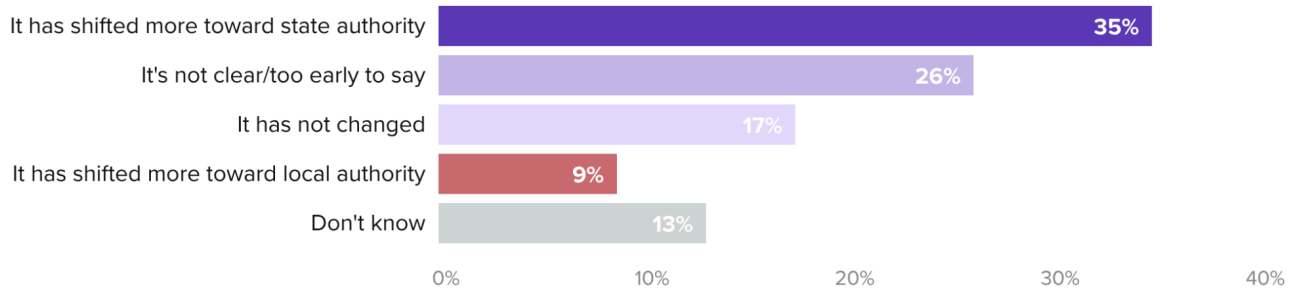
A Plurality of Siting Stakeholders Reported That the Siting Process Has Shifted More Toward State Authority in Recent Years

Recently, some states have changed the siting process for renewable energy projects.

Some states have increased **state authority** by providing alternative pathways to, or new guardrails on, local siting processes, while other states have created new state regulatory agencies to streamline regulatory processes.

Other states have increased **local authority** over the siting process for renewable energy projects, granting local jurisdictions more control.

In the state or region where you primarily work, has the siting process shifted in the past few years, and if so in what direction? Or has it largely stayed the same?



May 30–July 10, 2025 survey of 23 renewable energy siting stakeholders

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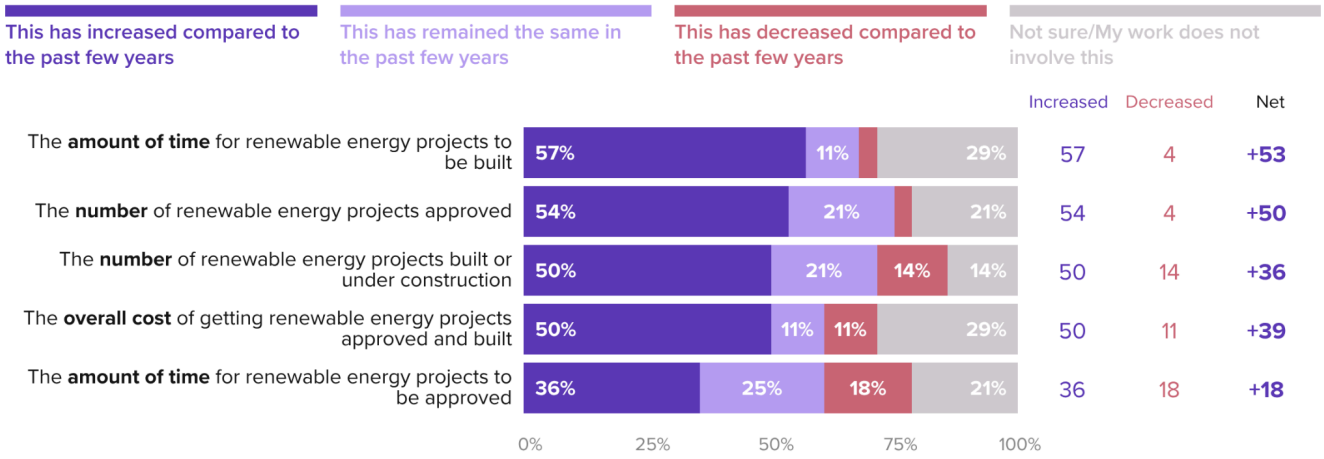
Survey respondents broadly reported that the number of renewable energy projects being approved and under construction in their area has increased in recent years. In cases where such increases were not observed, respondents generally indicated that the number of new projects has remained steady. Very few respondents reported a decline in renewable project approvals or construction. However, despite this reported upward trend in the number of projects, respondents noted that both the amount of time required to build renewable energy projects and the overall cost of these projects have increased.

When asked specifically about project *approval* timelines, respondent experiences were more mixed. About one-third of respondents reported that the amount of time it takes to approve renewable energy projects has increased, while approximately one-fifth said it has decreased. The remaining quarter of respondents who expressed an opinion indicated that approval timelines have stayed about the same.

While Renewable Siting Stakeholders Reported Project Approval and Construction Is Increasing, Projects Are Also Taking Longer to Be Built

For each of the following, please say whether you have seen this increase, decrease, or remain the same as compared to the past few years in the area where you work:



May 30–July 10, 2025 survey of 28 renewable energy siting stakeholders

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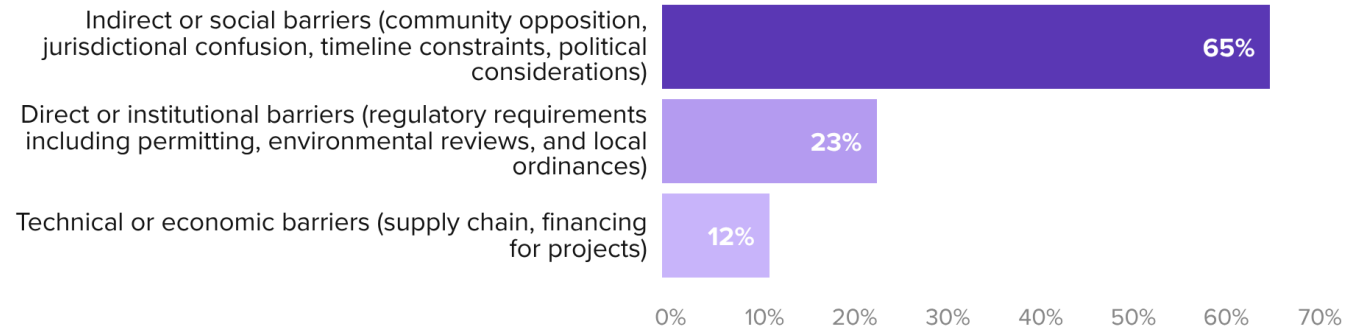
Key Barriers

Among respondents, there was unanimous agreement that the siting process poses challenges to building renewable energy projects. Most respondents characterized the siting process as either very or moderately challenging in their state. When identifying the greatest barriers to siting new renewable energy projects, respondents most frequently cited *indirect or social barriers* — such as community opposition, jurisdictional confusion, or timeline constraints — followed by *direct or institutional barriers* — such as specific regulatory and review requirements, or local ordinances. This finding may be reflective of the composition of the respondent pool, many of whom are public officials and thus more directly exposed to indirect, social, and political challenges.

Indirect or Social Barriers Were Strongly Viewed as the Greatest Challenges for Renewable Siting

When thinking about potential barriers to the siting process for renewable energy projects, which of the following pose the **greatest barriers** to this in your work?



May 30–July 10, 2025 survey of 26 renewable energy siting stakeholders

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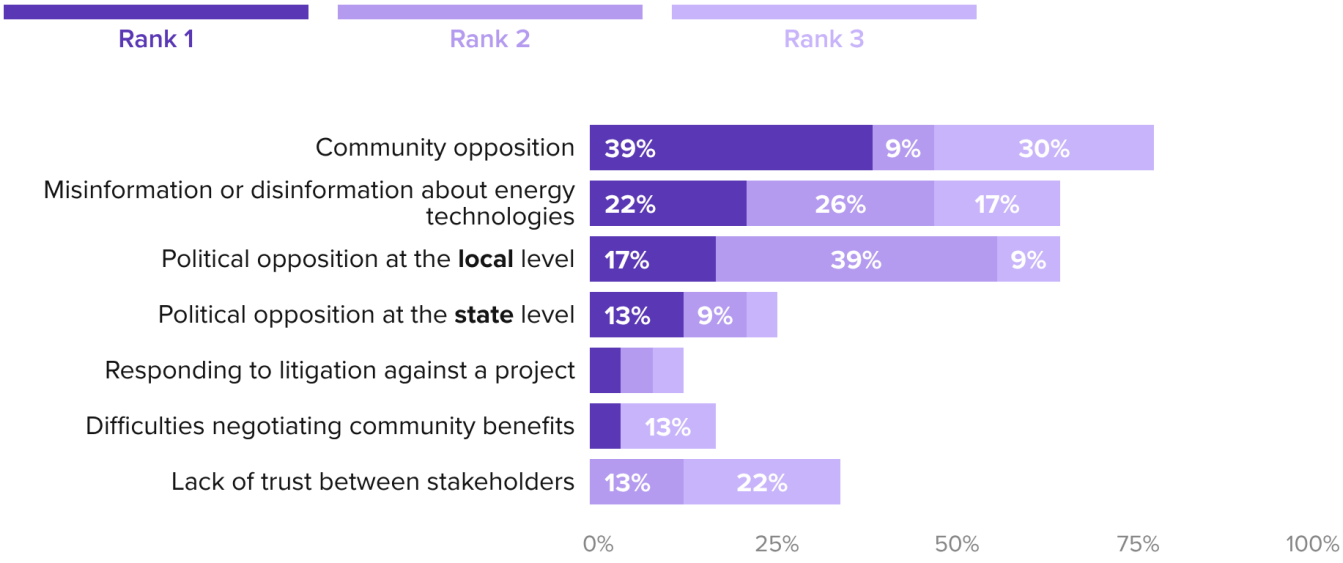
Within indirect or social barriers, community opposition emerged as the most significant barrier to siting new renewable energy projects, followed by misinformation and disinformation about renewable energy technologies. Interviewees described difficulties balancing the interests and views of different constituencies, like urban and rural constituents. Polarization across constituencies, according to interviewees, often made renewable energy siting more contentious, with a Virginia legislator saying, “The rural-urban divide is the hardest part for me, and how that manifests itself. That’s how [renewable energy siting] becomes partisan.” Indeed, political opposition to renewable energy at the local level emerged as the third most significant obstacle to the siting process even as state-level political opposition was perceived as a less significant obstacle.

Community Opposition and Misinformation Were the Top Reported Social Barriers to Renewable Siting

Turning to **indirect or social barriers,** please rank the following barriers in order of how significant a challenge they are in the renewable energy siting process, with **rank 1 (the top item)** being the **most significant challenge.**

Drag and drop the different options to rank them.



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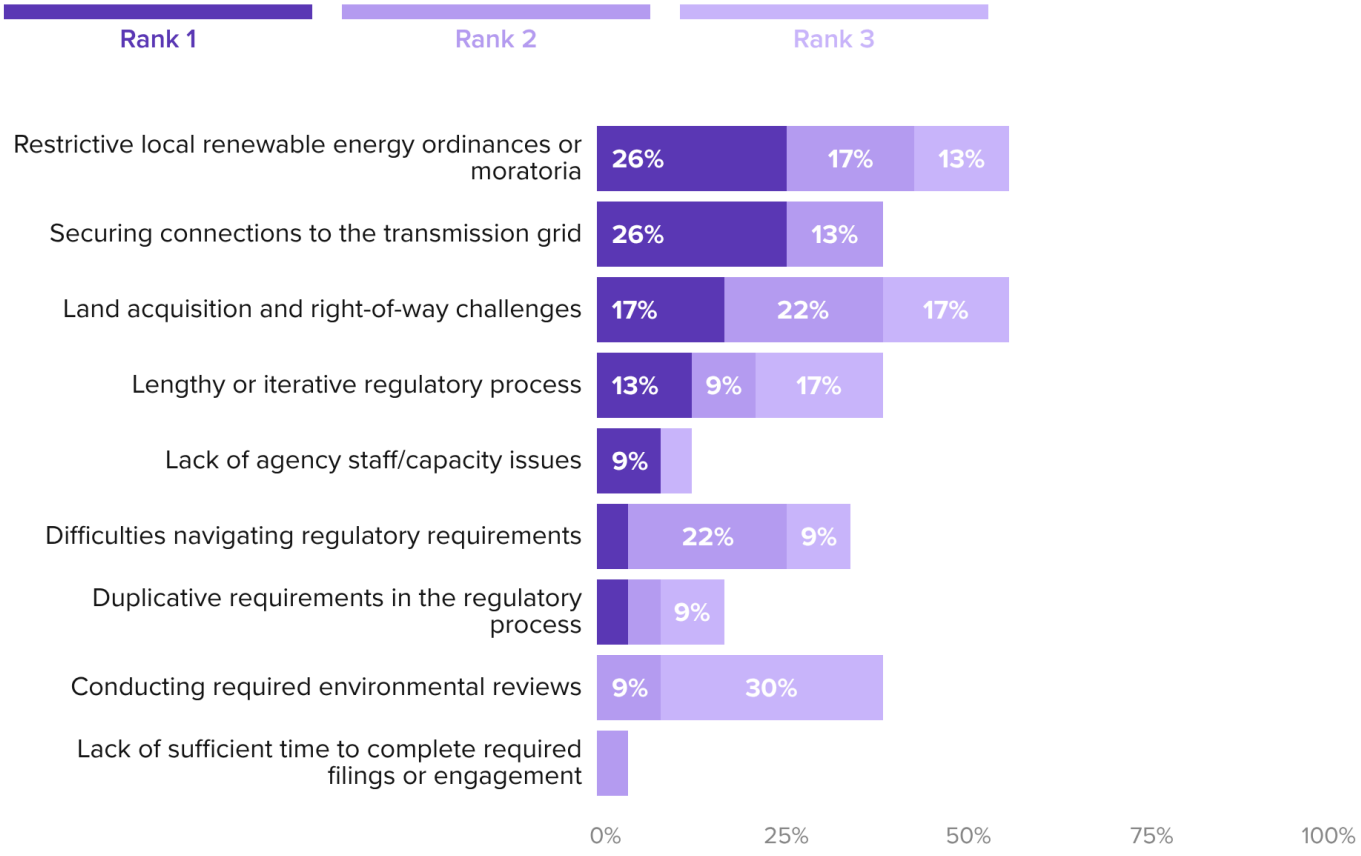
In terms of direct or institutional barriers, survey respondents reported that restrictive local ordinances or moratoria on renewable projects and securing transmission grid connections were the most pressing, sentiments echoed by interview participants. Challenges related to land acquisition and rights of way for new renewable energy projects were also ranked highly by respondents.

Respondents Ranked Restrictive Siting Policies and Interconnection as Top Direct Barriers for Renewable Siting

Turning to **direct or institutional barriers,** please rank the following barriers in order of how significant a challenge they are in the renewable energy siting process, with **rank 1 (the top item)** being the **most significant challenge.**

Drag and drop the different options to rank them.



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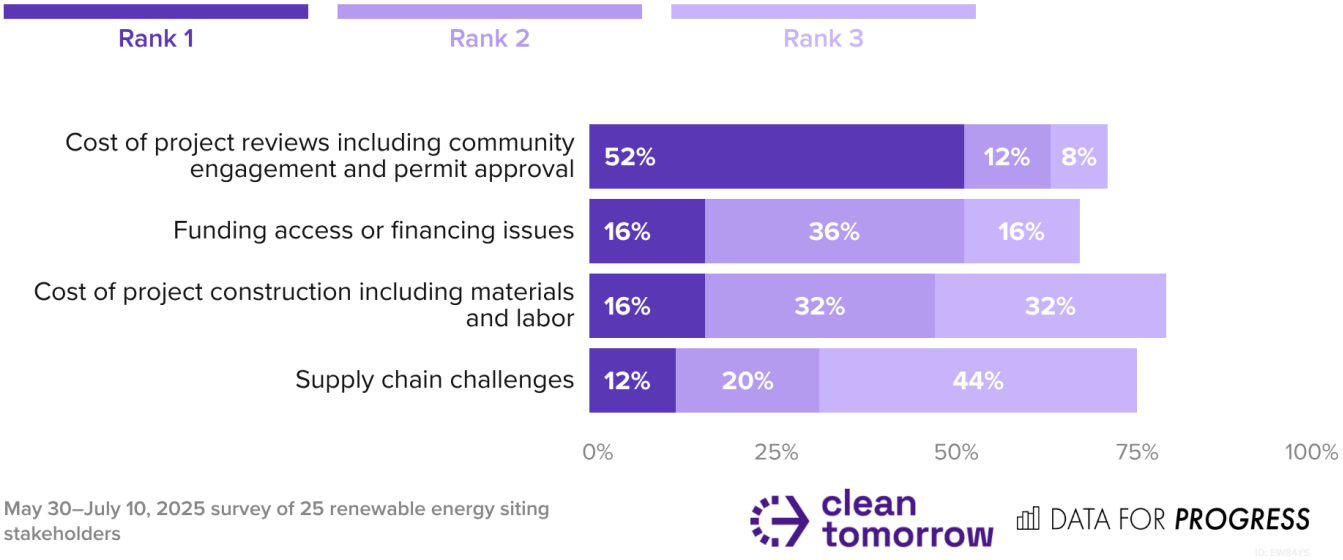
On the other hand, among technical and economic barriers, respondents most frequently cited the cost of project reviews, particularly expenses associated with community engagement and permit approvals.

Project Review Costs Were the Top Reported Economic Barrier to Renewable Siting

Turning to **technical or economic barriers,** please rank the following barriers in order of how significant a challenge they are in the renewable energy siting process, with **rank 1 (the top item)** being the **most significant challenge.**

Drag and drop the different options to rank them.



May 30–July 10, 2025 survey of 25 renewable energy siting stakeholders

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Tensions Between State Ambition and Local Authority

The barriers cited by survey respondents as well as interviewees point to a fundamental tension that persists between ambitious, state-level clean energy mandates and renewable energy deployment, and a deep-rooted tradition of local control over land use. Even as states set increasingly aggressive clean energy targets, the authority to approve or deny the very projects needed to meet these goals often resides at the county or municipal level. This can result in an implementation gap, where local opposition or restrictive ordinances effectively block projects needed to meet statewide targets, creating friction between different levels of government. Some interviewees emphasized that the increasing polarization of renewable energy has contributed to this pattern, and they described efforts to mitigate or smooth these tensions that have arisen in response to both top-down, state-level climate policies (like renewable portfolio standards) and processes (like the integrated resource planning, or IRP, process). Ultimately, attending to the distinct, varied concerns around renewable energy projects that emerge at the local level is essential for the success of state-level renewable energy commitments, as this Colorado energy policymaker expressed:

> "There's a lot of sensitivity from local government about what they view as the state stepping in on their authority … Lots of worry from the county level about the state taking away authority that they feel should be theirs in terms of how contentious it is on the ground, on renewables. It's very variable across the state."

Other interviewees emphasized how the overlap in state and local jurisdiction over renewable energy siting could contribute to confusion and inefficiencies in the siting and permitting processes, particularly when approvals are required from both state and local actors. An energy developer in the Midwest described experience with this "dual permitting process" in the Dakotas, saying:

> "It's just redundant. There's sort of fingers pointing [in] different directions, like the state wants to see the locals approve it first. The locals want to see the state approve it first, and it's just not really conducive to building stuff."

Asymmetrical Political Advocacy

Another pattern reflected across survey responses and interviews, which spans both direct or institutional barriers and indirect or social barriers, is the asymmetrical nature of political advocacy around renewable energy siting. Interview participants spoke to the presence of well-funded and highly organized opposition to new renewable energy siting from legacy energy interests and associated grasstops organizations in their states, which frequently outmatched the advocacy infrastructure of the renewable energy industry.

Furthermore, environmental groups that may be vocal advocates of clean energy in general can also delay or prevent movement on renewable energy siting policies and the siting of individual projects due to conflicting concerns, with an interviewee saying, "Even the groups that are focused on clean energy deployment have largely ceded this issue to groups whose concern is wildlife and habitat, who cut their teeth fighting oil and gas development, and who view renewables the same way they view oil and gas." This disparity in political capital and resources deployed by renewable advocates, relative to other interest groups, makes it challenging for project proponents to effectively counter misinformation and build the durable political and community support necessary to move renewable projects forward, particularly in contentious local environments.

A former Colorado policymaker described the renewable energy industry as being way behind on its political engagement, saying, "I can tell you that as an elected official, they give a fraction of what other big industries give, and they really need to get in the game. And you know the old joke of bringing a gun to a gunfight? The renewable developers are showing up with a pocket knife right now." This gap speaks to the need to consolidate and grow an organized political constituency for renewable energy at the state level. Legislators have also directly felt this gap when involved in siting policymaking. As an example, a former Michigan legislator described authoring a consequential siting policy bill and later being kept out of conversations with lobbyist groups aiming to shape the bill.

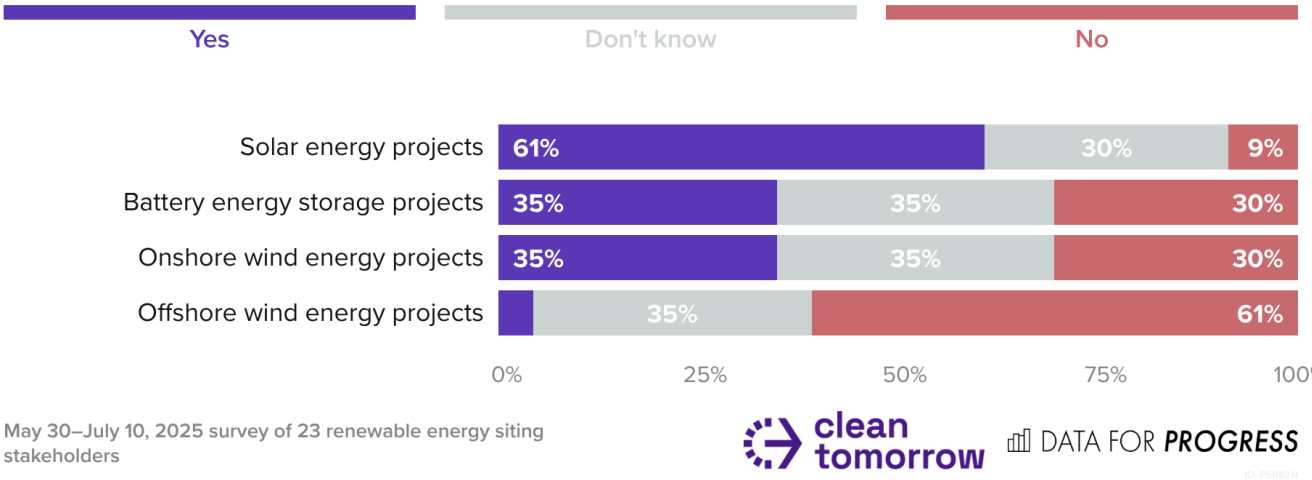
Technical Resource Gaps for Siting and Permitting

Regarding access to resources, most respondents indicated that siting and permitting guides, like those sometimes published by states or public agencies, are primarily available for solar energy projects, with fewer guides available for battery storage and onshore wind. Only one respondent reported access to guides for offshore wind projects.

A Majority of Renewable Siting Stakeholders Reported Knowledge of State Solar Siting and Permitting Guides

In some states, public agencies or other organizations have published **siting and permitting guides** that summarize how the process works in the state, identify the entities involved, and give an overview of relevant siting policies.

To your knowledge in the state(s) you primarily work in, do you have access to siting and permitting guides for the following types of renewable energy projects?



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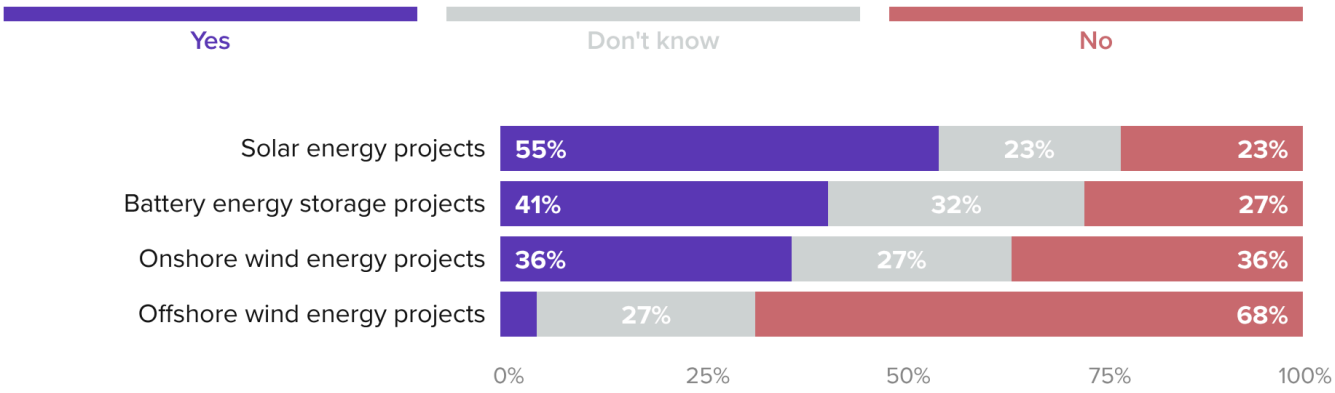
A similar pattern held for model ordinances for zoning rules and siting standards for renewable energy projects: Respondents reported that most existing model ordinances they were aware of were for solar projects, while such ordinances for offshore wind were largely nonexistent, with only one respondent noting access to model ordinances for such projects.

Over Half of Renewable Siting Stakeholders Reported Having Access to State Model Solar Ordinances

In some states, public agencies or other organizations have developed **model ordinances** for local jurisdictions to use as guides for their zoning rules and siting standards for renewable energy projects.

To your knowledge in the state(s) you primarily work in, have public agencies or other organizations published a model ordinance or siting standards for the following types of renewable energy projects?



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Limited Local and State Government Capacity

Interviews provided additional perspective on the renewable energy siting policy resources, or lack thereof, available at the state and local levels. Interviewees widely reported that local governments have limited capacity to maintain the resources and expertise that are essential for carrying out siting decisions, representing a significant barrier to renewable energy projects. Stakeholders identified that many jurisdictions, especially in lower population areas, lack the dedicated staff, in-house technical expertise, and financial resources required to evaluate siting applications. A Virginia legislator noted that in the siting application and approval process, “There are counties that only have 6,000 or 8,000 or 10,000 people in them … so they simply don’t have the resources … They just don’t have the staff.”

In the survey, a “lack of agency staff/capacity issues” did not stand out as one of the most significant barriers, but it was ranked by many stakeholders as a barrier nonetheless. A lack of staff with experience in the specifics of siting considerations can leave key decision-makers in the dark. For example, a Colorado energy policymaker noted that only a handful of counties in the state had specific wildlife or habitat specialists on staff, presenting challenges when energy projects need to be reviewed and evaluated for their potential habitat and wildlife impacts.

Interviewed stakeholders warned that limited capacity can result in significant project delays and ineffective decision-making. A Vermont legislator cautioned that many municipalities are small or not empowered to execute on siting decision-making, with siting and permitting reflecting only a tiny subset of their municipal responsibilities. Because of this, "[Municipalities] have widely varying degrees of capacity. And so municipalities, generally speaking, don't have jurisdiction to regulate renewable energy, unless they have an energy portion of their town plan."

Beyond the local level, stakeholders at the state level may face capacity and resource constraints. Some state legislators and elected officials work as public officials full-time, while others do so in a part-time capacity. Some are salaried public servants, while others are paid per legislative session in attendance or not compensated for their positions. Some elected state legislators have legislative staff, while many don't. States also vary in the level of funding and staff allocated to agencies involved in the siting process.

Political, Geographic, and Technological Fragmentation

These features at the state and local level create heterogeneity in capacity and resource access, with some states and state legislators well-equipped to carry out effective renewable energy siting policy efforts, and others left far behind. These interviews and survey responses reflect that, while local governments may have the best understanding of on-the-ground, local contexts and politics, they may not necessarily be capable of executing policy effectively and efficiently to move renewable energy siting progress forward.

Indeed, interviews demonstrate that policymakers and developers alike face a patchwork of political, geographic, and technological contexts and hurdles, depending on where they work in the country and even within individual states' internal political and regulatory dynamics. As one energy policymaker put it, "The common mantra in Oregon is: if you've been to one county in Oregon, you've been to one county in Oregon. Everyone interfaces with that state rule differently. So there's tension between certain counties and state policy." This variability can also extend across states. For example, a Midwestern energy developer described how the variance between neighboring states shapes their business practices:

> *"We're not developing anything in the state of Indiana right now, because we have zero confidence in being able to secure a local permit. And compare that to Illinois, where we have probably a dozen or more projects in development, because we know we have a stable permitting framework in place."*

Nearly three-quarters of survey respondents said they seek out renewable energy siting policy information from legislators and policymakers, while nearly two-thirds also consult peers within their own line of work. Respondents reported seeking other stakeholders with close proximity to the political, environmental, and economic context where they work to learn more about siting policy processes. Just under three in five reported turning to renewable energy developers,

who often work in larger geographic footprints, for information. In contrast, information listservs and online searches were the least commonly used resources.

Siting policy views vary across different types of renewable energy technologies. Some technologies face distinct forms of opposition:[4] Utility-scale wind is often challenged on aesthetic or wildlife grounds, while solar is opposed for using parcels of formerly agricultural land. Increasingly, battery storage is also facing local moratoria because of its unfamiliarity and safety concerns. Importantly, the type of renewable energy technology or its intended location may require the involvement of other actors in the siting process, which can create further points of friction. For example, projects that are proposed on public lands or that involve technologies that require long rights of way, like transmission, can rapidly add a host of additional federal, state, or local stakeholders to the siting process. These project siting and technology-specific challenges often require time and resource-intensive community and stakeholder engagement strategies that are tailored to the specific technology and context, rather than a one-size-fits-all approach to such siting engagement.

Tensions Arising From New Demand

Simultaneously, as energy-intensive industries[5] like data centers grow rapidly, electricity demand and utility prices are projected to continue rising. The interview findings highlight the increase in data center projects approved or under construction across the country. Yet, the growing demand for electricity due to energy-intensive industries may not automatically lead to strong renewable deployment, according to some interviewees. Instead, some suggested that the local governments that have approved these energy-intensive projects, in the anticipation of receiving significant local tax revenue benefits, may in turn be reluctant to approve renewable energy projects to power these facilities. However, other interviewees shared that they are "seeing big [renewable energy] projects that are directly feeding into big server farms," suggesting that at least some jurisdictions are open to power purchasing agreements (PPAs)[6] and "bring your own power" approaches[7] to meet data center power demand. As a result, the challenge of building renewable energy is not just a climate issue, but also an issue in terms of securing grid reliability and building capacity for new economic development. Thus, rising energy demand and grid instability create a powerful new impetus for states to address renewable energy siting bottlenecks.

Interview participants detailed an additional challenge for both data centers and renewable energy projects. Interviewees shared that public perceptions of project scale are often

[4] Robi Nilson, Ben Hoen, & Joseph Rand, "Survey of Utility-Scale Wind and Solar Developers Report," LBNL, January 2025. https://emp.lbl.gov/publications/survey-utility-scale-wind-and-solar

[5] John D. Wilson, Zach Zimmerman, & Rob Gramlich. "Strategic Industries Surging: Driving US Power Demand," Grid Strategies, December 2024. https://gridstrategiesllc.com/wp-content/uploads/National-Load-Growth-Report-2024.pdf

[6] Emma Penrod, "Renewable power purchase agreement prices rising in wake of One Big Beautiful Bill Act," Utility Dive, August 2025. https://www.utilitydive.com/news/wind-solar-power-purchase-ppa-prices-obbb-levelten/757516/

[7] Jeff St. John, "Google plans to build gigawatts of clean power and data centers together," Canary Media, December 2024. https://www.canarymedia.com/articles/clean-energy/google-has-a-20b-plan-to-build-data-centers-and-clean-power-together

disproportionate to what actually gets deployed,[8] which can inhibit community acceptance of projects. For example, local communities may feel overwhelmed by the volume of speculative projects proposed during a state's IRP — many of which will not ultimately be selected or ever begin construction — or hear misinformation about the quantity or size of projects proposed in their area, and can come to oppose local deployment out of the fear that their community will be inundated by development. In reality, however, just a small fraction of proposed energy projects are selected and eventually developed, but the misperception among communities of the scale of future development and land use persists.

Challenges Beyond Siting Delay Permitted Projects

Finally, a substantial number of projects that successfully navigate the complex siting process become "shelf-ready," but are ultimately stalled by other critical bottlenecks — especially insufficient transmission capacity,[9] interconnection delays,[10] and lack of PPAs. An Oregon energy policymaker articulated that overcoming these barriers to development that are related to (if not directly involved in) the siting process may have a greater impact than siting policy reform on advancing renewable energy project deployment: "We've got a lot of permitted energy projects in the state of Oregon that are on the shelf and ready. They need interconnection, and they need power purchase agreements. So we don't need policy. We just need to get the projects on the ground and built that we've already permitted." Similarly, a Virginia legislator shared that, of the state's large energy interconnection backlog, between "60 or 70% of it is renewable generation. It's all stuck in the [interconnection] queue." Beyond interconnection, a Vermont legislator stated that approved and permitted projects in the state have also faced other challenges, such as supply chain disruptions that have increased project costs over initial estimates. These findings suggest that the siting and permitting policy process can be improved by offering greater certainty to state policymakers, local stakeholders, and energy developers that renewable energy projects that receive approval and are ultimately built can be connected to the grid and to customers on a predictable, clear timeline.

[8] Emma Penrod, "Despite rising prices, market faces a glut of renewable energy projects, analysts say," Utility Dive, November 2023.
https://www.utilitydive.com/news/renewable-market-ppa-wind-solar-interconnection-ascend-analytics/699414/#:~:text=The%20majority%20of%20the,interconnection%20and%20permit%20approvals.

[9] Nathan Shreve, Zach Zimmerman, Gretchen Kershaw, Rob Gramlich, "Fewer New Miles: Strategic industries held back by slow pace of transmission," July 2025.
https://gridstrategiesllc.com/wp-content/uploads/ACEG_Grid-Strategies_Fewer-New-Miles-2025_Rev-1.pdf

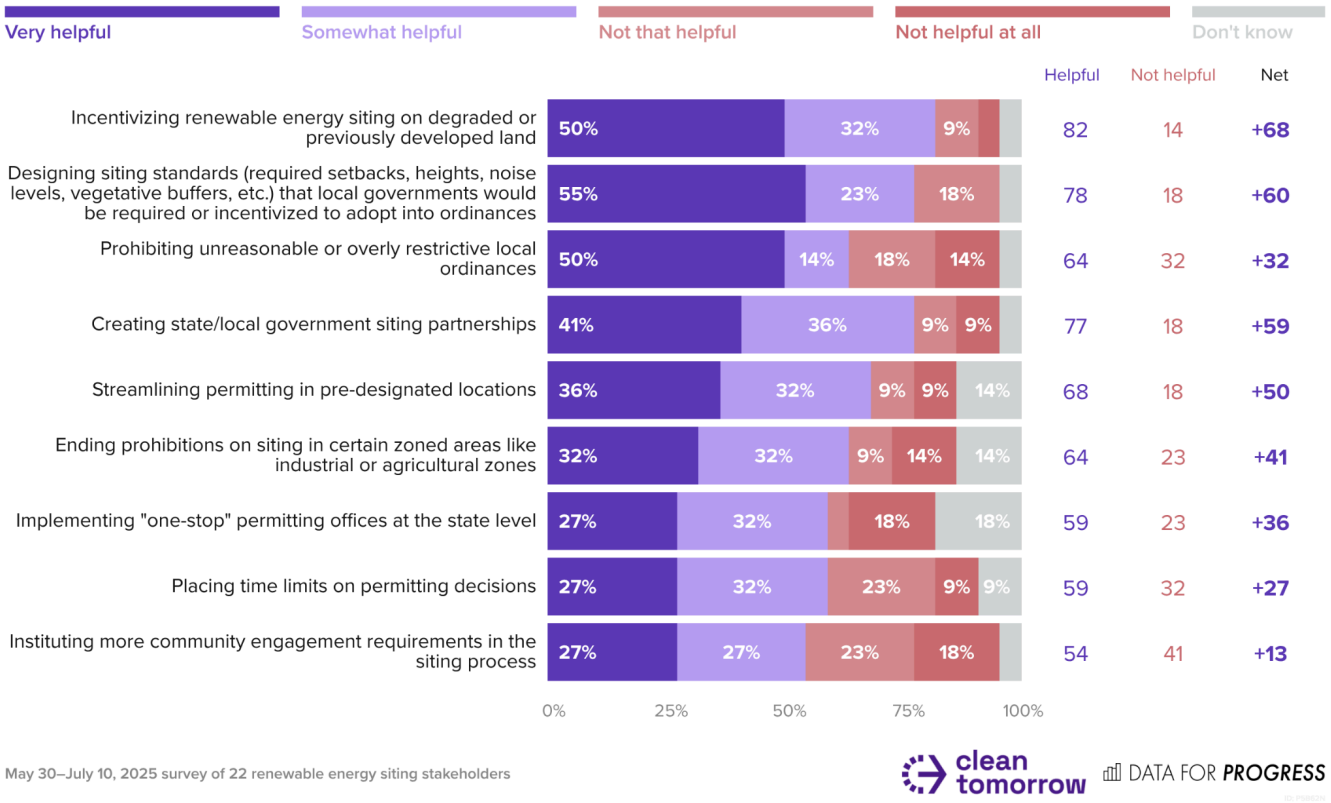
[10] Joseph Rand, "Grid connection backlog grows by 30% in 2023, dominated by requests for solar, wind, and energy storage," LBNL, April 2024.
https://emp.lbl.gov/news/grid-connection-backlog-grows-30-2023-dominated-requests-solar-wind-and-energy-storage

Opportunities and Implications

This research highlights opportunities and reasons for optimism among stakeholders when it comes to improving renewable energy siting policy. To this end, survey respondents identified that policies aimed at overcoming local barriers to renewable energy siting would be most useful. Respondents showed the strongest levels of support for incentivizing renewable energy siting on degraded or previously developed lands, followed closely by a policy to design siting standards that local governments would be required or incentivized to adopt and a policy to prohibit overly restrictive local ordinances. Respondents also viewed the creation of state-local government siting partnerships and the streamlining of permitting in pre-designated locations as useful strategies for improving renewable energy siting.

Policies Aimed at Local Barriers to Renewable Siting, Like Model Siting Standards or Prohibiting Restrictive Local Ordinances, Were Seen as Most Helpful

Thinking more specifically about renewable energy siting policies in the state(s) where you primarily work, for each of the following, please say **how helpful** you think the following policy solutions might be in improving the renewable energy siting process, if at all:



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Notably, both carrot and stick policy approaches to siting reform were seen as helpful. Many stakeholders felt like there was a balance to be struck with any reform, with a Colorado energy policymaker stating, “I think we all recognize the importance of keeping local control. And there are maybe certain projects that are of significant statewide interest that could be appealed to the state.” When considering the likelihood of implementing each of these policy approaches, survey respondents were skeptical of their successful adoption. Few believed that any single solution was “very likely” to be adopted. However, a majority said most proposals were at least

"somewhat likely" to be implemented. Of all the policy approaches, lifting prohibitions on siting in certain zoned areas (e.g., industrial or agricultural zones) was an outlier, as it was seen as a less efficacious reform and less likely to be adopted.

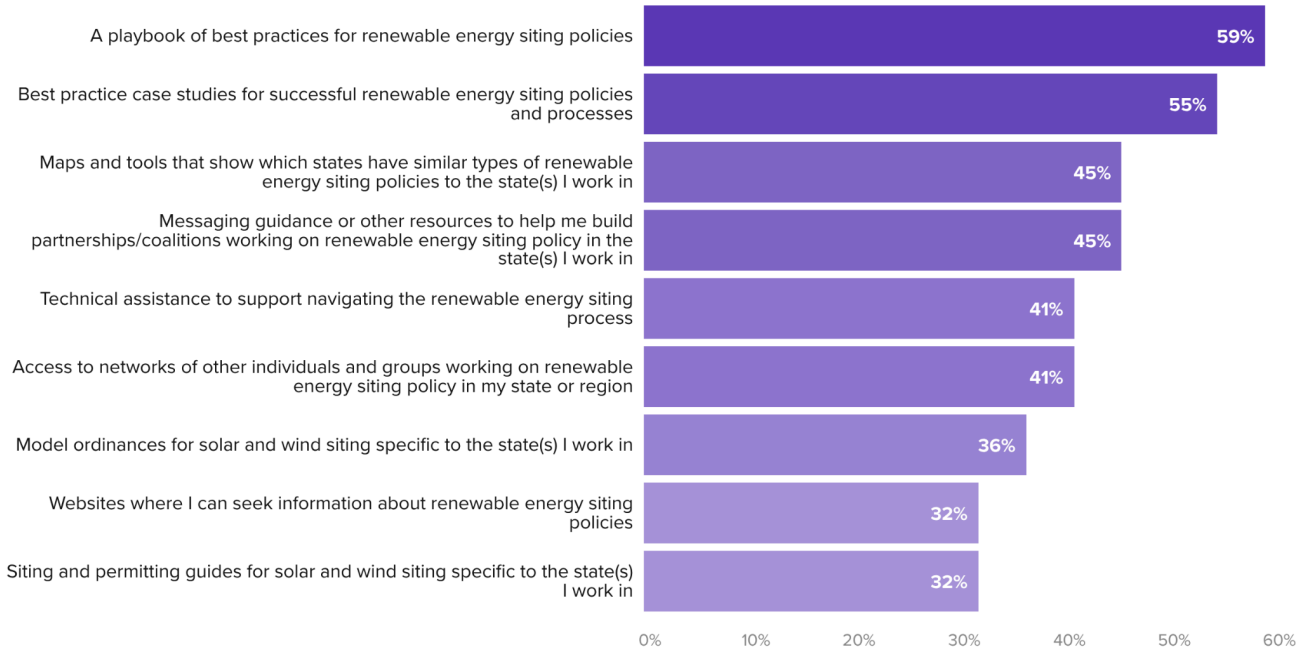
Addressing Information Gaps and Pooling Experience

Next, respondents were asked about what tools, like case studies, technical assistance, or model ordinances, would be most helpful for improving renewable energy siting policy. Survey respondents thought a playbook of best practices and case studies of successful siting policies and processes would be most helpful. In addition, respondents also thought that maps and tools highlighting which states have similar renewable energy policy frameworks, as well as messaging guidance to help build partnerships and coalitions, would be helpful. Overall, stakeholders throughout this research expressed a clear interest in learning from other jurisdictions to accelerate the adoption of best practices.

Renewable Stakeholders Reported That a Playbook of Best Practices or Best Practice Case Studies for Renewable Siting Would Be Helpful Resources

Thinking about your work as it relates to renewable energy siting policy, what types of resources would you find helpful to improve renewable energy siting policy in the state(s) where you primarily work?

Please select **all** that apply.



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Across both the interviews and survey responses, respondents mentioned comparative policy analyses and case studies of successful projects multiple times, as they desired to avoid reinventing the wheel with each new project. An Alabama policymaker noted that standardized resources would be effective for legislators who are often being pulled in many directions: "I've noticed it's much easier when it's already ready. 'Here it is. Here is a template that's almost to the point to where you can just change names and addresses in areas.'" A Michigan legislator similarly spoke about the utility of a practical zoning workshop that University of Michigan researchers created, saying, "To have that conversation based on these tangible objects has helped." Pooling resources ranging from siting policy workshops to solar and wind model siting ordinances via highly accessible platforms, like web tools or clearinghouses, can better equip local decision-makers to craft effective policy and reduce administrative burdens on under-resourced entities.

Coordinated Governance Models

Interviewees consistently identified a need for renewable energy siting governance models that bridge the disconnect between state and local authority, encourage good-faith negotiation between siting stakeholders, and ensure projects receive local buy-in. In numerous interviews, one approach was consistently mentioned: establishing a structured procedural pathway where developers are required to engage locally first, but have access to a state-level backstop or appeals process to ensure projects are not unreasonably denied. Some stakeholders referred to this as the "Michigan model," citing success in renewable energy siting efforts in the state after siting policy reforms in recent years. Still other interviewees proposed taking an approach that enhances local capacity by having the state provide critical technical assistance, resources, and expert consultation to local governments.

To improve renewable energy siting, some states, like Colorado, have explored incentive-based models, which would encourage county governments to adopt "more pro-renewable land use codes while either enhancing or just making use of existing state backstop authority." Other interviewees emphasized successes in states like Illinois, which passed a bill that reoriented siting from a purely county-level determination to a guardrailed, clear process and timeline with oversight by the state. One interviewee articulated how this bill outlined the state's perspective in dealing with siting authority at the local level:

> "Here, counties, you still do permitting. But here is the framework within which you must do permitting. You can't have an ordinance that's more restrictive than this. You can't have a public hearing that lasts for three years. Here [are] the timelines and the ceilings for what your ordinances can be."

Regardless of the specific approach, interviewees articulated that an ideal model would effectively pool intergovernmental resources to alleviate local capacity issues.

Effective Messaging Guidance

To help implement these tools and siting policy improvements, interviewees wanted messaging guidance that could enable them to effectively move the needle on renewable energy siting policy. Interview respondents felt that messaging guidance on a variety of issues relating to renewable energy and siting would be useful, in addition to targeted guidance for key stakeholder groups. In particular, participants offered examples of messaging — backed by both state and national survey data — around utility prices, electricity demand, and local tax revenues that had broken through political polarization and reached their constituents.

Some stakeholders emphasized the need for specific dollar numbers to demonstrate the tax revenue benefits of hosting renewable energy projects locally. One policymaker said that "probably the most effective arguments that we can make in the more conservative counties, where most of our resources exist, are going to be the arguments around economic development, local property rights, and tax revenue," emphasizing the need for economic data and talking points. Moreover, in areas where utility commissioners are elected, interviewees pointed out that these elections offer opportunities for renewable energy advocates to directly engage with and inform state government bodies. While climate-focused messages on the need for renewable energy have the potential to deepen partisan divides, interviewees said that framing renewable energy as a tool for greater grid reliability and economic development resonates across the political spectrum.

Multiple interviewees also emphatically cited increasing electricity demand and high utility prices as key concerns throughout the country that could be leveraged in efforts to improve renewable energy siting. As an Alabama policymaker stated, "Power is at an all-time high … everyone feels like we're overcharged for our power and our energy." This widespread frustration with rising prices offers a potent messaging frame for renewable energy siting policy advocates. A Virginia legislator offered a taste of what this kind of messaging might look like for a political audience:

> "Affordability for our families is Issue No. 1 these days. And if what you need to or want to do is react to the current challenges relating to grid load growth as quickly as possible, you may not like it, but the fastest and most affordable way to do that is renewable energy, which is easier to build, and easier to permit, though I acknowledge it might not be easier to site right now."

Conclusion

As states grapple with growing energy demand, rising utility prices, and the climate crisis, this report and its findings underscore the need for siting policy reform that aligns local siting priorities and concerns with state and national clean energy goals. State siting policy stakeholders point to a range of barriers — from political polarization and underresourced local governments, to fragmented permitting processes and insufficient transmission capacity — that are slowing down renewable energy deployment at a time when it urgently needs to be accelerated. These systemic challenges risk deepening the gap between policy ambition and on-the-ground renewable energy deployment, especially as the federal government rolls back support for renewables.

As one legislator warned, “The double whammy of tariffs and rollback of the IRA … is going to lead to higher power prices. … And so that’s my message: We’re working hard to be efficient. But prices go up, if you’ve got these adverse decisions.” Indeed, the stakes are increasingly economic as well as environmental, and to deploy renewable energy at the pace needed, the U.S. must strengthen partnerships between state and local governments, build consistent regulatory frameworks, and sustain investment in technical and political capacity. Only by addressing these intersecting challenges can the U.S. realize a clean energy future that is resilient, reliable, and equitable.

Appendix A: Detailed Survey and Interview Methodology

List Building, Recruitment, and Incentives

Data for Progress (DFP), in collaboration with Clean Tomorrow, developed a contact list of 1,660 renewable energy siting stakeholders across the country, including elected officials, agency heads, public and private staffers, and academics. Potential respondents were compiled using multiple sources, including the National Association of Regulatory Utility Commissioners (NARUC) membership list, state siting authority staff websites, LinkedIn, and existing proprietary lists owned by DFP, Clean Tomorrow, and partner organizations. Stakeholders on the list were then further segmented into contact pools for survey research and for interviews. Some respondents were invited to participate in both portions of the research, and had opportunities during either portion to express interest in participating in the opposite portion of the research.

DFP worked with Flying Horse, a qualified national recruiter, to conduct survey and in-depth interview outreach as well as distribute financial incentives for this project. All contacts on the original list were emailed with an initial invite to participate in the research, and Flying Horse also called a select number of priority contacts to invite them to participate. Subsequently, all respondents were sent biweekly reminder emails for the duration of the project to encourage participation.

Non-elected participants were offered $25 for survey participation, and $100 for in-depth interview participation. Incentives for non-elected participants were given in the form of online gift cards (including major retailers and generic Visa gift cards). Halfway through survey fielding, survey incentives for non-elected participants were raised to $50 to encourage participation. To adhere to ethics guidelines, elected officials were instead offered a donation to a qualifying charity of their choice — $25 for survey participation and $100 for in-depth interview participation.

Survey

From May 30 to July 10, 2025, Data for Progress conducted a survey of 30 renewable energy siting stakeholders nationally using email and cell phones to reach out directly to potential respondents. Potential respondents were contacted repeatedly between the opening of the survey and the deadline to complete the survey, with reminder emails sent to respondents biweekly. The sample was unweighted. The survey was conducted in English. Partial survey responses were accepted, so the N size varies across questions (minimum 21 responses per question, except in cases of conditional questions). The results of this survey are meant to be informative, but may not be representative of the perspectives of the key stakeholder groups.

In-Depth Interviews

Data for Progress conducted nine in-depth interviews in June and July 2025 regarding barriers to renewable energy siting policy at the state level faced by elected officials and other key stakeholders involved in siting policy. DFP's team collaborated with Clean Tomorrow to draft a discussion guide for the interviews. Each interview lasted around 60 minutes and was recorded and transcribed. The interviews were moderated by in-house qualitative specialists from DFP who took notes during the discussion, and DFP staff completed transcription review. Key takeaways and quotes highlighting these themes are included in this report; quotes and transcripts were lightly edited for clarity. The results of these interviews are meant to be informative, but may not be representative of the perspectives of the key stakeholder groups.

For more information, please visit dataforprogress.org/our-methodology.

Acknowledgements

The authors from Data for Progress would like to extend our gratitude to the Clean Tomorrow team, particularly Nelson Falkenburg and Alex Breckel, for their partnership and trust in our team over the course of this research project. The authors also appreciate the contributions of our DFP colleagues, including Charlotte Scott, for her support with interview development, moderation, and analysis; Isa Alomran and Catherine Fraser, for their thoughtful feedback and support with project implementation; Emma Lara for operational support; Tim Bresnahan for excellent copy editing; and Brynne Robbins and Elias Kemp for transcription review. DFP is also grateful to Isaiah Cormier and Flying Horse for leading outreach on this project.

Thank you finally to the policymakers, legislators, agency staff, energy developers, and researchers who took time out of their busy schedules to respond to the survey or participate in an interview. We appreciate your contribution to our understanding of barriers to renewable energy siting policy, and hope this report illuminates opportunities to improve siting policy resources and tools that can support your work.

This report reflects the views of the authors alone. Any errata or omissions are the sole responsibility of the authors.