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# Reforming Permitting to Build Infrastructure

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# Executive Summary

Building big infrastructure projects in the US is expensive and slow. These inefficiencies impede economic growth and the green energy transition. A significant contributor to these shortcomings is the National Environmental Policy Act (NEPA), the centerpiece of the federal government's environmental permitting regime. This report proposes legislative actions to reform NEPA. The proposal seeks to streamline permitting by balancing a reduction in back-end litigation with more robust and inclusive front-end planning, preserving its core values while adapting it to modern needs. The reforms are organized into four solutions: (1) selectively shifting legal power away from project opponents, (2) facilitating popular decision-making and negotiated agreements, (3) strengthening state capacity, and (4) improving public participation. Taken together, these reforms comprise a "green bargain," speeding construction and lowering costs, allowing the construction of the infrastructure needed for the green transition, and empowering the broader public—especially lower-income communities most hurt from failing infrastructure—over narrow interests.

# Reforming Permitting to Build Infrastructure

Zachary Liscow

Many in Congress and elsewhere are concerned about the role that US permitting rules play in hampering infrastructure development, thereby potentially reducing economic growth, thwarting the green transition, and impeding economic opportunity.[1] Estimates suggest that it costs three times as much on average to build urban transit in the United States as in other rich and middle-income countries,[2] and the cost of building a mile of interstate highway tripled in the latter part of the 20th century.[3] Perhaps partly as a result, the American Society of Civil Engineers gave US infrastructure a C grade. This harms productivity and economic growth.[4]

Likewise, deploying new electricity generation, especially renewables, is slow, driving up energy costs and exacerbating climate change. This delay has significant consequences for the climate because 95 percent of the capacity seeking to be added to the grid is solar, battery storage, or wind.[5]

Higher costs are particularly salient now as the cost of living rises, driving discussion about what can be done to lower costs and the importance of the government delivering "abundance" in infrastructure and elsewhere.[6] Poor transportation systems are also concerning because the ability to get to work quickly is one of the strongest correlates of economic mobility.[7]

The US permitting regime is a likely cause of some of the country's challenges with building infrastructure.[8] Conducting an environmental review takes over four years on average. And that is before litigation, which—even if the project opponent loses in court—takes a median of 18 months.[9] Notably, the increase in the cost of building the US interstate highways coincided with the passage of the National Environmental Policy Act (NEPA),[10] the main federal environmental review statute. After that, highways got windier, more sound walls were built, and for the first time richer communities pulled away from poorer communities in their ability to get more expensive highways.

But how does the US build public infrastructure at reasonable speed and cost while protecting—and improving—local communities, the environment, and deliberative processes?

This report develops a legislative package that Congress should adopt to reform NEPA, one important part of US permitting. The proposal pairs a pruning of litigation on the back end of construction planning with improved state capacity and public participation on the front end. The legislative package has four parts: (1) selectively shifting legal power away from project opponents, (2) facilitating popular decision-making or effective negotiation between

project builders and the community, (3) improving state capacity and streamlining processes, and (4) improving and standardizing public participation. The first two reduce back-end litigation, increasing projects' speed and reducing their costs. The second two improve front-end planning and participation, enhancing the ability to design projects well and allow the broad community to have a say. Together, the reforms improve government's ability to not only get projects built but also plan and listen well.

I begin by describing the current regime before moving on to concerns with the current system and then proposals for reform. Of course, any reform involves trade-offs. But together, these reforms should lead to a "green bargain" in which there are overall improvements in efficiency (cost and speed), the environment (by building the green infrastructure needed in coming decades),[11] and democracy (by empowering the broader public over narrow interests).

## Policy Context: The National Environmental Policy Act

NEPA, enacted in 1970, requires federal agencies to study the environmental impacts of many infrastructure projects. NEPA applies whenever a project takes place on federal land or water, requires approval by federal regulators, or involves federal funds. There are three different levels of NEPA review: categorical exclusions (CEs), environmental assessments (EAs), and environmental impact statements (EISs).

A project is "categorically excluded" from NEPA whenever it is not expected to have a significant environmental impact. Federal agencies (e.g., the Federal Highway Administration) grant CEs in consultation with the White House Council on Environmental Quality. Agencies typically maintain catalogs of CEs.

Whenever a project's environmental effects are unknown, agencies conduct an environmental assessment. If the EA finds that the project will likely have no significant impact on the environment, the agency issues a "finding of no significant impact," allowing construction to proceed.[12] If the EA instead finds that environmental effects are likely, an agency must then prepare a full EIS.

An EIS is the most intensive category of NEPA environmental review. It is a complete and detailed study of the project, plausible alternatives, and projected effects on the human and natural environment. It often includes intensive involvement and comments from interested parties and can take several years to complete. Full EISs represent a small fraction of all projects NEPA covers and typically extend to only the largest projects. From 2010 to 2018, agencies prepared on average 142 final EISs per year[13] but around 9,300 EAs per year over a similar time period.[14]

Crucially, NEPA imposes principally procedural rather than substantive requirements on projects, albeit quite stringent requirements. Indeed, the DC Circuit in *Calvert Cliffs' Coordinating Committee v. US Atomic Energy Commission* found that NEPA created strict procedural requirements that must be carried out "to the fullest extent possible."[15] Yet while NEPA mandates rigorous environmental analysis and consideration of alternatives, it establishes no minimum standards for environmental review. Instead, NEPA leaves to agency discretion the factors considered and the methods used in preparing environmental studies.

After an agency completes any of these environmental reviews, especially the production of an EIS, the agency may be sued for not producing a thorough enough document. Typically, individuals or organizations have standing to sue if they can show that the agency's alleged failure has a possibility of harming an interest of theirs that the relevant statute seeks to protect. Plaintiffs commonly ask courts to block construction during the litigation. And successful lawsuits typically block construction at least until the environmental review can be appropriately revised, if not altogether.

If a plaintiff has standing, agency actions receive judicial review under the Administrative Procedure Act. The Administrative Procedure Act provides that agency actions, including assessments conducted under NEPA, are reviewable by federal courts and must be set aside if they are "arbitrary, capricious, an

abuse of discretion, or otherwise not in accordance with law."[16] This broad language has had to be clarified by case law. Courts today focus less on a decision's outcome and more on the process the agency employed to reach that decision. If an agency uses flawed reasoning—such as by failing to consider factors it should have considered or reaching a decision that is seemingly inconsistent with the evidence—the court will set it aside. But when the agency's final decision is a plausible interpretation of the evidence, courts will let it stand.

This ostensibly deferential standard, however, still leaves reviewing courts much latitude to take account of the substance and the process of the agency's decision.[17] This is especially so under the "hard look" doctrine for "arbitrary and capricious" review established by *Citizens to Preserve Overton Park v. Volpe*[18] and elaborated in *Motor Vehicle Manufacturers Association v. State Farm Mutual Automobile Insurance*,[19] requiring that courts closely examine the entire record of an agency's decision. While an agency theoretically has discretion to grant or deny a permit, the reality of judicial review works to cabin an agency's discretion, as courts can place projects on hold due to errors during environmental review.

Note that NEPA is just one piece of permitting legislation in the United States. Other pieces are important too. The federal government has many other permitting requirements—for example, on clean water, endangered species, and historic preservation. And state and local governments have their own permitting requirements. These are also interesting subjects of possible reform, but I do not address them here.

## Concerns About NEPA

The issues with NEPA have been much discussed elsewhere,[20] so I only briefly discuss them here. Permitting procedures have costs and benefits. On one hand, intensive permitting requirements slow down infrastructure construction and make it more expensive. While agencies spend time conducting environmental reviews and following legal procedures, the benefits of the project are not realized, harming the public. When delays go on long enough, shifting political or economic realities can cause those delays to cascade, sometimes to the point where the project is canceled altogether. The permitting process and subsequent litigation also increase the project's overall cost, partly by allowing project opponents to strategically extract costly changes to projects. Higher costs probably lead to less overall infrastructure development.

But on the other hand, more intensive permitting can help the environment and local communities. Requiring agencies to consider environmental impacts can improve environmental outcomes. And slowing infrastructure construction can benefit the environment when the underlying project would cause environmental harm. Likewise, permitting requirements can empower local residents with the ability to influence the projects affecting their community, potentially leading to outcomes that better reflect community preferences. And permitting processes can enhance democracy by providing legitimacy to the approval process.

Articulating the right balance between these competing priorities is difficult. Determining the proper policy requires weighing more infrastructure construction, built less expensively and more quickly, with local environmental protection, procedural fairness, and public input. The central critique of NEPA is that it often slows projects and makes them more expensive without providing broad public input and without necessarily leading to better environmental outcomes.

Quantitative evidence on the costs and benefits of the current permitting regime under NEPA is limited, but some evidence is available. Evidence suggests that the direct financial costs of conducting the environmental review paperwork are small. But, as noted at the outset, the average EIS takes about four years—and the amount of time has increased by about a year since the late 1990s. The length has increased dramatically as well: from around 400 pages on average in the late 1970s to around 1,700 pages (including appendixes) today.

After the environmental review documentation is completed, there's often litigation, which is typically

quite lengthy. When a lawsuit succeeds on one matter, the median duration is 2.5 years. Even when the lawsuit fails on everything, the mediation litigation takes 18 months. And that's before appeals.

How would we expect builders to act when they are subject to NEPA? Sometimes they take more expensive routes and make expensive modifications to projects to reduce the likelihood of the presence or success of litigation and possibly shorten the environmental review. For example, the government might modify a highway project to be built below ground, with added sound walls and an expensive park on top, to placate potential litigants.[21] And sometimes a project won't be built at all: If the costs are higher and the benefits are delayed or lower, then it might make sense to just not attempt to build.

The changes in statutes, judicial doctrine, and social mobilization that allowed citizens to have a more direct impact on decision-making can be called the rise of "citizen voice"; NEPA and subsequent judicial doctrine were an important part of that.[22] Pinning down causality for certain is challenging, but the processes and incentives created by NEPA and associated judicial doctrine likely contributed to the high costs in the US today compared to other countries and the United States' own past.

At the same time, it is important to emphasize the potential benefits of environmental review in principle and NEPA in practice, especially when some argue for repealing NEPA entirely. In terms of social outcomes, after NEPA passed (though not necessarily *because* NEPA passed), inner-city highways were considerably less likely to follow existing, and often quite damaging, plans.[23] In terms of environmental outcomes, there are clear cases of fossil fuel infrastructure being stopped by NEPA. In terms of process, the government can no longer entirely disregard the public's reasonable concerns; instead, the government has to say on the record, subject to public scrutiny and judicial review, why they're doing what they're doing.

The problem with all these laudable goals—social equity, the environment, and procedural fairness—is that it remains unclear that the current practice of NEPA is properly calibrated to best achieve any of them. On social equity, evidence suggests that it is the rich who can best use the NEPA procedural process. This makes sense—it is complicated and expensive to use. Furthermore, low-income communities benefit from much of the infrastructure that is built, such as transit to get to work. On the environment, at a time when much of the energy production that will happen over the medium run is clean energy and much of the transportation infrastructure is transit, it is problematic to slow and stop construction during a climate crisis. And on procedural fairness, while NEPA provides the last opportunity for some disadvantaged communities to combat projects that unfairly target poor neighborhoods, there is little evidence to suggest that decisions are systematically tilted to become fairer because of NEPA. To the contrary, lots of evidence suggests that the opposite is true. For example, a 2023 paper I coauthored shows that the rich areas disproportionally got more expensive highways after NEPA passed, not the poor areas.[24]

*Someone* must decide. And there is little reason to think that adding process and heavy judicial involvement makes the decisions any more reflective of what the public wants, especially given the changes to social organization that have taken place since the 1960s: Communities are much more mobilized to oppose environmental and social harms through the regular democratic process now. But often small, well-heeled groups (sometimes called NIMBYs, for "not in my backyard") can thwart the broader democratic will, even after a large amount of analysis and accommodation. These groups can use litigation strategically to slow projects that are in the public's best interest.

None of this is to say that there aren't lots of challenges here. For example, when considering what the "public" wants, it is unclear how local versus regional, state, or national goals should be balanced. There are many ways in which the environment matters, from removing a patch of forest to global climate change. Almost any policy change will have trade-offs—and there are important judgment calls in assessing them. What follows are policy changes that, as a package, should improve outcomes for efficiency

(costs and speed), the environment, and democracy (in terms of processes better involving the public and outcomes better reflecting the public's preferences) overall.

## Reform Proposals

Congress should reform NEPA and its associated judicial doctrine in four broad non-comprehensive areas: (1) shifting legal power away from project opponents, (2) facilitating popular decision-making or effective negotiation between the government and the community, (3) improving state capacity and streamlining processes, and (4) improving and standardizing public participation. In short, I propose two complementary sets of reforms: reduced back-end litigation (reforms one and two) but with better front-end capacity and participation (reforms three and four). The reforms seek to mend, not end, NEPA, recognizing the valuable role that it plays in protecting the environment, ensuring reasoned decision-making, and making less likely the worst cases of ignoring the public.

### Selectively Shift Legal Power away from Project Opponents

Congress should first carefully limit the power of the judiciary branch relative to the executive branch, which plans, approves, and implements projects, and thereby shift power away from project opponents. The appeal of this reform depends in part on the extent to which mechanisms outside the judiciary are sufficient to achieve accountability. In "most democratic countries," these mechanisms include the "administrative supervision and political oversight" that "primarily" holds decision-makers accountable when they are forced to defend decisions in front of political leaders (who wish to be reelected), federal agency funders, legislative appropriation committees, public meeting attendees, and the press.[25]

Of course, such changes leave in place the requirement that the executive must follow the clear language of statutes while granting it more discretion to implement statutes. The reforms dovetail with the 2025 Supreme Court case *Seven County Infrastructure Coalition v. Eagle County*, which emphasized deference to the executive on NEPA, though with few specifics outside the narrow facts of the case, making congressional reform still valuable. There are a variety of reform possibilities.

#### *Change the Standard of Review by Which Courts Assess Compliance with Procedural Requirements*

First, courts currently apply a "hard look" during "arbitrary and capricious" review for administrative decision-making under Section 706 of the Administrative Procedure Act, which can lead courts to "set aside agency actions as 'arbitrary and capricious' if the agency failed to consider even one factor or issue the court would have preferred that the agency discuss."[26] The idea is to revise "hard look" review by adding a doctrine of "substantial performance" or "materiality" to the NEPA process. Within this framework, a project could still proceed without the agency considering every possibility if doing so was unlikely to have changed the ultimate outcome.

German courts use a similar standard of review: For a permit-granting decision to be set aside, the assessment must have an error that was obvious and influenced the evaluation's outcome (e.g., by leading to a different decision).[27] The risk is that agencies would go too far and not conduct the proper amount of due diligence; the upside would be faster environmental review and reduced litigation.

#### *Cut Back on "Alternatives" Analysis*

Second, NEPA requires consideration of "a reasonable range of alternatives . . . that are technically and economically feasible, and meet the purpose and need of the proposal."[28] This analysis is described as the heart of the particularly extensive environmental review contained in EISs. One possibility would therefore be to limit the range of alternatives required to be considered for certain projects' EISs. This is not without precedent, as Congress has previously done so with US Forest Service vegetation management projects, airport security projects, and highway projects.[29]

For example, the alternatives analysis could be narrowed in the EISs for clean energy infrastructure or public transit projects. Another option would be

to eliminate alternatives analysis entirely for EAs. While, in theory, the statute and regulation provide that EAs need only briefly discuss alternatives, many agencies, as a matter of practice, nonetheless conduct a more extensive alternatives analysis to mitigate litigation risk.[30] Yet effort expended exploring alternatives may be of little benefit when a project that is subject to only an EA has already been determined in its original design to not cause significant environmental impacts .[31]

To be sure, both options risk the possibility that agencies will miss lower-cost and lower-impact alternatives. Indeed, there is at least some preliminary evidence that increased consideration of alternatives could reduce certain environmental impacts.[32] Conversely, these reforms could also bring benefits in quickening environmental review and reducing assessment costs.

### *Impose Time Limits and Shorter Statutes of Limitation*

Third, various stages of the process could have time limitations. Recently enacted reforms have begun to implement such limits, such as the Fiscal Responsibility Act of 2023 (FRA), which codified two-year and one-year limits for the completion of EISs and EAs, respectively. While this change was in line with Council on Environmental Quality regulations already in place since 2020, the FRA also added a mechanism for applicants to petition for a court-ordered deadline if these timelines are not adhered to.

Further time limits could be imposed.[33] For example, Senator Joe Manchin's May 2023 proposal included a 150-day statute of limitation for court challenges: Once a permit is issued, potential litigants would have only 150 days to sue.

To be sure, such reforms still risk pushing slowdowns to other parts of the process, and without more resources, reviews could be less careful and consultative. And, as with the FRA's petition mechanism, it would again be important for there to be remedies for noncompliance. For example, Pennsylvania now offers application-fee refunds when state agencies miss deadlines to make deadlines go beyond merely creating norms.

### *Limit Legal Standing*

Fourth, some argue that the standards for who can sue (which are "unusually broad" in an international context) are too lax and that proof of a more direct harm should be required.[34] Other limitations could include allowing just those who submitted comments during environmental review to sue[35] or, more extremely, allowing just governmental entities (to ensure that at least a somewhat representative entity is harmed). Or, in the absence of a government entity, a certain number of people (maybe 50) might be required. Of course, these would risk curtailing beneficial litigation.

### *Make It Harder to Stop the Entirety of Multi-Segment Projects*

Fifth, sometimes entire projects are stopped when courts find part of an environmental review relevant for only a portion of a project problematic. Congress could make it easier to segment projects so that the unproblematic parts could proceed even as other parts are reworked.

### *Restrict the Ability to Raise New Objections During Litigation*

Sixth, courts are often willing to consider objections to an EIS even if they were not raised before the litigation. Congress could curtail this ability to consider new objections.

### *Go Directly to Appellate Review*

Seventh, judicial review could be sped up by starting it at the appellate level, skipping district courts, which already happens with challenges to environmental regulation.[36] This would mean that project opponents would be much less likely to be able to appeal an adverse ruling and have a second layer of review. Avoiding district-court review is particularly apt in this context because the factual record is already largely established in NEPA cases through the administrative paperwork, making fact collection at the district-court level less important.

### *Limit Judicial Injunctions*

Eighth, courts often enjoin projects (i.e., stop them from proceeding) while litigation is ongoing,

strengthening plaintiffs' power. This power could be limited under NEPA by raising the bar for courts applying an injunction, which some advocates think would be one of the most impactful potential reforms.[37] For example, Congress could clarify how much certainty there needs to be about environmental harm or perhaps emphasize net environmental harms rather than gross environmental harms.

*Move Toward Ex Post Damages*

Ninth and relatedly, one option, which could complement limitations on judicial injunctions, would be to move away from ex ante enjoining and toward ex post damages. In Germany, for example, Section 8a of the Federal Emission Control Act allows the relevant licensing authority to grant a provisional permit for construction if (1) a positive decision can be expected, (2) an early start is in the interest of either the applicant or the public, and (3) the applicant agrees to pay compensation for damages (if the final permit is approved) or restoration (if the final permit is denied). Tesla used this procedure in 2022 to obtain provisional approval to construct a new factory in Berlin. Under this arrangement, Tesla was allowed to begin construction on the factory but was also required to pay for any environmental damage caused by the construction.[38] The US could adopt similar rules. Of course, other statutes like the Endangered Species Act would remain in place.

### Facilitate Popular Decision-Making or Effective Negotiation Between the Government and the Community

A key challenge to arriving at good outcomes is facilitating negotiations between project builders and opponents, since the government often lacks the most effective tools to arrive at a resolution and opponents cannot collectively commit to stopping all litigation. Congress should work to remedy this challenge.

One tool would be to give the government new fiscal options to encourage local governments to move quickly and local parties to acquiesce. One model would be a revenue-sharing agreement with municipalities in exchange for expedited permitting—for example, community benefit agreements that bindingly preempt subsequent litigation. More generally, agencies could be enabled to use cash or noncash compensation to assuage community concerns, either explicitly or implicitly in return for dropping lawsuits. This could reduce costs, since under the status quo, agencies must use more expensive means of placating communities. (Of course, the availability of the option could also increase costs.)

When the Federal Highway Administration constructed I-696 in suburban Detroit, for example, the government placated local activists by constructing large, expensive plazas over the highway to minimize disruption to pedestrians. Cash payments, combined with an inexpensive pedestrian bridge, could have been a far cheaper and more efficient alternative.[39] The use of cash payments is common in takings law, and they were used in the construction of New York City's 19th-century street grid.[40] While state, local, or federal agencies might be able to experiment with cash payments on their own initiative, congressional authorization and funding would help.

Solving the commitment problem would require deeper changes. One way would be to provide that, if the government adheres to certain procedures, an agreement reached with impacted parties could not be litigated absent gross failures. Under the current system, parties have little incentive to enter settlement negotiations because any settlement agreement might be undermined by future litigation involving separate parties with different motivations.

One potential solution to this problem would be something similar to the European "corporatist" model, in which the government designates particular interest groups that negotiate binding agreements with government agencies. These agreements are binding on all parties and have a preclusive effect on future litigation. This collaborative model is not wholly unfamiliar in the United States, where many agencies can negotiate with regulated parties as part of "negotiated rulemaking," but this process does not prevent future lawsuits against the agency.

Incorporating this model in the United States would be difficult, as the US tends to avoid corporatist arrangements, partly because its representation

of various economic interests has historically been relatively fragmented.[41] Determining which groups should have a seat at the negotiating table would be difficult. Congress should allow some limited trials in corporatist decision-making, though admittedly much remains to be worked out.

More concretely, Congress could legislate that, if a majority of the state legislature (or possibly a majority of each party in a state legislature, to include approval from the minority party) approves a project, then there is no NEPA-related judicial review after production of the environmental review document. That would not end other forms of litigation, such as for the Endangered Species Act. Requiring a majority of both parties would help ensure protection of minority interests. Overall, the proposal would enhance democracy.

Congress could also consider a provision excluding projects with important cross-state effects, but I struggle to think of a project that seems appropriate for such an exclusion. Of course, almost all important projects have meaningful cross-state effects, if only through their impact on greenhouse gas emissions. But other state policies have such impacts and are not subject to NEPA. And other judicial doctrines, such as the dormant commerce clause, already cover actions that discriminate against the residents of other states.

### Improve State Capacity and Streamline Processes

Congress should also improve state capacity and streamline processes. First and simplest, the government could hire more and better staff for conducting environmental reviews. The federal government is already hiring more staff to expedite permits. But more could be done at the federal, state, and local levels to build capacity. Staffing constraints are often cited as reason that permitting does not move more quickly,[42] and evidence shows how much understaffing can increase costs and slow timelines.[43] Improved artificial intelligence tools could also help.

In addition to the important technocratic work of planning, more staff could allow for additional outreach to elicit preferences from a broad representation of affected parties, especially disadvantaged groups that may not normally participate. Congress could provide more funding for these activities. Especially for the technocratic planning and project management activities, increased spending could plausibly pay for itself given the tiny costs of government personnel relative to overall project costs and the large impacts of those personnel.

A conceptually similar proposal is to improve currently weak data collection on permitting timelines and final project costs, to allow analysis by the government, researchers, and the broader public.[44] Congress could provide funding for this, make it a requirement of receiving federal funds, or both. Adding a requirement is not to be taken lightly, since part of the premise here is that states are already overburdened. But getting a grip on this problem will ultimately require better data, which are currently unavailable—and the costs of data production are small compared to the costs of the projects themselves.

There are various ways to streamline processes as well. There could be more coordination within the federal government, with "one-stop shopping" as in New Zealand, for example.[45] Indeed, US federal agencies are typically given distinct grants of jurisdiction and authority, including granting each interest group its own advocate in government, which reflects the American penchant for fragmenting power.[46] But their distinct jurisdictions may overlap, leading to redundant procedures and inefficient approval processes. For example, in situations requiring multiple permits (which is almost every significant project), many federal agencies as a matter of policy would not begin their permitting processes until other permitting authorities had completed their processes, causing delay.

Since these problems arise from the structure of the American administrative state, they are likely to persist, even though certain attempts have been made to mitigate them. Recent changes have helped, such as the establishment of the Federal Permitting Improvement Steering Council and certain coordination requirements, which could in principle consolidate and streamline multiagency projects under a common procedural framework, if not a single authority. But a statutory fix is likely required to change this structure and move toward a single authority to decide.

Another reform would be to allow more categorical exclusions. The Fiscal Reasonability Act of 2023 explicitly codified the long-standing practice of adopting CEs. However, more aggressive use of CEs can be challenged in court, so specific adoption of CEs by Congress—as Congress has done before for some oil and gas development activities, such as drilling and placement of a pipeline[47]—remains useful. For example, CEs could be created for underground transit projects (or for certain clean energy infrastructure, like geothermal exploration).[48]

Most ambitious would be streamlining in a selective, tailored way to reflect the differential costs of delay across projects. For example, an urban transit system built to accommodate future population growth is arguably less urgent than building a new bridge to replace one that is structurally unsound. Congress could streamline the process for permitting the latter, but not the former. That would be a category-by-category rule. Alternatively, Congress could adopt a standard by which an agency could itself designate high-priority projects that would be subject to streamlined review.

### Promote Better Participation

Finally, Congress should promote better public participation. There are several reasons to consider ways to make public participation in permitting more representative and impactful. The first is simple political economy: A bill that cuts back on opponents' ability to engage through courts will, sensibly, generate resistance from those who wish to block projects. Having compensating changes could reduce those concerns.

Second, better participation could result in better information collected on what the public wants, thus serving them better, and help achieve a stable political settlement, potentially reducing costs and increasing speed. For example, many participants in environmental reviews claim that the review can be more oriented toward litigation proofing than good planning, making the process longer without necessarily producing better outcomes.[49] According to former Environmental Protection Agency General Counsel E. Donald Elliott, approximately 90 percent of the detail in environmental review statements is included to mitigate litigation risk,[50] so there is great scope for improvement.

Third, better participation could have intrinsic benefits in a democracy as a matter of process. Fourth, better participation earlier on could make subsequent litigation less likely, again potentially reducing costs and increasing speed.

Though evidence is limited, it appears likely that today, participation in infrastructure planning tends to benefit the well-heeled.[51] Congress could thus require broad-based early outreach, either during or (better yet) before environmental review. Those building projects already do some outreach. But an explicit requirement could make the outreach more inclusive and consistent. Outreach should target not just those who would aggressively try to make their voices heard but rather all impacted parties, including beneficiaries. To avoid the risk that such requirements would actually lengthen project timelines, such outreach should not be judicially enforceable. Instead, depending on bureaucratic practice and ordinary political pressure—combined with the need to explain decisions to legislators, the press, and the broader public—to ensure accountability is a better idea.

Indeed, a lot of participation and planning happens before the NEPA process begins, when it is not required by NEPA. That participation presumably happens largely because a combination of bureaucratic practice and political incentives means that agencies *want* to know what the public thinks and do not need the judiciary to force them to do it. To the contrary, when participation *is* required by NEPA and is judicially enforceable, it is unclear how much impact it has as agencies try to limit the range of possible options, precisely because of that litigation risk. The combination of loosening judicial review and strengthening early participation would help reverse this perverse outcome—and strengthen participation where it is impactful.

The statutory change should also make explicit that it aims to encourage experimentation, rather than require a one-size-fits-all approach. Some scholars believe that agencies are reluctant to experiment with new methods of citizen participation, as deviation

from approved procedures might lead to additional litigation.[52] It would be good to reverse that.

One possibility is participatory decision-making. For example, many countries around the world require government officials to consult representative groups of citizens ("citizen assemblies") before making decisions.[53] The corporatist negotiations discussed earlier could also be used.

The citizen assembly or corporatist negotiation methods could (though need not) be combined with a reform that makes decisions binding and preempts further litigation. And, in either case, experts would still need to play a large informational role given the inherently technical nature of many of the decisions.[54]

Another possibility is to expand participation by creating a "representation floor," where agencies determine at the outset which groups and interests should participate in the process.[55] The final EIS or EA would then declare whether, and to what extent, each group contributed to the process.

## Conclusion

There are likely downsides to any set of reforms. Net environmental impacts may be positive, but new construction would affect individual landscapes. And new fossil fuel infrastructure could be built too. The preferences of more of the public may be shared as part of the process, and outcomes may reflect those preferences better, but some individual potential litigants would be worse off. And there are always questions about which "public" is relevant for a project.
There are other risks too: A standard part of courts in our system of checks and balances is limiting abuses of power by the executive branch; excessive reform could undermine this crucial function of courts. And, from a democratic perspective, if there is less ex post litigation, then legitimacy of planning rises and falls on the structure and mechanisms of participation ex ante.

Overall, though, a selective set of reforms that avoids these worst pitfalls are worth the limited downsides. Indeed, the proposed reforms together are part of a "green bargain"—a simultaneous effort to further the overall values of efficiency, environmental protection, and democratic participation. "Bargain" is a double entendre: both a negotiated settlement and a good deal. Improving the efficiency of the permitting process would facilitate the construction of new transit and clean energy infrastructure needed in the coming decades, which would help the environment by curbing emissions. Likewise, improvements to state capacity further democracy through processes that are broadly participatory and outcomes that reflect the public's preferences. Moving participation "upstream"—earlier in the process—and broadening participation should make it more impactful.

Arguably, even curtailing some NIMBY suits promotes those outcomes, since there is little that is democratic about a small handful of people blocking outcomes that many people want. Of course, the waters of democracy are deep, and not all potential aspects of democracy (especially more local variants) would be promoted. More participatory planning could also slow down the process at the outset, which makes pairing with reforms that reduce litigation important for efficiency.

There are two types of permitting-reform theories. The first is that there is a tragic choice with big, ineluctable trade-offs. In this view, community participation, environmental quality, and other interests sit on one side, while speed and efficiency sit on the other side. The second possibility is more hopeful: that our system is not at a Pareto frontier—that there are reforms available (possibly low-cost ones) that do not violate major values. This could be because, with hindsight, we have made a mistake, which is especially possible given the policy drift our political system is prone to.

NEPA was passed at a particularly strong moment of government distrust[56]—and it is not at all obvious that the writers of NEPA intended the system we have now, as decades of layers of nonobvious judicial doctrine like "hard look" review and administrative practice have evolved. This is especially so as new facts have emerged about costs and delay. And circumstances have changed. For example, given the need to

decarbonize, often the pro-environment thing to do is to build, rather than not build.

There is no reason to think that courts would arrive at a socially optimal outcome on their own. They're good at slowing things down, which is good if building is bad. They're good at protecting against unlawful behavior and other abuses of power. If there were no delay or no cost of delay, then the procedural rules would be unobjectionable. Now that we know about the costs, the question is what to do next.

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# Notes

1. This report builds on Zachary Liscow, "Getting Infrastructure Built: The Law and Economics of Permitting," *Journal of Economic Perspectives* 39, no. 1 (2025): 151–80, http://dx.doi.org/10.2139/ssrn.4775481.
2. New York University, Marron Institute of Urban Management, Transit Costs Project, "What the Data Is Telling Us," May 8, 2025, https://transitcosts.com/new-data/.
3. Leah Brooks and Zachary Liscow, "Infrastructure Costs," *American Economic Journal: Applied Economics* 15, no. 2 (2023): 1–30, https://www.aeaweb.org/articles?id=10.1257/app.20200398.
4. John G. Fernald, "Roads to Prosperity? Assessing the Link Between Public Capital and Productivity," *The American Economic Review* 89, no. 3 (1999): 619–38, https://www.jstor.org/stable/117036; and Treb Allen and Costas Arkolakis, "Trade and Topography of the Spatial Economy," *The Quarterly Journal of Economics* 129, no. 3 (2014): 1085–140, https://fpeckert.me/teaching/readings/AllenQJE14.pdf.
5. Joseph Rand et al., *Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection*, Energy Markets & Policy Berkeley Lab, https://emp.lbl.gov/queues.
6. Ezra Klein and Derek Thompson, *Abundance* (Simon and Schuster, 2025); and Marc J. Dunkelman, *Why Nothing Works: Who Killed Progress—and How to Bring It Back* (PublicAffairs, 2025).
7. Raj Chetty and Nathaniel Hendren, "The Impacts of Neighborhoods on Intergenerational Mobility II: County Level Estimates," *The Quarterly Journal of Economics* 133, no. 3 (2018): 1163–228, https://academic.oup.com/qje/article-abstract/133/3/1163/4850659.
8. Liscow, "Getting Infrastructure Built."
9. Liscow, "Getting Infrastructure Built."
10. Brooks and Liscow, "Infrastructure Costs."
11. The Trump Administration has taken a variety of actions that will slow the green transition and prioritize fossil fuels. It nevertheless is the case that over the medium term, the US will likely continue transitioning, and selectively easing permitting requirements will help the transition go more quickly.
12. An agency can also issue a mitigated "finding of no significant impact," which includes commitments to reduce environmental impacts.
13. US Executive Office of the President, Council on Environmental Quality, "Environmental Impact Statement Timelines (2010–2018)," June 12, 2020, https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_Timeline_Report_2020-6-12.pdf.
14. US Executive Office of the President, Council on Environmental Quality, *The Fourth Report on Cooperating Agencies in Implementing the Procedural Requirements of the National Environmental Policy Act* (*NEPA*), October 2016, https://ceq.doe.gov/docs/ceq-reports/Attachment-A-Fourth-Cooperating-Agency-Report_Oct2016.pdf.
15. Calvert Cliffs' Coordinating Committee v. US Atomic Energy Commission, 449 F.2d 1109 (DC Cir. 1971).
16. Administrative Procedure Act, 5 U.S.C. § 706 (1966).
17. Thomas J. Miles and Cass Sunstein, "The Real World of Arbitrariness Review," *The University of Chicago Law Review* 75, no. 2 (2008): 761–814.
18. Citizens to Preserve Overton Park v. Volpe, 401 US 402 (1971).
19. Motor Vehicle Manufacturers Association v. State Farm Mutual Automobile Insurance Co., 463 US 29 (1983).
20. See, for example, Liscow, "Getting Infrastructure Built."
21. Brooks and Liscow, "Infrastructure Costs."
22. Brooks and Liscow, "Infrastructure Costs."
23. Jeffrey Brinkman and Jeffrey Lin, "Freeway Revolts! The Quality of Life Effects of Highways," *The Review of Economics and Statistics* 106, no. 5 (2024): 1268–84, https://doi.org/10.1162/rest_a_01244.
24. Brooks and Liscow, "Infrastructure Costs."

25. Robert A. Kagan, *Adversarial Legalism: The American Way of Law* (Harvard University Press, 2001), 249, https://doi.org/10.2307/j.ctvjz83k7.

26. Mario Loyola, "Unleashing America's Energy Abundance," Competitive Enterprise Institute, September 27, 2022, 8, https://cei.org/studies/unleashing-americas-energy-abundance/.

27. Karl-Heinz Ladeur and Rebecca Prelle, "Environmental Assessment and Judicial Approaches to Procedural Errors—a European and Comparative Law Analysis," *Journal of Environmental Law* 13, no. 2 (2001): 185–98, http://opac.cshr.cmb.ac.lk:8080/jspui/handle/123456789/929.

28. Cooperation of Agencies; Reports; Availability of Information; Recommendations; International and National Coordination of Efforts, 42 U.S.C. 4332.

29. Michael D. Smith, "A Review of Recent NEPA Alternatives Analysis Case Law," *Environmental Impact Assessment Review* 27, no. 2 (2007): 126–44, https://www.osti.gov/biblio/20972037.

30. Eli Dourado, "Bringing NEPA Back to Basics," Utah State University Center for Growth and Opportunity, March 2023, https://www.thecgo.org/wp-content/uploads/2023/03/Bringing-NEPA-Back-to-Basics-v1.pdf.

31. Timothy Male, "Top Ten Ideas for Better NEPA Outcomes," LinkedIn, February 21, 2023, https://www.linkedin.com/pulse/top-ten-ideas-better-nepa-outcomes-timothy-male/.

32. John C. Ruple and Mark Capone, "NEPA—Substantive Effectiveness Under a Procedural Mandate: Assessment of Oil and Gas EISs in the Mountain West," *George Washington Journal of Energy and Environmental Law* 7, no. 1 (2016): 50, https://dc.law.utah.edu/cgi/viewcontent.cgi?article=1009&context=stegner_pubs.

33. Robert Poole, "Reforming Environmental Litigation," Reason Foundation, June 2024, https://a8d50b36.delivery.rocketcdn.me/wp-content/uploads/reforming-environmental-litigation.pdf.

34. Kagan, *Adversarial Legalism*, 249.

35. Brian Potter et al., "How to Stop Environmental Review from Harming the Environment," Institute for Progress, September 13, 2022, https://ifp.org/environmental-review/.

36. James W. Coleman, "Fixing the National Environmental Policy Act," testimony before the US House Committee on Natural Resources, April 25, 2018, https://naturalresources.house.gov/uploadedfiles/testimony_coleman.pdf.

37. Dourado, "Bringing NEPA Back to Basics"; and Potter et al., "How to Stop Environmental Review from Harming the Environment."

38. Lora Kolodny and Michael Wayland, "Tesla Factory in Germany Gains Conditional Approval to Start Commercial Production," CNBC, March 4, 2022, https://www.cnbc.com/2022/03/04/tesla-factory-in-germany-gains-approval-to-start-commercial-production.html.

39. Brooks and Liscow, "Infrastructure Costs."

40. Gerard Koeppel, *City on a Grid: How New York Became New York* (De Capo Press, 2015).

41. Kagan, *Adversarial Legalism.*

42. Zachary Liscow, "State Capacity for Building Infrastructure," in *Strengthening America's Economic Dynamism*, ed. Melissa S. Kearney and Luke Pardue (Aspen Institute, 2024), https://doi.org/10.5281/zenodo.14036826.

43. Zachary Liscow et al., "Procurement and Infrastructure Costs," February 20, 2025, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4522676.

44. Liscow, "State Capacity for Building Infrastructure."

45. Kim Schumacher, "Approval Procedures for Large-Scale Renewable Energy Installations: Comparison of National Legal Frameworks in Japan, New Zealand, the EU and the US," *Energy Policy* 129 (2019): 139–52.

46. Kagan, *Adversarial Legalism*, 61.

47. The Public Health and Welfare, 42 U.S.C. § 15942(b) (2005).

48. James L. Connaughton et al., *Building Cleaner, Faster: Final Report*, Aspen Institute, Energy and Environment Program, 2021, https://www.aspeninstitute.org/wp-content/uploads/2025/05/Building-Cleaner-Faster-Final-Report.pdf.

49. US Executive Office of the President, Council on Environmental Quality, "The National Environmental Policy Act: A Study of Its Effectiveness After Twenty-Five Years," January 1997, https://ceq.doe.gov/docs/ceq-publications/nepa25fn.pdf.

50. Philip K. Howard, *Two Years, Not Ten Years: Redesigning Infrastructure Approvals*, Common Good, September 2015, https://static1.squarespace.com/static/5db4d0eacb29b173254203d2/t/5fd39d3ac4a2b267e284960c/1607703867904/2YearsNot10Years.pdf.

51. Liscow, "Getting Infrastructure Built."

52. University of Montana, O'Connor Center for the Rocky Mountain West, and University of Wyoming, Institute for Environment and Natural Resources, *Reclaiming NEPA's Potential: Can Collaborative Processes Improve Environmental Decision Making?*, March 2000, 13, https://www.uwyo.edu/haub/_files/_docs/ruckelshaus/pubs/1999-reclaiming-nepas-potential.pdf.

53. James S. Fishkin, "Random Assemblies for Lawmaking? Prospects and Limits," *Politics and Society* 46, no. 3 (2018): 359–79, https://doi.org/10.1177/0032329218789889.

54. Zachary Liscow and Daniel Markovits, "Democratizing Behavioral Economics," *Yale Journal on Regulation* 39, no. 3 (2022): 1217–90.

55. Jim Rossi and Kevin Stack, "Representative Rulemaking," *Iowa Law Review* 109, no. 1 (2023): 1–50.

56. Paul Sabin, *Public Citizens: The Attack on Big Government and the Remaking of American Liberalism* (W. W. Norton, 2021).