THIRD WAY

MEMO *Published November 6, 2025 • 11 minute read*

Picking Up the PACE: A Comprehensive Analysis of Available Pathways to Accelerating Clean Energy (PACE)

Maya Gibbs & Ryan Fitzpatrick

The clean energy boom of the past five years has exposed serious vulnerabilities in our deployment processes. Much has been said about the limitations in private capital and the challenges they pose to meeting the US's growing energy needs. But there has been insufficient analysis of the non-cost barriers to clean energy deployment that are keeping the nation from rapidly building the infrastructure required to meet the demands of the coming years and decades.

This report, completed in partnership with Environmental Resources Management (ERM), provides a holistic survey of the various barriers to clean energy deployment. Our analysis looks primarily at transmission and solar, using these technologies as lenses to understand broader deployment challenges across the energy sector.

To understand the hurdles that slow or block solar and transmission projects from coming online, we interviewed 200+ industry experts, including developers, utilities, and Engineering, Procurement, and Construction (EPC) firms. Respondents typically had 7-10 years of experience in the industry, each with involvement on over 100 projects across all 50 states and the District of Columbia—in short, these are professionals with extensive knowledge of the on-the-ground challenges to clean energy deployment.

Our results confirm what many in the clean energy space knew intuitively to be true:

- More than 70% of respondents said federal permitting was more onerous than state and local permitting and that they chose where to site new clean energy projects based on the number of permits required to move forward.

- An overwhelming majority of respondents said the National Environmental Policy Act (NEPA) caused the longest project delays in the permitting process.

- The vast majority of respondents reported that only a minority of projects face concerted resistance capable of altering or halting development.

- More than half of our respondents said interconnection was the most common source of project delays.

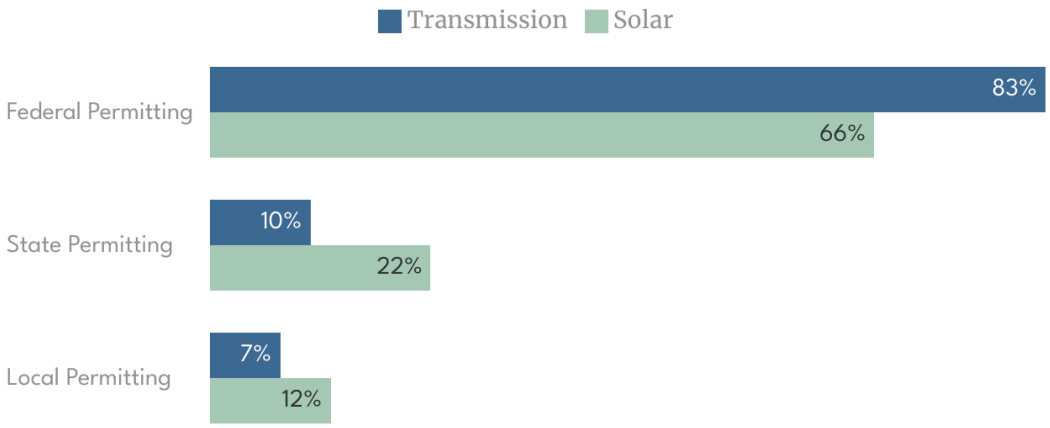
At its core, this study makes it abundantly clear that federal policymakers must prioritize reforms to address these bottlenecks, and *soon*. Below, we highlight key findings from our broader analysis and offer solutions to accelerate deployment moving forward.

Permitting and Siting

Our research finds that permitting and siting challenges are among the biggest causes of delays (tasks that weren't part of the original schedule or take longer than the planned project timeline) for both solar and transmission projects at the federal, state, and local levels. The majority of respondents reported that permitting delays can last anywhere from three months at the local level, to over a year at the state level, and up to two years or more at the federal level. As a result, federal permitting is viewed as the most onerous part of the permitting process (Figure 1); 83% of transmission and distribution (T&D) experts and 66% of solar experts identified federal permitting as the biggest permitting hurdle to getting projects built, as opposed to state and local assessments.

Figure 1: Federal Permitting Remains the Greatest Delay

What type of permitting is the most onerous in your experience?



Source: Research Findings Report. Pathways to Accelerating Clean Energy: Assessing Non-Cost Barriers. Environmental Resources Management, Inc (ERM), 3 Nov. 2025, https://www.thirdway.org/report/full-research-findings-pathways-to-accelerating-clean-energy-pace-report.

THIRD WAY

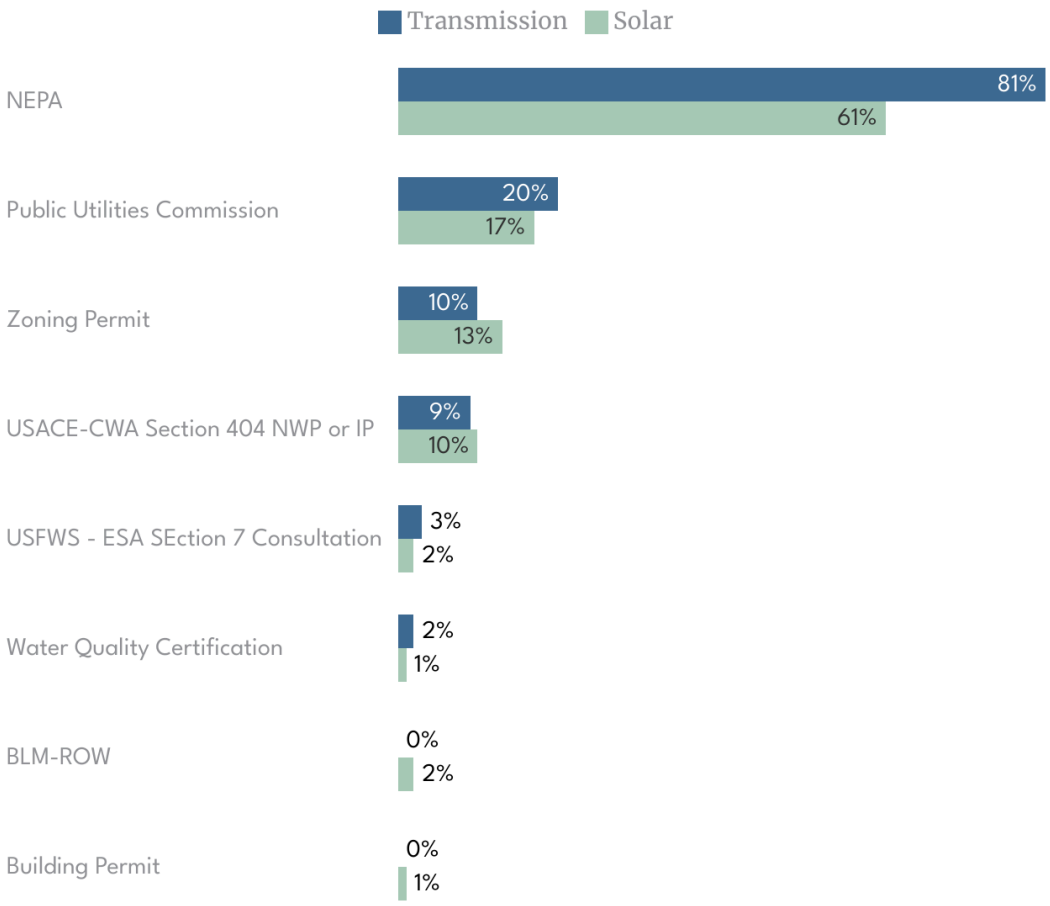
This is true even though only a small percentage of solar projects undergo the most stringent of federal reviews. Even for projects required to complete less cumbersome federal reviews, the complexity, unpredictability, and potential for significant delays from federal agencies prompt many developers to avoid areas that could trigger a federal nexus. As more clean energy projects are completed across the country, it will become more difficult for developers to avoid potential federal touchpoints like endangered species issues, waters of the U.S., or public lands.

It's important to note that delays within the permitting process itself may not delay project completion by the same amount of time (i.e. if federal permitting is delayed by three months, project completion is not necessarily delayed by the same period of time). 90% of respondents reported that federal permitting happens in tandem with other key project tasks. Nearly two-thirds of respondents said the same for state permitting. As a result, projects don't necessarily grind to a complete halt amid state and federal permitting delays. This was not the case at the local level, where only a quarter of respondents said local permitting could take place concurrently with other parts of the project. Consequently, while the local permitting timelines are shorter than their state and federal counterparts, delays and restrictive local permitting policies—like suddenly passing moratoriums on energy projects or changing rules mid-process—can be uniquely burdensome.

When comparing permit timelines across all three levels of government, more than 80% of T&D experts, and over 60% of solar experts, told us NEPA reviews cause the longest delays (Figure 2). Though often framed to the public as a tool to inhibit fossil fuel projects, our data makes clear that NEPA also slows or blocks clean energy deployment, demonstrating the importance of NEPA reform or streamlining to advance clean energy build-out.

Figure 2: The NEPA Process Causes the Longest Delays

In your experience, which permits (federal, state, or local) have caused the longest project delay?



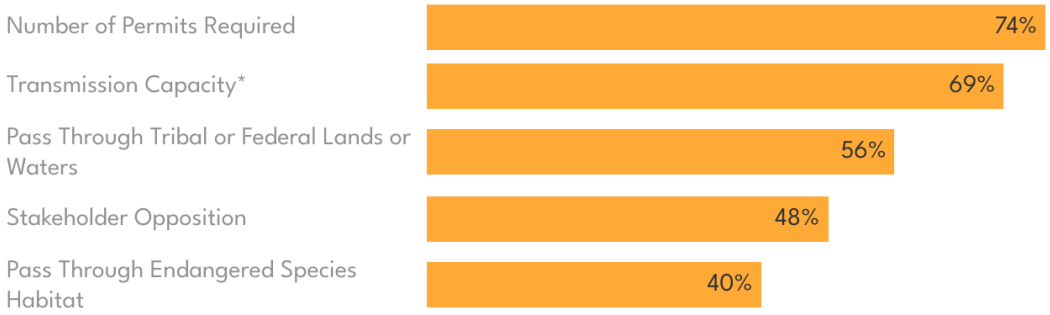
Source: Research Findings Report. Pathways to Accelerating Clean Energy: Assessing Non-Cost Barriers. Environmental Resources Management, Inc (ERM), 3 Nov. 2025, https://www.thirdway.org/report/full-research-findings-pathways-to-accelerating-clean-energy-pace-report.

THIRD WAY

Digging deeper, we see varied sources of delays *within* state and federal permitting processes. At the federal level, 79% of respondents said that the sheer number of applications received by agency staff is the biggest source of delay. That challenge is compounded by the *stringency of agency reviews* required as well as *insufficient agency staffing*, cited by 53% and 49% of respondents respectively as major sources of delay within the broader permitting process. This points to a clear need for greater agency capacity and streamlining of reviews if we want to speed up the federal permitting process. Similarly, at the state level, 59% of respondents identified *application volume* as the primary factor slowing agency review, suggesting similar staffing and workload issues as those seen at the federal level. At the local level, by contrast, concerns are more focused on communication between local jurisdictions and project developers, with 61% of respondents pointing to a *lack of clarity or increasing ambiguity in local permitting requirements*.

Figure 3: Siting and Routing Considerations

Which of the following barriers have your projects faced in identifying suitable land for siting and project routing?



*Transmission capacity only refers to solar projects

Source: Research Findings Report. Pathways to Accelerating Clean Energy: Assessing Non-Cost Barriers. Environmental Resources Management, Inc (ERM), 3 Nov. 2025, https://www.thirdway.org/report/full-research-findings-pathways-to-accelerating-clean-energy-pace-report.

THIRD WAY

Permitting also impacts where developers choose to site new projects. 74% of respondents said the *number of permits required* is their top consideration for project location. In an ideal world, projects would be located where the need is greatest and where they are most cost-effective. Instead, permitting complexity is altering the geography of project development. If local, state, and federal governments can address the permitting issues noted above, project siting may also improve, ensuring new projects are developed in places that deliver the greatest benefit to customers, not simply where the paperwork is least burdensome.

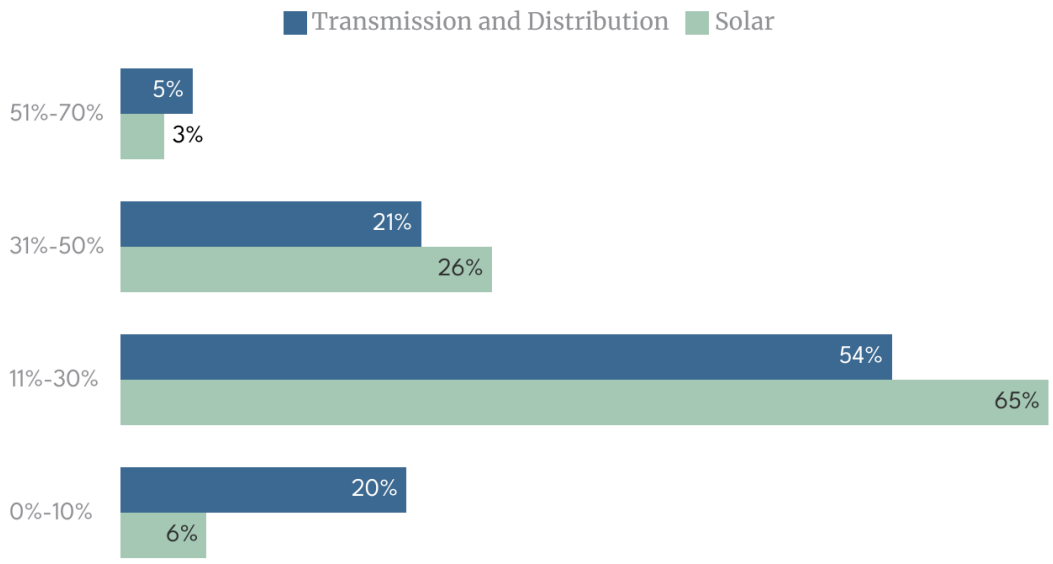
Our research also identified that, for solar specifically, *transmission capacity* was the second most cited factor shaping siting decisions, selected by 69% of respondents. This underscores how valuable expanding transmission infrastructure will be to unlocking more energy deployment moving forward.

Community Opposition

Our research found that stakeholder opposition to energy projects tends to arise early on in project development and can lead to project delays. Nearly 70% of solar respondents and 60% of transmission respondents reported delays between 1 to 6 months in the stakeholder engagement process. This opposition was mostly driven by *local community organizations* (82% for solar and 91% of T&D) and their concerns were often local in scope, with the top response being *concern on impacts to property values* (66%). Other drivers of opposition included *concerns on health and safety of residents* (55%) and *concerns on impacts to wildlife/environment* (55%) as well as *lack of knowledge about a technology* (59%).

Figure 4: Most Respondents Report Infrequent Stakeholder Pushback

What percentage of your projects would you say have experienced community or stakeholder opposition?



Source: Research Findings Report. Pathways to Accelerating Clean Energy: Assessing Non-Cost Barriers. Environmental Resources Management, Inc (ERM), 3 Nov. 2025, https://www.thirdway.org/report/full-research-findings-pathways-to-accelerating-clean-energy-pace-report.

THIRD WAY

Community opposition is certainly a legitimate challenge to project development, but our survey suggests it is far less disruptive in the field than commonly believed. Roughly 73% of the respondents across solar and T&D reported that only a third or less of their projects faced concerted opposition requiring project design changes or cancellation (Figure 4). That doesn't mean that community opposition is only present in ⅓ of clean energy projects, merely that this opposition was significant enough to change the course of the project prior to completion. If project developers want to smooth and speed deployment, investing in community engagement—including identifying local groups early on, surveying community needs, and dedicating time and resources to addressing local concerns–can help drive better outcomes for projects and support the viability of future projects by strengthening community support for clean energy writ large. Failing to tailor outreach and education strategies that reflect local values and needs risks triggering further opposition that could stall or cancel projects altogether. That said, we found it notable that this was not as severe a barrier to projects as commonly assumed, or as severe as other obstacles in the project timeline.

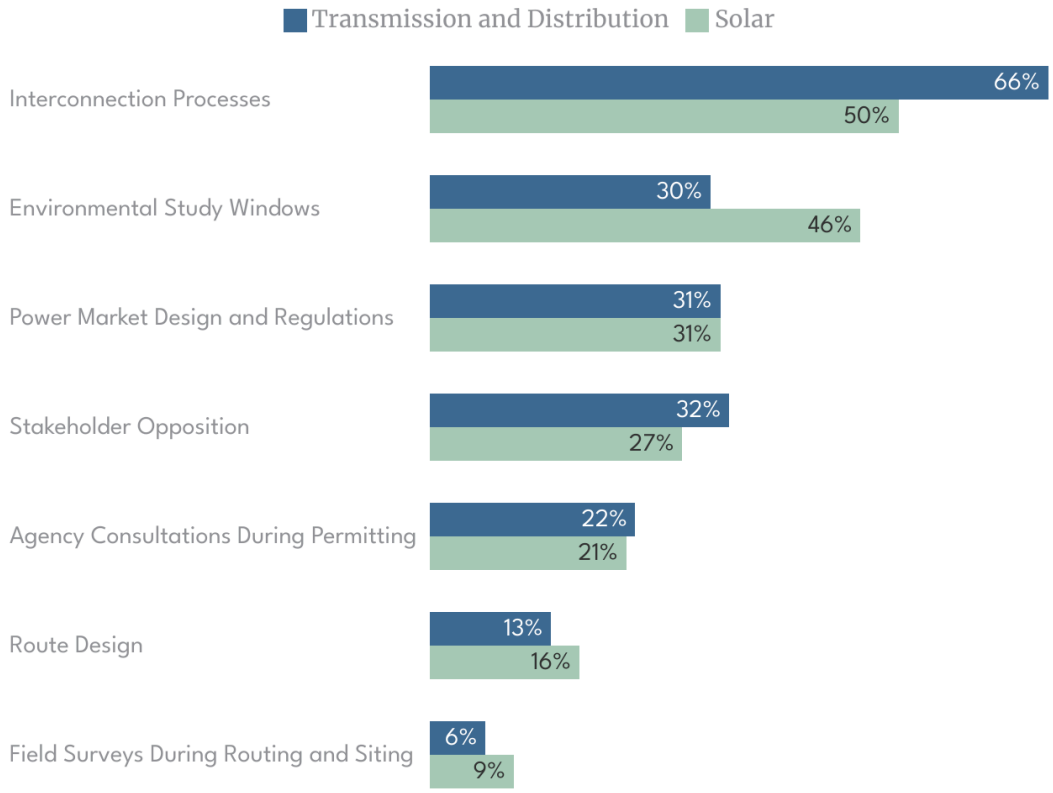
Interconnection

Our research found that interconnection is the most *frequently* delayed phase of project development,

surpassing even permitting and siting. 66% of transmission and distribution respondents, and 50% of solar respondents, said interconnection is where they experience the most frequent delays. Much of the federal legislative activity in the energy space is currently focused on permitting reform—that's valid, but greater attention must be paid to speeding the interconnection process and expanding grid capacity to ensure long term improvements.

Figure 5: Interconnection is the Most Critical Barrier Leading to Delays

Which of these critical path items are the most commonly delayed?



Source: Research Findings Report. Pathways to Accelerating Clean Energy: Assessing Non-Cost Barriers. Environmental Resources Management, Inc (ERM), 3 Nov. 2025, https://www.thirdway.org/report/full-research-findings-pathways-to-accelerating-clean-energy-pace-report.

THIRD WAY

These interconnection delays stem from a mix of technical, procedural, and regulatory factors. When asked about the following categories—*grid upgrades, supply chain delays, deliverability requirements, clustering, and cost allocations*—nearly all respondents reported delays some or all of the time. Clearly, there is no 'one size fits all' policy that can remedy interconnection challenges. Holistic reform is badly needed.

When asked about the most common reasons for withdrawing projects from the interconnection queue, 57% of respondents indicated that they drop out of the queue because the *estimated*

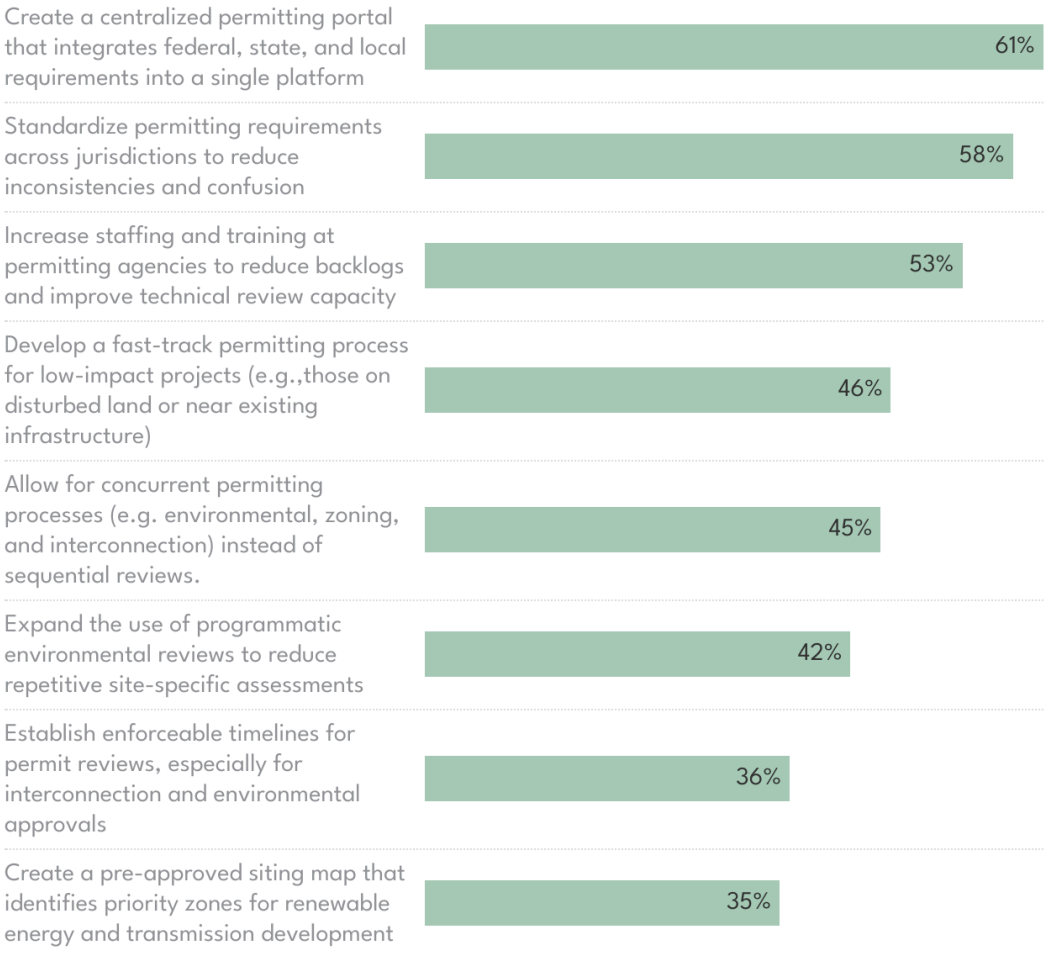
interconnection costs are too high, and 64% because the *estimated interconnection build time is too long.* Respondents are clear-eyed about the consequences of dysfunction in the interconnection process. Addressing delays at this stage requires challenging, macro-level policymaking and implementation, chiefly proactive transmission planning to ensure adequate grid capacity.

Policy Solutions

Our research indicates that policy solutions are needed to reform permitting and interconnection processes in order to strengthen the reliability, affordability, and security of the American energy economy.

Figure 6: Top Permitting Fixes For Solar

If you were given the chance to reform the existing permitting system, which of the following ideas would you suggest bringing to the table to make it go smoothly and quickly?

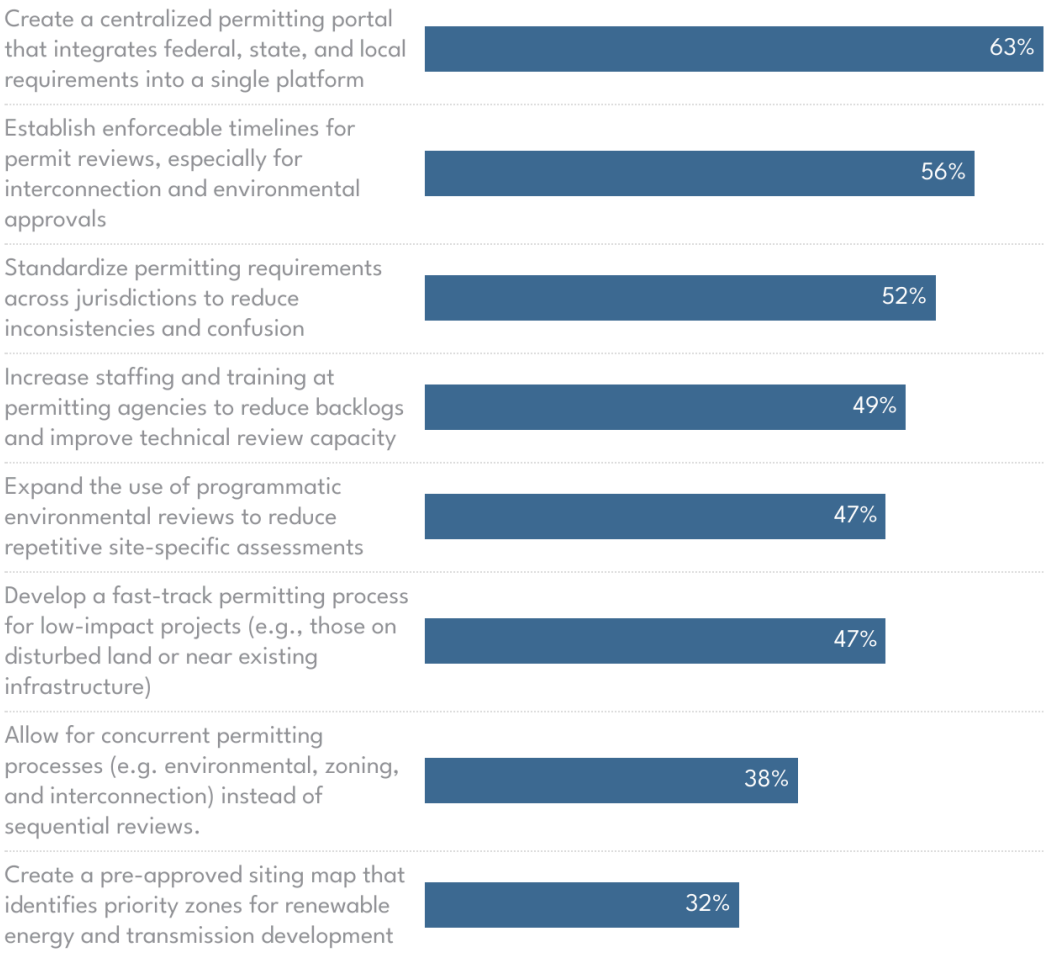


Source: Research Findings Report. Pathways to Accelerating Clean Energy: Assessing Non-Cost Barriers. Environmental Resources Management, Inc (ERM), 3 Nov. 2025, https://www.thirdway.org/report/full-research-findings-pathways-to-accelerating-clean-energy-pace-report.

THIRD WAY

Figure 7: Top Permitting Fixes for Transmission

If you were given the chance to reform the existing permitting system, which of the following ideas would you suggest bringing to the table to make it go smoothly and quickly?



Source: Research Findings Report. Pathways to Accelerating Clean Energy: Assessing Non-Cost Barriers. Environmental Resources Management, Inc (ERM), 3 Nov. 2025, https://www.thirdway.org/report/full-research-findings-pathways-to-accelerating-clean-energy-pace-report.

THIRD WAY

Permitting & Siting

- When given options for permitting-specific policies, the most popular selection among solar (61%) and T&D (63%) respondents was to create a centralized permitting portal that integrates federal, state, and local requirements into a single platform (Figures 6 and 7). Third Way recommends that this tool be established in upcoming permitting reform legislation.

- Consistent with widespread support from respondents, Third Way recommends *standardizing the permitting processes across jurisdictions*. This could be particularly valuable for interstate transmission projects that currently need to submit resource reports to support applications at the federal level *and* for each individual state process.

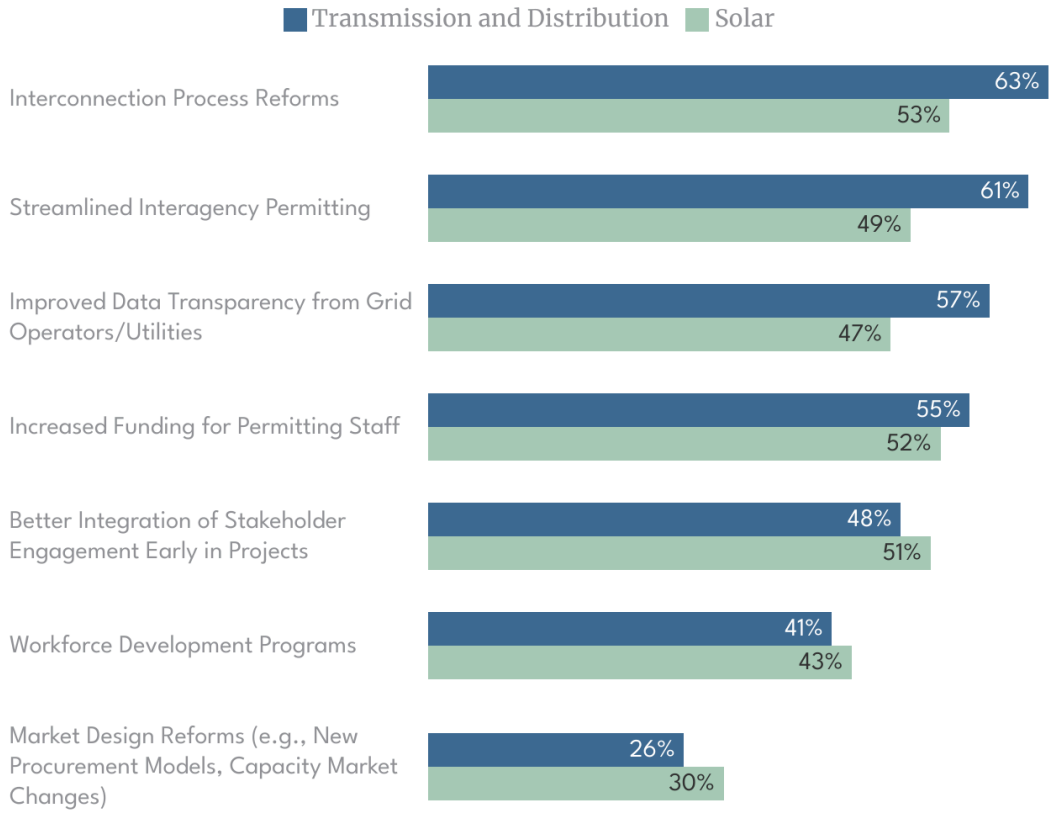
- Given that NEPA reviews were overwhelmingly reported to cause the longest permit delays, Third Way recommends a variety of NEPA reforms, many of which are currently under consideration in federal legislation. These include limiting the actions to which NEPA applies, establishing guardrails around the scope of reviews and range of alternatives, imposing clear deadlines for each phase of agency action and shot-clocks, and expanding the use of categorical exclusions.

- As previously mentioned, our PACE research identifies agency capacity issues (consisting of *volume of applications*, *stringency of agency reviews*, and *insufficient agency staffing)* as the most common cause of delays within federal permitting. Third Way recommends streamlining permitting processes through AI, modernization, and digitization wherever possible.

- Respondents were also asked to select necessary policy improvements that spanned the entire development timeline, beyond just permitting needs (Figure #8). Even then, permitting was still a priority. 61% of T&D respondents and 49% of solar respondents indicated the need for *streamlined interagency permitting*. Third Way recommends that a lead agency be designated at both the federal and state level for large-scale projects to coordinate necessary reviews and authorizations.

Figure 8: Permitting is Not the Only Problem Facing Developers

Which reforms do you believe would most improve development timelines?



Source: Research Findings Report. Pathways to Accelerating Clean Energy: Assessing Non-Cost Barriers. Environmental Resources Management, Inc (ERM), 3 Nov. 2025, https://www.thirdway.org/report/full-research-findings-pathways-to-accelerating-clean-energy-pace-report.

THIRD WAY

Interconnection

- Respondents indicated that they drop out of the interconnection queue because the estimated interconnection costs are too high or the build time is too long. Given that proactive transmission planning would lower the costs of these upgrades for all generation projects, Third Way recommends proactive transmission planning that considers future generation needs. Furthermore, greater use of advanced transmission technologies would unlock transmission capacity on the existing system and allow for the greater use of excess capacity at existing generation sites. This would be in addition to helpful reforms that the Federal Energy Regulatory Commission (FERC) is currently in the process of implementing and should be encouraged and adopted as quickly as possible.

Community Engagement

- Project developers should provide early notice to and meaningfully engage with affected communities, ideally prior to the start of adversarial proceedings such as permitting dockets. This includes tailoring engagement around the specific localities to recognize the key organizations, priorities, and concerns in the area, leveraging lessons learned from prior projects in the vicinity. While there is still room for project developers to voluntarily improve upon these engagement activities, thereby reducing delays and costs of their projects, the PACE study results do not indicate a pressing need for policy involvement.

Regulatory Certainty

- While not expressly covered in our research, respondents consistently called for certainty and stability within the regulatory system. Particularly given the chaos from the Trump Administration in the last year, Third Way recommends imposing limits on a federal or state agency's ability to rescind, withdraw, or revise environmental documents and authorizations issued thereon absent a court order to do so or a clear justification (e.g., fraud or material misrepresentation).

Conclusion

Our findings point to a clear policy imperative: the United States needs targeted reforms, focused on streamlining permitting, enhancing agency capacity, and improving interconnection processes. The stakes are higher than ever, as electricity demand surges nationwide and energy prices soar. The US must make it easier to build new clean energy projects or face profound economic consequences.

Also in this Series

NEXT: REPORT

Full Research Findings: Pathways to Accelerating Clean Energy (PACE) Report

APPENDIX

PACE Review Board

VIEW ALL 4