S. HRG. 118–703

OPPORTUNITIES TO IMPROVE PROJECT REVIEWS FOR A CLEANER AND STRONGER ECONOMY

HEARING

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

ONE HUNDRED EIGHTEENTH CONGRESS

FIRST SESSION

APRIL 26, 2023

Printed for the use of the Committee on Environment and Public Works

Available via the World Wide Web: http://www.govinfo.gov

U.S. GOVERNMENT PUBLISHING OFFICE

61–391 WASHINGTON : 2025

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED EIGHTEENTH CONGRESS
FIRST SESSION

THOMAS R. CARPER, Delaware, *Chairman*
SHELLEY MOORE CAPITO, West Virginia, *Ranking Member*

BENJAMIN L. CARDIN, Maryland
BERNARD SANDERS, Vermont
SHELDON WHITEHOUSE, Rhode Island
JEFF MERKLEY, Oregon
EDWARD J. MARKEY, Massachusetts
DEBBIE STABENOW, Michigan
MARK KELLY, Arizona
ALEX PADILLA, California
JOHN FETTERMAN, Pennsylvania

KEVIN CRAMER, North Dakota
CYNTHIA M. LUMMIS, Wyoming
MARKWAYNE MULLIN, Oklahoma
PETE RICKETTS, Nebraska
JOHN BOOZMAN, Arkansas
ROGER WICKER, Mississippi
DAN SULLIVAN, Alaska
LINDSEY O. GRAHAM, South Carolina

COURTNEY TAYLOR, *Democratic Staff Director*
ADAM TOMLINSON, *Republican Staff Director*

C O N T E N T S

OPPORTUNITIES TO IMPROVE PROJECT REVIEWS FOR A CLEANER AND STRONGER ECONOMY

WEDNESDAY, APRIL 26, 2023

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The committee, met, pursuant to notice, at 9:57 a.m. in room 406, Dirksen Senate Office Building, Hon. Thomas R. Carper (chairman of the committee) presiding.

Present: Senators Carper, Capito, Cardin, Whitehouse, Merkley, Markey, Kelly, Fetterman, Cramer, Lummis, Wicker, Sullivan, Ricketts.

OPENING STATEMENT OF HON. THOMAS R. CARPER, U.S. SENATOR FROM THE STATE OF DELAWARE

Senator CARPER. Now, we are going to have a hearing. We welcome our witnesses. I am going to tap this gavel again, just to make it official. We call this hearing to order.

We are here. I just want to say a special welcome to Senator Fetterman. We are delighted that you could join us, and we are happy to see you and all of our other colleagues.

We are here to discuss an important, timely topic: opportunities to reform the Nation's environmental review and permitting processes in a way that supports our transition to a clean energy economy and the good-paying jobs that come with it. As we look for new opportunities, it is also helpful to understand what we have already accomplished. It is actually quite a bit.

Over the past two years, Congress and this committee in particular have been incredibly productive. That includes passing a once-in-a generation investment to help rebuild our infrastructure, our roads, our highways, our bridges, our water systems, our water sanitation systems, ports, access to the internet, you name it. We have done a lot of stuff, and we are very, very proud of it. I know that Senator Capito is, as well.

We have also made the largest investment ever to combat climate change. Much of the work that we have done has been bipartisan, I am proud to say. It was led by this committee.

Now, we need to work to implement these laws without delay. That is our intent. Why is it important that we move without delay? As many of our colleagues know or those that might be tuned in, watching this or listening know, a recent report by the United Nations Intergovernmental Panel on Climate Change found

that our planet is currently on a path to reaching 1.5 degrees Celsius in global warming within the next decade, a critical tipping point in our ability to address climate change.

Fortunately, we have made significant progress in supporting clean energy projects across our Country and improving the permitting process without undermining bedrock environmental protections.

In the Bipartisan Infrastructure Law, we made the Federal Permitting Improvement Steering Council permanent, and we expanded its authorities to reduce permitting timeline for large infrastructure projects. Doing so will reduce the time that it takes to build critical infrastructure.

In the Inflation Reduction Act (IRA), we provided $1 billion to the Federal agencies tasked with completing these reviews and permits. These additional resources will address longstanding agency challenges and help expedite timelines.

We know that these tools will make a difference. For example, the Federal Permitting Improvement Steering Council improves efficiency through better communication, better coordination, and dispute resolution. Importantly, it does so without undermining or altering any statutory or regulatory requirements.

This early coordination makes a clear difference in timelines. Between 2010 and 2018, the average time across all agencies for a project to complete an Environmental Impact Statement was 4.5 years. In contrast, the average time for projects that went through the Fixing America's Surface Transportation Act—Title 41 (FAST–41) process was 2.5 years. From 4.5 years to 2.5 years under the FAST–41.

There are also examples of how the National Environmental Policy Act, NEPA, improves community outcomes. I will just use an example from Michigan. In Michigan, the Department of Energy was completing NEPA at a site for a potential vehicle battery manufacturing facility. Through that process, they learned of dioxin contamination in the soil. As a result of NEPA, the Department of Energy incorporated mitigation controls to minimize the exposure for workers and children at a nearby daycare facility during construction.

The private sector has a role to play as well. We know many American businesses are already working hand-in-hand with communities in the U.S. For example, in my native West Virginia, Clearway Energy Group has established a community benefit fund that has provided roughly $180,000 in grants for projects and programs in the communities surrounding the 23-turbine wind farm. The company also established a project labor agreement to ensure that construction jobs would go to the local labor force. These steps help build support for future projects to bring more reliability to the electric grid.

Still, I am a firm believer that if something is not perfect, let us make it better. I have said that a billion times. If it isn't perfect, make it better. My wife is still looking for what should go on my tombstone. I have done a lot of work on postal issues. I have always thought that "return to sender" would be pretty good. Another one that would be pretty good would be "if it is not perfect,

let us make it better." Maybe we could do multiple choice or rotate from week to week. We will see.

There is more that Congress can and must do to improve our Nation's environmental review procedures and connect clean energy infrastructure to the grid. To paraphrase my friend, a fellow some of us know pretty well, Hal Harvey, and this is what Hal likes to say, "Markets are good at addressing 90 percent of our problems. It is up to those of us in government to work on the other 10 percent." Thank you, Hal Harvey.

We know that one of these challenges is connecting clean energy to the grid. A recent study by Lawrence Berkley National Lab found that our Nation has two terawatts of renewable energy capacity such as solar, such as wind, and including battery storage that are waiting to connect to the grid, waiting to connect to the grid. To put that figure in perspective, the total capacity of all existing power plants in the United States is currently 1.25 terawatts. That is almost double the amount of energy capacity we have today.

Unfortunately, that same study also found that only one in five transmission projects seeking to connect to the grid from 2000 to 2017 was operational by the end of 2022. I am going to say that again. That same study also found that only one in five transmission projects seeking to connect to the grid from the year 2000 to the year 2017 was operational by the end of 2022. This report doesn't account for the clean energy investments that are in development now as a result of the Federal investments passed by the last Congress.

To me, I think it is clear that we are at a crossroads. Some of you are old enough to remember Yogi Berra. He was a very funny guy and a catcher for the New York Yankees, hall of famer, and he said a lot of funny things. One of my favorite Yogi Berra quotes is, "When you come to the fork in the road, take it." Thank you, Yogi Berra. When you come to the fork in the road, take it.

It is clear to me that we are at a crossroads. We need to find a way to bring massive amounts of clean energy onto our grid to mitigate the climate crisis. At the same time, we must make sure that communities have a voice in the buildout of critical infrastructure.

I believe that this balance is what separates us from countries like India or countries like China. As a recovering Governor, some of us on this committee know what that is like, I know we can build infrastructure and create economic opportunity while also protecting the air we breathe, the water we drink, and the communities that we call home from pollution.

If we are going to make lasting changes to the authorities and procedures for environmental reviews and permits, the legislation must be bipartisan. As Senator Capito has heard me say more than she wants to remember, bipartisan solutions are lasting solutions. As it turns out, that is true.

The legislation before us also needs support from a broad coalition of stakeholders, from industry to environmental groups. We have pretty good representation here today of that population.

To me, a bipartisan permitting reform package must do three things. I will mention them. The first one is, it must result in lower

emissions, not higher emissions, across our economy while also maintaining the fundamental protections provided by our Nation's bedrock environmental statutes. Second, a bipartisan permitting proposal must support early and meaningful community engagement in the development of projects, especially engagement with historically disadvantaged and underserved communities. Third, the legislation must provide businesses, in particular, clean energy businesses with certainty, predictability to help unlock economic growth and job creation across our Country.

I ended up coming out of the Navy, moved to Delaware. We got an MBA and went to work right away in the Delaware Division of Economic Development. I worked there about six months, until we had elections and nobody wanted to run for State treasurer, so I ran for State treasurer at the age of 29. The six-months or so that I spent in the Division of Economic Development, if I learned nothing else, I learned businesses like certainty and predictability. We are not going to put that on my tombstone. We could probably put it on a number of tombstones around the Country, and a lot of folks would say amen to that. That would be the third thing that we are looking for.

With that, I look forward to hearing the perspectives of each of our witnesses here with us today. Before we do that, let me turn to Ranking Member Senator Capito for her opening statement.

I just want to say how much I appreciate your willingness and that of your staffs to work with the folks on the majority side to get us to a good place in this legislation. It is really important.

Thanks so much.

OPENING STATEMENT OF HON. SHELLEY MOORE CAPITO, U.S. SENATOR FROM THE STATE OF WEST VIRGINIA

Senator CAPITO. Sure. Thank you, Chairman Carper. Thank all of you for being here for today's hearing.

I do appreciate your willingness to start this conversation in the committee, and I look forward to working on the process in the coming months on our bipartisan solutions.

This committee has been, I think, one of the most effective out of any in the Senate in moving legislation over the past couple of years via regular order, and that has been a result of our collaboration, our staff, the work of our members to seek bipartisan solutions, and abiding by the committee process.

I thank you for renewing that approach again, because we know it works, so that we can make sure that the environment and economic benefits from a functioning Federal permitting process can be seen, and that effort kicks off today.

I also, again, want to thank the panel of witnesses. We are eager to hear from all of you on how we can improve the environmental review and permitting process to revitalize our economy, reduce prices for consumers, create good-paying jobs for all Americans, and rapidly build out the infrastructure, energy, manufacturing, and mineral resources that we so sorely need.

For far too long, projects of all sorts have gotten stuck in a purgatory that is the Federal environmental review and permitting process. If they make it through that with a permit, they face the

certain threat of lawsuits, even if those didn't start even earlier in the process.

The problems with the process, they do not just impact sponsors. They harm American workers and consumers with lost jobs, higher energy prices, traffic congestion, more pollution, and many other missed opportunities that result from the failure to modernize infrastructure and energy systems. These costs to the American people are sort of hidden and diffuse.

Since there is no line item on a receipt that you get that you can easily see or quantify them, that has allowed us to become a bit complacent, I believe, but make no mistake, these regulatory obstacles are kind of a tax on American prosperity and hamper the environmental and economic progress we want to see pass on to future generations.

The goal of this hearing is to better understand those costs, identify some of the greatest pressure points and obstacles in the process, and hear ideas on how to address them in understandable terms from the folks that have to navigate all of this.

It is our role as elected officials to take this feedback and explain to our fellow Americans what we are actually doing, what the stakes are, and why improving this process goes hand in hand with ensuring environmental protection and economic growth.

In my home State of West Virginia alone, there are multiple real-world examples of how our broken environmental review and permitting process is holding up critical projects across multiple sectors important to West Virginians, but also to our national economy. In our transportation sector, Corridor H, in our manufacturing sector, Nucor, and in our energy sector, Mountain Valley Pipeline.

This is not only a West Virginia story that we are going to hear today. Projects across the Country of National significance are also stuck in the regulatory and legal no-woman's land.

Job-creating projects continue to be bogged down by red tape, judicial review holdups, starts and stops that cause delay, delay, delay, and sometimes total abandonment of the projects. Every State has stories like these in urban as well as rural areas.

We will not be able to onshore the industries critical to our international competitiveness and national security without getting this right. A generational investment in transportation infrastructure that we worked so hard on in this committee on the Infrastructure Investment and Jobs Act (IIJA) is running up against the wall of our Nation's permitting issues, delaying project delivery and letting inflation eat away at the funding that we provided.

Where do we start, and how do we fix this broken system? I believe we need permitting reform that benefits all projects, not just a small subset of projects that are politically favorable to one group or another. We need enforceable timelines with clear time limits and predictable schedules for environmental reviews and consequences when agencies fail to act in a timely fashion. We need to process and decide legal challenges to projects expeditiously instead of continuing to drown in endless litigation.

To make the substantive changes I am describing, we must actually amend the statutes in our jurisdiction, including the Clean Water Act, the Clean Air Act, and NEPA. Window-dressing the ex-

isting failed system, if all we do is window-dress the failed system, it is not an option. We are not getting anywhere. Unless Congress and President Biden work together to make these substantive reforms, the impact of the IIJA, the Creating Helpful Incentives to Produce Semiconductors (CHIPS) Act, and other Federal investments will be severely reduced while projects await approvals.

I have said before, and I will say it again, I believe we get the best solutions and the needed reforms by going through regular order in a bipartisan committee process, like we see today. At the end of an honest negotiation, neither side will get exactly what it wants, and we all know that.

Chairman Carper, you and I have found ways to find common ground and report out of the committee. We just did it today in our recycling bills. Meaningful legislation and other challenging policy areas, we have done this before, and I am confident that we can make it happen here.

As you like to say, here is one of your sayings, I have been here long enough to get a couple of your sayings, you and I are workhorses; we are not show horses. The American people will get a lot in return for decades to come and be saved from the hidden tax of red tape and bureaucracy if we on this committee can work together, as we have before, on real, implementable reforms.

That is what I intend to do in working with you and our colleagues on both sides. I look forward to kicking off these conversations today.

Thank you.

Senator CARPER. I like that. Workhorses, not show horses. The idea of a no-woman's land, that would be a pretty bleak place to live. I do not know if I would want to go there. Thank you for your opening statement.

Now, we are going to turn to our witnesses. My staff was kind enough to give me a script, if you will, to introduce you. It starts off with, we will now turn to our esteemed panel, esteemed panel. Then they had some internal discussion. They said, instead of saying esteemed, how about brilliant? We went back and forth on that. Finally, we decided we would use legendary.

[Laughter.]

Senator CARPER. Anyway, we are delighted that you are all here with us today. We are grateful for your willingness to join us to discuss a very important topic. This is really big stuff. We worked on Kigali, with the Montreal protocol to sort of set the example and show how we can work as a business community, environmental community and do really good things and create a lot of jobs. I think we have the opportunity to do that here as well.

In a few minutes, we are going to hear from you in this order: leadoff hitter, the baseball season, leadoff hitter is Christy Goldfuss. She is Chief Policy Impact Officer of the Natural Resources Defense Council, affectionately known as NRDC.

Second, we are going to hear from Dana Johnson, Dana, good morning, Senior Director of Strategy and Federal Policy at WE ACT for Environmental Justice.

Third, we are going to hear from Christina Hayes, Executive Director of Americans for a Clean Energy Grid.

Next, we are going to hear from Jay Timmons, Jay, good morning, President and CEO of the National Association of Manufacturers.

Last but not least, he introduced me, actually, he introduced Senator Capito and I think Senator Manchin to a National U.S. Chamber of Commerce event a week or two ago. Thanks for that great introduction. I am afraid I do not have the ability to give one quite as uplifting as the one you gave me, but just know that we are delighted that you are here. We welcome you warmly to testify before this committee.

We are going to begin our witness testimony today with Ms. Goldfuss. Please proceed with your statement when you are ready. Thank you. Go right ahead.

STATEMENT OF CHRISTY GOLDFUSS, CHIEF POLICY IMPACT OFFICER, NATURAL RESOURCES DEFENSE COUNCIL

Ms. GOLDFUSS. Good morning. Legendary, that is a pretty high bar, so I am making no promises. Thank you, Chairman Carper, and thank you, Ranking Member Capito, for the opportunity to testify today.

My name is Christy Goldfuss. I am the Chief Policy Impact Officer for the Natural Resources Defense Council.

NRDC is a nonprofit organization of scientists, lawyers, and environmental experts dedicated to protecting public health and the environment. Previously, I served as the Managing Director at the Council on Environmental Quality (CEQ) and as Senior Vice President for Energy and Environment Policy at the Center for American Progress.

I would like to thank the members of this committee for your leadership is passing the IRA, which is providing unprecedented investments in U.S. energy systems and is our strongest tool for halting climate crisis and creating a path to a clean energy future that benefits everyone.

Any attempt to roll back IRA would be devastating to the clean energy transition that is already providing hundreds of thousands of good-paying jobs as well as important climate and health benefits to millions of Americans.

To deliver on the promise of IRA, we need to build clean energy projects at much greater speed and scale. By 2035, the U.S. needs to build over 500 gigawatts of renewable electricity and storage, and we need to double the rate of buildout of the U.S. electric transmission system.

To unluck this renewable revolution, the U.S. must shift the value proposition around clean energy deployment and transmission and move to a model that delivers more benefits directly to the communities that host this clean energy infrastructure while providing the benefits of clean energy to everyone. This shift will lead to less opposition and therefore faster timelines for getting clean energy projects and transmissions deployed at scale.

I want to briefly highlight NRDC's recommendations covering four major topics: streamlining clean energy permitting, improving the process for permitting and siting large, interState transmission lines, utilizing smart-from-the-start planning, and addressing local barriers to clean energy projects.

I would like to say that broad claims that the permitting process, the whole process, is broken and that NEPA is the problem are not borne out by the facts. Even oil and gas industry experts this week were quoted, saying they fear that there was a permitting myopia with too much attention on NEPA in particular.

That said, there are ways of improving, making the system better, if not perfect. Agencies should be encouraged to make greater use of programmatic Environmental Impact Statements (EISs) to move toward a design one-build many model that decouples broad swaths of the environmental review process from individual project timelines, and CEQ should continue efforts centered on sector-specific engagement to identify targeted efficiency gains for agencies that are part of the clean energy permitting process.

Let me shift to transmission, because this is really a key part of the problem. Lack of transmission is a critical barrier to accelerating renewable energy buildout. Currently, although transmission planning happens under Federal Energy Regulatory Commission (FERC) regulation, the permitting for all transmission lines happens at the State and the local level, meaning that every State, effectively, has veto power over transmission lines that pass through their jurisdiction.

FERC does have backstop authority to site lines within corridors of national interest, which DOE must designate. FERC and DOE should move quickly under this strengthened authority to designate new national interest corridors.

Even when large transmission projects are planned, allocating the costs of such projects is challenging. If FERC does not act to broadly allocate these costs, Congress should pass legislation requiring FERC to adopt cost allocation rules that holistically reflect the multiple benefits of transmission.

Next, I want to stress the importance of early planning. Utilizing smart-from-the-start planning means planning and siting development in ways that minimizes potential impacts and conflict before project-by-project permitting even begins. It includes applying the science, guidance, and best practices to address both environmental and community concerns.

The Federal Government should be encouraged to partner with State agencies to develop and share the best available data, best management practices, mitigation options, and guidance. Federal agencies also should ensure that funds from IRA earmarked for planning are implemented in a way that helps States and localities in their planning and permitting processes.

Finally, some of the strongest opposition that we are seeing and barriers to developing large-scale wind and solar and transmission lines at speed and scale originate at the community level. States should be encouraged to adopt siting and permitting laws that will ensure an efficient process for approving projects while also providing thorough environmental review and ensuring community engagement and benefits to those host communities. We can do it all.

IRA creates a tremendous opportunity to chart a path to a clean energy future that benefits everyone. By implementing these recommendations, we can make this clean energy future a reality.

Thank you for inviting me to testify, and I look forward to your questions.

[The prepared statement of Ms. Goldfuss follows:]

Written Testimony to the

Committee on Environment and Public Works

Legislative Hearing on Opportunities to Improve Project Review For a Cleaner, Stronger Economy,

U.S. Senate

Christy Goldfuss
Chief Policy Impact Officer
Natural Resources Defense Council
April 26, 2023

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

I. Overview

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

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

We can and must do this in a way that builds wealth in underserved communities, cleans the air and water in communities currently being polluted by fossil fuels, and protects and restores wildlife

habitat, sensitive lands, and critical ecosystems currently threatened by the impacts of climate change.

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

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

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

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

Congress has already accomplished a tremendous amount to encourage the clean energy transition. Thus, many of my recommendations are for the executive branch and for states. However, there is more for Congress to do, and NRDC looks forward to working with the Committee on these important measures.

II. The Inflation Reduction Act Presents a Historic Opportunity to Build a Strong Clean Economy in the United States that Benefits All Americans

With the passage of the Inflation Reduction Act (IRA), the United States has a once in a generation opportunity to dramatically cut U.S. greenhouse gas (GHG) emissions by replacing a huge amount of fossil fuel energy with clean energy. If fully realized, by 2035, this unprecedented investment in the U.S. energy system will lead to increasing renewable energy and storage deployment by nearly four-fold over today's levels.[1] This clean electricity will drive out over 50 percent of the coal combustion and 17 percent of the natural gas we currently burn, reducing U.S. power sector annual CO_2 emissions by 80 percent compared to 2005 levels.[2]

The massive clean energy investments from IRA have the potential to have a profound positive impact on the lives of people across the country. Taken as a whole, the IRA, which supports a range of clean energy investments across all sectors—transportation, industry, buildings, and power—will save thousands of lives annually. It is projected that by 2035, over 9,500 fewer people will die from air pollution each year, and cumulatively 63,000 premature deaths will be avoided over the next 13 years.[3] During this period, the law is projected to create over 2.3 million new energy sector jobs.[4] The IRA's clean electricity tax credits will save U.S. households $60 billion on electricity bills over the next 15 years.[5]

To deliver on the promise of the IRA, the United States needs to build clean energy projects at much greater speed and scale. By 2035, the U.S. needs to build approximately 564 gigawatts of renewable electricity and storage.[6] That means doubling the rate of buildout of the U.S. electric transmission system while simultaneously shifting to building larger, interstate transmission lines instead of the small local lines that are mostly built today.[7] And the U.S. must seize this opportunity to build a clean energy future that benefits all Americans. And as my testimony describes below, these projects must be compatible with the goals of dramatically increasing conservation of critical ecosystems and wildlife and helping to redress our nation's history of systemic environmental racism and deepening climate inequality.

III. Specific Recommendations for Improving the Planning and Permitting Process

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

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

---

[1] "Clean Electricity Tax Credits in the Inflation Reduction Act Will Reduce Emissions, Grow Jobs, and Lower Bills" (NRDC, 2022), https://www.nrdc.org/sites/default/files/clean-electricity-tax-credits-inflation-reduction-act-ib.pdf.
[2] Jesse D Jenkins et al., "Electricity Transmission Is Key to Unlock the Full Potential of the Inflation Reduction Act" (ZERO Lab: Princeton University, September 2022), https://repeatproject.org/docs/REPEAT_IRA_Transmission_2022-09-22.pdf.
[3] *See id.* at slide 18.
[4] *See id.*
[5] "Clean Electricity Tax Credits in the Inflation Reduction Act Will Reduce Emissions, Grow Jobs, and Lower Bills at 1.
[6] *See id.* at 6.
[7] Jenkins et al., "Electricity Transmission Is Key to Unlock the Full Potential of the Inflation Reduction Act."

economywide by 2050, broad claims that the system is "broken" are not helpful in identifying solutions. A survey of the Department of Defense, Department of the Interior, and Forest Service found that factors outside of the National Environmental Policy Act (NEPA) process (such as permits controlled by other agencies) were responsible for delays 68-84% of the time and that one of the strongest indicators of NEPA review duration was the adequacy of agency staffing and the complexity of the issues that a project presented.[8] This means that arbitrarily requiring shorter page limits or timelines for an Environmental Impact Statement (EIS) will do little to speed up the review of complicated projects and may instead lead to more poorly documented decisions and, thus, more legal risk.[9]

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

According to analysis of 16 years of U.S. Forest Service decision-making under NEPA, two important sources of delays on the part of federal agencies in reaching final decisions are the lack of staff generally and the lack of staff who are considered experts.[10] There are currently more than 1,000 vacancies at federal agencies.[11] While the IRA provides approximately $1 billion for project planning and permitting, the Biden administration must first fill the large number of vacancies left by the previous administration and then build up additional agency staffing to ensure that these projects can be reviewed and permitted in a timely manner.

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

IRA and Infrastructure Investment and Jobs Act (IIJA) funds should be used to augment agency capacities with a focus on what will be most effective to speed planning and permitting of renewables and transmission. Investments should be directed towards greater agency transparency and accountability (*e.g.*, the Federal Infrastructure Permitting Dashboard[12]) and coupled with clear

---

[8] John C. Ruple, Jamie Pleune, and Erik Heiny, "Evidence-Based Recommendations for Improving National Environmental Policy Act Implementation," *Columbia Journal of Environmental Law* 47, no. S (April 11, 2022), https://doi.org/10.52214/cjel.v47iS.9479.

[9] Sud and Potnaik, *How Does Permitting for Clean Energy Infrastructure Work?*, https://www.brookings.edu/research/how-does-permitting-for-clean-energy-infrastructure-work/.

[10] *See* "Evidence-Based Recommendations for Improving National Environmental Policy Act Implementation" at 306-10.

[11] Zack Colman, "GOP to Energy Companies: We're Here to Help. Industry: Meh.," POLITICO, March 20, 2023, https://www.politico.com/news/2023/03/20/republicans-energy-infrastructure-permitting-00087899.

[12] "Federal Infrastructure Permitting Dashboard," accessed April 9, 2023, https://www.permits.performance.gov/.

and upfront direction on expectations for timelines, agency coordination including lead agency authority, and early access to accurate and current data on land, water, and wildlife resources. Practices like early stakeholder engagement and pre-application meetings have contributed to a more efficient permitting process within the FAST-41 program and should be encouraged.

NRDC encourages the Federal Permitting Improvement Steering Council (FPISC) to take full advantage of its authority to disburse a portion of the $350 million that it received from the IRA to facilitate permitting coordination with Tribes and states in permitting processes, as it has begun to do.[13] FPISC's Executive Director also should use the discretion that the IIJA provided her to track many of the smaller—but vitally important—clean energy projects on the Permitting Dashboard in the interest of transparency. The President's proposed FY24 budget, particularly for the FPISC, would make important and impactful investments in these directions.[14]

Agencies should also be encouraged to make greater use of programmatic EISs to move toward a "design one, build many" model that decouples broad swaths of the environmental review from individual project timelines.[15] A programmatic EIS can essentially do much of the work ahead of time and be incorporated in multiple project-level EISs by reference through a process known as tiering. By relying on a well-established public process, an agency can analyze issues across a landscape, technology, and/or species impact, for example, and then provide options and guidelines for addressing concerns (*e.g.,* mitigation measures or best management practices) that individual project proponents and agencies can later rely on without having to start from scratch. Several utility scale solar projects have been approved in a matter of months that were tiered to a programmatic EIS. In fact, the average permitting time for solar projects sited in solar energy zones went from 20.1 months to 9.7 months.[16]

In the broader federal permitting context, CEQ should continue efforts centered on sector specific engagement to identify and facilitate targeted efficiency gains for agencies that are part of the permitting process for clean energy projects. As noted above, significant dividends can be gained because coordination among agencies is often the source of permitting delay. NRDC further encourages the Bureau of Land Management to fully staff up the recently reestablished Renewable Energy Coordinating Offices, as Congress required in the Energy Act of 2020.[17] During the Obama

---

[13] *See* "Federal Permitting Improvement Steering Council Tribal Consultation on Funding Transfers to Tribal Nations for FAST-41 Projects – United South & Eastern Tribes," accessed April 20, 2023, https://www.usetinc.org/event/federak-permitting-improvement-steering-council-tribal-consultation-on-funding-transfers-to-tribal-nations-for-fast-41-projects/2023-02-16/.

[14] "FY24 Budget Request" (Federal Permitting Improvement Steering Council, 2024), https://www.permits.performance.gov/sites/permits.dot.gov/files/2023-03/FPISC%20FY24%20Budget%20Request%20FINAL_0.pdf.

[15] Anderson, Greig, and Ebert, *From Ambition to Reality*, https://www.worley.com/our-thinking/from-ambition-to-reality.

[16] "Solar Project Permitting Time Cut in Half When inside Solar Energy Zone | The Wilderness Society," accessed April 20, 2023, https://www.wilderness.org/articles/blog/solar-project-permitting-time-cut-half-when-inside-solar-energy-zone.

[17] "Department of the Interior Announces Steps to Increase Clean Energy Development on Public Lands," June 1, 2022, https://www.doi.gov/pressreleases/department-interior-announces-steps-increase-clean-energy-development-public-lands.

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

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

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

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

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

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

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

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

[18] "16 U.S. Code § 824p - Siting of Interstate Electric Transmission Facilities," LII / Legal Information Institute, accessed April 8, 2023, https://www.law.cornell.edu/uscode/text/16/824p.
[19] Department of Energy, "National Transmission Needs Study - Draft for Public Comment (February 2023)," 2023, https://www.energy.gov/sites/default/files/2023-02/022423-DRAFTNeedsStudyforPublicComment.pdf.

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

FERC must also do a better job implementing its siting and permitting responsibilities with transmission than it has done with fossil gas infrastructure. FERC's gas permitting process essentially rubber stamps nearly all projects and has been found illegal in multiple court cases.[20] FERC should perform more robust environmental reviews and provide stronger landowner protections in siting transmission, including: 1) ensuring it accurately defines all impacted environmental justice communities, 2) assessing the impacts on environmental justice communities, 3) measuring changes in GHG emissions under NEPA, and 4) providing plain language public notice to all affected landowners and a meaningful opportunity for comment.

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

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

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

[20] "Opening Comments of Public Interest Organizations on Certification of New Interstate Natural Gas Facilities and Consideration of Greenhouse Gas Emissions in Natural Gas Infrastructure Project Reviews" (Sustainable FERC Project, April 25, 2022), https://sustainableferc.org/wp-content/uploads/2022/04/2022-04-25_Final-PIO-Comments.pdf.

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

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

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

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

NRDC was a core member of the California Desert Renewable Energy Working Group, a collaborative effort comprised of representatives of the renewable energy industry, electric utility sector, and environmental community that developed joint recommendations and significantly shaped DOI and DOE's 2009 Solar Programmatic Environmental Impact Statement (Solar PEIS) as well as the California Desert Renewable Energy Conservation Plan.[21] These two efforts embraced "Smart from the Start" planning and demonstrated a proof of concept for balancing protections for ecosystems, landscapes, and species while supporting the timely development of renewable energy resources in the California desert.

[21] The Desert Renewable Energy Conservation Plan (DRECP) was a joint federal state planning effort to balance clean energy and conservation in the Desert District of the Bureau of Land Management. Under the DRECP, three projects broke ground this past summer and two others reached completion. *See* https://www.blm.gov/press-release/biden-harris-administration-announces-full-operation-california-solar-project-will. The BLM's approved plan identifies 388,000 acres of Development Focus Areas (DFAs) designed to prioritize renewable energy development, as well as more than 400,000 additional acres where renewable energy can be considered. *See* https://www.energy.ca.gov/sites/default/files/2019-12/DRECP_FAQs_ada_0.pdf.

"Smart from the Start" is designed to make permitting more efficient and to protect high-value lands by strategically focusing on regional or landscape level mitigation efforts. These larger mitigation efforts often produce greater conservation outcomes than disparate project-level mitigation. While the Biden administration appears poised to continue "Smart from the Start" for the public land holdings given BLM's reopening of the aforementioned Solar PEIS to update and improve it, more can be done, particularly with respect to private lands and offshore wind.

We need more resources and agency expertise to incentivize broader state and landscape-level planning efforts that facilitate early identification of protected areas, mitigation requirements, and low conflict development zones. As an example, through its RE-Powering Initiative, EPA has identified and mapped more than 11,000 potentially contaminated sites, representing nearly 15 million acres with renewable energy potential.[22] Siting renewables can also be an economic development strategy, *e.g.*, by building these projects on unproductive agricultural land.[23] DOE and EPA should work with other agencies (such as USDA and DOI) and states to identify contaminated sites and non-viable agriculture land where renewable energy development would be preferred by the local community and practical for developers.

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

In the offshore wind context, NRDC has focused on developing a suite of science-based environmentally protective measures and monitoring recommendations to ensure a strong start for the industry. We worked with industry and other conservation partners to design measures to protect the endangered North Atlantic Right Whale and to address other ocean ecosystem protections for the Block Island wind project, a demonstration project which was the first ever U.S. offshore wind project.[24] We helped create similar agreements for two of the first U.S. large-scale offshore wind projects, Vineyard Wind 1 and South Fork Wind (both of which are currently under construction). These efforts helped set an early standard for responsible offshore wind in the United States. Lessons learned further underscore a significant need for broader adoption of science-based standards and guidance on key measures to avoid, minimize, and mitigate environmental impacts; robust offshore wind monitoring and research programs for a range of

[22] "Handbook on Siting Renewable Energy Projects While Addressing Environmental Issues" (US Environmental Protection Agency, April 2015), https://www.epa.gov/sites/default/files/2015-04/documents/handbook_siting_repowering_projects.pdf.
[23] *See e.g.*, Dustin Pearce et al., "A Path Forward: Identifying Least-Conflict Solar PV Development in California's San Joaquin Valley" (Center for Law, Energy & the Environment (CLEE), University of California, UC Berkeley School of Law and the Conservation Biology Institute, May 2016), https://www.law.berkeley.edu/wp-content/uploads/2016/05/A-PATH-FORWARD-May-2016.pdf.
[24] "Made in America: First U.S. Offshore Wind Project Now Online," December 12, 2016, https://www.nrdc.org/bio/kit-kennedy/made-america-first-us-offshore-wind-project-now-online.

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

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

D. Overcoming Local Barriers to Clean Energy Projects

Importantly, some of the strongest opposition and barriers to developing large-scale wind and solar and transmission lines at speed and scale originates at the community level and must be addressed by state and local solutions. Community opposition to large-scale wind and solar projects is growing across the U.S. There are many reasons for this trend, including misinformation and disinformation about renewable energy,[25] concerns about project impacts, lack of community capacity to engage in planning and siting processes, and concerns that most of the benefits of projects flow outside of the community while the perceived burdens of the projects fall within. Communities often see hosting renewable energy projects as an impediment to achieving community goals such as creating quality jobs and economic development, preserving community identity and land preservation, and, in some cases, conservation goals. Consequently, an alarming number of communities are adopting restrictive zoning and land use ordinances that effectively ban the siting of large-scale clean energy projects.

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

Several states, including New York, California, and Washington, have enacted legislation that improves the siting process for large-scale renewable projects and provides potentially powerful models for similar legislation in other states.[26] Among other things, these laws streamline the

[25] For more information, see the reporting by Michael Thomas, including this story, *see* https://www.distilled.earth/p/meet-the-man-fueling-clean-energy (visited 3/15/23). *See also* Julia Simon, "In the Misinformation Wars, Renewable Energy Is the Latest to Be Attacked," *NPR*, February 15, 2022, https://www.npr.org/2022/02/15/1080773495/in-the-misinformation-wars-renewable-energy-is-the-latest-to-be-attacked; Julia Simon, "Misinformation Is Derailing Renewable Energy Projects across the United States," *NPR*, March 28, 2022, https://www.npr.org/2022/03/28/1086790531/renewable-energy-projects-wind-energy-solar-energy-climate-change-misinformation.

[26] *See* Exec. Ch. 18, Article 6, § 94-c (New York); Cal. Pub. Res. Code § 25545 *et seq.* (California); RCW 80.50.040 *et seq.* (Washington).

permitting process, explicitly provide benefits to host communities, and prevent localities from having unreasonable veto power over renewable projects. States should be encouraged to adopt model siting and permitting laws that expand community engagement while limiting the ability of localities to unreasonably ban all wind and solar projects.

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

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

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

IV. Conclusion

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

---

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

Senate Committee on Environment and Public Works

Hearing Entitled, *Opportunities to Improve Project Reviews for a Cleaner and Stronger Economy*

April 26, 2023

Questions for the Record for Christy Goldfuss

Senator Merkley

1. To the best of your knowledge, has any federal agency ever denied a permit or stopped a project on the basis of climate change?

Answer:

Current law – generally written long before the climate crisis came to the forefront - is not framed so as to facilitate or encourage agencies to make decisions with that consideration in mind. Hence, decisions by federal agencies to deny a permit based solely or primarily on the basis of climate change are rare. This is a problem that should be addressed through legal reform. However, the few examples where projects have been rejected due to climate concerns demonstrate that the law does not preclude this approach. For instance, in 2015 the Obama administration denied a permit for the Keystone XL pipeline, a proposed oil pipeline that would have transported oil from Canada to the United States. The decision was based, in part, on concerns about the project's greenhouse gas emissions and its potential impact on climate change. In 2021, President Biden again cited climate change impacts as the key basis for Keystone XL's final rejection based on significant evidence from prior agency reviews.

In 2016, the Obama administration canceled lease sales for oil and gas drilling in the Artic Ocean off the coast of Alaska. The decision was based, in part, on concerns over the potential environmental impacts, including the release of greenhouse gases from extracting and burning fossil fuels. In 2017, the Environmental Protection Agency announced that it would not issue permits for the proposed Pebble Mine in Alaska. In addition to concerns about the potential impact on the Bristol Bay watershed, which is a vital ecosystem for salmon and other wildlife, the decision addressed issues related to the release of carbon dioxide emissions from burning fossil fuels during mining operations. However, in the vast majority of cases, permits are not denied or otherwise stopped based solely or primarily because of a project's projected greenhouse gas emissions.

a. How are greenhouse gas emissions considered when agencies make a final determination on whether to grant a permit or take an action and are they ever determinative?

Answer:

Federal agencies are increasingly considering greenhouse gas emissions when evaluating whether to grant a permit or take an action. The National Environmental Policy Act (NEPA) requires federal agencies to consider the environmental impacts of their actions and has been interpreted to include a requirement to evaluate potential impacts on climate change. Agencies are

generally required to analyze the direct and indirect greenhouse gas emissions associated with a proposed action and assess the potential climate change impacts. NEPA also provides a platform for agencies to explore alternatives and mitigation measures that could reduce greenhouse gas emissions. More impactful projects require an Environmental Impact Statement (EIS), which evaluates the potential environmental impacts of a proposed action, including relevant greenhouse gas impacts. An EIS must generally consider direct emissions from construction activities, including operation of the project and transportation of materials, as well as indirect emissions resulting such as the downstream impact of burning fossil fuels extracted in a drilling or pipeline project. The analysis typically estimates the project's carbon footprint and its contribution to climate change. The Social Cost of Carbon (SCC) is an economic measure that quantifies the cost of carbon dioxide emissions in terms of their potential damages from climate change. Federal agencies may utilize the SCC to monetize greenhouse gas emissions in the permitting context. It helps account for the long-term impacts of greenhouse gas emissions and can influence decisions related to permit approvals and project actions. In some cases, high levels of emissions or significant contributions to climate change may lead to the denial of a permit or a proposed action.

b. Will the United States be able to meet its commitments under the Paris Agreement if it disregards climate change when we making permitting decisions?

Answer:

The Paris Agreement aims to limit global warming and mitigate the impacts of climate change by rapidly reducing greenhouse gas emissions and transitioning to a low-carbon economy. Infrastructure projects, particularly those related to energy, transportation, and construction, have significant implications for greenhouse gas emissions and overall environmental impacts. Failing to consider climate change when permitting such projects could result in approving projects that contribute to higher emissions or lock in long-term carbon intensive infrastructure. To meet its commitments under the Paris Agreement, the United States must prioritize sustainable and low-carbon infrastructure, particularly in the energy sector. By disregarding a project's impact on climate change when making permitting decisions, there is a high risk of approving projects that are not aligned with the goals of the Paris Agreement, making it more likely that the United States will not meet its commitments under it.

c. Will the United States be able to meet its commitments under the Paris Agreement if it never denies a fossil fuel permit on the basis of climate change?

Answer:

By disregarding a project's impact on climate change when deciding whether to deny a permit, there is a high risk of approving projects, including fossil-fuel powered projects, that are not aligned with the goals of the Paris Agreement, making it far more likely that the United States will not meet its commitments under it.

d. How would you recommend improving permitting to ensure that climate change is actually a basis for final permitting decisions?

Answer:

While there have been several instances where federal agencies have denied permits or halted projects due to issues related to climate change, decisions by federal agencies to deny a permit based solely or primarily on the basis of climate change are exceedingly rare. As the Biden administration seeks to meet its long-term and interim goals to reduce climate change-causing greenhouse gas emissions, including achieving 100 percent carbon pollution-free electricity by 2035 and achieving net-zero greenhouse gas emissions economywide by 2050, there are several steps that can be taken to ensure that climate change impacts are considered when final permitting decisions are made. For example, infrastructure projects should include comprehensive and robust environmental impact statements that include a thorough evaluation of a project's potential greenhouse gas emissions. As I indicated in my written testimony, permitting processes should promote meaningful stakeholder engagement throughout the permitting process. This engagement should include soliciting input from environmental experts, local communities, and other relevant stakeholders who can provide insight on climate change impacts. Steps should be taken to foster collaboration among relevant federal agencies, which should be encouraged to coordinate and share information to ensure that climate change considerations are integrated across different stages of the permitting process. Finally, permitting should take into account future climate change scenarios and projections when assessing the long-term viability and sustainability of infrastructure projects, including considering the potential risks associated with sea-level rise and increasingly common extreme weather events.

e. Do you believe there should be a climate test as part of the permitting processes for fossil fuel, petrochemical and other projects?

Answer:

Yes. Agencies need a tool or process to not only fully assess a given project's lifecycle greenhouse gas emissions, but also to contextualize that project's emissions impact in the context of climate change scenarios for limiting warming. Such a tool will allow agencies to determine to what extent a given project's emissions utilize remaining carbon budgets and to what extent the project may or may not be economically viable during its proposed operating life. As we near important temperature rise thresholds—and associated declining carbon budgets—this analysis becomes more and more crucial, as it allows decisionmakers to better understand the challenges individual projects may create for meeting important emissions targets and/or using up increasingly scarce pieces of ever-declining carbon budgets. This information will also help decisionmakers assess economic risks of projects, especially the risk of a project becoming a stranded asset that may imperil both private and public investors.

f. Should this committee include a climate test as part of any permitting reform package?

Answer:

Legislative permitting reform measures should be clear that a climate test is necessary to make scientifically sound and responsible decisions when it comes to energy infrastructure decisions in our executive branch agencies. The House Natural Resources Committee directed strong agency development of a climate screening tool in their *Public Lands and Waters Climate Leadership Act of 2022* (H.R. 8802, 117th) which we support. The approach first contends with the question of whether any new fossil energy development is consistent with interim climate targets

for 2030, 2035, and 2050, associated with limiting warming to 1.5°C and the current Administration's commitments. Then if, and only if, the relevant agency heads make this determination following development of a multi-stakeholder emission reduction strategy, the approach would still require agencies to administer a climate screening tool to analyze whether the lifecycle emissions of individual agency actions moving forward are also consistent with those goals. This committee could make similar recommendations to ensure such a tool is developed and utilized by agencies.

2. How does the permitting process consider the burden, or cumulative impacts, that frontline communities already face?

Answer:

By definition, NEPA analyses must assess cumulative effects, which are the impact on the environment resulting from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. Actions by federal, non-federal agencies, and private parties must be considered. Regarding frontline communities, Federal agencies must consider environmental justice in their activities under NEPA, which should include a robust analysis of cumulative impacts on those communities.

a. In your experience is this adequate to actually protect frontline communities?

Answer:

No. Cumulative impacts are not often fully addressed in NEPA documents due to the difficulty in understanding the complexities of these impacts, a lack of available information on their consequences, and the desire to limit the scope of environmental analysis. In addition, the common practice of categorically excluding whole tranches of federally approved or funded projects from robust environmental reviews under NEPA can result in a lack of consideration of cumulative impacts, compounded further by the fact that agencies in most instances do not provide the public any notice when an individual categorical exclusion has been issued.

b. Do you believe that New York's S8830 is a good model for incorporation cumulative impacts into permitting decisions? Why or why not?

Answer:

Yes, New York's cumulative impacts legislation is an important step towards remedying the environmental injustice of communities of color bearing a disproportionate pollution burden. The legislation, which has been enacted, reforms permitting processes to incorporate key environmental justice principles such that permit applicants must evaluate both the cumulative pollution burden on disadvantaged communities and measures to mitigate the impact of a facility. Importantly, the permitting authority must ensure that the facility will not cause, or contribute to, disproportionate pollution burden in disadvantaged communities.

c. How about the California Environmental Quality Act? Why or why not?

Answer:

CEQA is in principle an even better model than NEPA for incorporating information about greenhouse gases into permitting decisions, because CEQA – unlike NEPA – expressly requires mitigation of identified significant impacts. Unfortunately, agencies implementing CEQA are lagging behind federal agencies in robustly considering indirect project impacts such as from downstream combustion, but NRDC is working to change that.

d. What are your recommendations for ways that permitting reform should address cumulative impacts?

Answer:

Environmental justice communities have long been out front defining and calling for protections from cumulative impacts. For impacted communities, it's rarely just one thing – it's multiple sources, multiple exposures, multiple pollutants, and ultimately multiple impacts. The environmental laws we currently have do not define, measure, or include cumulative impacts in decision-making for permitting new pollution sources or enforcing or regulating those sources. To remedy this, we must center environmental justice communities and leaders who have the deep experience and expertise with this work when coming up with recommendations and solutions. In fact, cumulative impacts policy and advocacy work has already been happening across states led by environmental justice groups. Until we do this at the federal scale, the legacy of harm in environmental justice communities will continue.

3. What actions should the executive branch take using existing authority to expedite permitting, and what impact could that have on the clean energy deployment?

Answer:

Existing law gives the Federal Energy Regulatory Commission (FERC) and the Department of Energy (DOE) authority to permit certain large interstate transmission lines if a state fails to do so. Under authority that was strengthened by the Infrastructure Investment and Jobs Act, FERC has backstop authority to site lines within "corridors of national interest," which DOE must designate.[1] However, FERC can only act when states deny or do not act on a project after one year.

FERC and DOE should move quickly under this strengthened authority to designate new "national interest" corridors, using this process to plan transmission and engage communities early in the process. DOE has taken the first step of issuing a draft "transmission needs" study[2] and has also issued a request for information regarding how it should designate these corridors.[3] Once the study is finalized, DOE should provide clear guidelines for which types of projects qualify for such

[1] "16 U.S. Code § 824p - Siting of Interstate Electric Transmission Facilities," LII / Legal Information Institute, accessed April 8, 2023, https://www.law.cornell.edu/uscode/text/16/824p.
[2] Department of Energy, "National Transmission Needs Study - Draft for Public Comment (February 2023)," 2023, https://www.energy.gov/sites/default/files/2023-02/022423-DRAFTNeedsStudyforPublicComment.pdf.
[3] Dept. of Energy, National Interest Transmission Corridor Designation Process, https://www.energy.gov/gdo/national-interest-electric-transmission-corridor-designation-process.

designation. Meanwhile, FERC should finalize its proposed rules modifying its backstop siting regulations allowing it to start its pre-filing review of proposed lines in parallel with states.

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

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

4. Do you believe that the money provided in the Inflation Reduction Act for agencies to conduct analysis under the National Environmental Policy Act is adequate, or would more resources expedite the transition to renewable energy?

Answer:

The $1 billion for agency project planning and permitting in the Inflation Reduction Act was a historic investment that directly addresses what the data says is the primary cause of project delays: staffing and funding for permitting processes. While this investment represents a huge step forward in actually solving for the source of delays, it is not a permanent solution for several reasons. First, the funding is time constrained. Without a permanent allocation of ongoing funds to address the gaps mentioned above, agencies will run out of resources and face the same problems. Second, while IRA funds were directed toward key agencies that are responsible for the lion's share of NEPA analysis, there are agencies that were left out that will face shortfalls in staffing and funding. A more comprehensive approach is necessary to ensure that the permitting regime does not include agencies and programs that remain starved of the necessary resources to keep up with those agencies that received the IRA funds. Third, the data suggest that delays are most often caused by factors only tangentially related to NEPA, like inadequate agency budgets, staff turnover, delays receiving information from permit applicants, and compliance with other

[4] "Opening Comments of Public Interest Organizations on Certification of New Interstate Natural Gas Facilities and Consideration of Greenhouse Gas Emissions in Natural Gas Infrastructure Project Reviews" (Sustainable FERC Project, April 25, 2022), https://sustainableferc.org/wp-content/uploads/2022/04/2022-04-25_Final-PIO-Comments.pdf.

laws. What is clear is that improving agency capacity is the key approach to speeding up project timelines. Thus, additional resources to address these factors would only further benefit the clean energy transition. Finally, implementation is critical. While the $1 billion in IRA funds represents a game-changing approach to tackling permitting delays, effective implementation is necessary for this investment to be successful. IRA and Infrastructure Investment and Jobs Act funds should be used to augment agency capacities with a focus on what will be most effective to speed planning and permitting of renewables and transmission. Investments should be directed towards greater agency transparency and accountability (*e.g.*, the Federal Infrastructure Permitting Dashboard[5]) and coupled with clear and upfront direction on expectations for timelines, agency coordination including lead agency authority, and early access to accurate and current data on land, water, and wildlife resources. Practices like early stakeholder engagement and pre-application meetings have contributed to a more efficient permitting process within the FAST-41 program and should be encouraged.

5. Do you believe that the Environmental Justice for All Act should be a starting point for conversations about improving permitting?

Answer:

Yes, both the process and substance of the Environmental Justice for All Act are a model for conversations about improving permitting. The language was borne from many months of open and inclusive dialogue that specifically prioritized the voices of communities most affected by environmental and industrial changes. The legislation was meant to reflect their experiences and expertise by crafting meaningful and concrete improvements to our environmental protections systems including the consideration of cumulative impacts, community involvement, the ability to hold polluters accountable.

6. What, if any, sections from the House's HR.1 do you think should be components of permitting reform?

Answer:

Overall, H.R. 1 contains a number of provisions that would abandon foundational environmental protections under NEPA and other bedrock environmental laws, dim the voices of frontline communities, and lock in decades more dependence on fossil fuels. NRDC's objections to H.R. 1 include, but are not limited to, arbitrary page and time limits for NEPA analyses, exempting the use of categorical exemptions from judicial review (in effect rendering NEPA inapplicable under any circumstance when a categorical exemption was invoked), exempting the range of alternatives that an agency selects from judicial review, disallowing injunctive relief for NEPA violations (making NEPA a paper exercise), codifying Trump-era NEPA regulations, and exempting oil and gas projects from NEPA review. Were any of these provisions to become law, they would devastate NEPA's effectiveness at addressing environmental impacts of projects in an effective manner.

[5] "Federal Infrastructure Permitting Dashboard," accessed April 9, 2023, https://www.permits.performance.gov/.

7. What, if any, sections from the *Revitalizing the Economy by Simplifying Timelines and Assuring Regulatory Transparency Act* do you think should be components of permitting reform?

Answer:

Like H.R. I, the *Revitalizing the Economy by Simplifying Timelines and Assuring Regulatory Transparency Act* contains a number of provisions that would abandon foundational environmental protections under NEPA and other bedrock environmental laws, dim the voices of frontline communities, and lock in decades more dependence on fossil fuels. Among other things, if implemented, the legislation would set arbitrary deadlines for NEPA review and would deem a project automatically approved if the lead agency does not complete the NEPA analysis in time with no judicial review and would block the usage of the Social Cost of Carbon (or other equivalent), making it impossible to measure the societal impacts when comparing various alternatives to proposed projects. It also codifies a 60-day statute of limitations for bringing a NEPA claim, and, like H.R. 1, would exempt the use of categorical exemptions from judicial review. Like H.R. 1, were any of these provisions to become law, they would devastate NEPA's effectiveness at addressing the environmental impacts of projects in a comprehensive and effective manner.

Senator CARPER. Thank you for your testimony.

Now, we are going to turn to Dana Johnson for your testimony. Ms. Johnson, welcome. Please proceed.

STATEMENT OF DANA JOHNSON, SENIOR DIRECTOR OF STRATEGY AND FEDERAL POLICY, WE ACT FOR ENVIRONMENTAL JUSTICE

Ms. JOHNSON. Thank you. Thank you, Chair Carper, thank you Ranking Member Capito, and committee members for the opportunity to contribute to this important conversation.

WE ACT for Environmental Justice (EJ) is a Northern Manhattan-based member organization whose mission is to build healthy communities. We do this by ensuring that people living in a community of color or an area of low-income lead in creating sound and fair environmental health protection policies and practices at the city, State, and Federal level.

Our Federal Policy Office, where I serve, also serves as the administrative anchor for the Environmental Justice Leadership Forum, which is a network of about 50 EJ organizations and advocates across the Country. They represent 22 States or so that span the political spectrum. The goal really is to ensure that as a collective, we advance policies that ensure the protection and promotion of communities of color and low-income areas across the U.S.

I am going to go on a little bit of a personal note here. I have been with WE ACT for Environmental Justice for four years. And during that time, I feel like I have stood with EJ Forum members and other advocates across this Country in discussing, defending, and calling for the strengthening of the permitting process and NEPA, specifically, in this Country.

In my conversations, I repeatedly hear people describe NEPA as the people's law, because they feel like it gives them a say in what happens where they live, where they work, where they play, where they pray. They say that NEPA's requirement that they be considered and consulted in projects is one of the ways that we demonstrate that we are a democracy.

NEPA levels the playing field and, in our opinion, efforts to, quite frankly, what feels like gut or roll back this bedrock law aren't held as improvements for people who have been adversely impacted by our land use, our urban, our energy planning decisions across the Nation.

Our communities are calling for a moment of truth. We are calling for transparency, and we are also calling for accountability. Here is what we seek. First, as Christy noted, delays related to Environmental Impact Assessments (EIA) and litigation have been overstated. Far fewer NEPA-impacted projects go through an EIA, and the median times for those projects that do go through the full review are shorter than what we hear cited.

The Council on Environmental Quality estimates that projects that require an EIA, the most intensive review process, account for less than one percent of all NEPA review projects. Only five percent of required environmental assessments, which is a much less strenuous or rigorous process, and then 95 percent of NEPA projects are categorically excused from environmental reviews entirely.

Second, when it comes to bringing utility-scale renewable projects, and in this instance, I am referring to solar online, transmission connectivity is the cause of the delay and not NEPA. Once solar fields or wind farms are built, they must be able to connect to the grid of large-scale transmission lines in order to deliver that renewable energy to households.

The process of that connection causes significant delays and has nothing to do with a burdensome public participation or environmental review process. It is indicative of our need to invest in our transmission system, which we believe the Inflation Reduction Act as well as the Bipartisan Infrastructure Law gives us the opportunity to do. It also indicates that we need to manage the politics of who owns those transmission lines and who grants access to them.

Finally, a global assessment of the reasons why large-scale projects are delayed was performed, I believe, in 2020. The top five reasons were poor project management, poor contracting approaching, contractors' financial issues, delayed approvals, delayed payments, clients' financial issues, challenges with the actual design of a project. If we note, early, transparent, and robust public participation periods, proactively considering alternatives for achieving a project's goals, and consideration of cumulative impacts are not among the top reasons that projects are delayed.

I would like to conclude my comments with three points made at a recent positive permitting symposium that WE ACT for Environmental Justice was a part of. Three of the recommendations that came out of that conversation that I think are appropriate for this one are, we really need to start community engagement much earlier in the process.

With WE ACT, we call it the first early and ongoing process. Advocates in that space noted that when industry come to them, when they are able to negotiate, when we have community meetings before a permitting process even begins, we are able to work in partnership to solve the challenges of bringing a project to fruition.

There was also a recommendation to undertake community engagements with a neutral party. There was a professor at Massachusetts Institute of Technology (MIT) and his colleagues who plan to pilot what they call a renewable energy facility siting clinic that will give people a space where they aren't concerned about intimidation or unfairness in the process. We believe that local and State governments can be a part of that conversation, and the Federal Government in this process can be a convener.

Finally, I think making the comment system more user—friendly and accessible to community members that do not have access to computers or struggle to attend hearings, those seem like really simple recommendations, but I do think that they are really simple steps that we can take to address this.

Finally, people living frontline and fence-line to fossil fuel operations want to see you take action to address our energy needs. They want it from an economic perspective. They want it from a health perspective and a quality-of-life perspective.

They also want you to ask yourselves three key questions along the way. Will any changes that get proposed to the permitting process create an environment for producing or expanding an energy

source that will harm communities? Will it perpetuate racially and economically disproportionate health and environmental burdens? Will it prolong the climate crises in communities where climate change is at the center?

If we can not say no to each of those questions, then this isn't a process that we should advance.

Thank you.

[The prepared statement of Ms. Johnson follows:]

Written Testimony for U.S. Senate Committee on Environment and Public Works Hearing On
"Opportunities to Improve Project Reviews for a Cleaner and Stronger Economy"

Dana Johnson, Senior Director of Strategy and Federal Policy at WE ACT for Environmental Justice

*Wednesday, April 26, 2023 * 10 A.M. ET*

Background: WE ACT for Environmental Justice

WE ACT for Environmental Justice (WE ACT) is a Northern Manhattan-based member organization whose mission is to build healthy communities. We do this by ensuring communities of color and people of low-income lead in creating sound and fair environmental health and protection policies and practices.

We are the first people of color-led environmental justice organization in New York State and are the only environmental justice group with a permanent office in Washington, DC. Our Federal Policy Office also serves as the administrative anchor for the Environmental Justice Leadership Forum (EJ Forum) – a network of approximately 50 environmental justice advocates and groups in 22 states working together to advance policies that ensure the protection and promotion of communities of color and low-income communities throughout the U.S.

My name is Dana Johnson and I serve as Senior Director of Strategy and Federal Policy at WE ACT. I have more than 20 years of strategy, operations and advocacy professional experience in fields ranging from health and science advocacy, climate and environmental justice policies to cultural competence and diversity and inclusion leadership.

Part 1: Impact of Fossil Fuel Industry in Environmental Justice Communities

Environmental Justice communities are communities of color and low-income communities that disproportionately face the brunt of environmental pollution. Fossil fuel industry serves as a significant source of pollution in environmental justice communities and occurs throughout the entire lifecycle of the fossil fuels - extraction, refinement, distribution, usage and storage. The siting of communities of color and low-income communities near the fossil fuel industry is intentional. "Redlining" was the discriminatory process of grading communities that would be eligible for federally supported loans. Communities that were given lower grades tended to be Black communities and immigrant communities. The process of redlining in the 1930s created many of the environmental inequities in communities of color that persist to this day, with historically redlined communities having a higher average present- day emissions of nitrous oxides, sulfur dioxide and particulate matter.[1],[2] Historically redlined communities have also been associated with a higher exposure to oil and gas wells.[3]

---

[1] Historical red-lining is associated with fossil fuel power plant siting and present-day inequalities in air pollutant emissions; Link: https://www.nature.com/articles/s41560-022-01162-y
[2] Historical Redlining Is Associated with Present-Day Air Pollution Disparities in U.S. Cities; Link: https://pubs.acs.org/doi/full/10.1021/acs.estlett.1c01012
[3] Historic redlining and the siting of oil and gas wells in the United States; Link: https://www.nature.com/articles/s41370-022-00434-9#Fig1

The health impacts of redlining are vast, with historically redlined communities being associated with higher rates of emergency room visits for asthma, a higher rate of mortality from breast cancer, and later stage diagnosis for both colon and lung cancer.[4,5,6] The impact of fossil fuel industries intentionally being sited near communities of color and low-income communities are costly to both the health and economic viability of these communities. It has been estimated that fossil fuel industry related air pollution is responsible for 1 in 5 deaths worldwide, more than 10 million deaths per year.[7]

Health impacts associated with pollution from the fossil fuel industry included early death, heart attacks, respiratory disorders, stroke, asthma, and absenteeism at school and work.[8] This is coupled with the rising cost of healthcare that can worsen the economic hardship and put families in mounting medical debt. The financial impacts of the fossil fuel industry cannot be overstated, with an estimated higher end estimate of $886.5 billion annually spent on health impacts of the fossil fuel industry.[9] For example, in African American families the combination of higher poverty rates and lower prevalence of health insurance exacerbates the impacts of fossil fuel industry pollution.[10] These injustices are truly cyclical where the pollution present in your community makes you sick to the point where you can no longer afford to leave your community.

Part 2: Upholding Democratic Processes

The National Environmental Policy Act has been called "the People's Environmental Law." Since NEPA's enactment in 1970, more than 185 other countries have passed similar laws. In addition, 16 U.S. states have written their own "Little NEPAs" for state-level projects. NEPA has been so influential that many call it the "Magna Carta of environmental law." It applies to every major action by every federal agency. Whenever a project will significantly affect a community, an agency is required to write a detailed report about it. This "environmental impact statement" must consider potential impacts, as well as alternatives to the agency's initial plan. If an agency fails to properly consider the impacts and alternatives, it can be challenged in court. Creating barriers for public participation and judicial intervention weakens citizens' opportunities to democratically engage in the permitting process.

---

[4] Associations between historical residential redlining and current age-adjusted rates of emergency department visits due to asthma across eight cities in California: an ecological study; Link: https://pubmed.ncbi.nlm.nih.gov/31999951/

[5] Cancer Stage at Diagnosis, Historical Redlining, and Current Neighborhood Characteristics: Breast, Cervical, Lung, and Colorectal Cancers, Massachusetts, 2001–2015; Link: https://academic.oup.com/aje/article/189/10/1065/5812653#211341070

[6] Neighborhood-level redlining and lending bias are associated with breast cancer mortality in a large and diverse metropolitan area; Link: https://stacks.cdc.gov/view/cdc/102148

[7] Global mortality from outdoor fine particle pollution generated by fossil fuel combustion: Results from GEOS-Chem; Link:https://www.sciencedirect.com/science/article/abs/pii/S0013935121000487

[8] Producing and burning fossil fuels creates air pollution that harms our health and generates toxic emissions that drive climate change. Link; https://www.hsph.harvard.edu/c-change/subtopics/fossil-fuels-health/#:~:text=But%20burning%20them%20creates%20climate,spectrum%20disorder%20and%20Alzheimer's%20disease.

[9] Economic value of U.S. fossil fuel electricity health impacts; Link: https://pubmed.ncbi.nlm.nih.gov/23246069/

[10] Fumes Across the Fence-Line: The Health Impacts of Air Pollution from Oil & Gas Facilities on African American Communities; Link: https://naacp.org/resources/fumes-across-fence-line-health-impacts-air-pollution-oil-gas-facilities-african-american

Public Participation

By giving people a voice in federal project-planning, NEPA is a key tool to advance environmental justice. Public participation is an opportunity for impacted communities to provide critical input for the just and sustainable implementation of a project that could significantly affect their health and the surrounding environment. Recent changes in NEPA have restricted avenues for public participation and dismissed considerations of cumulative impacts on EJ communities. It is critical that Congress work with communities to expand opportunities for community input on proposed projects.

Communities need time to organize and respond to long technical documents; permitting rules for fossil fuel and clean energy projects that decrease the public comment period on major federal projects are undemocratic. A major cause for delays in the permitting process is actually the lack of community participation. For example, MIT examined 53 large scale clean energy projects that were delayed or canceled and examined why. Two key takeaways were that:

- Early engagement with potential local opponents can avoid extended delays or project cancellations; and
- Disputes between the US government and Tribal nations must be addressed separately from efforts at public participation – highlighting the need for adequate consultation practices, among other measures.[11]

Cumulative Effects

NEPA requires federal agencies to look not just at the incremental impact of their actions, but also the "cumulative effects." For example, one more refinery in Cancer Alley might not emit much pollution by itself, but combined with the emissions of all the other factories in the area -- the cumulative effects -- it might pose an unacceptable health risk. Cumulative impacts are life-or-death for already overburdened and vulnerable communities. We must avoid any permitting changes that will prevent agencies from measuring or considering these impacts.

If it was reasonable to consider cumulative impacts in 1970 when NEPA was signed into law, industry growth and expansion make these considerations all the more pressing. It is a false narrative to suggest that cumulative-impact analysis is too detailed and costly as there are more tools and data available today than ever before.

Cumulative impacts hit environmental justice communities the hardest. As a consequence of decades of discriminatory decisions and policies, poor communities and communities of color are overburdened with environmental hazards. When the government fails to consider existing hazards alongside future ones, it turns a blind eye to their deadly effects.

Climate change and greenhouse gas analysis: Cumulative impacts are also important for climate justice. Historic discrimination has pushed many people to America's geographic margins: floodplains, unstable slopes, and barrier islands near toxic industrial and waste facilities. For example, think of the flooding in the Lower Ninth Ward after Hurricane Katrina. As a consequence, environmental justice communities are also the most vulnerable to the effects of climate change.

---

[11] Sources of opposition to renewable energy projects in the United States; Link: https://www.sciencedirect.com/science/article/pii/S0301421522001471

Part 3: Equitable Build Out of Transmission Lines

There is an urgent need to quickly build out transmission lines to facilitate our clean energy transition. As legislation is considered for expediting transmission lines, there is a critical need to ensure that environmental justice remains central.

Framing Environmental Justice Issues within Transmission Conversations:

- Energy Democracy and a Just Transition - Energy democracy and a just transition framework uplift the need for creating justice through the energy transition. This includes ensuring communities have the opportunity to fully participate in projects that will impact them.

- Indigenous Sovereignty and Land Rights - A primary concern that we have heard from Indigenous communities is how the fast tracking of projects has led to the grabbing of Indigenous lands that would undermine Indigenous sovereignty.

- Strengthening of environmental protection to account for environmental and climate justice concerns - Ensure that "fast tracking" transmission lines doesn't result in the weakening of environmental laws such as NEPA. We do not want to "fast track" transmission lines in a way that also allows for the fast tracking of fossil fuel infrastructure. With our rapidly changing climate, and the increase in severe weather it is critical that future developments are created to withstand extreme weather. Some key concerns for energy developments include hazardous and/or chemical waste.

Ensuring Justice in the Siting of Transmission Lines :

The Environmental Justice for All Act is community-led legislation that will strengthen protection and engagement for communities of color and areas of low income (as opposed to a harmful, closed-door, polluter-led deal). Specifically within the A. Donald McEachin Environmental Justice for All Act there are provisions to:

- Lengthen public comment periods
- Proactively consider alternatives
- Consider cumulative impacts
- Meaningful consult with Tribes

We strongly support the reintroduction and passage of EJ For All.

President Biden released the Permit Action Plan in the wake of the Bipartisan Infrastructure Deal that can be used to fast track clean energy projects. Within the Permit Action plan was mention of the authority of FERC in transmission projects. FERC has undergone rulemaking in the past year to make the permitting process for transmission projects as fast as possible. It is important that our organizations continue to support and help refine FERC's permitting process for transmission lines. Recent FERC proposed rules:

- FERC Issues Transmission NOPR Addressing Planning, Cost Allocation: improves regional transmission planning and cost allocation.

- Creation of a Joint Federal-State Task Force on Electric Transmission.
- FERC Proposes Interconnection Reforms to Address Queue Backlogs: establishes penalties if transmission providers fail to complete interconnection studies on time and allows for interconnection studies to be done on a larger scale.

Permitting occurs on every level of government, with the permitting process for local and state level permits often differing greatly. There is a need to ensure that state and local permitting processes run in tandem with federal permits instead of progressively, this will help to shorten the overall permitting timeline.

Part 4: Additional Opportunities for Community Engagement on Clean Energy Deployment and Permitting

The Bipartisan Infrastructure Law and Inflation Reduction Act (2022) allocate nearly $2 trillion in public funding throughout the country. Community engagement and participation are the cornerstones to creating and implementing equitable, sound and transformational policies, projects, programs and practices. Every community has unique needs that require a tailored framework; therefore, this guidance should not be regarded as all-encompassing but rather serves as a starting point for the federal family, companies and project developers to establish a strong foundation that ensures mutually beneficial policy and project outcomes.

Guiding Principles

The foundational principles of environmental justice and democratic organizing established in the Principles of Environmental Justice (1991) and Jemez Principles of Democratic Organizing (1996) must be the starting point for approaching community engagement, public participation and community benefit agreements. Full and transparent community engagement is necessary to ensure just and equitable policies and project implementation, especially given the historic and current marginalization of environmental justice communities. Engagement is not merely community involvement: True engagement fully incorporates the community into all facets of the decision-making process.

Environmental Justice Analyses[12]

In the issuance of Executive Order 12898 ("Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations") federal agencies were directed to "analyze the environmental effects, including human health, economic, and social effects, of their proposed actions on minority and low-income communities."

Environmental justice analyses are vital components of both community engagement and formal environmental reviews (which evaluate distributional impacts). When considering the unprecedented funding for climate mitigation programs in the Bipartisan Infrastructure Law and Inflation Reduction Act, it is vital that environmental justice analyses be conducted to offer a complete picture of possible project and

[12] United States Environmental Protection Agency (EPA) "Technical Guidance for Assessing Environmental Justice in Regulatory Analysis"; Institute for Policy Integrity, New York University School of Law "Improving Environmental Justice Analysis" and United States Environmental Protection Agency, Office of Research and Development "Cumulative Impacts Recommendations for ORD Research"

policy impacts on already overburdened communities. For example, though the White House Environmental Justice Advisory Council has identified numerous climate mitigation strategies that could harm communities yet , projects with these identified harms have already been funded.

Environmental justice analyses are critical to minimize harms and protect environmental justice communities. Environmental justice analyses must be completed before project/policy implementation and even prior to issuing Requests for Information (RFIs), Requests for Proposals (RFPs), or other introductory enquiries. Additionally, environmental justice analyses should be performed by a vetted environmental justice scientific consultant and financed by the project developer or agency.

Community Benefit Agreements

Community Benefit Agreements (CBAs) are "legal agreements between community groups and developers, stipulating the benefits a developer agrees to fund or furnish in exchange for community support of a project."[13] Often, for a CBA to be successful, community organizations must form a united front among different stakeholders and enforce the legal provisions in the document.[14]

Thank you for the opportunity to submit written comments for the record. I look forward to continuing to engage with members of Congress and the Committee on Environment and Public Works on how we can embed environmental justice throughout clean energy permitting and deployment.

-0-

[13] United States Office of Economic Impact and Diversity "Community Benefit Agreement (CBA) Toolkit"
[14] Patricia E. Salkin "Understanding Community Benefit Agreements: Opportunities and Traps for Developers, Municipalities and Community Organizations"

Senator CARPER. Thank you very much.

Ms. Hayes, Christina Hayes, you are recognized. Please proceed. Thank you.

STATEMENT OF CHRISTINA HAYES, EXECUTIVE DIRECTOR, AMERICANS FOR A CLEAN ENERGY GRID

Ms. HAYES. Thank you. Good morning, Chairman Carper, Ranking Member Capito, and members of the committee. Thank you for today's opportunity to speak about the importance of improving project reviews to maintain a reliable grid and ensure a sustainable, high-growth economy for all Americans.

I represent Americans for a Clean Energy Grid (ACEG), a nonprofit advocacy organization focused on the need to expand and modernize the transmission system. ACEG represents a diverse coalition, bringing together the voices of transmission and renewables developers of all kinds, as well as business, labor, consumer, and environmental groups.

Today, I want to tell the story of two transmission lines, each spanning several hundred miles, capable of interconnecting between two and four gigawatts of power. That is about the amount for about 750,000 homes, the size of about two Delawares, or a little bit more than West Virginia.

Both lines require both Federal and State permitting, as they cross Federal, State, and private land. Both require an Environmental Impact Statement.

One line takes 15 years to permit. It was first submitted for Federal permitting in 2007, and it hopes to be energized in a few more years. The other takes much less time. All Federal and State approvals will be completed in approximately five years.

The difference is in agency personnel, State laws, and how Federal laws are implemented. You can just never tell when you begin the transmission siting and permitting process which set of circumstances you will run into.

Now, compare that to the time it takes to permit high-capacity transmission in other countries around the world. A recent study showed that it takes between two and four years in China, and three and six years in India.

It should take time to site and permit high-capacity, regionally significant transmission. They will last for decades, 50 years or more, and we should take the time to ensure that our infrastructure is well-thought out, reflects a full understanding of the environmental and community impacts, and incorporates appropriate stakeholder input and engagement, but building in the United States has slowed to a near standstill.

According to a recent report, the United States dropped from installing an average of 1,700 new high-voltage transmission miles per year in the first half of the 2010's to less than 700 miles per year in the second half of the decade. We need more transmission to withstand the impacts of extreme weather, to reduce the economic impacts of big storms, and to keep the lights and the heat on for American families.

Legacy transmission lines kept the lights on during recent winter storms Uri and Elliott, but we need more such lines, especially as we electrify more and more of our economy. Our TVs, our thermo-

stats, our computers, our phones: electricity is critical for nearly every aspect of modern life. Moreover, we need to more than double our current rate of construction to have a chance at hitting our Greenhouse Gas (GHG) reduction goals, not to mention to realize the promise of a domestically powered clean energy future.

To achieve these benefits, Congress should take action to address siting and permitting reform. Consistency and certainty in siting and permitting laws throughout the development of a project is needed to encourage the private sector to move forward with these significant investments.

Specifically, high capacity, regionally significant transmission should go through a unified Federal siting and permitting authority, just as other major energy infrastructure does. A bright line threshold for unified Federal siting and permitting authority should be clearly established, which, when included a single point of contact for environmental review, will provide for a comprehensive and legally durable siting and permitting process.

Firm deadlines should be established from beginning to end. If a transmission line is approved, the notice to proceed should be issued no more than five years after the application process has begun.

Finally, any siting and permitting process must include early meaningful engagement with affected customers and communities before the application and throughout the pre-filing process. Additionally, developers should consider support through community benefit agreements and/or revenue sharing. Mitigation beats litigation every time.

We need to build for the future, the grid we are going to have, not the grid that we used to have. We need it for reliability, to access new, low-cost domestic energy resources, and to meet customer needs. We can not do that at the current rate of construction or with the current siting and permitting laws and regulations.

On behalf of ACEG and our coalition, we stand ready to assist you in putting the right policies in place to ensure that America will have a cost-effective, reliable, modern grid to power a clean and strong economy.

Thank you for considering my testimony. I look forward to your questions.

[The prepared statement of Ms. Hayes follows:]

Americans for a Clean Energy Grid

STATEMENT OF

Christina Hayes
Executive Director, Americans for a Clean Energy Grid
Before the U.S. Senate Committee on Environment and Public Works

Hearing to Examine Opportunities to Improve Project Reviews for a Cleaner and Stronger Economy

April 26, 2023

Chairman Carper, Ranking Member Capito, and members of the Committee, thank you for the opportunity to speak about the importance of improving infrastructure project reviews to maintain a reliable grid and help facilitate the transition to a sustainable, high growth economy that works for all Americans.

My name is Christina Hayes and I serve as the Executive Director of Americans for a Clean Energy Grid, also known as ACEG. ACEG brings together a diverse coalition of stakeholders focused on the need to expand, integrate and modernize the high-capacity electric grid in the United States. The ACEG coalition includes multi-state utilities and merchant transmission owners that develop, own, and operate transmission; trade groups that count transmission owners and transmission equipment manufacturers among their members; renewable energy trade groups and advocates, environmental advocacy organizations; buyers and consumers of energy; and energy policy experts. Our coalition seeks to educate the public, opinion leaders, and public officials about the needs and potential of the transmission grid. My comments today do not necessarily reflect the views of individual members.

I. INTRODUCTION

Transmission is critical to moving power across America, yet it is at a disadvantage when it comes to siting and permitting. When Congress initially wrote the laws governing our energy infrastructure, most power was local in nature. Although Congress provided for exclusive and preemptive siting for other energy infrastructure, transmission siting remains piecemeal and haphazard as there is little to no coordination between the multiple states, the federal government, and—for some projects—the individual localities that must issue siting permits before a line may move forward and where federal review is required for segments of transmission lines, it can take more than 15 years. For these reasons, ACEG appreciates being able to speak today about transmission and how Congress can support this infrastructure critical to a clean and strong economy.

II. WHY DO WE NEED TRANSMISSION?

Electricity is an essential service. It is needed for almost every aspect of our modern lives—powering our homes, schools, hospitals and other community services, businesses, manufacturing, offices, communications network, and financial transactions. Because power plants and large solar and wind farms are not built adjacent to where we need the power, long-distance transmission lines are required to move power from their generation point to the end customer. Smaller "distributed generation" sources located adjacent or close to the end use, while extremely important to strengthening reliability, cannot by themselves meet, our nation's power needs.[1]

Most electric transmission lines in the U.S. were built in the 1950s and 60s with a 50-to-60 year lifespan – meaning the majority of lines have reached or surpassed their intended lifespan.[2] But simply replacing old lines will not resolve current and expected future problems. Our energy needs and transmission technology have evolved in the past 70 years, including the need for an energy system built to:

- withstand extreme weather events;
- be resilient;
- support a strong economy.

Our energy system must be able withstand extreme weather events. Droughts and dry conditions have laid the foundation for fires in the west, hurricanes in the south and east coast, and severe winter storms—and all of these have had severe impacts on our energy systems. Older transmission lines may not be able to stand up to modern weather. In 2021, Hurricane Ida knocked out eight high voltage transmission lines that supplied power to New Orleans, causing most of the power outages to 1.2 million customers that, in some cases, lasted nearly two weeks.[3]

Moreover, generation shortfalls resulting from severe weather and other threats are occurring with greater intensity and frequency. These events tend to be at their most extreme in areas lacking fully

---

[1] *See, e.g.* C. Clack, M. Goggin, A. Choukulkar, B. Cote, and S. McKee, *Consumer, Employment, and Environmental Benefits of Electricity Transmission Expansion in the Eastern U.S.*, at 8, Americans for a Clean Energy Grid, 2020; U.S. Department of Energy, Draft National Transmission Needs Study, at 87, 2023.

[2] American Society of Civil Engineers, *Policy Statement 484 - Electricity Generation and Transmission Infrastructure*, Adopted by the Board of Direction on July 13, 2019.

[3] Energy Information Administration, *Hurricane Ida caused at least 1.2 million electricity customers to lose power*, Sept. 2021.

interconnected power systems.[4] During Winter Storm Uri in February 2021, for example, power outages in the MISO and SPP regions were limited to a "handful of short duration events."[5] At the same time, more than 4.5 million Texans lost power — some for four days — while temperatures were below freezing. More than 200 people died, the majority from outage-related causes like hypothermia and carbon monoxide poisoning.[6] The impacts of the storm on power generating sources in MISO, SPP, and Texas were the same—the difference was transmission.

Because MISO has hundreds of tie lines with other regions, it was able to import sufficient power throughout the course of the storm— nearly 13,000 MW, most of it from its neighbor to the east, PJM—to minimize outages in both its own region and to deliver life-supporting power to neighboring regions. In contrast to the Midwest, Texas has only two transmission lines that connect it to its neighbor, the Eastern Interconnection. As a result, Texas was able to import only 800 MW of power. Transmission could have addressed such capacity shortfalls by enabling imports from areas less affected by the weather events.

Importantly, power flows both ways over transmission lines. Over the last December holidays, cold weather conditions during Winter Storm Elliott in 2022 caused rolling blackouts in the Southeast because local generation equipment could not produce energy. The limited interregional transmission between the Southeast and MISO and PJM allowed utilities to purchase some replacement power, reducing power outages that could have been even worse. Increased interregional transmission would have fully kept the lights on.[7] During Uri, Texas needed power, but during Elliot the Lone Star State could have sold its extra power to the Southeast. Experts have found that sufficient interregional transmission capacity during Elliot would have yielded nearly $100 million in benefits during the five-day event, and most areas could have saved tens of millions of dollars.[8]

---

[4] Goggin, Michael, *Transmission Makes The Power System Resilient To Extreme Weather*, 2021.

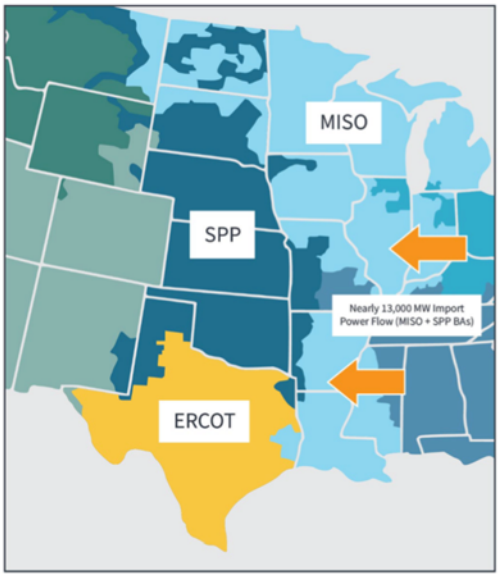
[5] MISO, *The February Arctic Event*, Feb. 2021.

[6] FERC - NERC, *Regional Entity Staff Report: The February 2021 Cold Weather Outages in Texas and the South Central United States*, Nov. 2021.

[7] Massie, Toth, *Wasted Wind and Tenable Transmission during Winter Storm Elliott*, Feb. 2023.

[8] Goggin, M. and Zimmerman, Z., *The Value of Transmission During Winter Storm Elliott*, at 1, ACORE, Feb. 2023.

Figure 81: East-to-West Import Power Flows into MISO BA Footprint, February 15



FERC - NERC, Regional Entity Staff Report: The February 2021 Cold Weather Outages in Texas and the South Central United States, Nov. 2021.

Our energy system must be resilient. A resilient grid can withstand and recover from shocks, including attacks and damages from natural events, systemic failures, cyber-attacks or extreme electromagnetic events, both natural and man-made. Indeed, national security experts have noted, "[o]ur electricity grid's resilience . . .has emerged as a major concern for U.S. national security and a stable civilian society."[9] According to leaked excerpts of a 2014 FERC report: "If terrorists are ever able to knock out nine of the nation's 55,000 substations, the U.S. could suffer coast-to-coast blackouts lasting 18 months or more."[10] The national security experts describe large scale, modernized, transmission as a solution, noting:

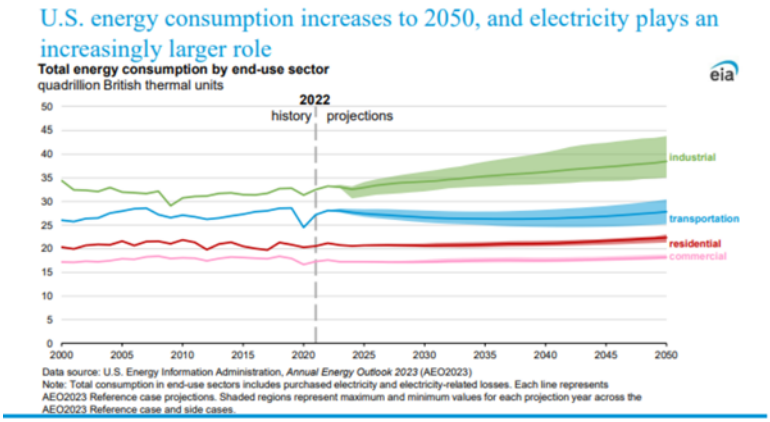
[9] National Commission on Grid Resilience, *Grid Resilience: Priorities for the Next Administration*, at 1, 2020.

[10] Davide Savenije and Ethan Howland, *Could terrorists really black out the power grid?*, Utility Dive, March 24, 2014.

> Transmission buildout is critical to resilience as it can relieve line overloading—or 'congestion' . . .—on the existing system, lessening the compounding risks that come with a strained grid that could then be tested by an extreme weather event or an attack incident. Moreover, by enabling further development of renewable energy resources over wider geographic areas, well-planned transmission expansion can make targeted attacks on the grid more difficult to plan and carry out.[11]

Our energy systems must be designed to support a strong economy. As technology has advanced, our power needs have evolved and increased. Total electric retail consumption increased five times from 1960 through 2000.[12] The U.S. Energy Information Administration 2023 outlook further anticipates load growth in every sector of the economy, from 2000 through 2050.

We must plan for the grid that we are going to have, not the grid that we used to have.



Source: U.S. Energy Information Administration, *Annual Energy Outlook 2023*, at 17, March 16, 2023.

Further, our grid should optimize the use of free natural resources, and ensure our biggest economic engines – manufacturing, health care, banking, transportation, and virtual transactions –

[11] *Ibid.*, at 42.

[12] U.S. Energy Information Administration, State Energy Data 2020: Consumption, at 30, 2020.

have sufficient power to stay competitive. America has abundant domestic clean energy sources: two-thirds of renewable resource potential is located in 15 states, which account for only one-third of total U.S. electricity consumption.[13] Transmission is needed to deliver wind and solar resources to all corners of the country; the geographic diversity of resources is a critical factor in developing a cost-effective reliable grid. Independent estimates indicate that high voltage transmission will need to double by 2030, at a cost of $360 billion, and triple by 2050, at a cost of $2.2 trillion, to achieve a zero-carbon future by 2050.[14] There is no transition without transmission.

This lack of transmission also poses unnecessary challenges to domestic industries like advanced manufacturing, which rely on a robust electricity grid. Globally, the semiconductor manufacturing industry will consume 286 terawatt hours of electricity worldwide by 2030.[15] To put this in context in 2021 TSMC, one of the world's leading semiconductor manufacturers, used more electricity than the states of Maine and Rhode Island combined.[16] To advance American leadership in semiconductor supply chains, which are critical to our economy and national security, transmission growth must keep up. Congress has already made enormous strides to bolster the domestic semiconductor industry with the bipartisan CHIPS Act. To finish the job, we must build the transmission infrastructure necessary to meet the demands of this vital industry.

In addition to sustaining a strong economy, transmission expansion also creates domestic, good-paying union jobs. For example, the completion of 22 projects that have already been planned and are waiting to move would create more than 1.2 million jobs, including 600,000 direct jobs.[17]

---

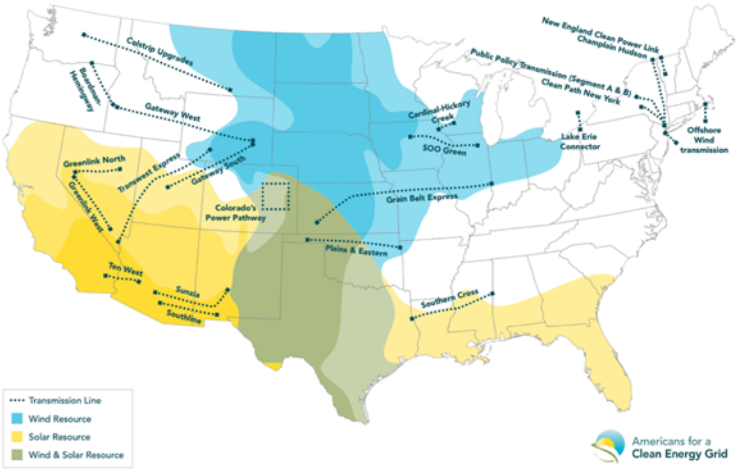
[13] David Gardiner and Associates, *Transmission Upgrades & Expansion*: Keys to Meeting Large Customer Demand for Renewable Energy, at 12-13, January 2018.

[14] Larson et al, Net-Zero America: Potential Pathways, Infrastructure, and Impacts at 108, (October 29, 2021), Princeton University https://netzeroamerica.princeton.edu/the-report; *see also DOE, "DOE Launches New Initiative From President Biden's Bipartisan Infrastructure Law To Modernize National Grid," January 12, 2022.*

[15] Rick, August, Katrin Wu, and Tianyi Luo, *Invisible Emissions: A forecast of tech supply chain emissions and electricity consumption by 2030*, at 5, Greenpeace, 2023.

[16] *Compare* TSMC, 2021 Sustainability Report, at 221 (total energy consumption of 19,192 GWh in 2021), *with* U.S. Energy Information Administration, *State Energy Data 2021: Updates by Energy Source*, (Maine: 11,585 GWh and Rhode Island: 7,398 GWh).

[17] Goggin, Michael, et al, *Transmission Projects Ready to Go: Plugging into America's Untapped Renewable Resources*, Grid Strategies & ACEG, April 2021.



Source: Goggin, Michael, et al, Transmission Projects Ready to Go: Plugging into America's Untapped Renewable Resources, Grid Strategies & ACEG, at 5, April 2021 (since publication, some of these lines have received their permits).

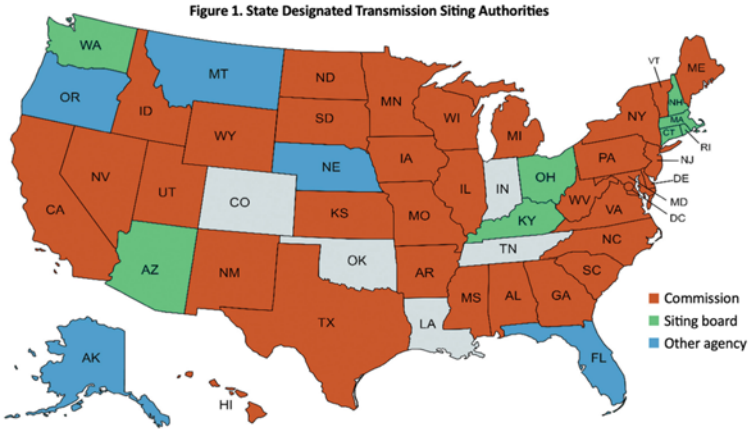
Finally, analysts have found that transmission expansion, and the resulting increase in wind and solar generation, could decrease the average consumer electric bill by more than one-third, saving the average household more than $300 per year.[18] Transmission is necessary to grow the economy, and to support customer needs for electricity. Regionally significant wires support reliability, enhance resilience, and promote energy security. It is in the public interest – and in the national interest – to support broader deployment of regionally significant, high-capacity transmission.

[18] Clack, et al, *Consumer, Employment, and Environmental Benefits of Electricity Transmission Expansion in the Eastern U.S.*, 2020.

III. WHAT ARE THE OBSTACLES TO BUILDING REGIONALLY SIGNIFICANT TRANSMISSION?

Despite the wide-spread acknowledgment that we need to expand and modernize transmission, the rate of construction has fallen behind the pace necessary to meet our present and future reliability needs and our climate goals. This is due to an array of challenges that fall into three categories: planning, paying, and permitting. In the last decade, regionally planned transmission investment has decreased by 50 percent and few, if any, interregional lines have been planned.[19] Even when lines get planned, transmission projects can take at minimum five to 10 years to plan, permit, and construct,[20] and in some cases have taken over 15 years to receive permits and begin construction.[21]

Figure 1. State Designated Transmission Siting Authorities



Source: Smith, William H, Mini Guide on Transmission Siting: State Agency Decision Making, National Council on Electricity Policy (Dec. 2021) (NCEP Mini Guide).

[19] Pfeifenberger et al., *Cost Savings Offered by Competition in Electric Transmission*, at 1, April 2019.

[20] Pfeifenberger, Johannes and John Tsoukalis, *Transmission Investment Needs and Challenges*, at 13, June 2021.

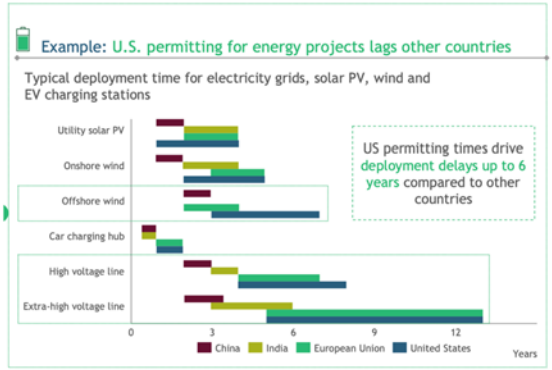
[21] *E.g.*, *BLM Clears Way for $3 billion TransWest Express Transmission Project to Start Construction this Year*, Ethan Howland, Utility Dive (April 12, 2023); *Gateway South Transmission Line to Proceed with Construction*, T&D World (June 8, 2022).

C. Hayes, ACEG Statement
Hearing to Improve Project Reviews for a Cleaner, Stronger Economy
EPW Committee
April 26, 2023

The current siting and permitting process for regionally significant transmission lines require the approval of every affected jurisdiction. This permitting process can include:

- Federal agencies, if the line crosses federal lands or lands which the federal government has a trustee relationship (e.g. recognized tribal lands), or has some other federal nexus;
- State governments, where the line crosses state and private lands, and each state has its own processes and procedures (see figure below); and
- In some states, individual local governments, as well.

Projects can get delayed at every stage in the review process. According to a new report issued by Breakthrough Energy, permitting for high voltage transmission lines takes less than half the time in China as it does in the United States.



Source: Boston Consulting Group, Impact of IRA, IIJA, CHIPS, and Energy Act of 2020 on Clean Technologies, at 8, April 2023.

IV. HOW CAN CONGRESS HELP SUPPORT TRANSMISSION?

It is imperative that Congress act. As noted above, federal processes can take five to 10 years to site and permit transmission, and planning and pre-application processes means that it can take even longer, including several recent lines that took approximately 15 years. This is much longer than any single presidential administration. For that reason, a predictable siting and permitting framework should be enacted through legislation, rather than relying on rules that may change mid-stream on a pending application.

Robust environmental review is critical; it leads to enduring and legally sustainable siting and permitting decisions that facilitate substantial investment in regionally significant transmission. However, parameters must be established to make sure that endless process does not strangle much-needed development. Fortunately, there are solutions that balance both of these important considerations.

To that end, ACEG recommends that Congress reduce barriers to siting and permitting regionally significant transmission by establishing the following:

- Unified federal siting and permitting authority
- Firm agency deadlines, no more than five years from start to finish
- Robust early outreach to communities and stakeholders

Set a clear threshold for unified federal jurisdiction over regionally significant transmission lines. As noted above, these lines provide economic and reliability benefits across multiple states, yet siting can be required to take place at a very granular level – in some places, county by county. The framework for siting and permitting these regionally significant lines was never established, and instead developed in a haphazard way that is ill-suited to the modern grid. This Congress should rectify this longstanding oversight by establishing a clear threshold, so developers have certain guidance as to how to develop these much-needed lines that provide broad-based benefits.

This idea is not new: S.946, the SITE Act introduced by Senator Whitehouse (D-RI), currently proposes that federal jurisdiction apply to siting transmission lines that are no less than 1000 MW and traverses two states. A review of proposed transmission lines by the Niskanen Center shows that this would apply to less than 10 percent of the lines currently under consideration.[22] Considering the range of projects that would provide these wide-ranging benefits, ACEG

[22] Reed, Liza and Eberhard, Kristen, What to eep and what to fix in Manchin's permitting proposal, Niskanen Center, October 25, 2022.

recommends that the clear federal threshold apply to a more nuanced definition, of projects at least 345kV or 750 MW, and that cover two states, or one state and the outer-continental shelf, or a minimum of 150 miles.

When paired with a single point of contact for environmental review under existing law – as Congress provided for in the 2005 Energy Policy Act – Federal Power Act (FPA) section 216(h), this would provide unified siting and permitting authority for regionally significant transmission lines, similar to that provided for other major energy infrastructure at the Federal Energy Regulatory Commission (FERC). Section 216(h) authority is currently assigned to the Department of Energy, which is working diligently to establish a permitting office and a memorandum of understanding with other relevant federal agencies so that they can collaborate in permitting transmission lines in a timely fashion.

Establish a timeline of no more than five years, from beginning to end. There are many components to siting and permitting: a pre-application process that ensures robust outreach to communities and landowners, consultation with all relevant federal agencies, the environmental review – whether an environmental assessment (EA) or environmental impact statement (EIS) – followed by a record of decision, then – finally, if appropriate – compliance requirements and a notice to proceed. The notice to proceed is the last step before shovels can turn dirt and steel can go into the ground.

Even though much has been made of the time limits for an EA or EIS, the truth is that the process can be held up at any point. In fact, the process can be conducted much more quickly, through categorical exclusions and quick review of relatively uncontroversial projects. While these solutions are also helpful, ACEG recommends addressing the totality of the problem by ensuring that no siting and permitting process be extended beyond five years. That will allow for significant outreach and evaluation of the project, while ensuring that no step of the process languishes.

Additional considerations may be needed to achieve this deadline – such as greater funding for agency staff to address the applications and stronger coordination between federal agencies so that no one agency can hold up the process. Further, any new law should retain the existing provision in FPA section 216(h) that allows for an appeal to the President – or likely, the President's designee – if an agency misses its deadline.

Provide for robust early outreach to better meet final deadlines. An essential piece of the puzzle in meeting deadlines is ensuring that developers and siting and permitting authorities reach out to impacted tribes, communities, and landowners in the early stages of the development

process. Thoughtful developers already engage in early outreach, as they know that it reduces conflict and litigation at the end of the siting and permitting process.[23]

Federal agencies have provided thoughtful guidance for voluntary outreach for other energy infrastructure projects. In its Integrated Interagency Pre-application (IIP) Process, the U.S. Department of Energy specified ways in which developers could reach out to stakeholders, including a website and single point of communication, responses to requests for information, and even "the type of location (for example, libraries, community reading rooms, or city halls) in each county potentially affected by the proposed qualifying project, where the project proponent has provided publicly-available copies of documents and materials related to the proposed qualifying project."[24] Similarly, FERC provides for an extensive pre-filing process – including extensive detail on open houses, site visits, and stakeholder notification – that may take no more than one year before considering a certificate application.[25]

Pairing meaningful deadlines – up to and including the notice to proceed – with required significant early outreach will ensure a legally sustainable decision within a reasonable amount of time.

Provide support for communities and landowners impacted by regionally significant transmission. One of the greatest challenges in generating support for these lines is that the benefits are widespread and may not seem immediate for the communities and landowners that are most impacted by the construction and ongoing presence of new major infrastructure. The bipartisan Infrastructure Investment and Jobs Act (IIJA) provided for one-time funding to support siting and permitting efforts. Congress should consider ways to make this support evergreen.

One model is revenue sharing, highlighted in H.R.1, section 20602. That proposal would allocate federal revenues from offshore wind leases for conservation, mitigation, and resiliency programs for communities onshore near facilities related to offshore wind facilities. Additionally, H.R. 178 provides for sharing revenues from renewable energy development on federal land with programs that would restore and protect natural habitats as well as preserve and improve recreational access to federal lands and waters.

---

[23] *Report: Recommended Siting Practices for Electric Transmission Developers*, Americans for a Clean Energy Grid (February 13, 2023).

[24] 10 CFR §900.4.

[25] 18 CFR § 157.21.

Shorten the period for judicial review. Currently, an appeal of a federal agency decision under the National Environmental Policy Act is six years. Shortening the appeals period to provide certainty for transmission projects must be balanced with providing sufficient due process. To that end, it is appropriate to consider other periods of review for similar infrastructure decisions. Note that the FAST-41 Act requires that a claim to be filed within two years from date of publication in the Federal Register;[26] the Natural Gas Act provides for 60 days after denial of rehearing of a FERC order;[27] and appeals of transportation siting decisions must be filed within 150 days of publication in the Federal Register.[28]

Thank you again for the opportunity to discuss these issues with you. ACEG stands ready to work with the Committee on developing legislation necessary to accelerate the development and modernization of the nation's electric grid.

Attachments:

Attachment A	About ACEG
Attachment B	Transmission Benefits
Attachment C	Transmission for All
Attachment D	ACEG Transmission Legislative Principles

[26] 42 U.S. Code § 4370m–6(a)(1)(A).

[27] 15 U.S. Code § 717r(b).

[28] 23 U.S. Code § 139 (l)(1).

C. Hayes, ACEG Statement
Hearing to Improve Project Reviews for a Cleaner, Stronger Economy
EPW Committee
April 26, 2023

Attachment A: About ACEG

About ACEG

Americans for a Clean Energy Grid

Americans for a Clean Energy Grid (ACEG) brings together a diverse set of stakeholders, including customers, renewable resource developers, labor advocates, traditional utilities, environmental advocates, manufacturers of transmission technologies, and merchant transmission developers. Together, we advocate for policies that will modernize the United States' electric power network.

A resilient and reliable transmission grid is the backbone of a clean electricity system and a strong economy. Smart state and federal policies that improve the way the grid is developed, planned, and paid for will help it become a more cost-effective, robust, reliable, and secure network that supports expansion of clean energy, distributed energy resources,competitive power markets, and consumer benefits.

Our Work

Since 2008, ACEG has educated lawmakers, regulators, advocates, academics, and other stakeholders about the benefits of a clean energy grid and the challenges we must overcome to maintain, upgrade, and expand it.

- **Groundbreaking Analysis:** ACEG and its partners develop and commission analyses that examine the benefits of and barriers to a modernized grid.
- **Engaging Policymakers:** ACEG takes an active role in educating lawmakers and the administration, as well as advocating for smart transmission policies.
- **Proactive Education:** ACEG hosts frequent webinars and organizes meetings with community groups to explore transmission benefits and the roadblocks to building needed transmission.

Transmission and America's Future

- **Improved grid reliability:** Expanded interregional transmission will dramatically reduce power outages during extreme weather events by allowing grid operators to tap resources from other regions. Unconstrained transmission could result in more than $1 billion in savings during extreme weather events and even greater annual savings.[1]
- **Supporting our present and future energy demands:** With low-cost, clean energy sources often located in remote areas, strategic growth of the electric grid will help deliver that power to the families and businesses that need it. Every path to 100% clean energy requires increased transmission. Without it, gas and coal plants will need to produce more energy to meet growing demand from EVs and broader electrification.[2]
- **Lower electric bills:** Investing in transmission lines reduces electricity production costs, decreases energy losses in the transmission process, reduces congestion, increases reliability, and encourages competition — all of which lower consumers' utility bills.
- **Improved health:** Expanded transmission can reduce pollution by allowing cleaner resources to connect to the grid. The emissions from fossil fuel generation are associated with serious health consequences, and many of these plants are located near marginalized communities.
- **American jobs:** Investing in transmission can spur the creation of 6 million net new jobs, increasing electric sector employment more than five-fold by 2050.[3]

ACEG Policy Priorities

- **Siting:** ACEG supports streamlining the transmission siting process to reduce the time needed to build clean energy transmission infrastructure.
- **Permitting:** ACEG supports improving the transmission permitting process without unduly weakening environmental or community protections.
- **Planning:** ACEG supports improved regional and interregional planning to develop high capacity transmission lines that reduce congestion, improve remote energy delivery, and improve reliability and resilience.
- **Cost Allocation:** ACEG supports broad cost allocation that accounts for the many benefits transmission lines bring to electricity customers, including reliability, economic, and environmental benefits.

Board & Staff

BRYN BAKER
CLEAN ENERGY BUYERS ASSOCIATION

KYLE DAVIS
ENEL NORTH AMERICA

ROBERT DEAN
IBEW

JESSICA ECKDISH
BLUEGREEN ALLIANCE

LARRY GASTEIGER
WIRES

PATRICK HUGHES
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

NICOLE LUCKEY
INVENERGY

ROBIN MILLICAN
BREAKTHROUGH ENERGY

MEGAN VETULA
BERKSHIRE HATHAWAY ENERGY

CHRISTY WALSH
NRDC

Christina Hayes
Executive Director

Max Frankel
Deputy Director

Sarah Shinton
Research Associate

Sources

1 Tandon Manz, Sheila, "Economic, Reliability, and Resiliency Benefits of Interregional Transmission Capacity," Oct. 2022.

2 Denholm, Paul, et al, "Examining Supply-Side Options to Achieve 100% Clean Electricity by 2035," Aug. 2022.

3 Clack, Christopher, et al, "Consumer, Employment, and Environmental Benefits of Electricity Transmission Expansion in the Eastern U.S.," Oct. 2020.

C. Hayes, ACEG Statement
Hearing to Improve Project Reviews for a Cleaner, Stronger Economy
EPW Committee
April 26, 2023

Attachment B: Transmission Benefits

Americans for a Clean Energy Grid

The Benefits of Electric Transmission

Electricity powers our daily lives. But most of our grid infrastructure has reached or exceeded its intended 50-year lifespan.[1] Numerous studies have found the U.S. needs to double or triple its transmission capacity to connect clean energy resources to the grid; accommodate the rapid electrification of everything from cars to home heating systems; and mitigate the disruption from extreme weather. An expanded grid will also lower consumer energy costs, protect natural security, create good-paying jobs, and address crucial environmental justice concerns.

Electric Reliability

Our grid must be able to withstand shocks from extreme weather, targeted attacks, or other system failures. Long-distance transmission helps to keep the lights on by allowing regions to share energy in the event of localized disruptions. Power outages during periods of extreme heat or cold can be deadly; as these threats become more frequent and demands for electric power — from cars, home heating systems, and more — steadily grows, the need for transmission connections between regions becomes even more vital.

Security

Long-distance transmission enables access to energy resources over wider geographic areas, making targeted cyber or physical attacks on the grid more difficult to plan and execute. Transmission also allows the U.S. to take full advantage of its domestic energy resources and limit its reliance on volatile foreign sources.

Consumer Costs

Improving our grid will save consumers money. Increased transmission reduces system congestion and enables access to more geographically diverse, low-cost energy resources, which reduces the total generation capacity it takes to power the grid. One study found that transmission expansion, and the resulting increase in wind and solar generation, could decrease the average consumer electric bill by more than one-third, saving the average household more than $300 per year.[2] The potential savings from new electric transmission was greater in 2022 than at any point in the past decade, due to high electricity prices and extreme weather events.[3]

Clean Energy

America has an abundance of clean energy. But two-thirds of renewable resource potential is located in 15 central states, which account for only one-third of total U.S. electricity consumption.[4] Transmission is needed to deliver wind and solar resources to all corners of the country. If the U.S. does not at least double its pace of transmission expansion, gas and coal-fired power plants will need to increase production to meet growing demand from EVs and broader electrification.[5]

There is no transition without transmission.

Environmental Justice

Many of the most polluting power plants are located in economically-disadvantaged areas. Compared to the overall community, people of color are exposed to nearly 1.3 times more particulate matter, and this disparity persists across income levels.[6] Expanded transmission allows more clean energy resources to come online, reducing our reliance on greenhouse gas-emitting resources. Low-income Americans also face disproportionate energy affordability burdens.

Jobs

Transmission construction and maintenance creates domestic, good-paying union jobs. In the Eastern U.S. alone, expanding and modernizing the transmission grid would unleash $7.8 trillion in investment and generate six million net new jobs, primarily in rural areas, according to an ACEG report.[7] Domestic content also accounts for approximately 65% of transmission wires and towers.[8]

Sources

1 American Society of Civil Engineers, "Policy Statement 484 - Electricity Generation and Transmission Infrastructure," (July 2019).

2 Clack, Christopher et al, "Consumer, Employment, and Environmental Benefits of Electricity Transmission Expansion in the Eastern U.S.," (2020).

3 Millstein, Dev et al, "The Latest Market Data Show that the Potential Savings of New Electric Transmission was Higher Last Year than at Any Point in the Last Decade," (Feb. 2023).

4 David Gardiner and Associates, "Transmission Upgrades & Expansion: Keys to Meeting Large Customer Demand for Renewable Energy," (Jan. 2018).

5 Jenkins, Jesse et al, "Electricity Transmission is Key to Unlock the Full Potential of the Inflation Reduction Act," (Sept. 2022).

6 Mikati, Ihab et al., "Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status," (April 2018).

7 Goggin, Michael et al, "Transmission Projects Ready to Go: Plugging into America's Untapped Renewable Resources," (April 2021).

8 Pfeifenberger, Johannes et al, "Employment and Economic Benefits of Transmission Infrastructure Investment in the U.S. and Canada," (May 2011).

C. Hayes, ACEG Statement
Hearing to Improve Project Reviews for a Cleaner, Stronger Economy
EPW Committee
April 26, 2023

Attachment C: Transmission for All

TRANSMISSION FOR ALL

Americans for a Clean Energy Grid

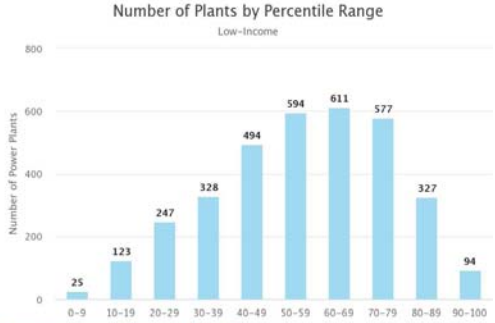
Electricity is an essential service. But most electric transmission lines in the U.S. have reached or surpassed their intended lifespan, and almost no new interregional lines have been planned in the past decade.[1] Failure to expand our grid and connect to diversified generation resources will lead to increased personal energy bills, inhibit progress toward our climate goals, and leave the grid more vulnerable to outages and natural security threats.

But the impacts of grid failure, climate change, and thermal pollution do not fall evenly across communities. Historically, the nation's energy system has operated in a manner that disproportionately harms low-income communities and people of color. In recent comments to FERC, WE ACT for Environmental Justice wrote that **"grid unreliability is an urgent environmental injustice issue."**[2]

Responsible, well-planned transmission can help relieve inequities by delivering clean and reliable energy to all communities.[3]

Many of the most polluting power plants are located near low-income areas and communities of color. Compared to the overall population, communities of color are exposed to nearly 1.3 times more particulate matter pollution, which is linked to numerous health issues.[4] The racial disparities persist across income levels.

Transmission allows more clean energy to connect to the grid and power homes across the country, reducing our reliance on greenhouse gas-emitting resources.



Source: Environmental Protection Agency.

Transmission keeps the lights on during extreme weather events.

During Winter Storm Uri in 2021, low-income Texans bore of the brunt of prolonged power outages.[5] More than 200 people died, the majority due to outage-related causes, including hypothermia and carbon monoxide poisoning.[6] The Federal Reserve Bank of Dallas also estimated the outages caused up to $130 million in economic losses.[7]

Meanwhile, the Midwest states suffered only a handful of short-term outages during Uri. The difference is that MISO, grid operator for the Midwest, is well-connected to its neighbors by transmission. On just one day of the storm, MISO imported 13,000 MW power and exported 7,000 MW to keep the lights on. By contrast, Texas was able to import just 800 MW over the course of the entire week.[8]

Transmission can reduce power costs.

Low-income communities face disproportionate energy affordability burdens. Increased transmission can reduce line congestion and enable access to more geographically diverse resources, helping to lower system-wide costs to provide electricity.

One study found transmission expansion, and the resulting increase in wind and solar generation, could reduce the average consumer electric bill by more than one-third, from more than 9 cents/kWh to 6 cents/kWh by 2050. This would save a typical household more than $300 a year based on current electricity consumption levels.[9]

"When energy system failures occur, already vulnerable communities suffer unequal harms ... [T]he transmission planning process can help resolve these inequities." – *NAACP of Greater Grand Rapids*

Case Studies

South Bronx, New York

In New York City, neighborhoods with poor air quality will see relief in coming decade with the commissioning of two new HVDC transmission lines, which will deliver clean, renewable solar, wind, and hydroelectric power from upstate New York and Canada through lines undergrounded in the South Bronx – a predominantly low-income, non-white neighborhood already experiencing cumulative impacts of multiple sources of pollution, such as gas plants and highways.[10] Areas of South Bronx as well as Northern Manhattan experience one of the highest rates of death and disease from asthma in the country.[11]

Hunters Point, San Fransisco

Due to the construction of the Trans Bay Cable, residents of the Hunters Point community in San Francisco can breathe cleaner air. The new, high voltage direct current (HVDC) transmission line delivers reliable power to San Francisco and led to the 2010 closure of the Hunters Point Power Plant, a generator that has long contributed to a disproportionate number of asthma and cancer cases in the city.[12]

SOURCES

1 American Society of Civil Engineers, "Policy Statement 484 - Electricity Generation and Transmission Infrastructure," 2022; Caspary, Goggin, Gramlich, and Schneider, "Disconnected: The Need for a New Generator Interconnection Policy," at 21, 2021.

2 WE ACT for Environmental Justice comments to FERC Docket No. RM21-17, E-library #20220818-5001, 2022.

3 ACEG's primary objective is to advocate for well-planned transmission. This is one of many steps needed to address historic inequities.

4 Clack et. al., "Consumer, Employment and Environmental Benefits of Electricity Transmission Expansion in the Eastern U.S." at 17, 2020; Ihab Mikati, et al., "Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status," 2018.

5 The Texas Tribune, "Already hit hard by pandemic, Black and Hispanic communities suffer the blows of an unforgiving winter storm," 2021.

6 FERC - NERC - Regional Entity Staff Report, "The February 2021 Cold Weather Outages in Texas and the South Central United States," at 13, 2021.

7 Federal Reserve of Dallas, "Cost of Texas' 2021 Deep Freeze Justifies Weatherization," 2021.

8 Goggin, Gramlich, Caspary, and Schneider, "Fleetwide Failures: How Interregional Transmission Tends to Keep the Lights on When There Is a Loss of Generation," at 4, 2021.

9 Clack et. al. Report at 9.

10 Clean Path NY.

11 Columbia Center for Children's Health, "Asthma."

12 Shao, Elena, "In San Francisco's Bayview-Hunters Point Neighborhood, Advocates Have Taken Air Monitoring Into Their Own Hands," 2021.

C. Hayes, ACEG Statement
Hearing to Improve Project Reviews for a Cleaner, Stronger Economy
EPW Committee
April 26, 2023

Attachment D: ACEG Transmission Legislative Principles

Americans for a Clean Energy Grid (ACEG) is a non-profit advocacy coalition focused on the need to expand and modernize the North American high-capacity grid. **Through extensive consultation, the following legislative principles were crafted to accelerate transmission buildout and develop a reliable grid that meets evolving U.S. electric needs.**

Transmission Tax Credit

Congress should enact a transmission tax credit that provides a 30% credit for regionally significant transmission lines. The credit should include the same standards of domestic content, labor standards, prevailing wage and apprenticeship requirements, normalization opt-out, transferability, and duration that were provided in the Inflation Reduction Act.

- ACEG recommends the threshold for regionally significant transmission be set at 750 MW or 345kV or greater and extend over at least two states, or one state and the outer continental shelf, or 150 miles.
- The credit should apply to 750 MW circuits that can be aggregated in the same ROW for offshore wind.
- Eligible projects should also include upgrades of at least 500 MW and shared network interconnection facilities of at least 230kV.

Siting and Permitting Reform

The federal government should have plenary jurisdiction for siting and permitting of regionally significant transmission lines. When consolidated with Federal Power Act (FPA) section 216(h) authority, jurisdiction over these lines would lead to unified siting and permitting in a single federal agency. In addition, such projects should also be automatically entered into the Federal Permitting Improvement Steering Council (FPISC) process, where deadlines among agencies should be established within 60 days of the filing of an application.

Congress should require that the federal permitting process for transmission projects take no more than five years from the initial application through record of decision, and including, if appropriate, the notice to proceed.

- Federal agencies should not be able to delay deadlines without agreement from the applicant, and any delay should last no more than six months. If an applicant independently requests a delay, the agency should accommodate.
- The siting process should allow for a pre-application consultation with stakeholders in affected communities, including notice and engagement with stakeholders and affected communities.
- If a federal agency misses its deadline, the appeal process in FPA section 216(h)(6) should apply.
- A project must be analyzed in a single environmental review, including any review associated with a corridor designation under FPA section 216(h)(5)(A).
- The period of time for judicial review of a final siting decision should be shortened from six years to provide greater certainty and should be consistent with other periods to seek judicial review for other infrastructure projects. For example, the FAST Act provides for two years to seek an appeal.

Community Engagement and Benefits

Ongoing funding should be made available for potentially impacted communities (including environmental justice and tribal communities) to participate in:

- regional and interregional planning and
- project-specific siting, routing, pre-development and technical assistance processes.

Congress should also implement a revenue sharing arrangement for transmission projects. For instance, a portion of federal lease payments for transmission lines could be allocated to a community benefit fund for communities and tribes impacted by regionally significant transmission lines.

Developers should be able to seek recovery of costs in transmission rates for community benefit payments to jurisdictions impacted by a project.

Interregional Transmission Planning and Cost Allocation

FERC should be required to issue a rulemaking within 180 days, and finalize a rule no later than one year after enactment, to establish a formula to set an interregional transfer capability minimum between any two adjacent Order No. 1000 planning regions and to require planning regions to meet or exceed that minimum capacity. In determining the need for interregional transfer capacity, the Commission must evaluate costs as well as full electricity system benefits.

Congress should direct FERC to require that every region develop an interregional transmission planning process based on expected needs and net benefits 20 years in the future that: (a) accounts for full electricity system benefits; (b) selects projects to meet identified interregional needs through a single, coordinated assessment; and (c) provides for predictable cost recovery and cost allocation roughly commensurate with benefits.

- Benefits include improved reliability, enhanced resilience, reduced congestion, reduced power losses, greater carrying capacity, reduced planning and operating reserve requirements, and improved access to generation, in accordance with FERC's existing cost allocation principles.
- Regions must adopt common metrics – including benefits, needs, and input assumptions – and methods to facilitate interregional transmission planning.
- All interregional plans must be completed within two years of enactment of this legislation, and updated not less frequently than every two years thereafter. Interregional planning processes should consider all potential transmission solutions regardless of regulatory or business model.

If an interregional plan with the above characteristics is not in place, a transmission developer should be able to file at FERC to recover costs of transmission lines that interconnect with more than one planning region, upon a showing that the benefits outweigh the cost of the project. Costs should be allocated to regions roughly commensurate with electricity system benefits discussed above, consistent with FERC precedent.

Interregional planning and cost allocation requirements should also apply to transmission owners and operators in ERCOT, but the construction or operation of any interregional facility or allocation of costs to meet a minimum interregional transfer capability should not affect the Commission's jurisdiction over ERCOT or any ERCOT utility.

Have questions?
Contact info@cleanenergygrid.org

Senator CARPER. Thank you for that testimony.

Now, Mr. Timmons, you are recognized. Please proceed. Thanks for joining us.

STATEMENT OF JAY TIMMONS, PRESIDENT AND CEO, NATIONAL ASSOCIATION OF MANUFACTURERS

Mr. TIMMONS. Thank you, and good morning, Chairman Carper, Ranking Member Capito, and members of the committee. Thank you for this chance to speak with you on behalf of the 13 million men and women who make things in America to convey the urgency of permitting reform.

For manufacturers, permitting reform is essential for our ability to compete in the global economy. While there is a broad range of philosophies represented on this committee, each member has a goal or a priority for their constituents that would be easier to achieve if Congress acts to modernize our permitting processes, and manufacturers share many of these goals.

Mr. Chairman, you quoted the great Yogi Berra. Another famous New Yorker, George Plunkitt, was a Democratic leader in Tammany Hall. He said, "If you see an opportunity, take it." I have to say, we have an incredible opportunity here to work in a bipartisan way to get some good things done.

If we want more critical minerals for chip manufacturing, more domestic energy development and transport, power plants, pipelines, transmission lines, more manufacturing facilities and jobs back home, better highways, bridges, airports, waterways, then we need permitting reform to make it a reality in the near future.

Then, there is the Bipartisan Infrastructure Law that everybody here has referenced, the CHIPS and Science Act, even the Inflation Reduction Act, which includes hydrogen tax credits, for which Chairman Carper successfully fought. Permitting reform is the key that unlocks the full potential of all of these laws.

What we want to do is improve standards of living here in America while making our economy less dependent on countries like China for our inputs, and less reliant on hostile nations, like Russia, for our energy supply. After all, why, in the 21st century should it take five or 10 or even 15 years just to approve essential projects?

If Washington could streamline the process, like manufacturers do in our businesses every single day, we could do more for our Country. For example, a White House Council on Environmental Quality report found that environmental impact statements mandated under the National Environmental Policy Act of 1969 now take, on average, as you referenced, Mr. Chairman, four and a half years. That means, for example, more time is spent just projecting potential environmental impacts than it takes to actually construct and operate a clean hydrogen power generation facility.

One of our member companies reported that permits from the U.S. Army Corps of Engineers were delayed a year due to the failure of the U.S. Fish and Wildlife Service to complete a required informal consultation under the Endangered Species Act. For an entire year, potential workers sat on the sidelines. A community lost out on economic opportunity waiting on informal paperwork.

We can and we should still set high standards for ourselves. Let us just modernize the process, fewer delays, fewer needless lawsuits.

As detailed in my written testimony, manufacturers have a few priorities. First, we want to see consolidated processes with enforceable deadlines for the siting of new energy projects, including hydrogen, natural gas, nuclear, and other emerging technologies, along with their infrastructure.

Second, we want to see faster approvals for transportation infrastructure projects on which we all rely. Third, we want to see a commitment to developing our resources to strengthen our supply chains for critical minerals that are essential to semiconductor manufacturing and Electric Vehicle (EV) battery production.

Fourth, we believe the Environmental Protection Agency (EPA) and other agencies should refrain from issuing new and shifting regulations before current standards are implemented. Finally, Congress should ensure that the Administration follows congressional intent on recent and future statutory streamlining efforts, such as the One Federal Decision.

We believe that all of this should be done in a technology-neutral way. Let consumers and users and market conditions determine what works best, and when there must be judicial review, it should be meaningful and timely.

Manufacturers have a deep commitment to environmental stewardship, and we do not believe that corners should be cut. We believe in protecting our community, our neighbors, and our environment.

Reform is about keeping up with the world around us. It is about ensuring that this Country, a democracy rooted in free enterprise, isn't outpaced or outflanked or overtaken by nations that do not share our values, that do not respect the environment, or that do not recognize the dignity of human rights.

There is nothing that manufacturers in America can not do for the good of our Country and the world, so long as the government and rules that were written in the past century aren't standing in our way.

Thank you so much for the opportunity to be here today.

[The prepared statement of Mr. Timmons follows:]

TESTIMONY OF JAY TIMMONS, PRESIDENT AND CEO, NATIONAL ASSOCIATION OF MANUFACTURERS

BEFORE THE U.S. SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

Hearing on

"Opportunities to Improve Project Reviews for a Cleaner and Stronger Economy"

APRIL 26, 2023

Good morning, Chairman Carper, Ranking Member Capito and distinguished members of the committee. Thank you for the opportunity to appear before you and for holding this important hearing today on how permitting reform can build a cleaner and stronger economy.

A. Introduction

My name is Jay Timmons. I was raised in the manufacturing town of Chillicothe, Ohio, where my grandfather worked at the Mead plant for nearly four decades. I have seen firsthand, through my own experience, how manufacturing raises the quality of life for families and communities. Today, I serve as the president and CEO of the National Association of Manufacturers. The NAM is the largest manufacturing association in the United States, representing small and large manufacturers in every industrial sector. At the NAM, we advocate for policies that help grow manufacturing in the United States and improve the lives of the families of the 13 million men and women who make things in America.

Manufacturers in the U.S. are committed to upholding our country's shared values of free enterprise and democracy. When manufacturing is strong, America is strong. It contributes $2.9 trillion in economic activity annually, according to the most recent available data. The

industry provides financial security to working families, paying an average of $95,990, including pay and benefits—nearly 18% higher than the average pay and benefits in all nonfarm industries.

I am joining you today because our out-of-date permitting laws and procedures are holding back progress and restricting our country's ability to compete globally. We are at a pivotal moment in our nation in which we all agree that we need to make more things in America, an imperative which was amplified by the supply chain crisis during the pandemic. The bipartisan CHIPS and Science Act is just one example of how Congress has worked together successfully to bolster manufacturing in America. However, some of the biggest obstacles preventing manufacturers—and therefore the entire American economy—from reaching our full potential are the permitting delays, red tape and complicated bureaucracy that have plagued us for decades. Today, though, as we work to modernize our infrastructure and shore up our supply chains, the need for reform is more urgent than ever. While manufacturing accounts for roughly 11% of our GDP, the industry can do even more if the permitting process is run more efficiently. Permitting reform is truly at the heart of U.S. manufacturing competitiveness. That is why manufacturers are grateful that this committee is making it a priority to modernize the broken process that stands in the way of manufacturing projects and job-creating investments.

As you proceed with this critical work, we want to help identify some of the most pressing areas that need attention.

Energy Infrastructure

Permitting hurdles are delaying projects across the energy landscape, including oil and gas pipelines, electric transmission lines, rail facilities for energy transport, coal, nuclear and liquefied natural gas exports. Renewable and other emerging energy technologies face similar,

steep permitting challenges. The Brookings Institution has observed, "If the U.S. is to achieve its climate ambitions and fully implement transformative legislation like the Inflation Reduction Act, Congress will also have to enable a massively accelerated build-out of clean energy infrastructure."[1] The permitting timeline to build that infrastructure can be shortened dramatically without removing environmental protections. We all want cleaner air and cleaner water and a healthier environment, but we also need a strong economy. These goals are not mutually exclusive.

For example, the siting of and infrastructure for zero emissions sources such as hydrogen power generation and transportation and for advanced, small modular and micro-nuclear reactors have progressed far too slowly. The IRA included nearly $400 billion for clean energy priorities; however, under our current permitting system, it could be years before those funds can be spent—in particular, the hydrogen tax credits that Chairman Carper fought hard to include. The IRA, CHIPS Act and Infrastructure Investment and Jobs Act will never reach their full potential without significant permitting reform.

Recently, the White House Council on Environmental Quality issued a report stating that, on average, environmental impact statements, which are mandated under the National Environmental Policy Act of 1969 to outline the potential impact of a proposed project on its surrounding environment, now take on average four and a half years.[2] That means more time is spent studying potential environmental impacts than it takes to construct and operate a clean hydrogen power generation facility. The NEPA process is not just time consuming; it is also rife with litigation, as the Congressional Research Service states that NEPA is the most frequently litigated federal environmental statute.[3] Furthermore, a 2014 Government Accountability Office

[1] https://www.brookings.edu/research/how-to-reform-federal-permitting-to-accelerate-clean-energy-infrastructure-a-nonpartisan-way-forward/
[2] https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_Timeline_Report_2020-6-12.pdf
[3] https://crsreports.congress.gov/product/pdf/IF/IF11932

study on NEPA analysis found that "little information exists on the costs and benefits of completing NEPA analyses" and that "agencies do not routinely track the costs of completing NEPA analyses."[4] Any process that often delays projects for four and a half years or more with little information on costs and benefits of completing the analysis and a heavy track record of litigation can surely be amended to reduce the time and costs needed for compliance without reducing environmental protections.

One NAM member reported that they needed to obtain a construction permit, but before the permit could be granted, the company needed survey permission to review the landscape and natural resources in the area. It took more than six months to simply obtain permission to conduct the survey. The delay in obtaining survey permission cascaded into a more than 12-month delay in the permitting process itself. It is important to note that this was listed as a "priority project" in the "Fast-41" Federal Infrastructure Dashboard, which is supposed to increase permitting efficiency.

But delays in starting projects are not just caused by NEPA or the Clean Water Act. One NAM member company reported lengthy delays of up to an entire year for the issuance of permits by the U.S. Army Corps of Engineers due to the failure of the U.S. Fish and Wildlife Service to complete the informal consultation required for confirming no adverse project impacts under the Endangered Species Act. So, for an entire year, potential workers sat on the sidelines and a community lost out on economic opportunity waiting on informal paperwork that should not have taken longer than 90 days to complete. Another member reported that a Section 7 Endangered Species Act consultation was stalled for more than two years as the National Marine Fisheries Service waited on a biologist to be assigned to the project.

[4] https://www.gao.gov/assets/gao-14-369.pdf

Manufacturers depend on access to reliable and affordable energy to expand, which is why we support reforms that would foster transparent, streamlined and timely federal regulatory processes for the siting, permitting and licensing of energy delivery infrastructure of all types.

Transportation Infrastructure

Manufacturers also rely on roads, rails, airports and ports for everything from employees' access to facilities to getting raw materials to shop floors and finished products to customers. Basic infrastructure must be developed before ground can ever be broken on a major facility. Yet, obtaining permit approvals for these projects often takes years, especially when reviews are piecemeal and duplicative. We appreciate lawmakers' focus to have more products manufactured in America, but too many companies are waiting on the sidelines because transportation infrastructure construction moves too slowly—or not at all. For instance, multiple NAM members have reported that National Historic Preservation Act Section 106 consultation processes spanned more than five years each for separate key rail infrastructure projects.

According to the Department of Energy's draft National Transmission Needs Study released Feb. 24, the national electric transmission system would need to grow 57% by 2035 to meet the infrastructure needed to reach the administration's clean energy goals as it relates to the growing light-, medium- and heavy-duty vehicle industries.[5] One of our electric heavy-duty truck manufacturers reported that some customers have refused deliveries of battery-electric trucks due to the lack and uncertainty surrounding the necessary utility infrastructure upgrades to power the chargers. Removing inefficiencies and streamlining permitting for charging infrastructure projects is a high priority for manufacturers, especially those facing state medium-

[5] https://www.energy.gov/gdo/national-transmission-needs-study

and-heavy-duty zero-emission-vehicle sales mandates like those in California, Washington and Massachusetts.

Passage of the bipartisan IIJA in 2021 heralded a new era in much needed improvements to nationwide infrastructure systems. These upgrades, updates and new projects represent the generational investment needed to keep manufacturers in America competitive in a global marketplace. To ensure the broad and beneficial impact of these investments—and achieve the congressionally intended effects—it is critical to clear permit backlogs and ease processing timelines. Today, the Federal Highway Administration averages more than seven years and four months to get approvals for a road that connects manufacturing facilities with their customers or employees with their workplaces.[6] Every day that we wait, our nation's competitive edge—with countries like China in particular—shrinks.

The NAM was a strong supporter of this historic legislation and remains committed to successful implementation to grow the economy.

Resource Development

Manufacturers strongly believe that permitting, leasing, exploration and development of the nation's resources must be done in an environmentally sound and responsible manner. But unnecessarily restricting access to America's abundant natural resources hinders our ability to strengthen domestic supply chains. It also makes manufacturers more reliant on raw material imports. The inconsistent administration of critical mineral policies, for example, has limited our ability to use a wide range of resources that exist on and beneath federal lands—resources that are critical to producing everything from cars to medical devices.

---

[6] Source: Executive Office of the President, Council on Environmental Quality. *Environmental Impact Statement Timelines (2010–2018)*. Washington, D.C. June 12, 2020.

Most mining of critical minerals on federal public lands is governed by the Mining Law of 1872. It is astounding that the law that governs how we can remove minerals that are critical to electric vehicles, wind turbines and solar panels was passed seven years after the Civil War ended and before the invention of telephones, automobiles or even the lightbulb. Modernizing and streamlining resource permitting and leasing policies will help stabilize manufacturing supply chains, control costs for consumers, reduce our reliance on foreign countries and create jobs in the U.S.

This committee shares a broad commitment to increasing semiconductor production in the United States so that our manufacturers—virtually all of which rely on chips for their products or processes—have strong, domestic supply chains for these critical inputs. With 88% of chips produced outside of the U.S.[7] right now, this is a crucial goal for not only our economic security but also our national security. Yet, the raw materials for those chips, such as lithium and cobalt, are still mined largely outside of the U.S. as well.[8] Our nation has reserves of both lithium and cobalt.[9] To access them, though, as Congress clearly envisions we will, also requires congressional action to speed up permissions for developing those resources in a responsible way.

Environmental Standards

We are proud that manufacturing in the U.S. is among the cleanest in the world. It is important to protect these achievements by avoiding measures that give a competitive economic advantage to countries with less regard for our environment. Unfortunately, when federal agencies continually revise standards before current standards are met and before

[7] www.semiconductors.org/wp-content/uploads/2021/09/2021-SIA-State-of-the-Industry-Report.pdf
[8] https://www.gao.gov/products/gao-22-104824#summary_recommend
[9] https://pubs.er.usgs.gov/publication/pp1802

states have implemented prior mandates, those revised standards create unpredictability. That has led to the U.S. losing out on new projects and facilities to other countries, undermining the very goals of our environmental standards. Right now, the Environmental Protection Agency is taking an aggressive approach toward tightening regulations in several environmental statutes. Unfortunately, these proposed regulatory changes are not based on the best available science and many times set standards at or below limits of detection, making compliance not technically feasible. One such regulation is the EPA's proposed air quality regulations for particulate matter (PM2.5). The regulation as proposed would mean that 40% of the U.S. population lives in an area that is out of "attainment," which would make it extraordinarily difficult to create new manufacturing jobs, protect existing manufacturing jobs and could prevent much needed infrastructure improvements in these areas.

Staffing shortages at agencies are also becoming a significant obstacle in the permitting process. In one case, a member company reported that a permit renewal was delayed by more than six months simply due to lack of staff. Individually, each regulation is restrictive enough, but when added together, they place a significant economic and operational impact on manufacturers.

Overly burdensome, shifting regulatory policies inherently affect permitting, licensing and siting applications because they move the goalposts of compliance with federal regulations. If instead we make the process more predictable and consolidate the many complex layers of review, the U.S. can continue to build on its strong record of environmental stewardship by boosting domestic manufacturing, which is environmentally cleaner than our international competitors.

Congressional Intent

The success of any legislative permitting reforms depends on proper implementation. Ensuring the administration follows congressional intent on recent and future statutory streamlining efforts such as One Federal Decision is key. Establishing strict permit review timelines and eliminating duplicative efforts across various federal agencies help in reducing unnecessary delays. Moreover, key permitting authorities are rife with ambiguity and inconsistent terminology and warrant congressional intervention.

***

Permitting affects every aspect of our lives—from our economic security to our national security. If we fail to modernize existing processes, the U.S. is at risk of falling behind international competitors that are taking every possible step to incentivize manufacturing development. For instance, the EU released a new plan known as the Net-Zero Industry Act, which looks to regain manufacturing from lower-cost manufacturing centers in Asia and elsewhere. European Commission President Ursula von der Leyen said of the plan, "To grow, our net-zero industries need the right framework. It has to be simpler, it has to be faster, and it has to be more predictable."[10] If the United States does not act quickly, we could lose much needed manufacturing investment to the EU and elsewhere in the world. On the other hand, if we seize this opportunity to lead, there is no limit to what manufacturers in the United States can accomplish—for the good of our people and the good of the world.

Permitting reform is not about cutting corners. It is about keeping up with the world around us. It is about ensuring that this country—a democracy rooted in free enterprise—is not

[10] https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/we-are-competitive-eu-unveils-clean-tech-incentive-plan-to-match-us-74089653

outpaced or outflanked or overtaken by nations that do not share our values, that do not respect the environment or that do not recognize the dignity of human rights.

Thank you for inviting me to testify today. I look forward to continued engagement with members of this committee as we work to create jobs and grow investment in manufacturing while continuing to keep our promises to protect our air and water and set the standard for environmental stewardship.

Senate Committee on Environment and Public Works
Hearing Entitled, *"Opportunities to Improve Project Reviews for a Cleaner and Stronger Economy"*
April 26, 2023
Questions for the Record for Jay Timmons

Senator Merkley

1. Is it true that in his first two years President Biden approved more permits for oil and gas drilling than President Trump did in his first two years of office?

According to data from the Bureau of Land Management, President Biden approved more oil and gas drilling permits in his first two years in office (6,430) than former President Donald Trump (6,172).[1] It is also worth noting that BLM data shows a sharp decrease in drilling permit approvals since April 2021.[2]

Further, BLM data shows that drilling permits approvals increased by 38% and average permit application processing decreased from 120 days to 63 days between the first and second years of President Donald Trump.[3]

Regardless of administration, Democratic or Republican, manufacturers rely on reliable and diversified sources of energy. Manufacturers welcome the continued development and production of U.S. natural resources while ensuring the highest level of environmental stewardship.

   a. What percentage of permits for oil and gas drilling does the Federal Government approve?

The Department of the Interior Bureau of Land Management is the repository for these statistics and data. The NAM defers to the expertise of the Department.

2. To the best of your knowledge, has any federal agency ever denied a permit or stopped a project on the basis of climate change?

Given the extraordinary number of projects navigating a variety of agency permitting processes, the NAM does not have complete visibility into all of the actions on these matters. The NAM recommends directing this question to the agencies that serve as the repositories of that information.

   a. How is climate change factored when agencies make a final determination about whether to grant a permit or take an action?

---

[1] https://reports.blm.gov/report/AFMSS/81/Approved-APDs-Report-Federal
[2] https://www.politico.com/news/2022/03/15/drilling-permits-spiked-then-plunged-under-biden-00016814
[3] https://www.reuters.com/article/us-usa-drilling-permits/under-trump-u-s-drilling-permits-on-federal-lands-soar-idUSKCN1RO18A

President Biden's Executive Order on Tackling the Climate Crisis at Home and Abroad states the following:

> *"It is the policy of my Administration to organize and deploy the full capacity of its agencies to combat the climate crisis to implement a Government-wide approach that reduces climate pollution in every sector of the economy; increases resilience to the impacts of climate change; protects public health; conserves our lands, waters, and biodiversity; delivers environmental justice; and spurs well-paying union jobs and economic growth, especially through innovation, commercialization, and deployment of clean energy technologies and infrastructure. Successfully meeting these challenges will require the Federal Government to pursue such a coordinated approach from planning to implementation, coupled with substantive engagement by stakeholders, including State, local, and Tribal governments."* [4]

As such, the NAM defers to and recommends directing this question to the numerous directed regulatory and permitting agencies on how they have implemented President Biden's executive order in their respective processes.

3. How does the permitting process consider the burden, or cumulative impacts, that frontline communities already face?

The EPA has stated the following:

> *"Meaningful community engagement is essential to environmental justice and relies on communicating directly with the impacted communities and providing a means for their input to inform decision outcomes. Creating a permanent Community Advisory Committee is an effective method for keeping a community well informed and gathering input."* [5]

> *"Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This goal will be achieved when everyone enjoys:*
> - *The same degree of protection from environmental and health hazards, and*
> - *Equal access to the decision-making process to have a healthy environment in which to live, learn, and work."* [6]

The NAM agrees that early and frequent engagement with communities is critical to the success of manufacturing in the U.S.

---

[4] https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/

[5] https://www.epa.gov/community-port-collaboration/environmental-justice-primer-ports-effective-community-engagement

[6] https://www.epa.gov/environmentaljustice

4. You have said, "Climate change is a global challenge that requires a global solution and a global partnership" and that we need "a true global partnership on energy and environmental policy." The Paris Agreement only requires countries to make voluntary commitments. Does that mean that you think that a binding agreement between countries would be more effective and would be desirable?

Manufacturers have detailed their views on this issue in "The Promise Ahead," the NAM's recommendations for taking action on climate:

> *"The United States must lead the global response to climate change, but to be effective, the response must be truly global. In our global economy, the one constant is change. For years, the United States led the world in emitting GHGs; China has since overtaken us, producing 28% of global emissions, and now the United States only represents 15% of global emissions.6 India could also surpass the United States in emissions over the coming decades as it grows and industrializes. The original 1992 U.N. Framework Convention on Climate Change did not anticipate this shift; the UNFCCC requires significantly more commitments from countries considered as "developed" in 1992 than countries that were not, like China and India. Much has changed since 1992, yet the UNFCCC's arbitrary lines remain in place—an obstacle to increased global ambition."*[7]

   a. What do you think the basis of any fair and equitable international targets would be? Per capita emissions, historic emissions, existing emissions, or something else?

NAM members have forward-leaning environmental goals. Congress and the federal government should prioritize industry engagement to better understand these goals and the steps that are needed to achieve global emission reductions.

[7] [7] https://www.nam.org/wp-content/uploads/2021/01/The-Promise-Ahead.pdf

Senator CARPER. Not at all. Thank you very much for that testimony.

Before I introduce Mr. Durbin, once you finish your testimony, Mr. Durbin, we are going to turn to Senator Fetterman to ask any questions that he might have, and then to Senator Capito, and then I will follow in her wake.

Mr. Durbin, please proceed.

STATEMENT OF MARTY DURBIN, SENIOR VICE PRESIDENT OF POLICY, U.S. CHAMBER OF COMMERCE

Mr. DURBIN. Good morning, Chairman Carper, Ranking Member Capito, and members of the committee. Thanks for the invitation to be here today.

We have an historic opportunity. Congress enacted the most significant investments in infrastructure in a generation. Combined, the Bipartisan Infrastructure Law, the CHIPS and Science Act, and the Inflation Reduction Act could spur public and private investments from nearly $2 trillion to build the infrastructure and the economy of the future.

However, we believe our permitting process is broken and creating unnecessary obstacles. To be clear, environmental reviews and meaningful community input are essential, but we have to find ways to accelerate the process.

While our environmental statutes provide critical protections that have contributed to better stewardship over the decades, over time, their interpretation and implementation have added complexity in ways that empower project opponents to delay action through the regulatory process and the courts.

Simply put, it should not take longer to get a decision about a permit, which we have heard, on average, is more than four years, than it does to actually construct a project.

We need Congress to act to ensure our Nation's global competitiveness, strengthen our economic and energy security, and meet the challenge of climate change.

The good news is that we have seen bipartisan support for fixing the problems. To build on that momentum and spur quick action by Congress, the Chamber and nearly 350 partners from across the economy and nearly every corner of the Nation launched the Permit America to Build Campaign. I want to thank Chairman Carper and Senator Capito for joining us at our launch last week.

With such a broad group of industries, labor unions, and others, we would not agree on every issue, but we are committed to working with Congress to enact necessary reforms this year. As a starting point, we agree on four principles: predictability, efficiency, transparency, and stakeholder input.

This is an issue that affects many of our Nation's infrastructure priorities. The clean energy transition, a central part of the global climate strategy, cannot be achieved when it takes so long to build projects like offshore wind, solar farms, or transmission lines.

To reach net zero emissions by 2050, a million miles of new transmission lines may be needed. Does anyone believe that is possible with our current permitting process?

Natural gas is the backbone of a clean energy economy, providing standby support for intermittent generation and cleaner baseload

generation; but the inability to site interState pipelines because opponents are using the permitting process to stop them is preventing affordable and reliable supplies of natural gas from getting to those who need it, such as in New England.

Turning to critical minerals, demand is at an all-time high. They are used in everything from cell phone batteries to wind turbines, but some 80 percent of those materials are produced, refined, and processed in China. While it take an average of seven to 10 years to receive a mining permit in the U.S., in Canada and Australia, it takes about two.

The CHIPS and Science Act is investing more than $50 billion to strengthen America's semiconductor industry to help ensure our national security and our global competitiveness; but here too, permitting requirements can present significant challenges to many of those projects.

On broadband, closing the digital divide is going to drive e-commerce, improve access to critical services, and sustain small businesses uncertainty and delays in the permitting process at all levels of government will increase the cost and complexity of that deployment.

As we have heard, the Bipartisan Infrastructure Law is providing unprecedented opportunity to modernize our Nation's transportation infrastructure, but States and other recipients of those dollars are struggling to use them since the lengthy permitting process can add years and uncertainty. With the inflation, inflation literally means that time is money. The longer it takes for shovels to hit the dirt, the less we are going to be able to build.

On water infrastructure, $13 billion has been allocated through recent laws to increase drought resilience and expand access to clean water for families, especially in the American West, however, water infrastructure projects take on average six years to receive a permit.

We know that forging consensus is not going to be easy, but we can not let the perfect be the enemy of the good. After decades of seeing the process get longer, more complex, and less transparent, we must take whatever steps we can now to create a modern, agile, and efficient permitting process. Every day that goes by imposes an opportunity cost on all of us.

We are ready and willing to work with Congress to unleash both public investments and the power of private sector capital. This is one of the most important issues facing our Nation, and if we do not solve it, we will not be able to grow our economy and take full advantage of the opportunities that we have in front of us. Thank you again for the opportunity to be here. I look forward to your questions.

[The prepared statement of Mr. Durbin follows:]

U.S. Chamber of Commerce

1615 H Street, NW
Washington, DC 20062-2000
uschamber.com

HEARING BEFORE THE UNITED STATES SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

April 24, 2023

Written Testimony of Martin J. Durbin
Senior Vice President, Policy; President, Global Energy Institute
U.S. Chamber of Commerce

Chairman Carper, Ranking Member Capito, and members of the Committee. I am Marty Durbin, Senior Vice President of Policy, and President of the Global Energy Institute at the U.S. Chamber of Commerce. Thank you for the opportunity to testify at today's hearing.

The Chamber is the world's largest business organization representing companies of all sizes across every sector of the economy. Our members range from the small businesses and local chambers of commerce that line the Main Streets of America to leading trade associations and Fortune 500 companies, to growing startups in emerging and fast-growing industries that are shaping our future. Each one of our members share one thing: They count on the U.S. Chamber to be their voice in Washington, across the country, and around the world. For more than 100 years, we have advocated for pro-business policies that help businesses create jobs and grow our economy.

I am excited to be here today, and optimistic about the opportunity to make meaningful, durable improvements to the federal permitting process that are crucial to so many national priorities.

The United States is a nation of builders. From the building of the transcontinental railroad during the Civil War, to the Interstate Highway System after World War II; from rural communities and townships to modern skyscrapers. More recently, the internet and millions of miles of wires, transmission lines, and pipelines are powering the world's leading economy.

Data show, however, that our permitting process is broken, creating unnecessary obstacles to building the infrastructure, and the economy, of the future. We can and must conduct environmental reviews and provide for meaningful community input, but there is no reason we cannot accelerate the process. It shouldn't take longer to get a decision about a permit than it does to actually construct a project.

According to government data, it takes on average more than four years for a project to obtain a federal permit; for roads and bridges, an average of 7.4 years and for public transit, 5.3 years. And the permitting process for electric transmission lines can take a decade or more. America's environmental statutes provide critical protections and have contributed to better stewardship over the decades. But over time their interpretation and implementation have added complexity in ways that empower project opponents – of all types – to delay action through the regulatory process and the courts.

We need Congress to act to ensure America's global competitiveness, strengthen our economic and energy security, and meet the challenge of climate change. It is clear there is overwhelming bipartisan support to find a solution. To build on that momentum and spur quick action in Congress, the Chamber and nearly 350 partners from across the economy and nearly every corner of the nation launched the **Permit America to Build** campaign.

From telecom to ports, airlines to automakers, energy, construction, trucking, manufacturing, real estate, labor, environmental groups, and more, the sheer breadth of sectors calling on Congress to take action illustrates the magnitude of the problem, and the importance of a bipartisan solution. With such a broad group of industries, labor unions, and others, we won't agree on every issue, but we are committed to working with Congress to enact necessary reforms this year. As a starting point, we agree on the following principles:

- **Predictability** – Project developers and financers must have an appropriate level of certainty regarding the scope and timeline for project reviews, including any related judicial review.
- **Efficiency** – Interagency coordination must be improved to optimize public and private resources while driving better environmental and community outcomes.
- **Transparency** – Project sponsors and the public must have visibility into the project permitting milestones and schedule through an easily accessible public means.
- **Stakeholder Input** – All relevant stakeholders must be adequately informed and have the opportunity to provide input within a reasonable and consistent timeframe.

HISTORIC OPPORTUNITY

Over the last two years, Congress enacted the most significant investments in infrastructure in a generation. Combined, the Infrastructure Investment and Jobs Act, the CHIPS and Science Act, and the Inflation Reduction Act could spur public and private investments of nearly $2 trillion to build the infrastructure that will keep the United States economically competitive into the future. Looking at the IRA alone, Princeton University's REPEAT project analysis found that failing to accelerate transmission expansion beyond the recent historical pace (~1%/year) risk losing 800 million tons per year in U.S. greenhouse gas emissions reductions by 2030, relative to estimated reductions in an unconstrained IRA case.[1] In other

[1] https://repeatproject.org/docs/REPEAT_IRA_Transmission_2022-09-22.pdf

words, the potential to reduce emissions from IRA is directly tied to our ability to permit transmission lines faster.

A SECTOR BY SECTOR LOOK AT PERMITTING IMPACTS

Energy

The clean energy transition that is a central part of the global climate strategy cannot be implemented when it takes years to build projects like offshore wind, solar farms, and transmission lines. Not only does that delay emissions reductions, it also places our country at a competitive disadvantage. In fact, in one analysis that examined China, India, the European Union and the United States, U.S. permitting times drive deployment delays up to six years compared to other countries.[2] According to the American Clean Power Association (ACP) over the last 8 months, more than $150 billion in domestic utility scale clean energy investments have been announced—as much as the last five years combined. However, ACP notes that: "...to realize this clean energy future and ensure the full potential of these projects, ACP urges the Administration and Congress to continue improving trade policies, supporting next-generation technologies, finalizing effective tax implementation, and working to enact commonsense permitting reform." [3]

To reach net-zero emissions by 2050, over 1 million miles of transmission lines would also have to be built.[4] In addition, the National Academies of Science estimates that more than 65,000 miles of new CO2 pipelines are needed to take advantage of carbon capture and sequestration investments in the Inflation Reduction Act, all of which will need permits. Does anyone believe that's possible with our current permitting system?

Of course, renewable energy projects aren't the only energy projects facing delays. Natural gas is the backbone of a clean energy economy, providing standby support for intermittent generation in addition to cleaner baseload generation. But the inability to predictably and reliably site interstate pipelines is preventing affordable and reliable supplies of domestic natural gas from being utilized. Those permitting roadblocks are also hampering investment in pipelines to transport CO2 and hydrogen –necessary infrastructure to decarbonize the industrial sector.

Now more than ever, we can help our allies by providing affordable, clean natural gas to help meet their energy security needs. We've seen what happens when countries like Russia weaponize energy supplies. Europe, Japan, and others are depending on the United States to provide oil and natural gas as they rapidly seek alternatives to Russian energy

---

[2] file:///C:/Users/mletourneau/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/ZNASM0IU/Crossetch-Cleantech-Policy-Impact-Assessment.pdf

[3] https://cleanpower.org/investing-in-america/

[4] https://www.nationalacademies.org/our-work/accelerating-decarbonization-in-the-united-states-technology-policy-and-societal-dimensions

imports. However, despite this vital global security interest, America's inability to permit energy infrastructure has exacerbated risks and impeded project financing, particularly with respect to natural gas exports. While some progress has occurred since Russia's invasion, a number of permits to export liquified natural gas (LNG) await uncertain action by the federal bureaucracy[5]. Importantly, these projects can help to reduce emissions by displacing higher intensity coal and natural gas sources throughout the world.[6]

In addition, despite proximity to the Marcellus Formation, the second largest natural gas basin in the world, the Northeastern United States has some of the highest energy prices in the nation and faces capacity constraints, especially during winter months, forcing it to rely on imported LNG and higher-emitting fuel oil. This is because project opponents have used the permitting process to make it virtually impossible to site an interstate pipeline that will safely deliver energy resources to areas that need them. Some projects, such as the Atlantic Coast Pipeline and the Penn East Pipeline, have been completely cancelled, while others, such as the Mountain Valley Pipeline, have faced years of delays.

Mining

Demand for critical minerals is also at an all-time high. The Biden Administration is heavily invested in the rapid acceleration of electric vehicles and charging infrastructure which depend on critical minerals and materials. Critical minerals are used in everything from cell phone batteries to wind turbines. Unfortunately, some 80 percent of these materials are produced, refined, and processed by China, raising serious questions about the stability and dependability of the supply chain.

Recent attempts by other countries to catch up with China have met mixed results. Canada and Australia, however, seem to understand the problem, and a mining permit in those nations averages about 2 years. But in the United States, those same permits—if possible to secure at all—can take 7-10 years, placing us at a massive disadvantage[7]. Moreover, it is not uncommon for mining projects to take much longer, like the Mount Hope project in Nevada, which took 17 years to get a permit.

---

[5] API-SOAE23-Printed-Report.pdf

[6] A 2019 Department of Energy analysis found that natural gas pipelined from Russia to Europe's electricity sector has 41 percent higher life cycle GHG emissions than American LNG shipped to Europe from the Gulf of Mexico. President Biden and European Commission President von der Leyen have committed to ensure an additional 50 bcm of USLNG is delivered to Europe through at least 2030. We estimate that meeting that 50 bcm goal would achieve 73 million metric tons of CO2 emissions, simply by replacing Russian gas with U.S. gas. As with current coal-to-gas estimates, that figure is likely an underestimate because we know from more recent datasets (such as the World Bank) that U.S. energy production continues to get cleaner while Russia's environmental footprint has worsened. This emissions advantage is nearly certain to grow in the years ahead, thanks to IRA incentives, EPA regulations, and commitments by U.S. producers and exporters to address emissions throughout the LNG supply chain.

[7] https://nma.org/wp-content/uploads/2021/05/Infographic_SNL_minerals_permitting_5.7_updated.pdf

Semiconductors

The CHIPS and Science Act invested more than $50 billion to strengthen America's semiconductor industry to help ensure national security and our global competitiveness. The Department of Commerce is currently in the process of soliciting applications for the CHIPS program. However, projects funded by the CHIPS Act are subject to the National Environmental Policy Act (NEPA), which is new for this industry. It has been widely reported that NEPA requirements are expected to present significant challenges for many projects funded by the CHIPS Act, which is compounded by the intensive process of building a new semiconductor facility. A primary objective of the CHIPS Act is to reduce the cost differential between investment in the United States compared to other jurisdictions, so inflexible NEPA requirements could counteract those goals. Congress and the Department of Commerce both have important roles to play to speed up the NEPA review process for CHIPS Act programs.

Broadband

Closing the digital divide is an important priority of the Chamber to drive e-commerce, improve access to critical services, and sustain small businesses. While the federal government has invested tens of billions in broadband deployment, uncertainty and delays in broadband permitting processes at the federal, state, and local levels increase the cost of deployment and make it more challenging to close the digital divide. More efficient permitting processes are needed for timely upgrades to America's communications infrastructure. The primary barriers to broadband deployment include inconsistent and impaired access to federally managed lands, lengthy and burdensome NEPA and National Historical Preservation Act reviews, and certain state and local permitting rules such as excessive fees, onerous liability provisions, and prolonged approval timelines.

Transportation Infrastructure

The Infrastructure Investment and Jobs Act provides an unprecedented opportunity to modernize our Nation's transportation infrastructure through $1.2 trillion in federal investments over 5 years. However, states and other recipients of these dollars are struggling to use them to maximum effect since the lengthy and inefficient permitting process adds years and enormous uncertainty to all but the most straightforward maintenance projects. The lack of predictability, efficiency, and transparency to the federal permitting process has the very real impact of encouraging federal dollars to go towards strict maintenance projects and discouraging contractors from bidding for federally-funded transportation projects. In fact, record inflation and uncertainty over when they can actually put shovels in the ground means businesses may actually be *losing* money on projects. The longer it takes for shovels to hit the dirt, the less impactful IIJA will be and the less we'll be able to build.

Moving Goods, People and Services

One of our challenges is our ability to address our supply chain and meet the demands of the world economy by growing our infrastructure. Yet it takes 7.7 years on average for an airport to receive a permit. Almost $2 trillion in goods are shipped in and out of the U.S. dependent on our waterways. To keep the flow moving, we need to reduce port congestion, but it takes almost 8 years just to get permits for port navigation improvements.

During the infrastructure debate, we heard many stories about our crumbling roads and bridges. Having President Biden and Senate Minority Leader McConnell attend the groundbreaking for badly needed improvements to the Brent Spence Bridge between Kentucky and Ohio was a powerful moment that symbolized the opportunity we now have. Yet road and bridge projects face some of the largest delays. Highway projects take on average over 7 years to permit. Recent history is full of examples of projects with absurdly long permitting timelines. The permit for New York's Bayonne Bridge project was 5,000 pages long and cost $2 million to produce. The project took a decade from conception to completion.[8] The US70 Havelock Bypass in North Carolina took a staggering 27 years to permit.

Public transit projects are not immune from these kinds of delays either, as many of us locally here in the Washington area that have been following the Purple Line know.

Water Resource Management

$13 billion in water infrastructure has been allocated through the Infrastructure Investment and Jobs Act and other recent laws to increase drought resilience and expand access to clean water for families, especially in the American west. The benefits of these investments will be delayed because water infrastructure projects take 6 years on average to receive a permit.

Conclusion

There are many other industries and numerous areas of our economy impacted by permitting delays. But the good news is that there is increasing bipartisan agreement that something must be done.

We recognize that forging consensus on the details may not be easy. But we cannot let the perfect be the enemy of the good. After decades of seeing the process get longer, more complex, and less transparent, we must take whatever steps we can now to create a modern, agile, and efficient permitting process. Every day that goes by imposes an opportunity cost on all of us.

---

[8] https://bipartisanpolicy.org/blog/americas-national-climate-strategy-starts-with-nepa/

The Chamber is ready and willing to work with each and every member of the House and Senate who are interested in helping to unleash both recent public investments and the power of private sector capital. Our members view this issue as one of the most important facing our country, and if we do not solve it, we won't be able to grow our economy and rise to the challenges that we face.

Thank you for the opportunity to testify, and I look forward to your questions.

Senate Committee on Environment and Public Works
Hearing Entitled, *"Opportunities to Improve Project Reviews for a Cleaner and Stronger Economy"*
April 26, 2023
Questions for the Record for Marty Durbin

Senator Merkley

1. Is it true that in his first two years President Biden has approved more oil and gas drilling permits than President Trump did in his first two years of office?

   Answer: BLM's statistics are unclear. A recent analysis by the Center for Biological Diversity found the Biden Administration approved only 258 more APDs than the Trump administration in their administration's first two years. [1] However, the data used in the analysis may not be complete for the first two years Trump was in office.

2. What percentage of drilling permits are approved by the federal government?

   Answer: In FY 2022, BLM approved 88 percent of the APDs that it processed. The FY 2022 approval rate is ten percentage points lower than the FY 2021 approval rate (98 percent).

   In this case, percentages of permits to drill can be a misleading metric. Permits to drill are extensive plans which can be applied for only after a company has secured a lease. It is therefore safe to say that most of the approved APDs occurred on leases from past Administrations.

Federal Onshore Oil & Natural Gas Leases by Administration, After 27 Months in Office

Administration	Sales	Total receipts (*millions, USD*)	Parcels receiving bids	Acreage receiving bids (*thousands*)
Biden*	6	22	113	71
Trump	62	1,637	3,151	3,116
Obama	72	374	2,684	2,055
Average	47	678	1,983	1,748

Sources: Bureau of Land Management; EnergyNet; API calculations.
Notes: Up to date as of April 20, 2023. For the Trump and Obama administrations, onshore competitive leasing data is extracted from BLM reports obtained using a web archive. These BLM reports provide data on sales, parcels receiving bids, and total receipts including rents, bonuses, and administrative fees. *For the Biden administration, EnergyNet lists total high bids and does not include rents or administrative fees.

[1] https://biologicaldiversity.org/w/news/press-releases/biden-administration-oil-gas-drilling-approvals-outpace-trumps-2023-01-24/

3. To your knowledge, has any federal agency ever denied a permit or stopped a project on the basis climate change?

Answer: Permitting decisions across a broad range of projects including energy, roads and bridges, mining, ports, water infrastructure, and others are often delayed due to increasingly burdensome and subjective environmental review requirements that can lead project developers to cancel projects. Delays and further uncertainty regarding future litigation can sometimes drive project developers to avoid seeking federal funding that would subject them to an uncertain federal permitting process.

For energy in particular, the Biden Administration cited its Executive Order on Tackling the Climate Crisis at Home and Abroad as one of many reasons not to hold the quarterly lease sales required under the Mineral Leasing Act (MLA). The Biden Administration is currently planning approximately 12 lease sales on federal lands in 2023, which will still leave its total lease sales at 1/3 of the Trump Administration's totals and less than 1/3 of the Obama Administration's totals. Additionally, its 5 Year Offshore Leasing Plan has yet to be finalized.

Permitting decision delays across a broad array of projects from energy, road and bridges, ports, water infrastructure, each must follow increasingly burdensome and subjective environmental review requirements that can lead to project developers canceling projects due to the uncertainty of the federal permitting process. In some cases, project developers do not seek federal funding simply due to the delay and uncertainty of the federal permitting process.

a. How is climate change considered when agencies make a final determination on a permit or an action?

Answer: Each of the last three administrations have issued guidance under the National Environmental Policy Act (NEPA) on Consideration of Greenhouse Gas Emissions. Earlier this year the CEQ released an interim version of this guidance ("Guidance"). This guidance is applicable to all Federal actions subject to NEPA covering a broad range of economic activities. For example, federally regulated activities that trigger NEPA reviews include exploration and production of oil and natural gas resources on federal lands and the Outer Continental Shelf; construction of interstate natural gas pipelines and natural gas and oil pipelines that cross federal lands; and construction and operation of petroleum refineries, liquefied natural gas terminals, and carbon capture facilities. Note that the Guidance contains several provisions seeking to maximize the mitigation of upstream and downstream GHGs with very little regard for the strong climate regulations of other agencies, duplication across multiple agencies' implementation of NEPA, the benefits of natural gas and oil projects, or a need for cost-effectiveness in reducing GHGs.

Another energy sector example of how climate change has been considered by agencies is how the Department of the Interior and the Bureau of Ocean

Energy Management (BOEM) justified increased royalty rates for Lease Sale 258 to account for the social cost of greenhouse gas emissions.[1] BOEM recommended a royalty rate surcharge of 2 1/12 percent be added to the minimum royalty rate of 16 2/3 percent. BOEM's reasoning was that even though a 16 2/3 royalty rate "may be more likely to facilitate expeditious and orderly development of OCS resources and potentially offer greater energy security to residents of the State of Alaska, a reasonable balancing of the environmental and economic factors for the American public favors the maximum 18 ¾ percent royalty for Cook Inlet leases."

4. How does the permitting process take into consideration the burden, or cumulative impacts, that frontline communities already face?

Answer: Stakeholder input is an important principle in the permitting process whether it be for infrastructure related to telecom, ports, energy, manufacturing, broadband, or other sectors. In fact, it is one of the four broad principles that we included in our Permit America to Build campaign urging Congress to pass needed permitting reform legislation by the end of this summer. In our kickoff campaign letter[2] which was signed by nearly 350 organizations representing virtually every sector of the U.S. economy and every corner of the country, we highlighted the need for stakeholder input stating that "[a]ll relevant stakeholders must be adequately informed and have the opportunity to provide input within a reasonable and consistent timeframe." I also confirmed during the hearing in response one of Senator Carper's questions, our support for meaningful public engagement during the permitting process.

5. The Chamber is an official observer to the United Nations climate talks. What do you think the basis of a fair and equitable US mitigation contributions should be under the Paris Agreement? Per capita emissions, historic emissions, existing emissions, or something else?

Answer: The Chamber is proud of its role as a longtime accredited observer to the United Nations Framework Convention on Climate Change, applauded the Biden Administration's efforts to rejoin the Paris Agreement and restore U.S. international leadership on this issue. While the U.S. has led the world in greenhouse gas emissions reductions, we know that more must be done, and the Paris Agreement provides a durable, politically-supported international framework to enable progress in this area. The Paris Agreement is founded on the central principle of "common but differentiated responsibilities and respective capabilities, in light of different national circumstances." With respect to individual country contributions, the Chamber has called for "reducing emissions as low as we can as fast as we can, while ensuring that any national targets and timetables are realistic,

[2] https://www.uschamber.com/energy/coalition-letter-on-permitting-reform

achievable, and appropriately account for U.S. economic interests and work to address impacts to trade-exposed, hard-to-adapt and energy intensive sectors."

a. Do you believe that US climate finance is foundational to the Paris Agreement?

Answer: It is more precise to say that developed country climate finance is foundational to the Paris Agreement, which emphasizes "the need to support developing country Parties for the effective implementation" of the Agreement. Certainly the U.S. has played, and will continue to play, a major role in support of the collective efforts of developing countries in this area.

b. Do you support President Biden's U.S. climate finance goal to scale up U.S. climate finance to $11.4 billion annually by 2024?

c. Do you support US contributing to the Green Climate Fund, and if so, at what levels?

Answer (b & c): As a truly global environmental challenge, it is well understood that developed countries alone cannot reduce global emissions by themselves—all countries have to participate. The Paris Agreement was designed to address the shortcomings of the Kyoto Protocol by bringing developing countries into the fold as full partners. While the emissions pledges of developed and developing countries remain uneven, UNFCCC-facilitated international climate finance initiatives can help to foster greater ambition and more effective climate action from developing countries. The Chamber supports these efforts but defers to Congressional and Executive Branch expertise on the most appropriate allocation of funding across various programs and initiatives.

Senator CARPER. Exactly five minutes. That was perfect.

Mr. DURBIN. Stuck the landing.

[Laughter.]

Senator CARPER. Thanks so much, Mr. Durbin.

We are going to move on to questions. We are going to turn first to Senator Fetterman, and then after he has asked his questions, Senator Capito, and then I will follow her. Thank you. Senator Fetterman, welcome. You are recognized.

Senator FETTERMAN. Thank you so much, Mr. Chairman.

Ms. Goldfuss, you have discussed programmatic environmental impact statements, which could help advance clean energy projects in areas that are ideal for future wind, solar, and transmission projects. How can you incorporate proactive community engagement into programmatic review?

Ms. GOLDFUSS. Great question, thank you, Senator.

The beauty of the programmatic review process is it allows you to pick an area that you want to develop in larger than just the project size. If you identify that area at the right level, then you are able to engage the community around there, and you are also able to look at the broader environmental conditions, whether it is related to wildlife, water, or other issues.

You can assess that on the front end, and then you can tier off of that larger programmatic review for specific projects. That allows you to go through that process not detailed at each project level, but for that broader area, just one time.

Senator FETTERMAN. Further, another question with you, Pennsylvania has been discussing its own permitting capacity right now. The States play a critical role here, but many have outdated processes and limited capacity. Do you agree with that?

Ms. GOLDFUSS. Absolutely.

Senator FETTERMAN. How do you believe that the Federal Government should help States improve their permitting processes in a way that aligns with Federal goals?

Ms. GOLDFUSS. We have seen some promising partnership in the State of Nevada in particular, where some of the resources that have been made available through the Inflation Reduction Act and the Bipartisan Infrastructure Law can be given to the States for their permitting process.

If the Federal Government is going to do that, it should be conditioned on the basic values that we have laid out here, making sure that there are environmental considerations, that community engagement is done up front, but those resources can be transferred to the States for their particular permitting process.

Senator FETTERMAN. So you are saying changing the process and shortening it significantly, that would be transformative not for just the economy, but also the energy.

Ms. GOLDFUSS. Absolutely, and the States have their own laws that they need to work through, as well. If they have the capacity, it allows them to do it faster.

Senator CARPER. Senator Fetterman, thanks for joining us, and for those questions.

Senator Capito, you are recognized, and I will follow you.

Senator CAPITO. Thank you. Thank you all very much.

I am going to start with Mr. Durbin and Mr. Timmons. I think, when we sit here and talk, we talk about NEPA, if somebody is actually watching, which I hope they are, they have no idea what that really is.

If you could frame it, Mr. Timmons, we will start with you. When delays and inefficiency occur, and I think we pretty much generally all agree that delays and inefficiencies are in the system and are occurring, and maybe there is some question about that, but I certainly have none.

How does this ultimately impact an American worker and a consumer? The longer it takes to build, it gets more expensive for your energy. The longer it takes to build, your pipeliners aren't working, or your folks are not siting windmills. How does this affect your workers and consumers, to both of you? Mr. Timmons, we will start with you.

Mr. TIMMONS. Thank you for that question, Senator. Seventy-four percent of our members, we do a survey each quarter for our members, 74 percent said that permitting reform would be helpful to their company, and 74 percent cited that as a problem in terms of slowing down projects.

As you just mentioned, it does have an impact. It has an impact on communities; it has an impact on businesses; it has an impact on workers. The longer it takes for an investment to be made, the longer it takes to put a shovel in the ground, the more delay there is for the great jobs, jobs that pay more than any other sector of the economy to be realized.

I have a couple of examples here that might be of interest. One of our members was forced to either spend $400 million more to meet some standards in a locality that was not in an attainment area, or move their facility. The move added $100 million to the project and caused a six-month delay. Those are jobs, obviously, that could not be realized during that time period.

One member ended up responding to over 600 requests for information with over 40,000 pages during the environmental impact statement process, and it resulted in a document being over 4,000 pages long. That was obviously a long time period, as well.

We have done a lot of things in a bipartisan way, or even a partisan way, several Administrations, as long as I have been at the NAM, the Bush administration, the Obama administration, the Trump Administration, and certainly the Biden Administration, to encourage investment and job creation in the United States. We have had record investment in manufacturing facilities in the United States in the last six years, record job creation, record wage growth.

That can not go on forever. The permitting processes that exist today, it simply slows down the process, stops jobs from being created, and loses opportunities for communities.

Senator CAPITO. Thank you.

Mr. Durbin?

Mr. DURBIN. Thank you, Senator.

I would agree with everything that Mr. Timmons just said. The one point I would add to that is the impact of projects that end up not getting investments in the first place. When you know that it is going to take seven years to get a permit decision on a highway,

or more than four years for various projects, and you see the examples of projects that get hung up so much, or watching investments sitting on the sidelines here, or even communities that are deciding, well, we do not want to go through the Federal process, because we might get hung up in that, as well.

Again, I agree that the delays are obviously delaying the benefits of each of the projects to the community, to the consumer, to the Nation as a whole. We want to make sure that we put a process in place that encourages the types of investment that we need from the private sector into these projects.

Senator CAPITO. Thank you.

I think we have heard a lot of common themes: consistency, persistence, predictability, as large global concepts. Also, not shortcutting the environmental review is very important, but also the community involvement piece. I see those as very consistent through all the testimony.

I also heard a lot about energy transitions and how important that is. Again, Mr. Durbin, I will ask you first, do you believe this energy transition can occur if we do not do some of these reforms?

Mr. DURBIN. The quick answer is no. I do not think we are going to be able to achieve the ambitious objectives that we put out. I think they are common objectives. We have all agreed that these are things we want to achieve. Let's ensure and strengthen our energy security here at home, allow ourselves to provide to allies around the world, while accelerating a transition to a cleaner energy.

You can not get there if we can not get the projects in the ground, the technology, the transmission lines, all of that. We can not get to those if we do not have a permit process that facilitates a faster process.

Senator CAPITO. Thank you. Mr. Chairman, I want to do a round two, but I will stop here and let everybody else go.

Senator CARPER. Thanks so much.

I am going to address my first question to Ms. Johnson, Ms. Goldfuss, and Ms. Hayes. Ms. Johnson, Ms. Goldfuss, and Ms. Hayes, all three of you mentioned the importance of early engagement with the communities. I could not agree more.

My staff would tell you that two of my favorite words are "for example." With that in mind, a question, if I could, of Ms. Johnson and Ms. Hayes.

Would each of you briefly provide us with an example of when early engagement with communities helped to mitigate community concerns and improve outcomes while also avoiding delays or challenges later in the review process? How can the Federal Government support that early engagement?

Ms. Johnson, would you go first?

Ms. JOHNSON. Sure, thank you.

I think I want to start by addressing some of what we have heard in the room today by my esteemed or legendary co-witnesses on the panel.

When we talk about permit reform, and even today in this space, I feel like what is missing from the conversation is equity and justice. In many spaces, we aren't starting from the ground up. In

most parts of the Country, what we are proposing to build in communities that face historic marginalization——

Senator CARPER. Again, let me just note, I am looking for an example, but go ahead.

Ms. JOHNSON. OK. I can give you an example in Georgia, we do know of one in the port of Savannah, where there was a plan to build a large energy storage facility there. The local government, where industry, and community worked together early to envision what that project would look like, to outline community benefits, which, for that community, were economic in nature, so looking for jobs and other opportunities.

Because of first and early engagement with frontline groups, that project was able to be scoped out, planned, and permitted in a way that moved forward easily and in a way that communities embraced.

Senator CARPER. Thank you for that example.

I am going to ask, if I could, Ms. Hayes for an example as well, for when early engagement with communities helped mitigate community concerns and improve outcomes. Go ahead.

Ms. HAYES. Thank you for the question, Chairman Carper. I can start with, we issued a report in February where we talked to a number of developers who were concerned about putting their names on examples. So I have very vague examples, if that is OK. Transmission frequently, especially, high capacity, regionally significant transmission is frequently sited in rural areas, and so it might be a slightly different dynamic than what Ms. Johnson was discussing, but two examples.

One was siting energy infrastructure, and it was going to go directly through a peach orchard. The landowners had to spend two years advocating for changes to the siting to avoid litigation on the back end before they were able to move the line to avoid very meaningful production for that landowner.

Another example is, the Morongo Tribe has a transmission line from Southern California Edisonsited through it. Southern California Edison was looking to upgrade the line. A creative equity financing arrangement was put together and approved by the FERC to allow the tribe to see some community benefits from the infrastructure that is being built through their lands.

Senator CARPER. Thank you. I am going to ask you to speak briefly on this one, but what do you see as the primary sources of delay for high voltage transmission, Ms. Hayes, high voltage transmission line projects, and what are the main things we can do to help overcome these delays? Just briefly, please.

Ms. HAYES. Obstacles to high voltage transmission fall into three categories: paying, planning, and permitting. Permitting is what we are here to discuss today, certainly planning lies at FERC, and paying has a variety of solutions that certainly, we can get into later.

Permitting, having a clear threshold for Federal jurisdiction for regionally significant transmission is critical. I think that was supported by testimony submitted by Ms. Goldfuss as well, and having that early engagement. Again, as you noted, all of the witnesses supported that principle, as well.

Senator CARPER. Thank you.

With that, I am going to turn to Senator Cramer. I think he will be succeeded by Senator Cardin for questions. Senator Cramer, welcome.

Senator CRAMER. Thank you, Mr. Chairman, Ranking Member Capito, and all of our guests.

Since we are on the topic, Ms. Hayes, and thanks for introducing it, in order to do some of the things, setting aside national significance for a moment, when we were working in a bipartisan fashion late last Congress, we were working on some things specific to transmission, obviously.

Of course, H.R. 1 does not address transmission. Somebody is going to have to. One of the challenges as a former regulator myself at the State level, one of the challenges, of course, is how much power to give FERC in planning or paying.

Whatever it would be, sort of socializing the entire grid at the FERC level and increasing FERC's role in it all, including maybe DOE and national significance, automatically would trigger NEPA, would it not? If it did trigger NEPA, do not we have to have some changes in the underlying NEPA laws, ESA and the other Federal laws, if we are going to accomplish what several want to accomplish with regard to transmission, as well as some of the other things we are talking about?

Ms. HAYES. Thank you for the question. You are right. Any consolidation of jurisdiction over high-capacity lines at the Federal level would need to be coupled with streamlining the permitting and siting process, as you noted. Right now, such lines can go through multiple Federal agencies, as well as multiple State agencies and local governments, as well. For these larger lines that have larger benefits to the region, that should also be coupled with the idea that it should take five years.

We can certainly talk about each of the components of the NEPA process or other environmental reviews. So often, we end up playing whack-a-mole. So instead, if we look at it from beginning to end to get five years for that notice to proceed, which is what is needed before we can start turning dirt and putting steel in the ground, that would be very helpful to get these much-needed facilities installed.

Senator CRAMER. I hesitate to ask, but I am going to anyway, because of my curiosity. I am just interested in anybody that can help us find some ground where we acknowledge all of the things you have just said while at the same time paying close attention to the important of a State's rights.

As a State regulator, I loved siting transmission lines up to the Minnesota border, but I resented it when Minnesota sited them to the North Dakota border and then said, take it from here. Is there some sort of balance that is doable that recognizes both the goal, but also, and on the pay front, for sure. Socializing the costs across a broader area than uses the electrons, give me your genius and find us some common ground.

Ms. HAYES. Legendary genius. That is a lot of pressure.

[Laughter.]

Ms. HAYES. By setting a high threshold——

Senator CARPER. I think I have created a monster here.

Senator CRAMER. You might have.

Ms. HAYES. By setting a high capacity for these lines, 345KV, 750 megawatts, that is only about 25 percent of the transmission. Once you layer on having it cross two States or 150 miles, now you are down to something much less than that. I have seen numbers around 10 percent at the transmission.

There still would be significant State jurisdiction over lines being sited. It is just these lines that have that greater national interest. Of course, States' input in terms of how things get sited in a State is very valuable, but it is really important to make sure that the broader regional interest is considered.

The Midwest has done a terrific job of partnering with its neighbors, each Midwest State has done a great job of partnering with its neighbors to site transmission. We need to spread that around the Country.

Senator CRAMER. Yes. Common sense is less common in other places. I have noticed that.

Thank you for that. We are going to work hard on it.

Mr. Timmons, obviously, siting for manufacturers is important for the manufacturers themselves, but obviously the cost of energy, and everything we are talking about is costly, adds to the cost of manufacturing, as well as other businesses, obviously. Maybe you could comment just a little bit in my remaining seconds here on how important the certainty of cost and how important the role of energy and the cost of energy as well as the availability of energy is to our manufacturing renaissance if we are going to continue it?

Mr. TIMMONS. Sure. So, the cost of energy is a major input in addition to labor and other factors. The more plentiful, and we would like to see the development of all forms of energy to drive down the cost of doing business here in the United States. It is a pretty simple equation, quite frankly, Senator. If we are able to be competitive, think in terms of tax, think in terms of regulation, think in terms of infrastructure, which this committee and Congress has addressed. If we are able to drive down those costs, we can be competitive, and we can produce anything in this Country.

I think during the pandemic, we saw very clearly that we needed to make more products here in the United States, and we needed to make sure that the next dollar invested was here, and the only way to do that is to make sure that we can control our costs. Permitting reform will help do that.

Senator CRAMER. Thank you.

Senator CARPER. You are welcome.

Senator Cardin, you are next, please.

Senator CARDIN. Thank you, Mr. Chairman. Let me thank all of our witnesses.

What I really enjoy about this committee is that we really try to find the right balance, and I applaud our leaders in taking sensitive subjects and trying to find the sweet spot. I think this is one of the areas that is going to be a challenge for us, but we have to work together. Permitting reform, we all want to see timely decisions made.

I am going to raise two areas of concern that we do not cut the timing, that would be detrimental to environmental justice or to our environmental commitments. Mr. Chairman, you asked for an

example, so I want to start with Ms. Johnson with an example in Baltimore.

In the 1970's, there was a desire to connect from our west I–70 to our east I–95 with a highway going through Baltimore. Before the African American minority community could object to it, the highway was built, dividing a community and destroying stable Black neighborhoods. It was stopped by a White community, with its political impact. The highway ultimately went to nowhere.

Mr. Chairman, Ranking Member, I am proud that with our Reconnecting Communities, that this community is going to get a grant. We are going to try to reconnect the community. My point is this: we can not sacrifice the desire for time that denies communities the opportunity to have input to stop these types of wrong decisions from being made.

Ms. Johnson, tell me how we can effectively have community input if we try to rush a process that denies particularly the underserved communities from having that opportunity?

Ms. JOHNSON. Thank you, I appreciate the question.

I do not think that we can have meaningful community input if we prioritize speed over quality. I think that if we frontload the process with public engagement that begins before an EIS or an EA, an Environmental Assessment is done, before the project is even fully baked, if we have community at the table participating in conversations around what we ultimately hope to achieve, I think that we can get to great results.

We have conversations and opportunities for negotiation, as was mentioned earlier, and we have the opportunity to look for community benefits.

We also have to consider that sometimes, the answer might be no. In those instances, we can work together to come up with a resolution that can be beneficial to everyone. We think, first, early, and continued connected to community when we are envisioning and planning out projects is important.

Senator CARDIN. I just want to give a plug to our committee. It was the leaders of our committee that included Reconnecting Communities in the Infrastructure Bill, so thank you for that. This community is going to get some help.

Ms. Goldfuss, I want to relay a conversation I had with President Petro this past week of Colombia. He was telling us about the Amazon being the sponge for greenhouse gas emissions, and we are asking the countries of our hemisphere to preserve the Amazon, because we know how important it is.

He raised to me the issue that the developed world has already destroyed a lot of its resources, and now you are asking the developing world to take a step to preserve the global climate issues. The point is this: when you do an environmental study, the impact on the globe might be not as prominent of a consideration.

I was proud to represent the United States at the Sharm el——

Sheikh Climate Summit, and I know the U.S. leadership is going to be critically important. Tell me the tradeoff on time on the review process on the environmental impacts such as greenhouse gas emissions being put to decide if we do not have adequate time to review that.

Ms. GOLDFUSS. I will try and be brief. The beauty of NEPA is it allows us to have information, look before we leap, know exactly what the impacts of our project are going to be. If we rush that and are not aware in a changing climate of what the impacts of a project are going to be, then we suffer the consequences.

On the resilience side, it means we build infrastructure that then is subject to extreme weather, and we have to rebuild it again in a much shorter timeframe. If we are looking at emissions reductions, then we are not taking into account if there is an alternative that would contribute less to extreme weather and causing more climate change.

It is about getting that information so we can plan the best project, have the least amount of impact, engage the community, and then have less objection in the back end, which can slow things down.

Senator CARDIN. Because of lack of time, I cannot ask my last question on the Chesapeake Bay. I know the committee is going to be disappointed I do not raise the Chesapeake Bay at this hearing. I yield back.

[Laughter.]

Senator CARPER. Senator Cardin, thanks very much for those questions, for your brevity, and for your kind words earlier about the work we have done on our committee with respect to the divisions that you face in Baltimore and in other places as well, including Wilmington, Delaware.

Next is Senator Ricketts. He will be succeeded by Senator Sullivan.

Senator RICKETTS. Great. Thank you very much, Mr. Chairman, and thank you to all of our witnesses who are joining us here today.

I am going to take it from a little bit of a different perspective as a former Governor who actually did permitting reform in my State and saw the actual real-world experience of a variety of different agencies that were working on it. I can tell you that when it doesn't go well, we see a lot of really bad consequences.

For example, the Army Corps of Engineers took about six years to get a permit for the Papio-Missouri Natural Resources District to raise the levies around Offut Air Force Base. If you are not familiar with Offut Air Force Base, that is where strategic command is located, which controls our nuclear forces. They got the permit in time to start construction in March 2019, just when we had a 500-year flood that then did $1 billion of damage to the State.

If they had just gotten the permit done in four years, like we were talking the average was, we could have been able to avoid that. The unnecessary delays cost $1 billion and threatened our national security.

So we have seen what happens, it can be bad. I can cite some other examples where we have had outcomes. Ms. Goldfuss, I can tell you about my State, when it comes to transmission lines that, frankly, it is U.S. Fish and Wildlife that has been the holdup, not the State.

I would emphasize that I think the key in all this, which you have been talking about, is early engagement with community. I think it actually leads to faster completion times when you engage

the community early, because then you do not get all the opposition when you are trying to actually do the siting and get everything else done. I certainly emphasize that.

What I want to emphasize is what we did in the State of Nebraska with regard to Lean Six Sigma. It is a process improvement methodology where you map out the process steps it takes to be able to get a process done. It could be anything.

We did it in a number of our agencies. I think we did it in 18 different agencies. We had 900 different projects that saved our teammates about 900,000 hours of their time and about $100 million in hard savings.

Specifically, in our Department of Environment and Energy, we took on our air construction permits. We mapped out the process, it was 110 steps long. Only four of those steps actually added value.

We were able to cut about 88 of those steps, and this is without changing any sort of environmental requirement. We were able to take the process it takes to issue those permits down from roughly about 190 days to, we started that process in 2016, and it got down to about 65 days by the end of 2019. So it cut the process time more than half.

We had no authority to change any sort of requirement with regard to what companies had to comply with. This is just making the process, streamlining it, and making it easier.

That is one of the things, Chairman, that I think that we need to think about as we are talking about permitting reform, is there are ways to do it that have absolutely nothing to do with loosening any sort of restrictions, but just through the process itself to be able to make it better, and we ought to focus on that as we are thinking about permitting reform.

Actually, not only was it good for the applicants to be able to get those things faster, Yahoo was looking at expanding their data center in the Country. There were looking at a variety of sites, and they actually picked Nebraska to expand and invested $20 million because of the ease of getting the permit done in a way that allowed them to have that predictability and the certainty you were talking about, Mr. Chairman.

I will start with you, Ms. Goldfuss. Have you heard of Lean Six Sigma, or process improvement methodologies?

Ms. GOLDFUSS. I have not heard of it, what was it?

Senator RICKETTS. Lean Six Sigma.

Ms. GOLDFUSS. Lean Six Sigma? No, but I really appreciate the way you laid that out, because one of the success stories was the creation of the Federal Permitting Improvement Council (FIPC) inside the Federal Government, which is designed to look at where are those bottlenecks, and what are the steps, and have a lead agency, if you will, that can engage with the project proponents, so they know who they are talking to.

It also produced a dashboard that gives you transparency into what those steps are. I think there is a way to kind of chart this out, and I think with the dollars that were approved in IRA, there is money that can be used for technology and to really help FIPC and the Federal Government get some of those efficiencies you are talking about.

Senator RICKETTS. Great.

Mr. Timmons, I am sure you are familiar with Lean Six Sigma, coming from a manufacturing background.

Mr. TIMMONS. Yes, Governor, or Senator. I wanted to point out that Governors really do have——

Senator CARPER. He has been called worse. Believe me, he has been called worse.

Senator RICKETTS. Much worse.

[Laughter.]

Mr. TIMMONS. I always call you Governor, too, Mr. Chairman. Governors really do have a unique perspective.

I had the opportunity in the 1990's to serve as Chief of Staff to then-Governor George Allen in Virginia, and one of the things that he took on was regulatory reform. We modeled our effort after the successful efforts in the State of Delaware, where then-Governor Carper had issued an executive order to create a task force to review permitting reform there, as well.

Governors are leading the way, truly, and your process improvement is one that is cited often for how we can maintain our very strong environmental standards, while at the same time, improving the process and making it much more efficient.

Senator RICKETTS. So, you would agree that by looking at things like Lean Six Sigma as part of the solution, we can actually help speed up the time it takes to get a permit without changing any sort of, without losing any sort of regulation with regard to quality and protecting the environment?

Mr. TIMMONS. Yes, sir, and you also referred to it as process improvements. Whatever you call it, if you can streamline the process, and you can look at the outcomes and not worry about duplication and over-aggressive processes, you get a lot more done, and you get it done better.

Senator RICKETTS. Great. Thank you. I yield back.

Senator CARPER. You bet. Thanks for those questions.

Senator Sullivan, welcome.

Senator SULLIVAN. Thank you, Mr. Chairman. I want to begin with a poster. It is a new poster. I bring a lot of posters to this committee. This one is actually really interesting, and I would like everybody to maybe comment on this. This goes to the whole issue of litigation as it relates to permitting and the challenges to bringing energy projects online. I mean all energy projects, including renewable energy projects.

The point of the poster, it is a little complicated, but the striped portion is miles of pipeline, gas pipeline, that has been canceled or delayed due to litigation or courts just canceling or upholding pipelines. It is hard to see, but that is a problem in and of itself. If you look at the green line, that is the cost of natural gas in America.

There is a really strong correlation between litigation, canceled pipelines. It is actually seven billion cubic feet per day of natural gas pipelines taken offline because of litigation. So the result is huge spikes in the cost of natural gas.

It is not just natural gas, it is an issue with renewables, too. There are 15 open cases right now, again, even canceling wind and solar projects that are happening across the Country right now, as well. I think this is an issue for everybody.

Mr. Chairman, I am very appreciative that you are holding this hearing. It is really important. I will begin with you, Mr. Durbin, and Mr. Timmons, you talked about the high cost of energy for manufacturing. This is just a high cost of energy for Americans. Look at those numbers. That is almost certainly driven by litigation that, in my view, is out of control, not restricted.

But for Ms. Goldfuss and others, it is also a problem as it relates to renewables. You may have seen John Kerry, I do not cite John Kerry often, when he was out at the Swiss gathering, Davos, he talked about 10 years to site and permit renewable projects like wind farms. I know Senator Kelly has talked about that a lot for solar in Arizona.

Can I get first, Mr. Durbin, Mr. Timmons, just in general, on litigation reform that we need, what a problem this is? And then maybe, Ms. Goldfuss, if you could talk about the litigation issues as it relates to renewable projects as well, which is also a big problem there.

Mr. DURBIN. Thank you for the question, Senator Sullivan. The litigation that has driven the cancellation of these natural gas pipelines, it is harmful in many ways. Not only is it potentially increasing costs for manufacturing and consumers themselves, but when you think about in addition to natural gas being a critical part of our clean energy economy, it is also about reliability and affordability for consumers and users of natural gas. So for us not to be able to transport gas out of one of the most prolific natural gas fields in the world in the Marcellus to areas like New England that have to import natural gas.

Senator SULLIVAN. Until recently, they were importing it from Russia.

Mr. DURBIN. Some from Russia, but others as well.

Senator SULLIVAN. Good policy, there. I have no idea. That is not just hurting the environment, but it is empowering our adversaries.

Mr. DURBIN. Again, I think it is a prize that we have here in the U.S. to be able to produce this domestic natural gas. It is our energy security, it is our environmental performance, and it is our economic strength.

Senator SULLIVAN. Mr. Timmons, do you have specific recommendations for this committee on what we could do? That is a disaster, by any measure. Look at that spike in prices. We are just hurting ourselves.

Mr. TIMMONS. So, a couple of things. We clearly need to have a time limit on the process, which would include some judicial reforms or legal reforms.

Senator SULLIVAN. By the way, just real quick on time limit, and I want to make sure I get to Ms. Goldfuss, too, may we submit these for the record? Time limit is both the agency's decision-making timeline and the time limit once you get in litigation that the court has to decide, two elements of time limit.

Mr. TIMMONS. Yes. I would also like to just pick up on what Mr. Durbin talked about in terms of our economic security here at home, the cost of energy not only for certainly, manufacturers, but for all consumers. I would also like to point out that the world is fracturing right now. We see very clearly in Ukraine why it is important to make sure that we cannot only develop our own domes-

tic resources, but be in a position to export those resources like liquified natural gas to our allies, so that they are not dependent or crushed by our adversaries, like Russia.

Senator SULLIVAN. Mr. Chairman, I am just going to ask Ms. Goldfuss, if you want to just talk about that briefly on the renewable side, or if you want to talk about natural gas as well, but the litigation delays that are hurting all American energy projects.

Ms. GOLDFUSS. I will be really quick.

I think this is what we have been discussing this whole time. If we have early engagement, we have seen examples of where developers, conservation organizations, and community groups have come together on a permit and have been able to make the process go faster, because they had that agreement up front. I think we would reduce a lot of challenges on the back end if there were community agreements and engagement that happened on the front end so everybody understood the benefits.

Senator SULLIVAN. Right. Thank you, Mr. Chairman.

Senator CARPER. Thank you, Senator Sullivan.

Senator Kelly, welcome. Thanks for being here.

Senator KELLY. Thank you, Mr. Chairman, and thank you for all our witnesses for being here today.

I want to start out by talking about microchips. As everybody knows here, I think they realize this, that microchips are in everything with an on/off switch, from new cars to the most advanced fighter jets. We need to make more of them in the United States.

That is why we worked for nearly two years to negotiate and pass the CHIPS and Science Act, which provides incentive grants to companies to construct new production facilities in the United States. Some of these will be in Arizona.

That is really good for our national security. It is good for our economy. It creates a lot of good-paying jobs.

Mr. Durbin, as you noted in your testimony, these incentives come with a new requirement: NEPA reviews. I am concerned about these requirements. The goal of the CHIPS Act was to make it easier for companies to build facilities in the United States, and imposing NEPA requirements on them undermines the goal.

Mr. Durbin, I will start with you. Do semiconductor companies already obtain permits prior to beginning construction?

Mr. DURBIN. Senator, thank you for the question. I am sorry, are you asking whether semiconductor companies currently have to?

Senator KELLY. Yes, do they have to get permits before they start construction today?

Mr. DURBIN. Yes.

Senator KELLY. OK. So, there are robust environmental safeguards in place to protect communities. Is that correct?

Mr. DURBIN. I believe so.

Senator KELLY. Can you explain, then, what the added layer of NEPA requirements on these projects will mean, and how it will impact a project's cost and timeline to completion?

Mr. DURBIN. Senator, I think, to your point, the goal of the law was to incentivize getting these facilities built here, and we do that by making it more competitive to build here than to build elsewhere.

While we are certainly not advocating that there is, when we said all along, all projects, there should be environmental reviews, community input, but we have to make sure that process is functional and allows for these decisions to be made quickly, and these facilities to be built here in the U.S.

Senator KELLY. My understanding then is that you believe that the NEPA requirements may be added government regulation that is not necessarily going to maybe help build an environmentally sound project, but at the same time, is going to result in delays and increases in cost? Is that correct?

Mr. DURBIN. Correct.

Senator KELLY. So, what specific actions could Congress take to help prevent these NEPA requirements from driving up project costs and increasing delays?

Mr. DURBIN. Senator, again, I think that Congress has an opportunity to act across, and as Senator Capito mentioned earlier as well, it is not just NEPA, it is the other underlying statutes as well to ensure that we can have a structured, time-bound process whereby the Federal agency coordination, the timelines for getting decisions, some kind of a time limit on adjudications, if there are concerns after the fact, let's make sure we are accelerating the adjudication process.

Without that, again, I think especially in a situation as you are describing with semiconductors, we are removing the types of competitive advantage that we were trying to provide through the CHIPS and Science Act.

Senator KELLY. Ms. Goldfuss, you mentioned in your testimony that agencies often have the authority to issue programmatic environmental assessments or environmental impact statements. Do you believe that such an approach could make sense when it comes to the CHIPS Act programs?

Ms. GOLDFUSS. I am sorry that I am not familiar with exactly how semiconductors trigger NEPA. I am trying to figure out exactly what the environmental——

Senator KELLY. My understanding is they do because there is now these grant programs because of the Federal funding.

Ms. GOLDFUSS. Because of the funding that goes to that, I see.

I think the process that we are talking about here is trying to figure out, what is the information that is going to be necessary to build these facilities, and what are those impacts going to be. As we have discussed along the way, it is really a matter of having that information and doing it in a timely manner. When it comes to building these facilities, using the dashboard and using the engagement tools that we have across the Federal Government will be essential.

Senator KELLY. Thank you.

Senator CARPER. Senator Kelly, thanks so much for joining us.

I think Mr. Markey might be next in line. Senator Markey, you are up, my friend.

Senator MARKEY. Thank you, Mr. Chairman, very much. Identifying the real issues, that is really what we are talking about here. Real issues. Conversations about permitting need to be focused on building clean energy and building community engagement.

Instead, some people are making community involvement the villain. They are making the National Environmental Policy Act and environmental reviews into the villain, but I do not think the American people are really interested in these bogeymen. Federal agencies have stated that slower turnaround times are often the result of resource and staffing shortages, for which we have provided $1 billion in funding in the Inflation Reduction Act.

Of course, Republicans are going to try to take that money away. They want to starve the agencies and then say, look how long it takes, while they aren't giving them the resources that they need. It is a little game where they want the fox in the chicken coop, pro-industry officials at the agencies, then starve the agency, then say, look how long it takes. That is their game. It has always been their game.

The $1 billion in the Inflation Reduction Act, we are talking about a new cure. Now, we are applying the medicine, and we are waiting for it to kick in with all the staffers.

Of course, what is going to happen with Kevin McCarthy is he will try to cut out all that money. Let's get that money out of Washington that is the key to cutting the red tape and getting it all done. It is a little game, all industry driven. It is eternal. It is crocodile tears.

Additionally, NEPA only applies to Federal actions. That is it. We just had a 1,000-megawatt hydropower facility OKed up in Maine. That was all State action up there, with of course, the natural gas industry funding the opposition to it, because they want to generate electricity with natural gas and not with offshore wind or with hydropower coming down from Canada. We know the game. We can see what is going on, and they use every tool that they have in order to accomplish that goal. Right now, fewer than one percent of Federal actions require an Environmental Impact Statement.

Ms. Goldfuss, based on the existing data, are there solutions that can help our government work more efficiently without making arbitrary changes that sacrifice the quality of environmental reviews or limit community involvement?

Ms. GOLDFUSS. Absolutely. I started out by thanking all of you for the Inflation Reduction Act and the Bipartisan Infrastructure Law, because those investments, I saw personally, add CEQ, this is a bipartisan problem. The Obama administration and others Administrations moved NEPA experts into other roles.

So that money is going to be invaluable to these agencies, not only with the people in the seats to do the work, but also to update the system that we have that, right now, we have sometimes PDFs that can not be searched, so one agency has to duplicate the work of another agency.

That money is crucial to bringing the system into the modern stage. I think letting that take effect is really important.

Senator MARKEY. Yes, and we can not have this conversation if we are going to not center justice and prevent additional harms to Black, Brown, indigenous communities as we talk about the future of our energy grid, especially when fossil fuels remain on that energy grid. NEPA is a safeguard for communities. We need robust,

upfront community engagement to power communities with clean energy while empowering them to be part of the planning.

Ms. Johnson, will members of disadvantaged communities, including families, small farmers, and business owners, seniors be at greater risk if NEPA is weakened?

Ms. JOHNSON. Sure. I think I mentioned in my opening remarks, people hold NEPA as their law. It gives them a seat at the table. It gives them voice in the planning process for these projects.

I also noted that communities aren't standing in inherent opposition to projects. They want to be at the table and a part of the negotiating process, the planning process. When that is done early, we ensure protections, we ensure economic benefit, we ensure public health and environmental benefit, and it is a win.

Senator MARKEY. Thank you.

Can I just say this? I hear all these crocodile tears being shed about the FERC and why can not it do a better job in permitting. There are so many red herrings, we need an aquarium to put it right out in the middle of the committee room.

Here are six things the FERC could do right now, if it wasn't paralyzed, if we could even only put on a fifth commissioner, it could finalize the Regional Transmission Planning and Cost Allocation Rule. It doesn't need any new legislation. It could finalize the Interconnection Rule, no new legislation. It could establish minimum transfer requirements between regions, no new legislation. It could promote the use of grid-enhancing technologies, no new legislation. It could continue to prioritize public participation in equity, and it could have a Federal backstop siting authority.

All of it could be done by the FERC right now, if it had five commissioners, but it doesn't. Then, we are blamed, and say, no, look at the permitting process; it doesn't work. They have the inherent authority to do all that right now, but of course the goal is to paralyze the agency, defund it, make sure they do not have a majority, make sure they can not get it done, and then say, oh look, we need more rules to be put on the books that strip out protection for local communities to have their voices heard on these projects that are coming through.

It is the oldest play in the books, and I just do not think that this Congress should fall for it.

Thank you, Mr. Chairman.

Senator CARPER. Senator Markey, thank you very much.

Senator Lummis, how are you doing?

Senator LUMMIS. I am well, thank you, Mr. Chairman.

Senator CARPER. You are next.

Senator LUMMIS. I appreciate it, thank you. Welcome, panel, as well.

I can not help but quote our Ranking Member.

Senator CARPER. How about the Chairman?

Senator LUMMIS. You know, say something quotable, and I will quote you.

[Laughter.]

Senator CARPER. How is this? People do not care how much you know until you know how much they care.

Senator LUMMIS. Well, there you go.

Senator CARPER. How is that, huh? That is really Teddy Roosevelt.

Senator LUMMIS. You just did it. Thank you for that little gem.

The little gem that applies today is, "You can not build back better if you can not build at all." I have heard Senator Capito say that again and again, and I think that is absolutely right.

What we are finding is, according to the congressional Research Service, NEPA is the most frequently litigated Federal environmental statute. I think that when something stands out as the most litigated environmental statute, there must be something that we can do to change that, to improve NEPA.

NEPA reform doesn't mean NEPA degradation. I think it really can mean just improvement, so litigation is not the go-to response to a NEPA process.

I might ask you, Mr. Timmons, should litigation be part of the conversation here going forward?

Mr. TIMMONS. Thank you, Senator, for that question.

Yes, litigation and a time limit on litigation I think is very much a part of the process. You mentioned a CEQ study on how often NEPA was sued. It is in the court quite a bit. Public interest groups, 175 suits, individual citizen associations, 95, property owners, 15, State and local governments, 48. Business groups really only sued NEPA about 12 percent of the time during that process.

I do think, and I want to acknowledge Ms. Johnson's testimony and comments, because I do think it is very important for businesses, local governments, citizens, to work together early in the process to smooth out any concerns that exist.

At the National Association of Manufacturers, we have engaged in a relationship with Matthew Tejada, whom you know as the head of the EPA's Office of Environmental Justice. He is working on processes, to put processes in place to really enhance those conversations.

That information, we had Matthew present to our Council of Manufacturing Associations, which represents 260 manufacturing associations, because we know that, as Chairman Carper said, if it is not perfect, let's figure out how to make it better. All of these processes can be made better.

I think good points have been made across the board from the witnesses today. There is a definite issue when it comes to litigation, and whether that is in communities of color, agricultural communities, economically disadvantaged communities like the one that I was raised in Ohio, in Appalachian communities, those issues do exist. We can streamline the process. We can streamline the review process, and we can certainly streamline and put a shot clock, if you will, on the legal challenges that exist.

Senator LUMMIS. Thank you.

Mr. Durbin, if Congress doesn't act to fix this broken environmental review and permitting process, and I really believe it is broken, will there be more manufacturing and energy production abroad?

Mr. DURBIN. Thank you for the question, Senator.

When it comes to energy and manufacturing, if it isn't done here, it is going to be done somewhere else. One of the advantages of having, whether it is energy production or manufacturing done

here is that we do have robust environmental statutes. We do operate in a clean, responsible and effective way. Again, without improving the process here, we are not getting all the three core objectives, which is our economic competitiveness, our energy security, and a transition to a cleaner economy.

Senator LUMMIS. Global emissions are global.

Mr. DURBIN. Exactly.

Senator LUMMIS. Thank you, Mr. Chairman. I yield back. Sorry about the remark about your quotable-ness. I will just, maybe I should just call you Chairman Quotable-ness.

Senator CARPER. I have been called worse, too.

Senator Merkley, welcome. We are delighted that you are here. Please proceed.

Senator MERKLEY. Thank you, Mr. Chairman. Each time I think about you, I hear the words "do more of what works and less of what doesn't." So, you have burned that into my brain, and I offer that today.

I wanted to begin by welcoming you, Dana Johnson. I am so glad you are here to talk about environmental justice.

We are talking here about permits that will allow a lot more fossil fuels to be delivered into the manufacturing communities that make plastics or potentially make hydrogen or certain burned fossil fuels, meaning there is going to be a lot more toxic chemicals released in the same communities that are already suffering from those toxic chemicals.

Is that a good thing or a bad thing?

Ms. JOHNSON. Well, if you are in a community where this infrastructure is placed and there is talk of adding additional infrastructure, then I believe you would consider that to be a bad thing when you look at the public health impacts of that.

Senator MERKLEY. We renamed one of our subcommittees here to include the words environmental justice, so I am glad you are here to help us ponder how some actions we take could make environmental justice or environmental acts less just. That needs to be a key part of our conversation.

Ms. Goldfuss, did NRDC oppose the previous permitting reform bill from the last Congress, the Energy Independence and Security Act of 2022?

Ms. GOLDFUSS. Yes, we did.

Senator MERKLEY. Has anything changed that would have you now say that bill is a good idea?

Ms. GOLDFUSS. No.

Senator MERKLEY. Why did you oppose it?

Ms. GOLDFUSS. We opposed it because of the timelines that were put on judicial review, the Mountain Valley Pipeline that was included in it, and a sense that it was written to not improve the process the way we would support.

Senator MERKLEY. There are folks who are saying, let's do all of the above. Let's do a lot more fossil, and let's do more renewables.

I have witnessed how the rest of the world responds to that, by saying, oh, you are lobbying us to reduce our use of coal in Indonesia or change our policies in Vietnam or stop importing coal from Australia to India, and so on and so forth, and they kind of go, huh, wasn't the United States just proceeding to do a lot more new

fossil projects? Does doing new fossil projects strengthen or weaken the power of our example in working with the world to tackle this climate chaos challenge?

Ms. GOLDFUSS. It absolutely hurts our leadership abroad when we are sending a message that climate is a top priority for us, we just made the largest investment in transitioning to clean energy that has ever been made in the world, and then if we are, at the same time, increasing or permitting at the same rate as we were previously, it is a very contradictory message to say, we can do this, but you cannot.

Senator MERKLEY. Certainly, we do not have a lot of time, so if we are going to build new infrastructure, fossil infrastructure that is 30 to 50 years in the future and creates a stream of revenues that end up lobbying Congress to continue that for yet another generation, if that happens, is our effort to bend the curve on global warming gases pretty much toast?

Ms. GOLDFUSS. Yes, but I would hate to be the climate doomerism, and thank you for all the tools you gave us, because I do believe that we can address the problem that we have been talking about today. Really, the bipartisan approach you have taken here, and all the Senators have taken here, is heartening. We can figure out how to do this.

Senator MERKLEY. U.N. Secretary General Guterres said "new fossil fuel projects are incompatible with 1.5 degrees. End all licensing on funding of new fossil fuel projects. Otherwise, it is a death sentence for the world." Does he have it about right?

Ms. GOLDFUSS. That is what the science says.

Senator MERKLEY. The science doesn't matter, because it is our generation that is responsible for what happens over the next 30 to 50 years. If we get it wrong now, and we do a permitting, let's not call it a reform, a permitting bill that will expedite fossil fuel projects, aren't we going in the wrong direction?

Ms. GOLDFUSS. Yes.

Senator MERKLEY. To go to permitting, we do need permitting for more transmission lines. A study, which I will ask to enter for the record, the title is "Evidence-based recommendations for improving Environmental Policy Act implementation" from the Columbia Journal of Environmental Law, and I ask unanimous consent that it be put in the record.

Senator CARPER. Without objection.

[The referenced information follows:]

Evidence-Based Recommendations for Improving National Environmental Policy Act Implementation

John C. Ruple, Jamie Pleune & Erik Heiny*

The National Environmental Policy Act requires federal agencies to consider environmental impacts before acting. NEPA is the Magna Carta of U.S. environmental law, a topic of intense debate, and the subject of ongoing rulemaking efforts. Prior NEPA scholarship focuses almost exclusively on Environmental Impact Statements, which account for just 1% of all NEPA decisions. Little is known about the length of time required to complete the other 99% of agency decisions, which involve a more streamlined review. This is a critical gap in the literature because NEPA compliance involves an estimated 50,000 federal decisions annually. NEPA reform, we believe, should begin with a careful understanding of NEPA practice at all levels of review.

To help advance effective NEPA reform, we studied over 41,000 NEPA decisions completed by the U.S. Forest Service between 2004 and 2020. Using this data, we conducted a multivariate statistical analysis of the length of time required to complete the NEPA process at each level of review. We then investigated factors associated with longer decisionmaking times. Our model accounts for interactions between 3 levels of NEPA analysis, 43 activities involved in these decisions, 9 geographic regions, and the year of project initiation. Contrary to widely held assumptions, we found that a less rigorous level of analysis often fails to deliver faster decisions. Delays, we found, are often caused by factors only tangentially related to the Act, like inadequate agency budgets, staff turnover, delays receiving information from permit applicants, and compliance with other laws. Improving NEPA efficacy, we argue, should therefore focus on improving agency capacity. This approach, we believe, would improve the NEPA process and advance NEPA's mandate to engage with key stakeholders and carefully consider environmental impacts before making decisions.

I. INTRODUCTION

Since its passage fifty-one years ago, the National Environmental Policy Act (NEPA) has been incorporated into the fabric of the administrative state. Its look-before-you-leap mandate applies to all "major Federal actions significantly affecting the quality of the human environment,"[1] and is premised on the belief that a careful, transparent, and deliberative process will result in more environmentally sustainable decisions.

NEPA's implementing regulations utilize a tiered decision-making framework whereby decisions with the greatest impact undergo searching review, while more benign actions receive expedited analysis.[2] With hundreds of federal agencies making thousands of decisions annually, NEPA can drive vast individual, incremental, and cumulative changes to federal actions that result in reduced environmental impacts.[3] NEPA "has provided the foundation for countless improvements in our environmental laws. It gives us cleaner water, cleaner air, and a safer and healthier environment."[4] NEPA also affords the public a voice in decisions affecting them.[5] But, NEPA compliance "is never straightforward, and . . . epitomizes the long, messy arc of democracy."[6]

Moreover, NEPA does not operate in a vacuum. It interfaces with other laws. As the Congressional Research Service explains, "Most agencies used NEPA as an umbrella statute—that is, a framework to coordinate or demonstrate compliance with any studies, reviews, or consultations required by

---

* John Ruple is a Professor of Law (Research) and the Wallace Stegner Center Fellow at the University of Utah, S.J. Quinney College of Law. Jamie Pleune is an Associate Professor (Research) and a Wallace Stegner Center Fellow at the University of Utah, S.J. Quinney College of Law. Erik Heiny is a Professor of Mathematics and Statistics at Utah Valley University. This research effort was funded in part by the U.S. Forest Service, the Wilburforce Foundation, and the ESSR Wallace Stegner Endowment. None of the funders exercised editorial or substantive control over our analysis or development of this article. The views expressed herein do not necessarily represent the views of project funders, the state of Utah, Utah Valley University, or the University of Utah. The authors would like to thank Professors Forrest Fleischman and Daniel Mandelker for comments on early drafts of this article.

[1] 42 U.S.C. § 4332(2)(C).

[2] *See* 40 C.F.R. §§ 1501.4–1501.5 (2020) (discussing categorical exclusions and environmental assessments and identifying when the less intensive analysis contained in these documents is appropriate).

[3] *See generally*, U.S. GOV'T ACCOUNTABILITY OFF., GAO-14-370, NATIONAL ENVIRONMENTAL POLICY ACT: LITTLE INFORMATION EXISTS ON NEPA ANALYSES, 1 (2014) [hereinafter GAO, NEPA: LITTLE INFORMATION EXITS] (describing the NEPA process and concerns over compliance burdens). *See generally*, John C. Ruple & Mark Capone, *NEPA—Substantive Effectiveness Under a Procedural Mandate: Assessment of Oil and Gas EISs in the Mountain West*, 7 GEO. WASH. J. ENERGY & ENV'T L. 39 (2016) (documenting reductions in environmental impact that occurred between draft and final environmental impact statements).

[4] 113 CONG. REC. E1637 (daily ed. Nov. 12, 2013) (statement of Rep. Quigley).

[5] Robert W. Adler, *In Defense of NEPA: The Case of The Legacy Parkway*, 26 J. OF LAND, RESOURCES & ENV'T LAW 297, 317 (2006).

[6] Marna McDermott, *Streamlining Energy Dominance*, 36 THE ENV'T F. 27, 31 (2019).

any other environmental laws."[7] If NEPA were repealed, compliance with other environmental laws would still be required.[8] Even though NEPA is not the source of the obligation—and some delays attributed to NEPA may originate from sources external to the law itself—NEPA is often blamed for the perceived delay associated with compliance.[9]

The time and effort required to comply with NEPA has engendered heated debate.[10] Efforts to "streamline NEPA" abound, and sustained calls for reforms to the Act and its implementing regulations reverberate from both sides of the aisle. NEPA's detractors malign it as the source of delays, job losses, and failures to update infrastructure.[11] Other critics characterize NEPA as "bureaucratic red-tape,"[12] and as "the weapon of choice for opponents seeking to stop or delay an activity requiring federal action."[13]

---

[7] CONG. RSCH. SERV., RL33152, THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA): BACKGROUND AND IMPLEMENTATION 1 (2011) [hereinafter CRS, NEPA: BACKGROUND AND IMPLEMENTATION].

[8] *Id.* at 24–25. A natural experiment comparing critical habitat designations made with and without NEPA, noted that designations that were subject to NEPA review were completed an average of 93 days faster than those that were not subject to NEPA review. *See* John C. Ruple, et al., *Does NEPA Help or Harm ESA Critical Habitat Designations? A Review of 600 Critical Habitat Rules*, 46 ECOLOGY L. Q. 829, 842 (2019).

[9] CRS, NEPA: BACKGROUND AND IMPLEMENTATION, *supra* note 7, at 26 ("The perception that NEPA results in extensive delays and additional costs . . . can be magnified when compliance with multiple environmental laws and regulations is required. . . . The sometimes extensive reviews, documentation, and analysis required by agencies, such as the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Coast Guard, and the EPA, as well as various state regulatory and review agencies, add further to the perception that extensive delays are related to the NEPA process. Such 'delays' may actually stem from an agency's need to complete a permit process or analyses required under separate statutory authority (e.g., the Clean Water Act or Endangered Species Act), over which the lead agency has no authority."). *See also id.* at 27–28 (reporting the results of a survey of the Department of Defense, the Department of the Interior, and the Forest Service in which respondents identified "factors 'outside the NEPA process'" "as the cause of delay between 68% to 84% of the time").

[10] Debates about the efficacy of NEPA are not new. For an excellent historical review of the commentary (critiques and compliments), see DANIEL R. MANDELKER ET AL., NEPA LAW AND LITIGATION §§ 11:2–11:3 (2021) [hereinafter MANDELKER ET AL., NEPA LAW AND LITIGATION].

[11] Press Release, Sens. Ted Cruz, Mike Lee, and Kevin Cramer Introduce UNSHACKLE Act to Reform NEPA (Oct. 27, 2020), https://www.cruz.senate.gov/?p=press_release&id=5446 [https://perma.cc/RW2Y-N8QW] (quoting Sen. Cruz as saying, "For years, NEPA's burdensome requirements have left countless infrastructure projects in a state of judicial and bureaucratic limbo, stunting job creation and economic growth in communities across the country"); DIANE KATZ, HERITAGE FOUND., NO. 3293, TIME TO REPEAL THE OBSOLETE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) 1, 4 (2018), https://www.heritage.org/sites/default/files/2018-03/BG3293_0.pdf [https://perma.cc/YH8A-42T4]. *See also* GAO, NEPA: LITTLE INFORMATION EXISTS, *supra* note 3, at 1 (reporting views of detractors).

[12] Michael C. Blumm & Keith Mossman, *The Overlooked Role of the National Environmental Policy Act in Protecting the Western Environment: NEPA in the Ninth Circuit*, 2 WASH. J. OF ENV'T L. & POL'Y 193, 193 (2012) (citing NEPA's critics).

[13] Memorandum from the Majority Staff of H. Comm. on Nat. Res., Subcomm. on Oversight & Investigations, to the H. Comm. on Nat. Res. (Apr. 23, 2018), https://docs.house.gov/meetings/II/II00/20180425/108215/HHRG-115-II00-20180425-SD027.pdf#:~:text=Weaponization%20of%20the%20National%20Environmental%20Policy%20Act%20and,the%20National%20Environmental%20Policy%20Act%20%28NEPA%29%20requires%20federal [https://perma.cc/ZP5E-PDEC]

NEPA's admirers are no less passionate, heralding it as the Magna Carta of environmental law.[14] They believe that "public involvement and careful consideration of alternatives has produced better outcomes—for the agencies themselves, for the nation, and for the human environment."[15] Anecdotes, rather than data, however, drive these characterizations.[16] When asked to review various NEPA compliance issues, including (1) the number and type of NEPA analyses; (2) costs and benefits of completing the analyses; and (3) the frequency and outcomes of litigation, the Government Accountability Office concluded that very little information exists regarding these issues.[17] Absent information, most recommendations for NEPA reform have historically been loosely moored to empirical data. The research that does exist generally focuses on one aspect of the law—Environmental Impact Statements (EISs)—which constitute a very small percentage of the law's application.[18]

We endeavor to advance the debate by providing empirical evidence of how NEPA functions at all levels of analysis, studying more than 41,000 U.S. Forest Service NEPA decisions from 2004 through 2020. We describe Forest Service practice implementing the law, and we seek to identify sources of delay within the process by using a regression model that analyzes the year a project was initiated, the level of analysis applied,[19] the activities involved in the action, and the region conducting the analysis. We also explore indications that some sources of delay are external to the NEPA process. We then use those observations to provide recommendations for improving NEPA efficacy.

(pertaining to the Full Committee oversight hearing titled, "The Weaponization of the National Environmental Policy Act and the Implications of Environmental Lawfare").

[14] MANDELKER ET AL., NEPA LAW AND LITIGATION, *supra* note 10, § 1:1.

[15] Russell E. Train, *Foreword* to ENV'T L. INST., NEPA SUCCESS STORIES: CELEBRATING 40 YEARS OF TRANSPARENCY AND OPEN GOVERNMENT 3, 4 (2010).

[16] GAO, NEPA: LITTLE INFORMATION EXISTS, *supra* note 3, at 7 ("Governmentwide data on the number and type of most National Environmental Policy Act (NEPA) analyses are not readily available, as data collection efforts vary by agency.").

[17] *Id.* at *GAO Highlights* (sidebar describing "Why GAO Did This Study").

[18] *See generally* NAT'L ASS'N OF ENV'T PRO., 2019 ANNUAL NEPA REPORT OF THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA), https://naep.memberclicks.net/assets/annual-report/2019_NEPA_Annual_Report/NEPA_Annual_Report_2019.pdf [https://perma.cc/C9G4-57HD] (providing statistics on preparation times and other information for EISs filed in 2019 and providing link to archived reports from previous years).

[19] As described in more detail in Section II.A., NEPA requires different levels of analysis depending on the significance of environmental effects: (1) an Environmental Impact Statement (EIS), which is the most searching level of analysis preserved for actions with significant environmental impacts; (2) an Environmental Assessment (EA), a lower level of analysis for activities with less significant or uncertain environmental impacts; and (3) Categorical Exclusions (CE), the lowest level of review for activities that have been categorically excluded from detailed analysis through a regulatory or statutory determination that the effects of the action are unlikely to be significant.

Our analysis focuses on decision-making times; however, we embrace this framework with caution. Time is a convenient metric, but it is not the only metric for evaluating NEPA's effectiveness. The most important metric for regulatory reforms is how well proposed changes advance statutory objectives. The U.S. Supreme Court summarized these principles as first, "to consider every significant aspect of the environmental impact of a proposed action;" and second, to "inform the public that it has indeed considered environmental concerns in its decision-making process."[20] Regulatory reforms that do not advance these statutory aims will not help "fulfill the responsibilities of each generation as trustee of the environment for succeeding generations."[21] While we believe that reducing the burden of NEPA compliance is an important objective, that goal should not displace statutory objectives.

Our research is presented as follows. After this introduction, Section II provides background information, summarizing NEPA's statutory and regulatory structure and the Forest Service's data collection system. To its credit, the Forest Service is one of the few agencies with a comprehensive database gathering information about the NEPA process at every level of review. This dataset provides a unique opportunity to observe NEPA's functionality in more detail than has been done in the past. Using this database, we describe the Forest Service's NEPA practice, including the number of documents completed annually, the level of analysis conducted,[22] the time required to complete the analysis, and trends over time.
Section III briefly describes a multi-variate regression model developed for this paper in order to test the influence of NEPA-specific factors on decision-making times.[23] It also describes quality control measures used in developing the model.

Section IV provides the regression model results. To our surprise, we discovered that the individual factors included in the regression model (level of analysis, activities involved in the action, geographic region, and year initiated) could only explain 25% of the variability in decision-making times. To understand this result, we carefully analyzed each individual factor within the regression model.

Section IV.A explores the effect of level of analysis on decision-making times. Specifically, we sought to understand whether there is a predictable increase in time when a project moves from a Categorical Exclusion (CE)—the least searching level of analysis—to an Environmental Assessment (EA),

---

[20] Balt. Gas & Elec. Co. v. Nat. Res. Def. Council, 462 U.S. 87, 97 (1983).
[21] 42 U.S.C. § 4331(b)(1).
[22] Whether the action was analyzed in an EIS, EA, or a CE. See Section II.A. for background on these levels of analysis.
[23] The NEPA-specific factors are: (1) level of analysis; (2) year of initiation; (3) activities involved in a project; (4) region.

and then to an Environmental Impact Statement (EIS)—the most searching level of analysis. Predictably, we found that an EIS generally takes longer to complete than an EA, which generally takes longer than a CE, and that this relationship remained stable over the course of the study. We also found that level of analysis is an imperfect predictor of decision-making times—a result contrary to common assumptions. A surprising number of CEs take longer to complete than the median completion time for an EA, and a sizeable number of EAs also take longer than the median completion time for an EIS. Simply moving an activity into a more expedited level of review may therefore not result in faster decisions. Thus, common assumptions about "streamlining NEPA" by avoiding EISs or expanding the use of CEs may target the wrong problem.

Section IV.B probes whether the activities involved in a project influence decision-making times. To understand what might cause delay, we focused on the top three activities that the regression model associated with longer completion times. To understand the wide variability in completion times that we observed, we reviewed the statutory and regulatory structure governing each activity, reports from the Government Accountability Office (GAO) and the Congressional Research Service (CRS), industry analysis, and other scholarship, which provided further insight into the implementation of these three activities. Our research revealed that staff availability, a lack of expertise, inconsistent funding, market conditions, and compliance with other statutory and regulatory obligations are all common sources of delay in implementing projects for each activity. We conclude that these external factors are reflected in the NEPA process even though the delays are not necessarily caused by NEPA's regulatory structure. If NEPA were the sole source of delay, we would have expected to see more consistency in decision-making times for similar activities.

Section IV.C. describes the effect of Forest Service Region on decision-making times. The regression model revealed that the Forest Service Region where the analysis was conducted had an unexpected effect on decision-making times at each level of analysis. Because each Region implements the same laws, subject to the same regulations, and guided by the same policies, this regional variation cannot be attributed to the statutory or regulatory structure of NEPA.

Section IV.D. examines additional factors that likely affect the variability in decision-making times observed in our research. These factors may impact decision-making times for specific activities or Regions, but they are not captured by the Forest Service data.

Section V provides specific recommendations for regulatory and administrative reforms that are grounded in the results of our empirical research.

Although our observations are based on Forest Service practice, we believe that the observations and conclusions are applicable to other agencies.

II. BACKGROUND

The National Environmental Policy Act (NEPA)[24] was signed into law on January 1, 1970. Americans began to see the environment differently, and NEPA marked a sea change in federal environmental policy, declaring that it is our national policy to "encourage productive and enjoyable harmony between man and his [or her] environment; [and] to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man. . . ."[25]

Broad in scope and procedural in nature,[26] NEPA can be described as the hub from which the spokes of U.S. environmental law emanate.[27] Unlike other environmental laws that apply to specific resources like air, water, or wildlife, NEPA focuses less on the "what" and more on the "how."[28] NEPA mandates that federal agencies engage with the public, thoroughly consider the environmental impacts of their actions, and evaluate a range of alternatives before undertaking federal actions.[29] NEPA, however, "does not mandate particular results," nor does it require agencies to choose the least

---

[24] 42 U.S.C. §§ 4321–347.

[25] 42 U.S.C. § 4321.

[26] While often described as procedural in nature, Congress intended NEPA to produce substantively beneficial environmental effects. Indeed, NEPA's preamble makes this intent explicit, announcing a federal policy to "foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." 42 U.S.C. § 4331(a).

[27] MANDELKER ET AL., NEPA LAW AND LITIGATION *supra* note 10, § 1:1 (describing NEPA as an "environmental Magna Carta that has profoundly influenced decisionmaking by federal agencies"). *See also* Or. Nat. Desert Ass'n v. Bureau of Land Mgmt., 625 F.3d 1092, 1100 (9th Cir. 2010) (citing Calvert Cliffs' Coordinating Comm. v. U.S. Atomic Energy Comm'n, 449 F.2d 1109, 1111 (D.C. Cir. 1971) (describing NEPA as the "broadest and perhaps most important" of environmental laws)).

[28] MANDELKER ET AL., NEPA LAW AND LITIGATION, *supra* note 10, § 1.2; *Calvert Cliffs' Coordinating Comm.*, 449 F.2d at 1112 ("NEPA, first of all, makes environmental protection a part of the mandate of every federal agency and department. . . . Perhaps the greatest importance of NEPA is to require . . . agencies to *consider* environmental issues just as they consider other matters within their mandates.").

[29] Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989) ("The statutory requirement that a federal agency contemplating a major action prepare such an environmental impact statement serves NEPA's 'action-forcing purpose in two important respects. It ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision." (cleaned up)); Balt. Gas & Elec. v. Nat. Res. Def. Council, 462 U.S. 87, 97 (1983) ("NEPA has twin aims. First it places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action. Second it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking process." (cleaned up)).

environmentally damaging alternative.[30] NEPA, in short, requires that agencies look before they leap, but it does not bar them from leaping.
In addition to its environmental purpose, NEPA's procedures necessitate government transparency. In the words of Russell Train, the second Administrator of the Environmental Protection Agency, NEPA's procedures were "an experiment in governance" that brought about "a revolutionary change in governmental decisionmaking" and "opened up the federal [decisionmaking] process."[31] As the Congressional Research Service summarized, "one of the primary goals of NEPA is to give the public a meaningful opportunity to learn about and comment on the proposed actions of the federal government *before* decisions are made and actions are taken."[32]

A. NEPA's Regulatory Structure

NEPA's crosscutting approach imposes procedural requirements on all federal actions that potentially affect the environment. Before acting, agencies must undertake a "searching and careful"[33] inquiry into potential environmental impacts, a standard that is often referred to as a "hard look."[34] Furthermore, under NEPA, agencies are obligated to inform the public of major pending actions, provide the public an opportunity to offer input, and consider carefully any input received before making a decision.[35] Through this process, projects may be refined and environmental impacts avoided, minimized, or mitigated.[36]

---

[30] *Robertson*, 490 U.S. at 350 ("Although these procedures are almost certain to affect the agency's substantive decision, it is now well settled that NEPA itself does not mandate particular results, but prescribes the necessary process.").
[31] Train, *supra* note 15, at 3.
[32] CRS, NEPA: BACKGROUND AND IMPLEMENTATION, *supra* note 7, at 23.
[33] Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 416 (1971).
[34] *See, e.g.*, Marsh v. Or. Nat. Res. Council, 490 U.S. 360, 374 (1989) ("NEPA does require that agencies take a 'hard look' at the environmental effects of their planned action."); *Robertson*, 490 U.S. at 350 ("The sweeping policy goals announced in § 101 of NEPA are thus realized through a set of 'action-forcing' procedures that require agencies take a 'hard look' at environmental consequences."); Sierra Club v. U.S. Army Corps of Eng'rs, 803 F.3d 31, 36–37 (D.C. Cir. 2015) ("NEPA's mandate . . . serves the twin purposes of ensuring that (1) agency decisions include informed and careful consideration of environmental impact, and (2) agencies inform the public of that impact and enable interested persons to participate in deciding what projects agencies should approve and under what terms. The statute serves those purposes by requiring federal agencies to take a 'hard look' at their proposed actions' environmental consequences in advance of deciding whether and how to proceed." (citations omitted)).
[35] *See* cases cited *supra* note 34. *See also* 40 C.F.R. § 1501.9 (2020) (detailing agency obligations to engage the public and other stakeholders early through the scoping process); Kleppe v. Sierra Club, 427 U.S. 390, 410 (1976) ("Only through comprehensive consideration of pending proposals can the agency evaluate different courses of action.").
[36] Balt. Gas & Elec. Co. v. Nat. Res. Def. Council, 462 U.S. 87, 100 (1983) ("Congress did not enact NEPA, of course, so that an agency would contemplate the environmental impact of an action as an abstract exercise. Rather Congress intended that the 'hard look' be incorporated as part of the agency's process of deciding whether to pursue a particular federal action."); MANDELKER ET AL., NEPA LAW AND LITIGATION, *supra* note 10, § 11:5 (citing and describing empirical studies of ways in which NEPA influenced agency decision-making).

Agency regulations give detail to NEPA's concise statutory language. Congress, in enacting NEPA, created the White House Council on Environmental Quality (CEQ) "to develop and recommend to the President national policies to foster and promote the improvement of environmental quality to meet the conservation, social, economic, health, and other requirements and goals of the Nation."[37] President Nixon then signed an executive order directing the CEQ to issue guidance on how federal agencies should implement the Act's requirements.[38] Responding to uncertainty over the weight that should be given to these guidelines, President Carter issued an updated executive order seven years later, directing the CEQ to issue regulations to implement NEPA and making the CEQ's regulations binding on all federal agencies.[39] In many cases, these regulations[40] codified case law that had developed over the prior seven years.[41] With minor exceptions, these regulations remained in effect until 2020 when the Trump Administration issued draft and final rule amendments.[42] The 2020 regulatory revisions took effect on September 14, 2020 and were immediately challenged in five separate lawsuits.[43] On October 7, 2021, the CEQ issued a Notice of Proposed Rulemaking, initiating a two-phase rulemaking to reconsider the 2020 regulatory revisions.[44] Despite this regulatory turmoil, all of the projects analyzed in this article were completed prior to the finalization and adoption of the 2020 regulatory revisions. Accordingly, unless otherwise indicated, all

---

[37] 42 U.S.C. § 4344(4).

[38] Exec. Order. No. 11,514, 3 C.F.R. 902 (1966–1970) (1970). The guidance issued pursuant to the Order is available at CEQ, Statement on Proposed Federal Actions Affecting the Environment: Guidance, 36 Fed. Reg. 7724–29 (Apr. 23, 1971), as updated by CEQ, Preparation of Environmental Impact Statements: Guidelines, 38 Fed. Reg. 20,550 (Aug. 1, 1973).

[39] Exec. Order No. 11991, 3 C.F.R. 123 (1977). Section 1500.6 of the CEQ regulations instructed each agency to "review their policies, procedures, and regulations" and "revise them as necessary to ensure full compliance with" the Act. 40 C.F.R. § 1500.6 (2020). This directive is consistent with the statutory instruction that "all agencies of the Federal Government shall . . . identify and develop methods and procedures, in consultation with the Council on Environmental Quality" to implement NEPA's goals and directives. 42 U.S.C. § 4332(B) (2020). Consistent with this directive, most federal agencies have their own individualized regulations implementing NEPA that act in concert with the CEQ regulations. *See, e.g.*, 43 C.F.R. § 46.10 (2020) (establishing NEPA procedures for the Department of Interior consistent with the Act and the CEQ regulations); 36 C.F.R. § 220.1 (2021) (establishing Forest Service agency procedures for compliance with NEPA that supplement CEQ regulations).

[40] 43 Fed. Reg. 55,987–56,007 (Nov. 29, 1978) (to be codified at 40 C.F.R. §§ 1501–1508).

[41] *See e.g.*, 43 Fed. Reg. 55,983 (Nov. 29, 1978) (explaining that when the CEQ first adopted §1502.14(c) of its regulations, it was codifying existing NEPA case law on alternatives.).

[42] *See* Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 1684–1730 (proposed Jan. 10, 2020) (to be codified in scattered parts of 40 C.F.R.); 85 Fed. Reg. 43304–43376 (July 6, 2020) (to be codified in scattered parts of 40 C.F.R.) (final rule).

[43] Wild Va. v. Council on Env't Quality, No. 3:20cv45 (W.D. Va. 2020); Env't. Just. Health All. v. Council on Env't Quality, No. 1:20cv06143 (S.D.N.Y. 2020); Alaska Cmty. Action on Toxics v. Council on Env't Quality, No. 3:20cv5199 (N.D. Cal. 2020); California v. Council on Env't Quality, No. 3:20cv06057 (N.D. Cal. 2020); Iowa Citizens for Cmty. Improvement v. Council on Env't Quality, No. 1:20cv02715 (D.D.C. 2020).

[44] National Environmental Policy Act Implementing Regulations Revisions, 86 Fed. Reg. 55,757 (proposed Oct. 7, 2021) (to be codified at 40 C.F.R. pts. 1502, 1507–1508).

regulatory references within this article are to the 1978 version of the CEQ regulations.[45]

Under NEPA and its implementing regulations, all "major Federal actions significantly affecting the quality of the human environment" must undergo an environmental review before those actions can proceed.[46] This includes decisions authorizing projects on federal land, such as logging, mining, or livestock grazing.[47] Whether a project's impacts would be "significant" is not always clear.[48] Where a project's impacts are likely to fall below the significance threshold, an expedited review may be conducted to confirm that assumption.[49] The result is a tiered system of review where routine and environmentally benign projects undergo a truncated analysis, while larger and more complex projects can require in-depth review.

When a project's impacts are known to be significant in nature, the lead agency must complete an Environmental Impact Statement (EIS).[50] EISs represent the most searching level of review, and as discussed below, can take years to complete.[51] When an EIS is required, it is prepared in stages. The EIS preparation process begins with publication of a Notice of Intent to Prepare an EIS (NOI) in the Federal Register.[52] The NOI describes the

---

[45] The 2020 publication of the Code of Federal Regulations contained both versions of the regulations. To distinguish between the two sets of regulations, we are silent as to date or cite to the 2019 Code of Federal Regulations when referring to the 1978 version. When referring to the revised regulations, we cite to the 2020 Code of Federal Regulations.

[46] 42 U.S.C. § 4332(C).

[47] *See e.g.*, Stand Up for California! v. Dep't of the Interior, 959 F.3d 1154, 1163 (9th Cir. 2020) (agencies are required to comply with NEPA for "all 'major Federal actions significantly affecting the quality of the human environment' so long as the agency has some control over preventing the environmental effects," which may include permit issuance. (citations omitted)).

[48] The meaning of the term "significantly" within the NEPA context is complex. The 1978 version of the CEQ regulations (in force until September 14, 2020), defined the term in relation to "context" and "intensity," with ten factors to assess the intensity of an action. 40 C.F.R. § 1508.27 (2019). The 2020 regulatory revisions omitted the definition of "significantly" in section 1508.27 and revised section 1501.3 to include less detailed direction on the meaning of significance. *See* 85 Fed. Reg. 43,321–22 (Jul.16, 2020) (describing changes); 40 C.F.R. § 1501.3 (2020). On October 7, 2021, the CEQ published a Notice of Proposed Rulemaking signaling a two-phase rulemaking process to reconsider the 2020 regulatory revisions, suggesting that further changes may be imminent. 86 Fed. Reg. 55,757, 55,759 (Oct. 7, 2021). Meanwhile, practitioners strive to understand the implications of these changes. *See, e.g.*, JAMES MCELFISH, JR., ENV'T L. INST., PRACTITIONER'S GUIDE TO THE PROPOSED NEPA REGULATIONS, (2020), https://www.eli.org/sites/default/files/eli-pubs/practioners-guide-proposed-nepa-regulations-2020.pdf [https://perma.cc/J43Y-CTDT].

[49] The expedited review could take the form of an Environmental Assessment (EA), 40 C.F.R. § 1508.9 (2018) (defining "environmental assessment" under the 1978 regulations) and 40 C.F.R. § 1501.3 (2020) (describing "when to prepare an environmental assessment" under the revised regulations). Actions that "normally do not have a significant effect" on the environment may undergo an even more truncated analysis through a Categorical Exclusion (CE). *See* 40 C.F.R. §§ 1501.4, 1508.1(d) (2020); 40 C.F.R. § 1508.4 (2018).

[50] 42 U.S.C. § 4332(2)(C).

[51] *See infra*, Section II.E.

[52] 40 C.F.R. § 1501.9(d) (2020).

actions that are contemplated, as well as the reasons for taking those actions. The NOI then invites the public (including other federal, tribal, and state agencies) to comment on issues or concerns associated with the proposed action, and to suggested alternate means of achieving project objectives.[53] After considering public comments, the lead agency then prepares a Draft EIS analyzing the impacts of both the proposed action and one or more alternative means of achieving the desired end.[54] The Draft EIS compares the impacts projected to result from each alternative against a "no action alternative" (the impacts that would result from a continuation of the status quo).[55] After another public comment period and any appropriate revisions, a Final EIS and Record of Decision (ROD) are issued.[56] If significant deficiencies are identified in a Draft or Final EIS, the lead agency may prepare a Revised or Supplemental EIS.[57]

Most federal actions do not involve obviously significant environmental impacts and therefore do not require an EIS.[58] If questions exist as to the significance of likely environmental impacts, the agency will prepare an Environmental Assessment (EA) to determine whether the proposed action would cause significant impacts.[59] If projected impacts fall below the significance threshold, the agency issues a Finding of No Significant Impact (FONSI) and the NEPA review process is complete.[60] Alternatively, the agency may issue a "mitigated FONSI," which includes measures to reduce impacts to below the level of significance.[61] If an EA results in a determination that a proposed action is likely to have a significant effect, then an EIS is required.

Finally, there are numerous federal actions that are categorically excluded from the preparation of an environmental assessment or an environmental impact statement. The CEQ's NEPA regulations authorize agencies to identify categories of actions that do not normally have a significant impact on the human environment.[62] Actions that fall within one of these "Categorical Exclusions" (CEs) can be approved without an EIS or EA, provided that the

---

[53] *Id.*
[54] *Id.* § 1502.9(b) (2020).
[55] *Id.* § 1502.14(c) (2020).
[56] *Id.* §§ 1502.9(c) (2020) (Final EIS); *Id.* § 1505.2 (2020) (Record of Decision).
[57] *Id.* § 1502.9(d)(1).
[58] GAO, NEPA: LITTLE INFORMATION EXISTS, *supra* note 3, at 8. *See also*, John C. Ruple & Heather Tanana, *NEPA at 50—An Analysis of the Data in the Courts*, 66 ROCKY MTN. MIN. L. INST. §§ 10-1, 10-14, 10-15 (2020) (showing percentage of BLM decisions undergoing various levels of NEPA analysis); Forrest Fleischman et al., *US Forest Service Implementation of the National Environmental Policy Act: Fast, Variable, Rarely Litigated, and Declining*, 118 J. OF FORESTRY 403, 408 (2020) (discussing the percentage of Forest Service decisions undergoing various levels of NEPA analysis).
[59] 40 C.F.R. § 1501.5 (2020).
[60] *Id.* § 1501.6 (2020).
[61] *Id.* § 1501.6(c) (2020).
[62] *Id.* § 1501.4(a) (2020).

action does not involve "extraordinary circumstances."[63] Congress has also created statutory CEs for certain types of activities including oil and natural gas development and hazardous fuel reduction activities.[64] Each of these statutory CEs implicate slightly different procedural requirements.

B. Recent Regulatory Reforms

In 2019, the U.S. Forest Service began promulgating new implementing regulations for NEPA.[65] The goal of the revisions was to increase "efficiency of environmental analysis while meeting NEPA's requirements."[66] According to the preamble of the proposed revisions, "The Forest Service is not fully meeting agency expectations, nor the expectations of the public, partners, and stakeholders, to improve the health and resilience of forests and grasslands, create jobs, and provide economic and recreational benefits."[67] Noting a drastic shift in funding and personnel from environmental management and restoration to wildfire response, the revised regulations sought to enable the Forest Service to "complete project [decision-making] in a timelier manner, improve or eliminate inefficient processes and steps, and, where appropriate, increase the scale of analysis and the number of activities in a single analysis and decision."[68] These regulations were finalized on November 19, 2020 and became effective immediately.[69] The revised rules established new and revised CEs involving special use authorizations, infrastructure management activities, and forest restoration and resilience activities, and added a determination of NEPA adequacy provision to the agency's NEPA regulations.[70]

Meanwhile, the CEQ, which promulgates regulations implementing NEPA that are applicable to all federal agencies,[71] also began revising its

---

[63] *Id.* § 1508.4(b) (2020).

[64] *See, e.g.*, Energy Policy Act of 2005, 42 U.S.C. § 15942; Healthy Forest Restoration Act of 2003, 16 U.S.C. §6591b (insect disease infestation and hazardous fuels reduction categorical exclusion); *id.* § 6591d (authorizing hazardous fuel reduction projects up to 3,000 acres); Omnibus Appropriations Act of 2009, Pub. L. 111-8, § 423, 123 Stat. 524, 748 (authorizing fuel reduction up to 5,000 acres with 1,500 acres of mechanical thinning on the Lake Tahoe Basin Management Unit); Water Infrastructure Improvements for the Nation Act, Pub. L. 114-322, § 3603, 130 Stat. 1628 (2016) (authorizing projects up to 10,000 acres with 3,000 acres of mechanical thinning).

[65] *See* National Environmental Policy Act (NEPA) Compliance, 84 Fed. Reg. 27,544-59 (proposed Jun. 13, 2019) (to be codified at 36 C.F.R. Pt. 220).

[66] *Id.*

[67] *Id.*

[68] *Id.*

[69] National Environmental Policy Act (NEPA) Compliance, 85 Fed. Reg. 73,620 (Nov. 19, 2020) (to be codified at 36 C.F.R. pt. 220).

[70] *Id.*

[71] *See* 40 C.F.R. Parts 1500–08. *See also*, Exec. Order No. 11,991, 3 C.F.R. 123 (1977) (directing the CEQ to promulgate regulations to implement NEPA, and requiring all federal agencies to comply with the CEQ's regulations).

regulations.[72] The CEQ's regulations were first issued in 1978 and remained largely unchanged until 2020.[73] Shortly before leaving office, the Trump Administration finalized wholesale revisions to the CEQ's NEPA regulations.[74] The new rules were intended to "modernize and clarify the regulations to facilitate more efficient, effective, and timely NEPA reviews by Federal agencies."[75] Efficiencies under the new rule were achieved by imposing page limits, aggressive deadlines, and modifying the requirement to consider the cumulative effects of a project.[76] The CEQ regulations required all federal agencies to revise their regulations in accordance with the CEQ's far-reaching changes.[77] Because the Forest Service's revisions had been initiated before the CEQ's revisions, the "new" Forest Service regulations did not incorporate CEQ's new regulatory changes and will again require updating—assuming that the CEQ's 2020 regulations remain in effect.

The revised CEQ regulations went into effect on September 14, 2020[78] and were immediately challenged in court as inconsistent with NEPA's underlying statutory mandate.[79] Upon taking office, the Biden Administration directed all agencies to review Trump-era regulations and consider suspending, revising, or rescinding problematic regulations. On October 7, 2021, the CEQ published a Notice of Proposed Rulemaking to revise the 2020 regulations.[80]

---

[72] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 1684 (proposed Jan. 10, 2020) (to be codified in scattered parts of 40 C.F.R.).

[73] *See* 43 Fed. Reg. 55,990–56,007 (Nov. 28, 1978) (codified at 40 C.F.R. Pts. 1500—1508).

[74] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,304 (July 16, 2020) (codified at 40 C.F.R. Pts. 1500–1508, 1515–1518).

[75] *Id.* at 43,304.

[76] *See* Robert L. Glicksman and Alejandro E. Camacho, *The Trump Card: Tarnishing Planning, Democracy, and the Environment*, 50 ENV'T L. REP. 10281, 10284–89 (2020) (describing 2020 regulatory changes and implications for NEPA's functionality as a forum for transparency and public participation).

[77] 40 C.F.R. § 1500.6 (2020).

[78] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. at 43,304.

[79] *See e.g.*, Wild Virginia v. CEQ, No. 3:20CV00045, 2021 WL 2521561 (W.D. Va. June 21, 2021) (denying plaintiffs motion for summary judgement). This ruling is under appeal, and at least four other challenges to the 2020 NEPA regulations remain pending: Alaska Cmty. Action on Toxics v. CEQ, 3:20-cv-05199 (N.D. Cal. filed Aug. 28, 2020), California v. CEQ, 3:30-cv-0657 (N.D. Cal. filed Aug. 28, 2020), Env't Just. Health All. v. CEQ, 1:20-cv-06143 (S.D.N.Y. filed Aug. 6, 2020), and Iowa Citizens for Cmty. Improvement v. CEQ, 1:20-cv-02715 (D.D.C. filed Sept. 23, 2020).

[80] National Environmental Policy Act Implementing Regulations Revisions, 86 Fed. Reg. 55,757 (proposed Oct. 7, 2021) (to be codified at 40 C.F.R. pts. 1502, 1507–1508). This appears to be the first phase of a two-part rulemaking. *See Spring 2021 Unified Agenda of Regulatory and Deregulatory Actions, RIN No. 0331-AA05*, OFF. OF INFO. AND REGUL. AFFS., https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202110&RIN=0331-AA05 [https://perma.cc/LSW8-58AZ] (last visited Aug. 4, 2021); *Spring 2021 Unified Agenda of Regulatory and Deregulatory Actions, RIN No. 0331-AA07*, OFF. OF INFO. AND REGUL. AFFS., https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202110&RIN=0331-AA07

NEPA regulatory amendments are forthcoming and will involve multiple agencies. These reforms should be grounded in fact and lessons learned over forty years of implementing this law. The Forest Service is one of the few agencies that gathers information about its NEPA process at every level of review and it produces more NEPA documents than any other federal agency. The analysis that follows, while specific to the Forest Service, is likely illustrative of broader trends in NEPA practice. For this reason, we believe that the data-based recommendations developed in this article are broadly applicable and should inform future efforts to reform the NEPA process.

C. The Forest Service's Multi-Year Trend Report (MYTR) Database

In 2004, the Forest Service launched an electronic tracking system for its NEPA decisions called eMNEPA Planning Administrative Review and Litigation System (PALS).[81] PALS is a web-based application created to allow Forest Service personnel to manage information about projects undergoing NEPA review.[82] In March 2021, we obtained access to the PALS database from the Forest Service. The data we obtained, referred to internally as the Multi-Year Trend Report (MYTR database), included information on 42,806 Forest Service decisions that required NEPA documentation from 2004 through December 31, 2020.[83]

The MYTR database contains a wealth of information, including (but not limited to) the project name, the Forest Service region where the project occurred, the level of analysis (CE, EA, or EIS) conducted, the date the project was initiated, the date that the decision was signed, and the elapsed time for decision-making (initiation to decision signature). The database also classifies each project based on one or more of eighteen identified project purposes; and one or more of almost fifty distinct activities.

[https://perma.cc/TZ2J-3XPQ] (last visited Aug. 4, 2021) (anticipating narrow rulemaking to repeal the 2020 rules during July 2021 (RIN 0331-AA05) and broader changes to NEPA's implementing regulations in November (0331-AA07)).

[81] WO/EMC/NEPA SERS. GRP., U.S. FOREST SERV., EMNEPA, ELECTRONIC MANAGEMENT OF NEPA, PALS USER GUIDE V5.12 (2020).

[82] *Id.* at 2.

[83] There are eighteen Forest Service Categorical Exclusions that do not require a written decision. *See* US U.S. FOREST SERV., FOREST SERVICE HANDBOOK §§ 32.1, 33.1 (2020). Actions authorized by these eighteen categories of CEs are not included in the MYTR database. The other twenty-six CEs that require a decision memo are included in the database. Because the MYTR database excludes CEs that do not require written documentation, our results underrepresent the total level of USFS completion and skew reporting of the percent of projects addressed under various levels of NEPA analysis. While this underreporting results in under-disclosure of the actual USFS NEPA workload, it likely has limited impact on questions involving the burden associated with NEPA compliance because documentation-exempt CEs impose minimal procedural duties and are available only for environmentally benign actions.

The database was designed as a tracking system to facilitate compliance with public disclosure duties. As a result, the information that it contains is specific to NEPA decision documents. Decisions are distinct from the time required to implement a project following its approval and MYTR does not track the time to implement projects. MYTR also was not designed to support statistical analysis of the Forest Service's NEPA activities. We therefore undertook the following quality control review at the outset of our analysis.

First, we excluded incomplete projects because they lacked a reviewable decision.[84] Second, we excluded projects completed before January 1, 2004 or after December 31, 2020 because data outside this window appeared incomplete. Third, we excluded thirty-five decisions documented in a "PAD"[85] because the number of decisions evaluated in a PAD was too small to evaluate statistically. Fourth, we identified and excluded decisions containing obvious errors in data entry, such as projects showing a decision date preceding initiation of the analysis.[86] Finally, we sought to exclude duplicate entries to avoid inadvertent double counting. We retained records that are unique based on their: (1) project number; (2) region; (3) initiation date and decision signed date; (4) purpose fields; (5) activity fields; and (6) elapsed time. These filters produced a dataset of 41,194 NEPA decisions.

D. Initial Observations Regarding Forest Service NEPA Practice

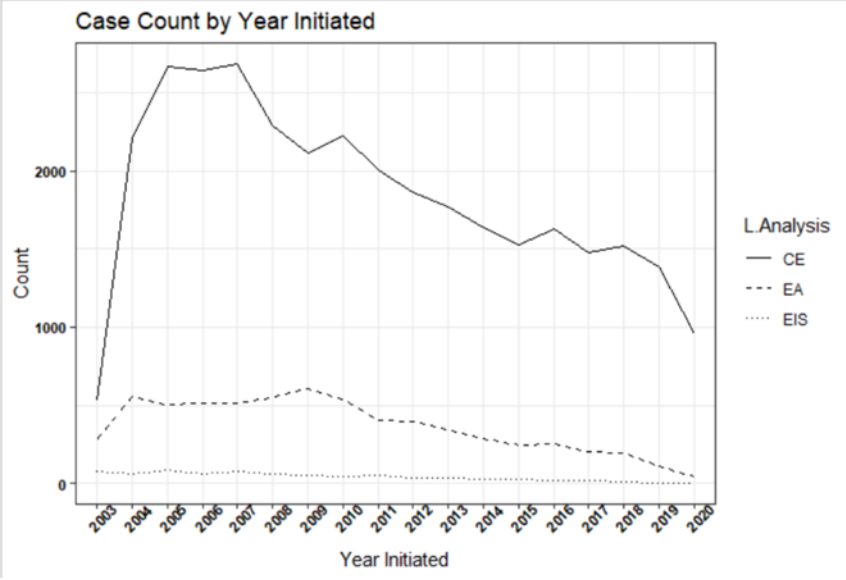
This means that, from 2004 through 2020, the Forest Service produced 41,194 unique NEPA decisions. There were 33,443 CEs (81.2% of NEPA decisions), 6,881 EAs (16.7% of NEPA decisions), and 870 EISs (2.1% of NEPA decisions). NEPA decisions completed annually increased between 2004 and 2009. Since 2009, there has been an overall decline. The figure below shows these trends, with two caveats. First, the sharp increase between 2003-2004 likely reflects initial efforts to utilize the database rather than an increase in NEPA document production. Second, the decrease in the number of cases from 2016 onwards is amplified (particularly for EAs and EISs) because it only includes cases that were completed more quickly than the average case. We discuss this in more detail below.

---

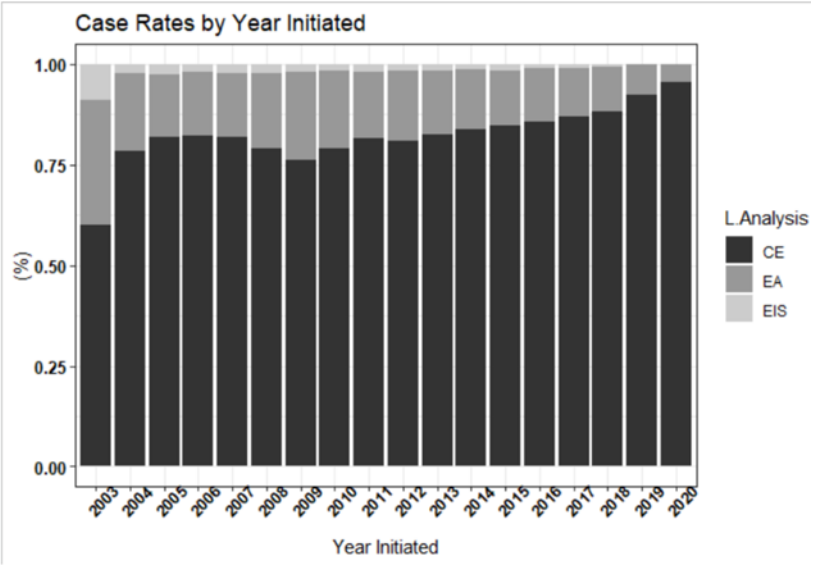
[84] The database identifies project status as "complete," "canceled," "in progress" or "on hold." We selected decisions that were "complete." Additionally, the database provides a date that the final decision for a project was signed. Projects without a final decision were excluded.

[85] PADs are used to document that a project was previously analyzed adequately in another NEPA documents and are therefore better characterized as a determination of NEPA adequacy rather than as a NEPA decision.

[86] There were 333 records with an elapsed completion time of 0 fewer days.

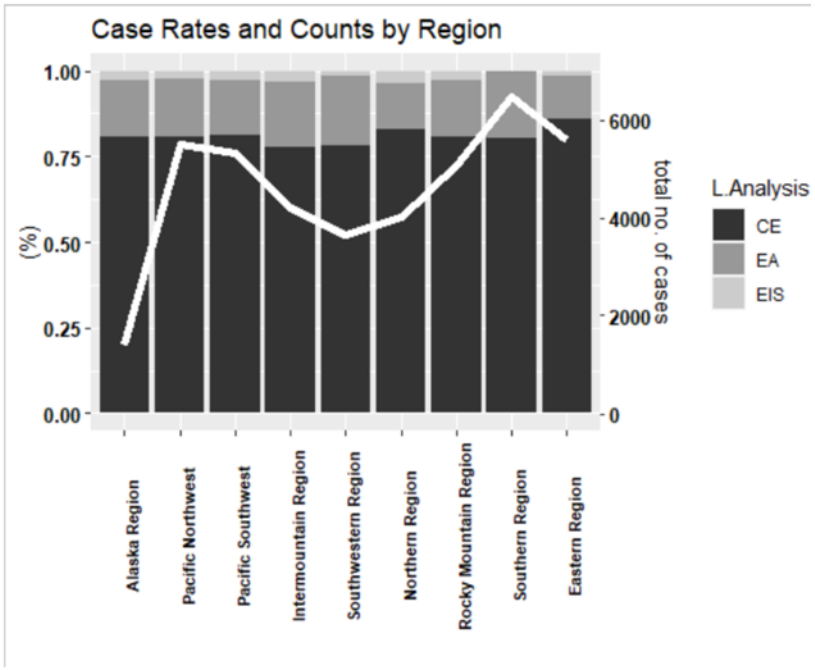


Additionally, there has been a shift over time in document type away from EISs and toward CEs. The graph below demonstrates this trend.



Looking at Forest Service Regions, there is a wide variation in the number of NEPA decisions completed per region. Region 10 completed the fewest decisions and Region 8 completed the most.[87] Across Regions, there is only slight variation in the rates of different levels of analysis. The graph below provides details.

[87] We investigated this relationship in more detail through a regression analysis. The results of that analysis and our observations are set forth below in Section III.C.



E. Decision-Making Times at Each Level of Analysis

Despite impassioned critiques that NEPA causes delay, there is very little published information available regarding the length of time it takes federal agencies to make decisions at each level of review. In 2020, the CEQ issued a report concluding that across all Federal agencies, the average (*i.e.*, mean) EIS completion time was 4.5 years, and the median completion time was 3.5 years.[88] The CEQ report also provided the number of EISs completed during the period of study (2010-2018) and the average completion time for each agency. The Forest Service produced 299 EISs during this period, with an average completion time of 3.3 years.[89] No other agency produced as many EISs. CEQ data suggests that the Forest Service produces the most EISs, and that it does so more quickly than other agencies.[90] Therefore,

---

[88] EXEC. OFF. OF THE PRESIDENT, COUNCIL ON ENV'T QUALITY, ENVIRONMENTAL IMPACT STATEMENT TIMELINES (2010-2018) 1 (June 12, 2020) [hereinafter CEQ, EIS TIMELINES 2010-2018].
[89] *Id.* at 8.
[90] Ruple and Race note that Forest Service NEPA decisions are also litigated at a higher rate than EISs prepared by other agencies. It is unclear whether rapid EIS completion time increases the likelihood of litigation, or if other factors explain this difference. *See* John C. Ruple

understanding the Forest Service's NEPA practice may provide information that is relevant to other agencies.

Most investigations regarding NEPA completion times focus on EISs,[91] which represent less than one percent of all NEPA decisions. The other ninety-nine percent of NEPA decisions have largely escaped analysis because there is limited data regarding EAs and CEs. We were able to analyze the length of time it takes the Forest Service to complete all three types of documents (EISs, EAs, and CEs), filling this important gap. To our knowledge, only one other report has provided similar information.[92] In analyzing the MYTR data, we considered both the mean and the median decision-making time at each level of analysis. Consistent with the CEQ report, we found that between 2005 and 2020, the average (mean) time to complete an EIS was 3.4 years (1,240 days). In contrast, the median time was 2.8 years (1,006 days). Turning to EAs, the average time to complete was 1.7 years (618 days), while the median time was only 1.2 years (445 days). Finally, looking to CEs, the average time to complete a CE was 7 months (209 days), while the median time was just over half the mean at slightly under 4 months (112 days).

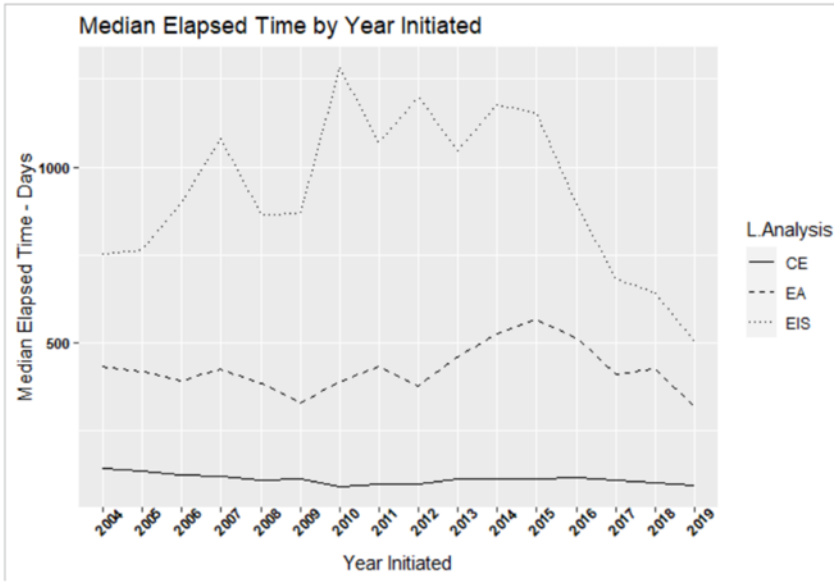
We also explored whether the median length of time required to complete a NEPA decision changed over the course of the study. The graphs below demonstrate that each level of review followed its own trend over the course of the study. The median time for EISs fluctuated most dramatically, particularly between 2009 and 2010. Although the graphs show a distinct downward trend in median EIS completion time after 2015, this likely reflects an increasing percentage of EISs that remained in process rather than a trend toward reduced document completion time.[93] EAs also show an overall trend of increasing time to complete a document. Median completion times for CEs remain fairly steady.

& Kayla M. Race, *Measuring the NEPA Litigation Burden: A Review of 1,499 Federal Court Cases*, 50 ENVTL. L. 479, 497–99 (2020).

[91] *See, e.g.*, NAT'L ASS'N OF ENV'T PROFS., 2020 ANNUAL NEPA REPORT, (Charles P. Nicholson ed., 2021) (providing annual reports on preparation times for EISs and other aspects of NEPA practice); CEQ, EIS TIMELINES 2010–2018, *supra* note 88.

[92] Fleischman et al., *supra* note 58, at 412 (providing similar median completion times for each level of analysis, using a slightly different set of data).

[93] *See* Section III.B. From 2016 onwards, only EISs that were completed more quickly than the median time would be recorded. Cases that were initiated in 2016 but took longer than the median time to complete an EIS would not yet be completed and are not included in this dataset. Thus, the apparent trend in faster completion times for EISs between 2016 and the present is likely the product of selection bias.



F. Striking Difference Between Mean and Median Completion Times Shows Skewing by Anomalous, Lengthy Decisions

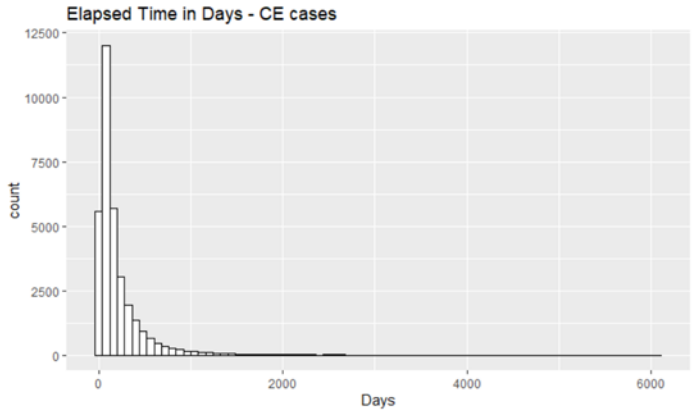
The striking difference between the mean and median values is important. Mean values reflect the average time to complete the NEPA analysis, while the median value reflects the middle value of the distribution of completion times. Half the cases will take longer than the median, and half the cases will be resolved more quickly than the median. While both statistics are valuable measures of central tendency, mean values can be skewed heavily by outliers, as is the case here. While prior scholarship notes the difference between mean and median completion times,[94] and some scholars suggest that median is a better measure of central tendency,[95] the importance of

[94] *See, e.g.*, CEQ, EIS TIMELINES 2010–2018, *supra* note 88, at 8 (reporting that across all Federal agencies, the average (*i.e.*, mean) EIS completion time was 4.5 years, and that within the Department of Agriculture, the average EIS completion time was 3.27 years); Joseph Trnka & Elizabeth Ellis, *Environmental Reviews and Case Studies: Streamlining the National Environmental Policy Act Process*, 16 ENV'T PRAC. 302–08 (2014).

[95] John C. Ruple et al., *Does NEPA Help or Harm ESA Critical Habitat Designations? An Assessment of Over 600 Critical Habitat Rules*, 46 ECOLOGY L. Q. 829, 842 (2019) (noting that mean

that difference has not been developed fully. It is also important to note that most statistical models (including the regression model developed for this paper) utilize mean values when measuring central tendency.[96] The direction of skewing is also important and informative. The mean consistently exceeds the median, indicating that outliers are long projects, rather than short ones. This observation squares with other research, suggesting that mean completion time is skewed by extreme events.[97] For example, the mean completion time for a CE is 86% longer than the median. The difference between median and mean is smaller for EAs and EISs than for CEs (39% and 23% respectively).[98] However, in all cases the mean exceeds the median, indicating that the distribution of completion times is heavily skewed by lengthy projects.

Graphing the distribution of project completion times illustrates the degree to which the distribution is skewed by outlying values. As the graphs below demonstrate, the distribution of project completion times is heavily skewed with a long tail extending to the right. This distribution of data points is consistent with the observation by Fleischman et al. that a proportionately small number of projects take a long time, even though most projects are completed quickly.[99]



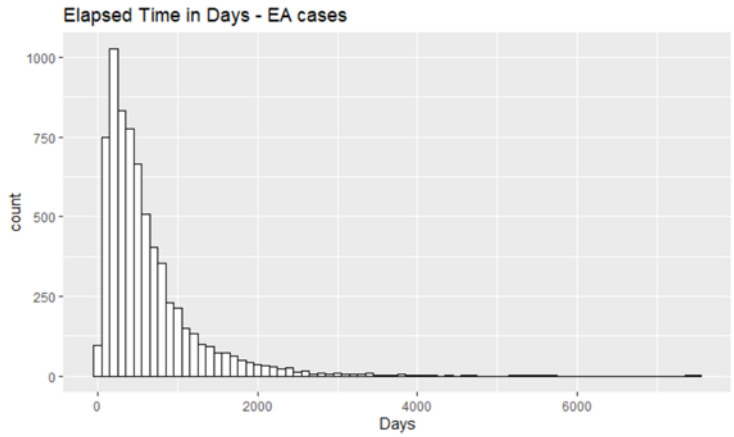
completion time is prone to overstating normally occurring completion times). *See also*, Fleischman et al., *supra* note 58, at 412.

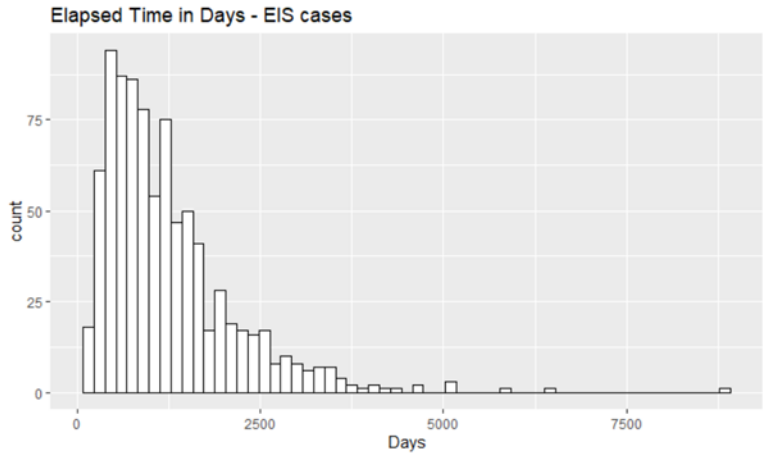
[96] The implications of models that rely on mean values is discussed in more detail in Section II.D. Our study addressed these concerns by modeling in a logarithmic scale. *See* Section III.A.

[97] Fleischman et al., *supra* note 58, at 413.

[98] The comparatively large percentage difference for CEs is not surprising because CEs completion time is often measured in weeks rather than months or years, and even small departures from the norm will represent large percentage changes.

[99] Fleischman et al., *supra* note 58, at 412 (justifying decision to report median rather than mean completion times).





Although the point at which the curve flattens differs between levels of analysis, the shape of the curve is generally consistent. This trend is not surprising when considering EISs, which can involve complex and controversial projects requiring careful analysis as well as extensive public involvement. However, it is surprising that CEs, which are designed to expedite decision-making times for routine projects, also sometimes experience extreme delay. Table 1 displays this same trend with more granularity.

Table 1--Select Percentiles for Elapsed Time in Days by Level of Analysis

	5th	10th	25th	50th	75th	90th	95th
CE	19	30	54	112	245	481	714
EA	91	133	235	445	779	1,306	1,765
EIS	294	395	595	1,007	1,585	2,415	3,020

The long tail at every level of analysis caused us to investigate whether there are factors that can be used to identify projects that are at heightened risk of long NEPA review periods. First, we wondered whether decision-making time had changed over the course of the study, and whether those trends were consistent across levels of analysis. Second, we questioned whether certain activities were associated with longer decision-making times. Finally, we questioned whether there were regional differences in decision-making times.

III. Regression Analysis of Trends in Decision-Making Times

We developed a regression model to analyze whether decision-making time could be predicted based on information about individual projects identified using the MYTR database. We utilized a regression analysis in order to isolate the influence of each of these factors. As the Harvard Business Review explains, a

> Regression analysis is a way of mathematically sorting out which of those variables does indeed have an impact. It answers the questions: Which factors matter most? Which can we ignore? How do those factors interact with each other? And, perhaps most importantly, how certain are we about all of these factors?[100]

The regression model enabled us to isolate the influence of the following variables: (1) three levels of analysis; (2) the year when the project was initiated; (3) any combination of forty-three separate activities involved in project implementation;[101] and (4) the nine Forest Service Regions exercising responsibility over the NEPA analysis for the project.

The model also indirectly measured project complexity. Several projects involved multiple activities, and the model tested each activity independently.[102] This enabled consideration of the complexity of the activity

[100] Amy Gallo, *A Refresher on Regression Analysis*, Harv. Bus. Rev. (Nov. 4, 2015), https://hbr.org/2015/11/a-refresher-on-regression-analysis [https://perma.cc/RG38-QAJN] (quoting Tom Redman).

[101] The MYTR database includes 50 different activities. However, as described in more detail below, seven of these activities were excluded from analysis because they were too infrequent for accurate statistical analysis.

[102] Initially, we also included project purpose(s) as an independent variable. However, including both purposes and activities proved to be redundant. Multicollinearity problems arose,

where multiple activities were included in a single project.[103] The regression model allowed us to compare how each of the variables identified in our model affected elapsed time while controlling for the influence of all the other variables. Appendix 1 provides a more detailed description of the weighted least squares regression model predicting elapsed time on a log scale that we developed for this paper.

A. Quality Assurance and Model Data

When dealing with highly skewed data, it is common to look at the data on a log scale.[104] The log scale reduces the influence of extreme values, thereby helping to satisfy the assumptions necessary for the regression analysis. The log scale also affects the meaning given to the regression coefficients, showing the rate of change as opposed to actual changes in values. For clarity and ease of understanding, this article reports results in terms of percent or relative changes in elapsed time rather than actual change in days for elapsed time. Thus, throughout our discussion of the regression model results, all references to the "average" are on a log scale.

For the regression model, we eliminated projects initiated after 2016 to minimize the risk of selection bias. The risk of selection bias is best explained by example. The median completion time for an EIS is 1,007 days, and approximately seventy percent of all EISs are completed within 1,460 days, which is the maximum amount of time available to complete an EIS initiated in 2017 and completed in 2020 (365 days x 4 years). Including in our model EISs initiated in 2017 and completed in 2020 would have excluded the roughly thirty percent of EISs initiated in 2017 that we estimate would not have been completed within the time available. The problem would have been more severe for EISs initiated in 2018 and 2019. Including recently initiated and completed projects, while potentially ignoring recently initiated projects that remained pending at the time of our analysis, could skew model results and inaccurately indicate a reduction in elapsed time during the most recent years in the data set. That potential for selection bias was visible when graphing both the average elapsed time and median elapsed time for each level of analysis, which shows a marked

---

requiring elimination of either purposes or activities. We chose to analyze activities for three reasons. First, feedback from the Forest Service indicated that the "activities" category provided more accurate data than the "purposes" category. Second, with 43 possible categories, "activities" supported a more granular analysis. Third, the model produced a higher R squared value when using "activities" rather than "purposes," further indicating a higher level of reliability.

[103] In other words, the model "expects" that the addition of activities to a single project would take additional time and recognizes divergence from this expectation.

[104] Naomi Robbins, *When Should I Use Logarithmic Scales in My Charts and Graphs?*, FORBES (Jan. 19, 2012), https://www.forbes.com/sites/naomirobbins/2012/01/19/when-should-i-use-logarithmic-scales-in-my-charts-and-graphs/?sh=5f6fca0a5e67 [https://perma.cc/2VHL-VKJA].

downward trend after 2016.[105] In addition, the number of completed EISs decreased rapidly after 2016. We therefore excluded from our regression analysis all projects with an initiation date of 2017 or later.
Consistent with standard practice in regression analysis, we checked for high leverage data points, which are individual decisions having an unusual combination of values for the independent variables resulting in a disproportionate effect on the dependent variable. We also looked for highly influential data points that could skew model results through a combination of unusual values for the dependent variable and an unusual combination of values for the independent variables.

Using standard regression diagnostics DFFITS, Cook's D, hat values, and standardized residuals, a total of 341 high leverage and highly influential observations were identified and removed from our dataset. The regression analysis was performed with and without the 341 observations, and the change in the results was negligible. The results in this report are for the regression model with the 341 high leverage observations removed. Having applied these quality control measures, our final data set contained 33,283 observations (27,134 CEs; 5,605 EAs; and 544 EISs). With this final dataset, we were prepared to run the model and analyze the results.

IV. MODEL RESULTS

Contrary to our expectation, the regression analysis revealed that the level of analysis, date of project initiation, Forest Service Region, and activities involved in each project could only explain 25% of the variability in the elapsed time required to complete the NEPA review ($R^2 = 0.25$). Three-quarters of the variation in NEPA completion time is attributable to factors not controlled for in our model.

This result is consistent with observations made by the GAO and the Congressional Research Service that many delays associated with NEPA compliance are caused by external forces, including permitting or legal compliance with other statues, unstable funding, and inadequate staffing.[106] If delays are caused by factors independent of the NEPA process, as these and other sources suggest, it follows that these delays would not be predictable by

---

[105] *See supra* Section III.E.

[106] GAO, NEPA: LITTLE INFORMATION EXISTS, *supra* note 3, at 1, 15 (noting that for non-federal projects requiring a federal permit, delays in obtaining project funding, changes to the proposal that occur during the NEPA process, and non-federal approvals may all delay a project). The Congressional Research Service also notes that NEPA may run concurrently with other permitting efforts, and delays obtaining other permits may indirectly delay the NEPA process. LINDA LUTHER, CONG. RSCH. SERV., RL33267, THE NATIONAL ENVIRONMENTAL POLICY ACT: STREAMLINING NEPA 9 (2007) [hereinafter CRS, STREAMLINING NEPA] ("In fact, the NEPA process may be extended as a result of the need to complete a permitting process or other analysis required under separate statutory authority (e.g. the Clean Water Act or Endangered Species Act), over which the lead agency may have no authority.").

measuring factors within the NEPA process. This finding has significant implications for regulatory reform and lawmaking, which we explore in Section V.

Despite the model's muted ability to predict decision-making time on a case-by-case basis, each of the factors that we measured demonstrably influence the length of time required to complete the NEPA analysis. Those observations are also discussed below.

A. The Level of Analysis is an Imperfect Predictor of the Length of Time to Complete a Document

NEPA reforms frequently focus on reducing the level of analysis as a method for expediting decision-making.[107] The regression model allowed us to test the validity of this assumption by evaluating whether a predictable increase in decision-making time was associated with a higher level of analysis and whether that relationship had changed over time.

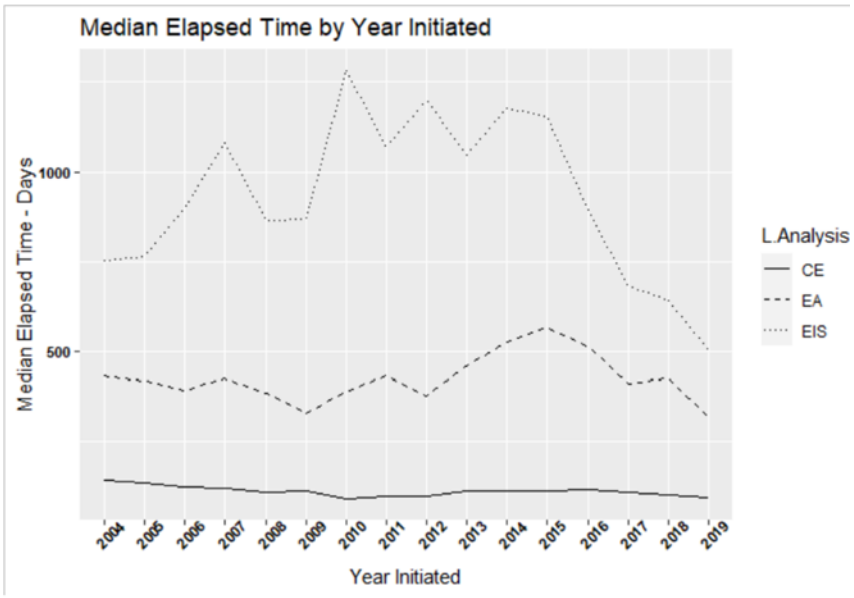
As expected, level of analysis is the strongest predictor of the elapsed time required to complete a NEPA decision. The full regression model (which contains predictor variables: level of analysis, year, activities, and region) can explain 25% of all the variation in elapsed time for a NEPA decision. By itself, level of analysis can explain 20% of the variability in our response variable. Shifting an otherwise identical project to a more rigorous level of analysis increases the average time required to complete the review. In 2004, if a project evaluated in a CE shifted to an EA (with the same activities and in the same region), the model predicted the duration of the analysis would have increased by an average of 226%. If a project evaluated in an EA shifted to an EIS, the model predicted the duration of the case to

---

[107] Congress has legislatively expanded the use of CEs in an effort to "streamline NEPA." *See, e.g.*, Moving Ahead for Progress in the 21st Century Act, Pub. L. No. 112-141, 126 Stat. 405 (2012) (codified at 26 U.S.C. § 430 and 29 U.S.C. § 1083) (creating several new categorical exclusions related to transportation); Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Pub L. No. 109-59, § 6010, 119 Stat. 1144, 1877 (2005) (codified at 23 U.S.C. § 512) (directing the Secretary of Transportation to expand categorical exclusions applicable to transportation infrastructure); Energy Policy Act of 2005, Pub. L. No. 109-58, § 390, 119 Stat. 594, 747 (codified at 42 U.S.C. § 15942) (creating a "rebuttable presumption that the use of a categorical exclusion under [NEPA] would apply if the activity is conducted pursuant to the Mineral Leasing Act for the purpose of exploration or development of oil or gas"); Healthy Forest Restoration Act of 2003, Pub. L. No. 108-148, § 404, 117 Stat. 1887, 1910 (codified as 16 U.S.C. § 6554) (authorizing categorical exclusions for certain forest service activities including forest thinning and fuels reduction). *See also* Helen L. Serassio, *Legislative and Executive Efforts to Modernize NEPA and Create Efficiencies in Environmental Review*, 45 TEX. ENV'T L. J. 317, 321–25 (2015) (describing legislative efforts to circumscribe environmental review and the unintended consequences of these surgical expansions of categorical exclusions); Bradley C. Karkkainen, *Whither NEPA?*, 12 N.Y.U. ENV'T L. J. 333, 352–59 (2004) (criticizing proposed reforms to streamline NEPA by expanding the use of categorical exclusions).

increase by approximately 21%. These comparisons are made after adjusting for activities and region.

This relationship remained generally stable through the course of the study, though each level of analysis followed its own unique trend. By 2010 the predicted increase in the duration of an analysis that shifted from CE to EA was 242% (up from 226% in 2004). The increase from an EA to an EIS was 117% (up from 21% in 2004). By the end of the study in 2016, the predicted increase from CE to EA was 338% (up from 226% in 2010). The predicted increase from an EA to an EIS would be 27% (down from 117% in 2010). The figure below shows the fitted quadratic trend lines for average elapsed time on a log scale versus the actual average elapsed time on a log scale.[108]

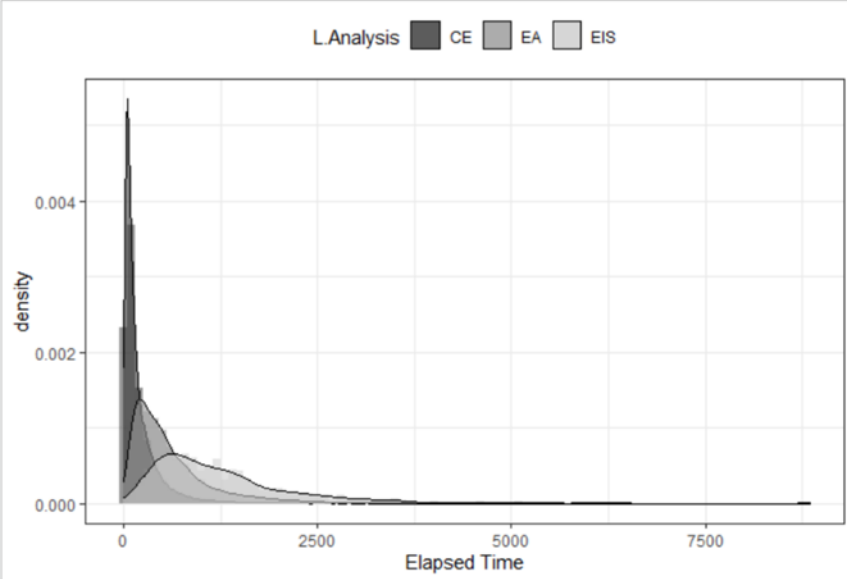


The rate of change for all three levels of analysis showed mild quadratic trends. The average length of time required to complete a CE decreased

[108] All three levels of analysis presented a slight quadratic trend. All regression coefficients for level of analysis, linear trend coefficient for year, the quadratic trend coefficient, and the interaction between level of analysis and trend coefficients for year are statistically significant at the 0.05 level and have p-values < 0.0001.

slightly between 2004 and 2011, and then increased slightly between 2011 and 2012. EAs followed a similar pattern, but they increased between 2008 and 2009. Interestingly, EIS cases followed almost the opposite pattern of CEs. The average rate of change for EISs increased until 2011 or 2012, then decreased slightly.

These results lead to the unsurprising observation that over the course of the study, on average, an EIS took longer to complete than an EA, which in turn generally took longer to complete than a CE. This is as expected because EISs involve the most searching level of review and public comment, while CEs are reserved for projects that do not require a deep analysis. However, the regression analysis also reveals that level of analysis is an imperfect predictor of decision-making times. While the statement, "an EIS takes longer than an EA, which takes longer than a CE," seems to belabor the obvious, it does not always hold true. Some CEs take longer to complete than some EAs and even some EISs. Similarly, some EAs take longer to complete than some EISs. In other words, there is important variability in decision-making times across levels of analysis. This variability cautions against moving projects into a less rigorous category of analysis without first considering other factors. The graph below illustrates this point by displaying the overlapping completion time curves of each level of analysis.



At the extreme, the 95th percentile of CEs took 714 days or longer, which is almost double the median time to complete an EA.[109] Similarly, the 95th percentile of EAs took 1,765 days or longer, which is roughly two years longer than the median time to complete an EIS.[110] However, these extreme cases are not the only reason for the variability. Anomalous NEPA decisions with long completion times, like the ones just discussed, are so infrequent, that they would not produce the high percentage of variability generated by the regression model.

Independent of the extreme outliers discussed above, the timelines of different levels of analysis overlap with sufficient frequency that the level of analysis does not reliably predict decision-making time. As our observational data revealed in Section II.F, Table 1, the fastest 25% of EAs are completed more quickly than the longest 25% of CEs. Likewise, the shortest

[109] *See supra* Section II.E (reporting median time to complete an EA was 445 days) and *supra* Section II.F, Table 1 (showing 95th percentile of CE completion times).
[110] *Compare supra* Section II.E (reporting median time to complete an EIS was 1,006 days).

25% of EISs are completed more quickly than the longest 25% of EAs. Closer analysis shows that over the course of the study, 16% of EAs took longer than the median time to complete an EIS.[111] Similarly, 11% of CEs took longer than the median completion time for an EA.[112] Additionally, 2.5% of CEs took longer than the median time to complete an EIS.[113] Reducing the level analysis alone therefore does not guarantee a faster decision. Despite a distribution that skews heavily to the right, some projects are completed much faster than one would expect—7.2% of EAs were completed more quickly than the median time for a CE;[114] and 13.1% of EISs were completed more quickly than the median time for an EA.[115] If the level of analysis alone caused delay, we would not expect to see such variability in timeframes across levels of analysis.[116]

This result has important policy implications. Because the level of analysis is not the sole cause of delay, reforms focused on expanding the use of CEs and avoiding the production of EISs may be targeting the wrong problem. The variability in completion times for each level of analysis, like the surprisingly low *R-squared* value (0.25) for the regression model as a whole, suggest that other factors influence the length of time to complete a document. Understanding these influences is a necessary prerequisite to developing effective regulatory reforms. This led us to investigate the influence of activities, regions, and background factors more closely.

B. Some Activities Appear to Prolong Decision-Making Time, But Closer Analysis Suggests that Many Sources of Delay Are External to NEPA

Every project involves at least one proposed activity, and some projects include multiple activities.[117] The regression model allows us to analyze the

---

[111] 1,121 out of 6881 EAs took longer than 1,006 days to complete.
[112] 3,783 out of 33,443 CEs took longer than 445 days to complete.
[113] 827 projects out of 33,443 CEs took longer than 1006 days to complete.
[114] 498 projects out of 6,881 were completed in less than 112 days.
[115] 114 projects out of 870 were completed in less than 445 days.
[116] This evidence is consistent with the anecdotal characterization made by Helen Leanne Serassio while serving as special counsel to the Federal Transit Administration. *See* Serassio, *supra* note 107, at 320 ("[T]he fact that some NEPA documents for unusually large, complex, and highly controversial actions take a long time to finalize and generate a voluminous amount of paper does not mean that NEPA is inherently inefficient. The information [in this article] shows that most federal actions promptly move through NEPA review.").
[117] For example, a project involving rangeland improvements may also include noxious weed treatment. *See, e.g.*, Project 35777, Bundle in Pine Project, Region 8, Boston Mountain Ranger District (2012) (EA) (one of 70 projects within the Regression database with this combination of activities). Similarly, a fuels management project may involve the following activities: fuel treatments, forest vegetation improvements, noxious weeds treatment, timber sale salvage, and timber sales green. *See, e.g.*, Project 19088, Lower Wood River Hazardous Fuels Reduction Project, Region 2, Greybull Ranger District (2006) (CE) (one of 66 projects in the Regression database with this combination of activities).

impact of including one or more of the forty-three potential activities in a project while holding all other variables constant. We therefore used the regression model to test the relationship between the time required to complete the NEPA analysis and the activities involved in the project. This helps determine whether certain activities are associated with delays, and conversely whether certain activities tend to expedite decision-making. Appendix 3 contains the fitted regression coefficients for each activity (in descending order), the 95% upper and lower confidence bounds for the estimated coefficient, and the estimated change in elapsed time if the activity is present in an individual NEPA analysis. The regression coefficients quantify the effect of individual activities on elapsed time after controlling for level of analysis, region, and year. Some coefficients for activities are negative, indicating that they are associated with faster than average completion times. Activities in bold text are statistically significant at the 0.05 level. The definitions for each of the activities are defined in the Forest Service's PALS User guide v.5.12 and are included as Appendix 2. The width of the confidence intervals indicates the degree of confidence that the presence of this activity will be associated with higher (or lower) elapsed times. A wider confidence interval indicates less certainty as to the actual magnitude of the increase (or decrease) in elapsed time for a specific activity.[118]

The top three activities associated with longer decision-making times are:[119] (1) Forest Plan Creation/Revision, which is associated with a predicted 97.2% increase in the elapsed time; (2) Oil, with a predicted 87.9% increase in elapsed time; and (3) Land Exchanges, with a predicted 75.5% increase in elapsed time. We found that even though the regression model indicated that these activities are statistically significant predictors of delay, there were also projects with the same activity where the NEPA analysis was completed more quickly than the median time, indicating that quick completion was possible despite modeled predictions of delay. Additionally, the variability in completion times had a different profile for each activity. For example, almost every NEPA analysis with oil as an activity was completed more quickly than average, but a small number of CEs lingered over 1,000 days. In contrast, the distribution of times required to complete the NEPA analysis on land exchanges appeared random, while forest plan revisions consistently took longer than the Forest Service's median completion times during the course of this study.

To understand these results, we turned to investigations conducted by the Government Accountability Office (GAO) and the Congressional Research

---

[118] The number of NEPA decisions that involve a given activity has a direct effect on the width of the confidence interval, with more records resulting in more robust predictive ability and therefore narrower confidence intervals (all else being equal). Here, wider confidence intervals are often associated with activities that were not addressed in very many NEPA analyses.

[119] For ease of reading, we refer to the name and definition as defined by the PALS user guide rather than using the exact title in the table.

Service (CRS), legal analysis, and industry commentary. These sources suggested possible explanations for the wide variability in completion times, many of which were external to the NEPA process. We discuss the activities in reverse order from least to most significant predictors of delay.

1. Land Exchanges: Sources of delay identified in the land exchange process apply equally to the NEPA decision-making process

Land exchanges are transactions where the Forest Service conveys away National Forest System lands in return for non-system lands that better advance Forest Service objectives. The Forest Service, for example, may give up an isolated forest parcel that is difficult to manage in return for private inholdings within a National Forest or lands along the border of a National Forest that improve public access to the forest. Land exchanges demonstrate the way in which administrative issues within an agency, such as a lack of experienced staff, uncertain funding, and alternative priorities can delay the decision-making process. These challenges also affect the NEPA decision-making process.

The regression model evaluated 236 projects listing Land Exchanges as an activity. The shortest NEPA review of a land exchange took two days,[120] and the longest took almost ten years (3,642 days).[121] Of these, 93 (39%) land exchanges were evaluated in CEs, 134 were evaluated in EAs (57%), and 9 (4%) were evaluated in EISs. Roughly one-third of the projects (80) were completed in less than a year.

Comparing these results to the Forest Service's median time to complete decisions at each level of review, five of the nine EISs took longer than the median time of 1,006 days, and three took at least twice as long.[122] In contrast, two EISs were completed more quickly than the median time for an EA (445 days).[123] Turning to EA completion times, 27.6% took longer than the median time to complete an EIS (37 projects out of 134 took longer than 1,006 days). An almost equal number were completed more quickly than the median EA (42 projects took less than 445 days). Additionally, 3% of EAs were completed in less than the median time to complete a CE (5 projects took less than 112 days). Finally, looking at the 93 CEs, just 16% were completed more quickly than the median time to complete a CE (15 projects out of 93 took less than 112 days). However, 37% took longer than the median EA (35 out of 93 took longer than 445 days), and 10.6% took longer

[120] Project 12821, 02-139-Sale of FS Land via Small Tracts Act (Groche Trespass Case Resolution), Region 8, Blue Ridge Ranger District (2005) (CE).
[121] Project 27958, Dairy Syncline Phosphate Mine, Region 4, Soda Springs Ranger District (2020) (EIS).
[122] The longest EISs took 2,611 days, 2,280 days, and 3,642 days respectively.
[123] The shortest EISs took 376 days and 409 days respectively.

than the median time for an EIS (10 projects out of 93 took longer than 1,007 days). In summary, the NEPA analysis required for land exchanges varied widely in terms of completion times. Although some projects were completed quickly, many projects exceeded the median time to complete a higher level of review. Notably, this applied to CEs, which do not require detailed analysis. A relatively high proportion of CEs experienced delay beyond the median times for an EA or an EIS. To understand why, we investigated the legal process for accomplishing land exchanges, as well as GAO investigations identifying delays within the land exchange process.

Most land exchanges go through a similar process:[124] "receiving or making a proposal for an exchange, conducting a feasibility analysis, signing a nonbinding agreement to initiate, obtaining appraisals of the land, conducting resource and environmental analyses, deciding on whether to complete the exchange, and preparing title and closing documents."[125] The Forest Service's handbook provides implementation schedules for various types of exchanges that include a range of 56 to 71 action items.[126]

According to the GAO, lack of qualified staff, inadequate funding, and lower prioritization of land exchanges compared to other activities were identified as sources of delay for land exchanges involving the Forest Service.[127] When reviewing 250 land exchanges conducted from October 1, 2004 through June 30, 2008 by the BLM and the Forest Service, the GAO reported that in almost every reviewed case, the agencies took longer than estimated to complete the exchange.[128] In explaining these delays, both agencies cited "the lack of staff" and the "lack of qualified appraisers."[129] Both agencies reported that "owing to an increasing number of retirements and the need to work on higher priority activities—such as processing energy rights-of-way—staff may not be available to process exchanges."[130]

These same cross-cutting challenges plague the NEPA process. In 2018, the Forest Service collaborated with the National Forest Foundation to conduct a series of regional roundtables focused on Environmental Analysis and Decision Making (EADM).[131] The regional results were synthesized into a

---

[124] Exceptions may occur where Congress enacts legislation authorizing specific exchanges and in so doing imposes different substantive or procedural requirements.

[125] U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-09-611, FEDERAL LAND MANAGEMENT BLM AND THE FOREST SERVICE HAVE IMPROVED OVERSIGHT OF THE LAND EXCHANGE PROCESS, BUT ADDITIONAL ACTIONS ARE NEEDED 7 (2009), https://www.gao.gov/assets/gao-09-611.pdf [https://perma.cc/99GY-9Z2W] [hereinafter GAO, LAND EXCHANGE REPORT].

[126] *Id.* at 6.

[127] *Id.* at 4, 15, 17.

[128] *Id.* at 14.

[129] *Id.* at 15.

[130] *Id.*

[131] Environmental Analysis and Decision-making incorporates NEPA, but also includes other procedural decision-making requirements including but not limited to the National Forest Management Act, Forest Service Planning Regulations, the National Historic Preservation Act,

national report.[132] The report recognizes an increase in average decision-making times between 2005 and 2016, and also notes that the "non-fire workforce is at its lowest capacity in years."[133] Emphasizing the point, the report indicated that in 1998, non-fire personnel exceeded 17,500, while fire personnel sat closer to 5,000 employees. By 2015, non-fire personnel had been reduced to around 10,000 employees, while fire personnel had grown to over 11,000.[134] The transition to a fire dominant staff affects the availability of qualified personnel to conduct environmental planning, monitoring, and analysis, which includes NEPA reviews.

The EADM Roundtable Synthesis Report described how the reduction in qualified staff, inadequate or uncertain funding, and lower prioritization of environmental planning had affected NEPA decision-making times. "Turnover, detail assignments and fire response often reduce productivity due to interruptions in project momentum and changes in project direction."[135] Inadequate funding further affects decision-making times. "Budget shortfalls and statutory mandates on funding for fire response, combined with a shortage of trained employees in areas other than fire and/or a frequent diversion of staff to emergency response or shifting priorities, hamper the ability of the Agency to make progress on other important forest and grassland management efforts."[136] Finally, effective and efficient environmental decision-making requires qualified staff. "[T]he complexity of landscape-scale (e.g., climate, fuels, insects, and disease) demands a high level of expertise and deep knowledge of forest conditions at multiple levels of the agency."[137] Despite this need, "training in project and personnel management, resource specializations, and EADM itself remains an unaddressed need throughout the USFS."[138]

---

and the Endangered Species Act. According to the Forest Service website, "EADM is a change effort that intends to reduce the time and cost of our environmental analysis and decision-making processes to produce efficient, effective, and high-quality land management decisions to accomplish more work on the ground and be more responsive to the public we serve." *Improving Environmental Analysis and Decision Making*, FOREST SERV. U.S. DEP'T OF AGRIC., https://www.fs.usda.gov/managing-land/eadm [https://perma.cc/FH65-BAPH] (last visited August 6, 2021). *See* NAT'L FOREST FOUND., EADM, ENVIRONMENTAL ANALYSIS AND DECISION-MAKING, REGIONAL PARTNER ROUNDTABLES: NATIONAL FINDINGS AND LEVERAGE POINTS 18 (2018), https://www.nationalforests.org/assets/pdfs/National-EADM-Report.pdf [*hereinafter* EADM ROUNDTABLES NATIONAL SYNTHESIS REPORT] ("Budget shortfalls and statutory mandates on funding for fire response, combined with a shortage of trained employees in areas other than fire and/or a frequent diversion of staff to emergency response or shifting priorities, hamper the ability of the Agency to make progress on other important forest and grassland resource management efforts. USFS staffing levels are not adequate to meet the current demand for EADM. . . . EADM timelines are often lengthened due to the need for hiring or on-boarding additional staff, including 'holes' in interdisciplinary team specialist representation.").

[132] *Id.*

[133] *Id.* at 5.

[134] *Id.*

[135] *Id.* at 15.

[136] *Id.* at 18.

[137] *Id.*

[138] *Id.*

In addition to delays within the land exchange process, the GAO also remarked on a significant reduction in the number of land exchanges accomplished annually. In the decade from 1989 to 1999, the Forest Service completed an average of 115 land exchanges annually.[139] In contrast, between October 1, 2004 and June 30, 2008, the Forest Service only completed an average of 29 exchanges annually.[140] The decline in the number of land exchanges completed annually mirrors the findings of recent research by Fleischman et al. regarding the Forest Service's NEPA practice. Analyzing trends in Forest Service NEPA practice between 2005 to 2018, they found that the "number of new [NEPA] projects has declined dramatically in this period, with the USFS now initiating less than half as many projects per year as it did prior to 2010."[141]

Prioritization of work influences staffing and funding decisions and can further exacerbate delays. In the land exchange process, the GAO identified "changing priorities" as a distinct source of delay, even though the symptoms were evident in staffing and funding.[142] A similar dynamic may affect associated Forest Service NEPA activities.[143] The rising proportion of fire-related activities competes with other Forest Service operations, including environmental decision-making and NEPA implementation. According to the Congressional Research Service, total funding for wildfire-related purposes has accounted for more than half of the Forest Service discretionary appropriation over the past five years.[144] The EADM Roundtable Synthesis Report described how prioritizing wildfire management over environmental management affects decision-making times. "[A] frequent diversion of staff to emergency response or shifting priorities, hamper the ability of the Agency to make progress on other important forest and grassland resource management efforts."[145] Moreover, cross-boundary issues like climate change, invasive species, and wildlife habitat were not prioritized and experienced funding and staffing shortages, with resources diverted toward fire

---

[139] GAO, LAND EXCHANGE REPORT, *supra* note 125, at 16.
[140] *Id.* at 16.
[141] Fleischman et al., *supra* note 58, at 410–12.
[142] GAO, LAND EXCHANGE REPORT *supra* note 125, at 17 ("[B]ecause exchanges typically are discretionary activities, their processing often competes for staff time and attention with other land transactions"); *id.* at 18 ("processing land exchanges competes for funding with other activities that currently have a higher priority").
[143] EADM ROUNDTABLES NATIONAL SYNTHESIS REPORT, *supra* note 131, at 4 ("Internally, the USFS has identified a number of impediments to efficient and effective implementation of work on the ground, including: . . . gaps in skills and associated training, reduced budgets, and increasing costs of fire response.").
[144] KATE HOOVER & ANNE A. RIDDLE, CONG. RSCH. SERV., R43872, NATIONAL FOREST SYSTEM MANAGEMENT: OVERVIEW, APPROPRIATIONS, AND ISSUES FOR CONGRESS 17, 22 (2019). In FY2019, the Forest Service received a discretionary appropriation of $7.32 billion, of which $4.09 billion was allocated to wildfire-related purposes. *Id.* The Forest Service also receives mandatory appropriations, but the amount is much smaller than the discretionary appropriation. For example, in FY2019, the mandatory appropriation was $377 million. *Id.* at 17–18.
[145] EADM ROUNDTABLES NATIONAL SYNTHESIS REPORT, *supra* note 131, at 18.

response.[146] Additionally, as discussed in more detail in Section IV(D)(1), fiscal uncertainty caused by prioritizing wildfire suppression creates a stop/start dynamic that reduces the efficiency of other Forest Service projects, and affects NEPA decision making times.[147]

In summary, the activity "land exchanges" reveals the degree to which internal management issues including a lack of experienced staff, an insufficient number of staff, insufficient funding, and competing agency priorities create delays. These same challenges affect NEPA implementation. These are serious problems that must be addressed, but they are problems that grow from an under-resourced agency struggling to adapt to a rapidly evolving mission. They are not problems rooted in agency NEPA regulations or practice. Providing the Forest Service and other agencies the resources they need to fulfill their NEPA obligations should be the starting point for improving NEPA efficacy.

2. *Oil: Abnormally long completion times for a small number of projects may be caused by external factors including operator priorities, market dynamics, and lease suspensions*

Activities involving oil demonstrate the variability in completion times across levels of analysis discussed in Section III(A). A small number of CEs took extremely long, creating an impression of delay for this activity. The regression model identified 64 projects involving oil as an activity. The fastest project took 20 days.[148] The longest took almost 8 years (2,910 days).[149] Of the 64 projects, 75% were completed in less than a year. Lengthy CEs were common when oil was included as an activity. Specifically, just 36% of the CEs (18 out of 50) were completed more quickly than the median for all CEs, 112 days. Ten percent of CEs (5 out of 50) took more than 1,000 days to complete, which is close to the median time for an EIS (1,006 days),[150] and 16% of CEs took longer than the median time for an EA (8 out of 50 took longer than 445 days). CEs involving oil are, in short, more likely to result in delays than CEs for other activities. In contrast to longer CE completion times, 75% of EAs involving oil were completed faster than the median time of 445 days.[151] There were only two EISs: one was

---

[146] *Id.* at 14.

[147] *See* EADM ROUNDTABLES NATIONAL SYNTHESIS REPORT, *supra* note 131 at 15 ("Turnover, detail assignments, and fire response often reduce productivity due to interruptions in project momentum and changes in project direction.").

[148] *See* Project 49420, Precision Geophysical Inc. Seismic Testing, Region 9, Wayne National Forest (2016) (CE).

[149] *See* Project 40652, Northern Great Plains Management Plans Revision Supplemental EIS for Oil and Gas Leasing, Region 1, Dakota Prairie Grasslands (2021) (EIS).

[150] Sixteen percent of the CEs (8 out of 50) took longer than the median time for EAs (445 days).

[151] The remaining three were all completed more promptly than the median time for EISs at 481 days, 692 days, and 789 days.

completed in 679 days, which is much faster than the median time of 1,006 days for EISs. The other required 2,910 days, which is far longer than the median.

In summary, most of the delays associated with oil were due to the slow processing of CEs.[152] This is unusual because all of the CEs involved an Application for a Permit to Drill (APD),[153] which comes only after multiple prior environmental reviews.[154] Thus, these outliers provide an opportunity to explore why the lowest level of analysis did not result in an expedited decision.

To understand why some CEs took so long when most of the other NEPA documents for the same activity were processed within normal to fast timeframes, we looked to the regulatory structure and GAO reports investigating the oil and gas permitting process.[155] The results of those investigations provide insight that may help explain the wide variability in decision-making time for CEs within the Forest Service process. Specifically, sources of delay within the BLM permitting process include waiting for information from the operator, market dynamics, and operator priorities.

---

[152] The PALs database distinguishes between "Oil" and "Natural Gas" as activities, but the definitions seem similar. *See infra* Appendix 2 (providing definitions of activities for PALs database). Of the 64 projects involving "Oil" as an activity, 44 also included "Natural Gas." To understand the different results for "Oil" and "Natural Gas," we focused on the 33 "Natural Gas" projects that did not include "Oil" as an activity. Of these, there were 2 EISs; 7 EAs; and 24 CEs. Each level of analysis had wide variability in decision making times; however, there were no long CEs. The longest CE took 273 days. That appears to be why these functionally similar activities received such different results in the regression analysis.

[153] Theoretically, most of the information to make a decision on an APD should have already been considered either at the land use planning stage and again at the leasing stage. However, these early analyses often attempt to delay gathering environmental information until later in the leasing stage. A GAO report from 1990 concluded that "inadequate land use plans and/or environmental studies have resulted in leasing being suspended, primarily on Forest Service Lands" and that the foregone revenues from delayed oil and gas leases "far exceed any reasonable estimated cost to develop such information for resource areas and forests with high oil and gas potential." U.S. GOV'T ACCOUNTABILITY OFF., GAO-RCED-90-71, FEDERAL LAND MANAGEMENT: BETTER OIL AND GAS INFORMATION NEEDED TO SUPPORT LAND USE DECISIONS (1990).

[154] 42 U.S.C. § 15942 (creating a rebuttable presumption for the use of a CE when analyzing an APD for exploration under the MLA).

[155] The GAO has conducted several investigations regarding the BLM's management of oil and gas leases. *See, e.g.*, U.S. GOV'T ACCOUNTABILITY OFF., GAO-20-329, OIL AND GAS PERMITTING: ACTIONS NEEDED TO IMPROVE BLM'S REVIEW PROCESS AND DATA SYSTEM (2020) [*hereinafter* GAO, ACTIONS NEEDED TO IMPROVE BLM'S DATA SYSTEM]; U.S. GOV'T ACCOUNTABILITY OFF., GAO-18-411, OIL AND GAS LEASE MANAGEMENT: BLM COULD IMPROVE OVERSIGHT OF LEASE SUSPENSIONS WITH BETTER DATA AND MONITORING PROCEDURES (2018); U.S. GOV'T ACCOUNTABILITY OFF., GAO-17-307, OIL AND GAS DEVELOPMENT: IMPROVED COLLECTION AND USE OF DATA COULD ENHANCE BLM'S ABILITY TO ASSESS AND MITIGATE ENVIRONMENTAL IMPACTS (2017); U.S. GOV'T ACCOUNTABILITY OFF., GAO-13-572, OIL AND GAS DEVELOPMENT: BLM NEEDS BETTER DATA TO TRACK PERMIT PROCESSING TIMES AND PRIORITIZE INSPECTIONS (2013); U.S. GOV'T ACCOUNTABILITY OFF., GAO-10-313, OIL AND GAS MANAGEMENT: INTERIOR'S OIL AND GAS PRODUCTION VERIFICATION EFFORTS DO NOT PROVIDE REASONABLE ASSURANCE OF ACCURATE MEASUREMENT OF PRODUCTION VOLUMES (2010).

a. Regulatory Structure

The Mineral Leasing Act (MLA) grants the Forest Service authority to regulate surface disturbing activities where National Forest System lands overlay federal minerals.[156] However, responsibility for managing federally owned sub-surface mineral resources is shouldered by the Bureau of Land Management (BLM).[157] Thus, Forest Service approval of a Surface Use Plan of Operations is embedded within the BLM's multi-stage regulatory process.[158] The shared permitting structure is relevant to this analysis because delays affecting the BLM's permitting process also affect the Forest Service. Industry commentary regarding permitting delays focus on themes exogenous to NEPA's regulatory structure, some of which we have already discussed: inexperienced staff, insufficient staffing, and a litigation-averse focus on bullet-proofing documents.[159] Although these recurring themes are

---

[156] 30 U.S.C. § 226(g) ("The Secretary of the Interior, or for the National Forest Lands, the Secretary of Agriculture shall regulate all surface-disturbing activities conducted pursuant to any lease issued under this Act. . . . No permit to drill on an oil and gas lease issued under this Act may be granted without the analysis and approval by the Secretary concerned of a plan of operations covering proposed surface-disturbing activities within the lease area."); *see also* 30 U.S.C. § 192c ("[A]ny permit or lease of such deposits in land administered by the Secretary of Agriculture shall be issued only with his consent and subject to such conditions as he may prescribe to insure the adequate utilization of the land[.]"). Under the MLA, no parcels may be offered for lease and no permit to drill may be granted without the Forest Service's consent and confirmation that the lease sale would be consistent with the applicable Forest Plan and completion of the appropriate NEPA analysis. 36 C.F.R. § 228.102 (2021).

[157] 36 C.F.R. § 228.1 (2021); Memorandum of Understanding Between U.S. Dep't of the Interior, Bureau of Land Mgmt. and U.S. Dep't of Agric., Forest Serv. (Apr. 14, 2006), https://www.fs.fed.us/geology/MOU_BLM_Oil_Gas.pdf [https://perma.cc/DM9W-P2B].

[158] The Surface Use Plan of Operations is first submitted to the BLM as part of the APD and later forwarded to the Forest Service to approve. 36 C.F.R. § 228.107(b)(1) (2021). It is unclear whether the MYTR database begins tracking time from the initial point of the APD submission to the BLM or from the time that the Forest Service's environmental review begins. Either point would fit the database definition of "project initiation." *Compare* PALS User Guide at 15 (identifying potential project milestones and defining Project Initiation as "When the project officially begins.") *with* PALS User Guide Appendix A—Data Field Definitions (defining "project initiation" for an EA as the "official scoping start date" and for a CE as the "scoping start date or date accepted to live SOPA). It is also possible that there is variation in practice among field offices. For a description of the Forest Service's procedure in analyzing a SUPO, *see* 36 C.F.R. §§ 228.105 to 228.108 (2021). For an explanation of the multiple steps involved in approving an APD submitted to the BLM, *see* GAO, ACTIONS NEEDED TO IMPROVE BLM'S DATA SYSTEM 7-8 *supra* note 155.

[159] Laura Lindley, *NEPA Streamlining: Some Observations on Its Use in the Context of BLM and Forest Service Oil and Gas Program*, *in* ROCKY MT. MIN. L. FOUND., NATURAL RESOURCES AND ENVIRONMENTAL ADMINISTRATIVE LAW AND PROCEDURE II (2004) (identifying complaints of delay and uncertainty as partially attributable to "inexperienced and/or unempowered team leaders" who "may be preparing his/her first EIS" and specifying that the "lack of training results in unnecessary wasted time" including "failing to tier to earlier documents" and also citing concerns that the process "grinds to a halt" when the team leader is "out of the office for vacation, illness, training, or other priorities"); *id.* at n.5 and accompanying text ("It has been the author's frequent experience that the BLM and the Forest Service delay decision-making in order to prepare more and lengthier NEPA documents in an effort to bulletproof their decisions from appeal."). For a more thorough discussion of delays caused by litigation aversion, see *infra* Section IV(D)(2).

relevant, they would not explain why most of the EAs in this category were processed expeditiously, while an unexpectedly high proportion of CEs took much longer than average.

All of the CEs that took longer than average involved an APD approval, which is the final stage for development of an oil or gas well.[160] After a lease has been issued, the lessee has ten years to drill a well and commence production.[161] By the time the Forest Service and BLM act on an APD, the development proposal has already undergone at least two NEPA reviews (at the Forest Planning phase where the Forest Service determines whether oil development is an appropriate use of National Forest System lands, and at the leasing stage where the Forest Service determines whether a specific parcel is appropriate for development and what surface use stipulations are needed to protect other resources). Each analysis considers more detail as site-specific analysis becomes more focused. With appropriate tiering, and barring unforeseen complications, approval of an APD should be simple and capable of expedited review.

b. Some Delays in APD Approval Are Attributable to the Operator

One source of delay identified by the BLM is time spent waiting for information from an operator.[162] The BLM depends on information from the operator when processing an APD. If the operator responds slowly, decision-making time increases, skewing data reported in MYTR, even though the delay is not caused by the Forest Service or the BLM. The BLM quantifies this phenomenon. The BLM maintains ongoing data on the time required to process an APD that distinguishes between time the BLM spent waiting for an operator to provide information and time the BLM spent analyzing an APD. For nine out of ten published years (2012 to 2020), the BLM spent more time waiting for an operator to provide information than it spent

---

[160] Under the MLA, no parcels may be offered for lease and no permit to drill may be granted without the Forest Service's consent and confirmation that the lease sale would be consistent with the applicable Forest Plan and completion of the appropriate NEPA analysis. 36 C.F.R. § 228.102 (2021).

[161] Federal oil and gas leases are generally issued for a ten-year primary term. U.S. GOV'T ACCOUNTABILITY OFF., GAO-18-411, OIL AND GAS LEASE MANAGEMENT: BLM COULD IMPROVE OVERSIGHT OF LEASE SUSPENSIONS WITH BETTER DATA AND MONITORING PROCEDURES 5 n.15 (2018) ("The Energy Policy Act of 1992 required BLM to offer all competitive and noncompetitive leases with 10-year primary terms. Prior to 1992 BLM offered primary lease terms of 5 years for competitively sold leases and 10 years for leases issued non-competitively.") [*hereinafter* GAO, BLM COULD IMPROVE OVERSIGHT OF LEASE SUSPENSIONS].

[162] There are three steps involved in approving an APD and each step may involve some back and forth between the operator and the BLM. At Step 1, the operator submits the APD, and the adjudicator verifies that the lease is valid and the payment has been received. In Step 2, the adjudicator identifies potential deficiencies in the application and provides the operator 45 days to correct. At this stage, the 30-day public notification process begins. Step 3 involves the environmental analysis and NEPA compliance. If additional information is required during step 3, the BLM defers its decision and the operator has up to 2 years to provide information. GAO, ACTIONS NEEDED TO IMPROVE BLM'S DATA SYSTEM *supra* note 155 at 8 (Figure 2: BLM's APD Review Process).

reviewing the APD. In some years, the BLM spent almost twice as much time waiting for an operator as it spent analyzing the APD.[163] These delays, which appear to reflect slow NEPA analysis, are not attributable to federal agency action and cannot be resolved by changes to agency regulations or practice. In crafting regulatory reforms, this source of delay should be distinguished from delays caused by agency inefficiencies.

Federal oil lessees may have operational reasons for delaying their responses, or they may need additional time to respond to changing circumstances. Substantial time may pass between leasing and the submission of an APD. During that time, development of adjacent parcels, identification of a nearby cultural resource or sensitive species, improved technology, or a communitization agreement or unitization orders may necessitate changes to an operator's Surface Use Plan of Operations.[164] The site-specific analysis required at the APD phase, or amendments to an existing APD, may require additional planning and analysis to address these developments. These delays are reflected in the NEPA decision-making process, but they are caused by the operational uncertainties of oil exploration in a complex, regulated industry.

Additionally, APDs bridge the divide between aspiration and implementation. According to the GAO, "the three primary factors influencing operators' decisions to apply for or use APDs were economic factors, infrastructure availability, and lease terms."[165] The primary economic and infrastructure-related factors influencing operators were: (1) the price of oil and natural gas; (2) drilling success and geological attributes; (3) technological changes; (4) access to infrastructure, including pipelines; and (5) drilling rig schedules.[166] In addition to these physical factors, market influences came into play. "Some operators may obtain APDs to increase the value of the company without using the APD to drill."[167] Other operators confirmed that they like to keep approved but unused APDs on hand to ensure drill rigs could be kept busy.[168] The number of APDs that get approved but go unused demonstrates the influence of these external factors. From fiscal years 2014 to 2019, almost half the APDs approved by the BLM went unused.[169]

---

[163] *Id.* (years 2011, 2012, 2018).
[164] *See* Laura Lindley, *The Impact of Unit Events Upon a Federal Oil and Gas Lease*, *in* ROCKY MTN. MIN. L. FOUND., FEDERAL ONSHORE OIL & GAS POOLING AND UNITIZATION BOOK 1 (2014)(describing and providing definitions for unitization and communitization).
[165] GAO, ACTIONS NEEDED TO IMPROVE BLM'S REVIEW PROCESS AND DATA SYSTEM *supra* note 150 at 11.
[166] *Id.* at 16–17.
[167] *Id.* at 19.
[168] *Id.* at 20.
[169] *Id.* at 11 (reporting that 9,991 APDs had been approved and put to use, while 9,950 had been approved, but were not being used).

Lease suspensions may also affect the lengthy decision-making times for CEs reflected in the MYTR database. Federal oil and gas leases expire at the end of their 10-year primary term unless oil or gas is produced in paying quantities or the lease otherwise qualifies for an extension.[170] A lessee can avoid expiration of a lease term without producing oil in paying quantities by applying for a lease suspension, tolling the running of the lease term and, in some cases, suspending the lessee's obligation to pay rent while the lease is suspended.[171] As of 2016, there were 2,750 BLM oil and gas leases identified as suspended.[172]

Lease suspension may be granted because of market conditions, logistical challenges, weather-related issues, or administrative delay (including waiting for approval of an APD).[173] Lease suspensions can be a strategic way to weather economic downturns.[174] For example, in 2020, the BLM issued Interim Guidance detailing how to apply for a lease suspension following the economic downturn caused by COVID-19.[175]

Lease suspensions could affect decision-making times in two distinct ways. First, if a lease were suspended while an APD was in process, the number of

---

[170]Robert C. Mathes & Timothy R. Cannon II, *Staying Alive, Navigating the Complexities of Oil and Gas Lease Extensions, Terminations, Cancellations, and Suspensions, in* ROCKY MT. MIN. L. FOUND., PROCEEDINGS OF THE SIXTY-FIRST ANNUAL ROCKY MOUNTAIN MINERAL LAW INSTITUTE § 28.03 (2015).

[171] The Mineral Leasing Act and its implementing regulations provide two major types of suspensions for federal oil and gas leases: "Section 39" suspensions and "Section 17" suspensions. Mathes & Cannon, *supra* note 170 at § 28.05. *See also* 30 U.S.C. § 209 and 43 C.F.R. § 3103.4-4 (2021) (statutory and regulatory authority for Section 39 suspensions); 30 U.S.C. § 226(j) (statutory authority for Section 17 suspensions); U.S. BUREAU OF LAND MGMT., INTERIM GUIDANCE FOR LEASE SUSPENSION REQUESTS DURING THE COVID-19 NATIONAL EMERGENCY (April 21, 2020), https://f.datasrvr.com/fr1/820/96356/BLM_interim_guidance_-_suspension.pdf?cbcachex=299019 [https://perma.cc/7GJC-WHMD] (describing both types of suspensions and providing instructions on how to apply for a suspension due to circumstances created by COVID-19).

[172] GAO, BLM COULD IMPROVE OVERSIGHT OF LEASE SUSPENSIONS *supra* note 161 at 15.

[173] *Id.* at 18–19 (describing reasons for lease suspensions in a sample of files for 48 leases in Montana and Wyoming). *See also* Mathes & Cannon, *supra* note 170 at § 28.05(1)(a) ("Situations Justifying Section 39 Suspensions"); Savoy Energy, L.P., 178 IBLA 313, 323 (2010) (holding that where lessee awaited approval of an APD, suspension fell within the terms of relief granted by Section 39 for "delays imposed upon the lessee due to administrative actions addressing environmental concerns [which] have the effect of denying the lessee 'timely access to the property"). *See generally* Harvey Yates Co., 156 IBLA 100 (2001) (recognizing availability of Section 39 suspensions to lessees awaiting approval of an APD, but detailing the strict procedures that must be followed to obtain this relief); River Gas Corp. Texaco Expl. and Prod. Inc., 149 IBLA 239, 249 (1999) (holding that the lessee was entitled to a suspension as a matter of right where the BLM ordered cessation of operation until the completion of an EIS).

[174] SCOTT ANDERSON ET AL., HOGAN LOVELLS, SUSPENSIONS OF FEDERAL AND INDIAN OIL AND GAS LEASES (2020), https://ca.hoganlovells.com/-/media/hogan-lovells/pdf/2020-pdfs/2020_04_23_suspensions_of_federal_and_indian_oil_and_gas_leases.pdf [https://perma.cc/SZ9Q-X624].

[175] U.S. BUREAU OF LAND MGMT., INTERIM GUIDANCE FOR LEASE SUSPENSION REQUESTS DURING THE COVID-19 NATIONAL EMERGENCY (Apr. 21, 2020), https://f.datasrvr.com/fr1/820/96356/BLM_interim_guidance_-_suspension.pdf?cbcachex=299019 [https://perma.cc/7GJC-WHMD].

days between project initiation and a decision would increase even though no NEPA action was being taken. This would appear as a long NEPA project in MYTR and the delay would likely be misattributed to the NEPA process even though the delay was caused by the lease suspension. It is also possible that environmental conditions discovered during the NEPA process may make a project less attractive, inducing an operator to apply for a lease suspension pending completion of the required environmental studies.[176]

Once the suspension was issued, the operator may not have an incentive to continue pursuing the NEPA analysis if the economics of the well were marginal. For example, when the GAO investigated lease suspensions at the BLM, it identified multiple lease suspensions in Montana that had been in place for more than 30 years.[177] Several of these had been subject to a court order requiring additional consideration of environmental impacts. Documents from the Forest Service indicated that there was little interest at the time in conducting those analyses because of their expense and because the operators had minimal interest in developing the lands for oil and gas production.[178] With the suspension in place, the operators could avoid the expense of additional environmental review without losing the lease.

There is no way of knowing whether the slow-moving CEs in our study were delayed due to a lease suspension. In addition to limited oversight, monitoring, and documentation of lease suspensions by the BLM,[179] the MYTR database numbering system does not interface with the BLM lease suspension database. Nevertheless, it is important to recognize that outside influences may affect NEPA decision-making times in unexpected ways.

In summary, operator priorities, market forces, technological developments, and lease suspensions could extend decision-making times. Focusing solely on decision-making times to assess NEPA efficiency fails to capture these relevant nuances. In these circumstances, "streamlining" procedures that focus on creating new and more expansive CEs or compulsory deadlines would not address the underlying cause of delay, but they would reduce transparency, consideration of alternatives, and opportunities for environmental mitigation. Regulatory reforms should distinguish

---

[176] *See, e.g.*, Savoy Energy, L.P., 178 IBLA 313, 323 (2010) (holding that where lessee awaited approval of an APD, suspension fell within the terms of relief granted by Section 39 for "delays imposed upon the lessee due to administrative actions addressing environmental concerns [which] have the effect of denying the lessee 'timely access to the property"); GAO, BLM COULD IMPROVE OVERSIGHT OF LEASE SUSPENSIONS *supra* note 161 at 18n. 37 (describing lengthy suspensions that appeared to be continuous because environmental review requirements had not been met).

[177] GAO, BLM COULD IMPROVE OVERSIGHT OF LEASE SUSPENSIONS *supra* note 161 at 18

[178] *Id.* at 18 n.37 and accompanying text.

[179] GAO, BLM COULD IMPROVE OVERSIGHT OF LEASE SUSPENSIONS *supra* note 161 at 20-22 (2018) (concluding that there is minimal oversight, monitoring, or searchable information regarding lease suspensions; for example, more than three-quarters of the official lease suspension files in BLM state offices were outdated).

between delays that are caused by industry dynamics and those that are caused by the NEPA process itself.

3. *Forest Plan Creation and Revision: Delays Caused by Compliance with Other Laws May Skew NEPA Compliance Time Data*

Like a zoning ordinance, a Forest Plan establishes a vision intended to guide management of a large landscape for fifteen to twenty years, identifying portions of a forest where certain activities are generally appropriate. That the NEPA analysis for Forest Planning takes longer than the analysis for other activities is unsurprising given the geographic scope of these decisions, the often-controversial nature of allocating resources for years into the future, and the potential impacts that are likely to result from those decisions.[180] Additionally, planning itself requires information gathering, analysis, and deliberation, which takes time.

Forest Plan Creation/Revision was associated with the highest rate of longer than average NEPA completion times and, indeed, these activities took longer than most decisions. This is also an activity with multiple and overlapping legal requirements, making it difficult to distinguish between delays caused by NEPA compliance and those attributable to compliance with other laws.[181]

The regression database identified 86 projects involving Forest Plan Revisions. The fastest took 45 days and the longest took 5,695 days.[182] Only 16 (19%) took less than a year. Fifty-two of the 84 projects (60%) were analyzed in an EIS, 21 (24%) were analyzed in EAs, and 13 (15%) were analyzed in CEs. Eighty-four percent of the EISs took longer than the median time for EISs (44 out of 52 took longer than 1,006 days). Half of these took at least 2,012 days, which is double the median time for an EIS. Of the 13 CEs, almost half took longer than the median time for a CE (6 out of 13 took longer than 112 days), and most of these took almost double that amount of

---

[180] *See* John C. Ruple & Mark Capone, *NEPA, FLPMA, and Impact Reduction: An Empirical Assessment of BLM Resource Management Planning in the Mountain West*, 46 ENV'T L. 953, 962 (2016) (observing in an analogous context that EISs for Resource Management Plans prepared by the Bureau of Land Management take longer to complete than EISs for oil and gas projects).

[181] CRS, NEPA: BACKGROUND AND IMPLEMENTATION, *supra* note 7 at 24 ("NEPA forms the framework to coordinate and demonstrate compliance with these requirements. NEPA itself does not *require* compliance with them. Theoretically, if the requirement to comply with NEPA were removed, compliance with each applicable law would still be required."); CRS, STREAMLINING NEPA, *supra* note 106 at 8–9 (describing confusion between delays caused by NEPA and delays caused by compliance with other laws).

[182] *See* Project 33874, 05 Recreation Residence Amendment, Wagner Lake Summer Home Group H-1, Lot #2, Region 9, Mio Ranger District (2011) (CE) and Project 33455, Grand Mesa Travel Plan Environmental Analysis, Region 2, Grand Mesa Uncompahgre and Gunnison National Forest (2005) (EA).

time. Looking to EAs, 76% took longer than the median time for an EA (16 out of 21 took longer than 445 days), and 47.6% took at least twice as long.[183]

Forest planning provides a specific example of the CRS observation that NEPA often functions as an "umbrella statute—that is, a framework to coordinate or demonstrate compliance with any studies, reviews, or consultations required by any other laws."[184] Forest Planning occurs within the context of legal requirements imposed by a host of laws that operate independently of NEPA,[185] including the MLA, the Taylor Grazing Act, the Endangered Species Act, the Wilderness Act, the National Historic Preservation Act, and many more.

Principal among these laws, the National Forest Management Act (NFMA) requires the Forest Service to use "a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences" while preparing "standards and guidelines" for the management of each national forest.[186] Planning must consider that actions taken on adjacent non-forest system land can impact forest resources, and vice-versa. NFMA also demands robust public participation, including making the plans available to the public for at least three months, soliciting comments, and holding public meetings prior to adoption.[187] While much of this can be done concurrently with NEPA, the long decision-making times associated with forest planning may reflect forest management laws and regulations other than NEPA. If NEPA alone were the source of delay, we would not expect to see the disparity in completion times that distinguishes forest planning from other activities.

The interconnected relationship between NEPA and other statutes becomes clear when considering litigation. A comprehensive study analyzing twenty years of Forest Service land management litigation recognized that most lawsuits involve multiple claims arising under different statutes.[188] For example, during the course of the study, judges decided 227 cases involving alleged NEPA and a NFMA violations on the merits of those claims.[189] The Forest Service won 165 (59.6%) of these and lost 112 cases. Of the 112 losses, in 48 cases (42%), the judges ruled that the Forest Service violated both statutes. In 6 cases (5%), the judges ruled that the agency complied

---

[183] Ten out of twenty-one took 890 days or longer.
[184] CRS, NEPA: BACKGROUND AND IMPLEMENTATION, *supra* note 7 at 1; CRS, STREAMLINING NEPA, *supra* note 106 at 3, 8.
[185] By law, each plan is a "major federal action" and requires preparation of an EIS. 61 U.S.C. § 1604(f)(5); 42 U.S.C. § 4332(2)(C).
[186] 61 U.S.C. § 1604(b).
[187] 61 U.S.C. § 1604(d).
[188] Amanda M.A. Miner et al., *Twenty Years of Forest Service Land Management Litigation*, 112 J. FORESTRY 32, 36 (2014).
[189] *Id.* at 37.

with both statutes but violated some other law. In 23 cases (20%), the judge ruled that the agency complied with NEPA, but violated NFMA.[190] In other words, in litigation involving NEPA and NFMA, 67% of the time, the Forest Service would have lost in litigation even if NEPA did not exist. This example brings to life NEPA's role as an "umbrella statute" in complex projects with multiple overlapping legal and regulatory standards.[191]

In addition to the legal complexity of forest planning, controversy can also cause delay by generating a large volume of comments on projects that must be resolved before planning can conclude. Avoiding conflicts necessitates communication and coordination with other federal agencies; state, local, and tribal governments; and other interested stakeholders and organizations—all of which takes time. As one Forest Service study notes, "Additional private landowners adjacent to national forests and grasslands means more neighbors with whom the Forest Service needs to coordinate in arranging access for fire management and recreation, managing ecosystems jointly across the landscape, and other management issues."[192]

Despite the complexity of this undertaking, forest planning is not well funded compared to other programs. In fiscal year 2019, the "hazardous fuels" and "forest products" programs received almost twice as much funding as "land management, planning, assessment and monitoring."[193]

---

[190] *Id.*

[191] CRS, NEPA BACKGROUND AND IMPLEMENTATION, *supra* note 7 at 1; CRS, STREAMLINING NEPA, *supra* note 106 ("[B]arriers to efficient decision making arise not from NEPA alone, but from the challenges of integrating compliance with a multitude of laws and regulations that may apply to a given federal action.").

[192] SUSAN M. STEIN ET AL., U.S. DEPT. OF AGRICULTURE, U.S. FOREST SERV., PNW-GTR-728, NATIONAL FORESTS ON THE EDGE: DEVELOPMENT PRESSURES ON AMERICA'S NATIONAL FORESTS AND GRASSLANDS 18 (2007). This dynamic was frequently referenced as a source of delay during the EADM regional roundtables conducted in 2018. *See, e.g.*, NAT'L FOREST FOUND., NORTHERN REGIONAL EADM PARTNER ROUNDTABLE SUMMARY REPORT 14 (2018) [hereinafter REGION 1 ROUNDTABLE REPORT] ("Collaborative groups consist of different types of users than emerging generation of millennial National Forest users."); NAT'L FOREST FOUND., ROCKY MOUNTAIN REGIONAL EADM PARTNER ROUNDTABLE SUMMARY REPORT 22 (2018) [hereinafter REGION 2 ROUNDTABLE REPORT] ("Trail and camping use has surged without adequate planning for current trends."); *id.* at 11 ("Agency blind to situations when USFS cannot act alone to fix a problem that involves landscapes shared with private owners."); NAT'L FOREST FOUND., INTERMOUNTAIN REGIONAL EADM PARTNER ROUNDTABLE 10 (2018) [hereinafter REGION 4 ROUNDTABLE REPORT] ("USFS cannot make decisions when multiple users conflict."); NAT'L FOREST FOUND., PACIFIC SOUTHWEST REGIONAL EADM PARTNER ROUNDTABLE 15 (2018) [hereinafter REGION 5 ROUNDTABLE REPORT] ("Collaborative membership is unbalanced. USFS unable to efficiently consider all perspectives."); NAT'L FOREST FOUND., PACIFIC NORTHWEST REGION PARTNER ROUNDTABLE 10 (2018) [hereinafter REGION 6 ROUNDTABLE REPORT] ("Forest planning lacks landscape-scale considerations."); NAT'L FOREST FOUND., SOUTHERN REGIONAL EADM PARTNER ROUNDTABLE 14 (2018) [hereinafter REGION 8 ROUNDTABLE REPORT] ("Stakeholders at extremes of the range of interests involved end up driving decisions. Recreation groups absent or under-represented."); NAT'L FOREST FOUND., EASTERN REGIONAL EADM PARTNER ROUNDTABLE 25 (2018) [hereinafter REGION 9 ROUNDTABLE REPORT] ("Local issues not adequately addressed and at risk when a national standard is imposed.").

[193] HOOVER & RIDDLE, *supra* note 144 at 18. "Hazardous fuels" funds "activities to remove, modify, or manipulate vegetation to reduce the likelihood of uncharacteristically intense wildfire.

Additionally, forest planning is rarely triggered by an individual request from a permitted entity. Without supplemental funding from a permit applicant (who may pay the cost of hiring a third-party contractor to prepare the NEPA analysis on behalf of the Forest Service) and without the motivating influence of a project proponent who is eager to commence development, it is possible that forest planning either takes a back seat in the priority queue, or that staff needed to complete planning work are routinely reassigned to other projects. Moreover, forest planning is underfunded and understaffed. In recent testimony before the Senate Energy and Natural Resources Committee, the Deputy Chief of the Forest Service testified that more than half of the 154 forest plans are at least 15 years old, and that the Forest Service "doesn't have enough staff or money to catch up."[194] He added that the Forest Service has seen a decline of about 40 percent in natural resource professionals who work on the management plans because, "we just can't pay for those positions anymore."[195]

Finally, forest planning demands a response to changing environmental and social conditions. Development in a previously rural area may drive a change in land use patterns as constituencies who relied on grazing, logging or mining must now compete with constituencies who desire recreational opportunities on Forest Service lands.[196] Heightened recreational demands may conflict with each other, and create new challenges to maintaining environmental values, like wildlife habitat and water quality.[197] Housing

---

Prior to FY2018, this program was funded through the Wildland Fire Management account." *Id.* It received 23% of the discretionary budget. "Forest products" funds "activities to analyze, prepare, offer, award, and administer timber sales, stewardship contracts, and special forest products permits on NFS land." *Id.* In FY2019, it received 20% of the discretionary budget. *Id.* "Land Management Planning, Assessment, and Monitoring" funds "the development, maintenance and revision of the forest plans." *Id.* at 19. In FY2019, it received 9% of the discretionary budget. *Id.*

[194] Marc Heller, *Forest Service Leaders Warn of Rising Wildfire Costs*, E&E NEWS (Oct. 22, 2021), https://subscriber.politicopro.com/article/eenews/2021/10/22/forest-service-leaders-warn-of-rising-wildfire-costs-282262.

[195] *Id.*

[196] *See, e.g.*, Steve Bunk, *Is Recreation in the Rockies Becoming a Bigger Forest Service Priority*, HIGH COUNTRY NEWS (Jan. 25, 2011), https://www.hcn.org/blogs/range/is-recreation-in-the-rockies-becoming-a-bigger-forest-service-priority (describing a lobbying effort by the recreation industry, particularly from the 11 western states, to influence Forest Service planning rule regulations by including recreation as a key use of national forests); Robert B. Keiter & Matthew McKinney, *Public Land and Resources Law in the American West: Time for Anther Comprehensive Review?* 49 ENV'T L. 1, 4–5 (2019) ("Since 1970, the region's population grew by 107 percent compared to 41 percent for the rest of the country... and most western state economies have evolved away from a predominant reliance on natural resources. A preservation ethic ... has taken hold, generating a robust tourism industry that is of growing importance across the region. Climate change has created a new degree of regional uncertainty, threatening water supplies and wildlife, and enhancing wildfire dangers. A diverse array of constituents demand a broader range of services from the public lands.... In short, the social, economic, legal, and environmental context of federal public land management has changed dramatically during the past several decades.").

[197] Robert B. Keiter, *The Emerging Law of Outdoor Recreation on the Public Lands*, 51 ENV'T L. 89, 90 (2021) ("As the ranks of recreationists have swelled environmental damage has become

developments along national forest boundaries pose a variety of management challenges from wildlife habitat degradation, damage to water quality, hydrology alterations, and enhanced incidences of encroachment along boundaries.[198] Increased development activities on private land in the vicinity of Forest Service boundaries complicates resource planning and increases the administration costs.[199]

The length of delay associated with forest planning decisions deserves attention. As with the previously discussed activities, it is possible that a lack of funding and inexperienced or rotating staff exacerbate delays.[200] Moreover, changing circumstances related to climate change and urbanization

---

ever more visible along with conflicts between the participants—personified by intense controversies over motorized use, wilderness designation, mountain biking, and hunting. These growing problems, though commonly linked to individual choice in recreational preferences are also coupled to powerful economic and political forces that are driving what some now regard as an 'industrial scale' recreation problem."); Andrew Kasper, *Changing Recreational Habits Challenge Forest Service*, SMOKY MOUNTAIN NEWS (March 27, 2013), https://smokymountainnews.com/archives/item/10038-changing-recreational-habits-challenge-forest-service (reporting on the new recreational constituencies lobbying for priority during the forest planning process for the Pisgah and Nantahala forests and observing "The recreational habits of that increasing number of users changes with time, which may spell fun for outdoor enthusiasts but create new types of management challenges for the overseers.").

[198] STEIN ET AL., *supra* note 192 at 15–19 (listing the implications of study showing that counties with national forests and grasslands are projected to experience significant increased housing density near the boundaries of national forests); Volker C. Radeloff et al., *Housing Growth in and near United States Protected Areas Limits Their Conservation Value*, 107 PNAS 940, 942 (2010) (reporting that between 1940 and 2000, National Forests experienced a housing growth rate of 280% within 1km of a boundary in comparison with a national average of 209%).

[199] STEIN ET AL., *supra* note 192 at 18.

[200] These issues, particularly the frequent rotation of staff, were often identified as sources of delay during the regional roundtables. *See, e.g.*, REGION 1 ROUNDTABLE REPORT, *supra* note 192 at 8–9 (identifying "high turnover of permanent staff positions within all levels of agency" and "'move on, move up'" practice of relocating staff for career advancement as sources of knowledge voids and delays within the NEPA and planning process); REGION 2 ROUNDTABLE REPORT, *supra* note 192 at 8 (identifying "leadership change and staff transitions" and "acting positions" as sources of delay in the NEPA and planning process); NAT'L FOREST FOUND., SOUTHWESTERN REGIONAL EADM PARTNER ROUNDTABLE 9 (2018) [*hereinafter* REGION 3 ROUNDTABLE REPORT] ("Staff transitions are too frequent. . . . NEPA delays caused by staff turnover"); REGION 4 ROUNDTABLE REPORT, *supra* note 192 at 8 (identifying staff turnover, hiring freezes, lengthy hiring process, temporary workforce, and staff without local institutional knowledge as sources of delay in the NEPA and planning process); REGION 5 ROUNDTABLE REPORT, *supra* note 192 at 8 ("rapid turnover undermines productivity of partner relationships, especially at the local level" and "short tenure of leadership staff limits their ability to apply local knowledge"); REGION 6 ROUNDTABLE REPORT, *supra* note 192 at 7 (identifying "lack of continuity fostered by 'mobility policy' both in terms of USFS staff often having short tenure in their positions and also leaving for details" as a source of delay); REGION 8 ROUNDTABLE REPORT, *supra* note 192 at 8 ("Lack of staff continuity negatively affects EADM. Loss of knowledge between staff due to lack of overlap."); REGION 9 ROUNDTABLE REPORT, *supra* note 192 at 7 (identifying "turnover of both leadership and staff in the course of one project" as a source of delay in NEPA and planning decisions); NAT'L FOREST FOUND., ALASKA REGIONAL EADM PARTNER ROUNDTABLE 7 (2018) [hereinafter REGION 10 ROUNDTABLE REPORT] (identifying "rapid loss of NEPA team leadership as well as other NEPA expertise" as a source of delay).

require deliberation and provoke controversy, which takes time to resolve. Creative recommendations suggest ways in which NEPA could facilitate—rather than hinder—more efficient forest planning.[201] Pilot projects within the Department of Transportation demonstrate NEPA's ability to advance coordinated efforts, as discussed in more detail in Section V.

Just as NEPA may not be the sole cause for delay within the Forest Planning process, it also cannot serve as the sole remedy. Finding solutions to facilitate faster forest planning decisions involves complexities and nuances that are worthy of discussion but beyond the scope of this article.

C. Geographic Region Has a Significant Influence on Decision-making Time

The regression model revealed that the Forest Service administrative region responsible for overseeing a NEPA analysis has a significant influence on decision-making times. The relationship between region and NEPA completion time varied with each level of analysis. Despite this variation, Region 1 (the Northern Region) consistently took longer to complete NEPA decisions at all levels of analysis, and Region 8 (the Southern Region) and Region 9 (the Eastern Region) consistently boasted the fastest decision-making times at all levels of analysis.

Initially, this finding surprised us. Each Forest Service region is implementing the same laws, subject to the same regulations, pursuant to the same administrative guidance, involving the same activities, and (presumably) subject to similar financial and staffing challenges. We therefore did not expect to see a large variation in elapsed times across regions. The regional variation in completion times suggests that factors external to the NEPA process affect completion times. If the delays were caused solely by the NEPA process, we would expect similar mean completion times across regions, after controlling for the year of project initiation, level of analysis, and activities.

It is possible that ecological differences between the regions affect the variation in completion times. Cultural differences may also cause varying completion times. Although we explore some of these potential influences below, regional differences in completion time justify further research. Understanding why some regions complete the NEPA process more quickly than other regions may reveal administrative and management efficiencies that could be replicated.

---

[201] *See, e.g.*, Mark Squillace, *Rethinking Public Land Use Planning*, 43 HARV. ENV'T L. REV. 415, 437–52 (2019) (recommending elimination of "standards and guidelines" in forest plans and a shift toward landscape level planning with a robust system of monitoring and adaptation leading to informed and thorough activity-level planning tiered to larger scale documents).

1. Regression Model Results Regarding Forest Service Regions

The model computed regression coefficients for all Forest Service Regions relative to Region 5.[202] Although any region could serve as a baseline, Region 5 was used because it was involved in NEPA decisions with every level of analysis and all activities, establishing a uniform baseline for comparison. Given that the regression model is predicting elapsed time on a log scale, it is easiest to discuss regional impacts in terms of percentage change in elapsed time. The table below sets forth the results and lists the estimated percent change in elapsed time if a NEPA decision is in a specified region other than Region 5. These differences exist after controlling for the level of analysis, year of project initiation, and the activities involved in the project. Following the model results, we provide a brief discussion of ecological characteristics of each region, and then turn to a discussion of budgetary challenges caused by wildfire suppression that could have regional effects. For projects undergoing review in a CE, Regions 1, 2, 4, and 6 are associated with NEPA completion times that are 20% to 30% longer than Region 5. Regions 8, 9, and 10 are associated with elapsed times roughly 10% to 15% below Region 5.

Table 1--Regional Impacts for CE Projects

Region	Predicted % Change from Region 5
R4 (Intermountain)	29.4%
R1 (Northern)	24.9%
R2 (Rocky Mountain)	23.7%
R6 (Pacific Northwest)	20.0%
R5 (Pacific Southwest)	0.0%
R3 (Southwestern)	-1.8%
R8 (Southern)	-11.4%
R9 (Eastern)	-13.1%
R10 (Alaska)	-14.7%

For projects undergoing review in an EA, Regions 1 and 6 are associated with the longest elapsed times. Regions 2, 3, and 4 are associated with elapsed times within 5% of Region 5. Regions 8, 9, and 10 are associated with the longest elapsed times.

[202] Region is a categorical variable with nine levels. In order to avoid perfect multicollinearity in the regression model, one level must be chosen as the baseline. Then the design matrix for the regression model will contain eight indicator variables that measure the change in predicted elapsed time if a decision moves from Region 5 to another region.

Table 2--Regional Impacts for EA Projects

Region	Predicted % Change from R5
R6 (Pacific Northwest)	17.2%
R1 (Northern)	15.2%
R3 (Southwestern)	5.1%
R5 (Pacific Southwest)	0.0%
R4 (Intermountain)	-4.3%
R2 (Rocky Mountain)	-5.0%
R9 (Eastern)	-21.4%
R8 (Southern)	-32.7%
R10 (Alaska)	-38.1%

For projects subject to review in an EIS, Regions 1, 3, and 4 are associated with the longest elapsed times. Completion times in these regions are more than 50% longer than those in Region 5. Why EISs completed in Regions 1, 3 and 4 should take longer may warrant more careful review. EISs completed by Region 9 also deserve careful consideration, as Region 9 may have found an opportunity to maximize analytical or procedural efficiencies. Region 8 is listed as NA because there were too few EISs completed during the study to accurately estimate the effect of Region 8 on EIS cases.

Table 3--Regional Impacts for EIS Projects

Region	Predicted % Change from R5
R4 (Intermountain)	54.5%
R1 (Northern)	52.8%
R3 (Southwestern)	52.0%
R10 (Alaska)	29.8%
R6 (Pacific Northwest)	13.3%
R2 (Rocky Mountain)	4.0%
R5 (Pacific Southwest)	0.0%
R9 (Eastern)	-18.6%
R8 (Southern)	NA

2. Regional Differences Influence Decision-making Time

The National Forest System includes 193 million acres with 154 national forests, 20 national grasslands, and several other federal land designations.[203] Each unit (national forest, national grassland, etc.) is administered

[203] HOOVER & RIDDLE, *supra* note 144, at 1. *See also id.* at 2 (elaborating that there are "154 national forests with 188.4 million acres (98% of the system), 20 national grasslands with 3.8 million acres (2%) and 110 other areas—such as national grassland prairie, land utilization projects, purchase units, and research and experimental areas (<1%)").

by a forest supervisor, and the units are arranged into nine administrative regions, each headed by a regional forester.[204] Most Forest Service lands are concentrated in the West (87%); however, the Forest Service administers more federal land in the East than all other federal agencies combined.[205] The national forests in the eastern states have smaller contiguous landscapes and are peppered with inholdings.[206] Glancing at a map of Forest Service lands and regions demonstrates the wide variability in scale and contiguous landscapes between the different regions.[207]

Differences in patterns of regional development may affect the scale and intensity of NEPA decisions in different regions. Regions 8 and 9 complete the most NEPA analyses at the fastest rate. These regions are also in areas with established urban areas, smaller national forests, lower wildfire risk, and more established patterns of landscape use.[208] Region 9 characterizes the national forests in its region as "islands of green in a sea of people," which is appropriate because Region 9 encompasses twenty states with over forty-three percent of the national's population and nine of the largest twenty metropolitan areas in the U.S.[209] Even though Regions 8 and 9 cover a vast territory, they have the smallest amount of federal land within their regions, partially due to inholdings.[210] Though national forests in Region 8 include over 25 million acres of land, only 13.4 million acres are National Forest System land, while 12 million acres are non-federal inholdings.[211] Similarly, Region 9 encompasses over 22 million acres of National Forest System lands of which almost half are non-federal inholdings.[212]
In contrast, Regions 4, 1, and 3 are each associated with some of the longest decision-making times. These regions, located within the Intermountain West, are all grappling with drought, wildfire, and potentially a faster rate of climate change affecting the landscape.[213] These regions also have larger

---

[204] *Id.*

[205] *Id.*

[206] *Id.* at 3 (noting that almost one half (12 million out of 25 million acres) of National Forest land in Region 8 are inholdings and only slightly less (10 million out of 22 million acres) in Region 9).

[207] *Id.* at 4 (providing a map of the National Forest System).

[208] *See Wild Fire Hazard Potential*, U.S. FOREST SERV., https://www.firelab.org/project/wildfire-hazard-potential [https://perma.cc/3WZV-WNWU] (last visited Oct. 1, 2021) (providing map of U.S. developed by the Forest Service Fire Modeling Institute depicting areas with potential for wildfire that would be difficult for suppression resources to contain. Those areas are concentrated in Regions 1, 3, 4, 5, and 6).

[209] U.S. DEP'T OF AGRIC., U.S. FOREST SERV., *Eastern Region*, https://www.fs.fed.us/wildflowers/regions/eastern/?msclkid=0bde7a73a65011ecb3483b8792efc997 [https://perma.cc/THP4-PD8R] (last visited Apr. 8, 2022); HOOVER & RIDDLE, *supra* note 144, at 4.

[210] U.S. DEP'T OF AGRIC., U.S. FOREST SERV., LAND AREAS REPORT (LAR) 2, tbl.2 (2018), https://www.fs.fed.us/land/staff/lar/LAR2018/FY2018_LAR_Book.pdf [https://perma.cc/U6EY-92HT].

[211] HOOVER & RIDDLE, *supra* note 144, at 3.

[212] *Id.* (showing that actual Forest Service acreage in Region 9 is 12,174,918 acres).

[213] *See, e.g.*, U.S. GLOB. CHANGE RSCH. PROGRAM, GLOBAL CLIMATE CHANGE IMPACTS IN THE UNITED STATES 129 (Thomas R. Karl et. al. eds. 2009) (noting that the southwest "continues to lead the

national forests, broader swaths of public land, and a higher concentration of areas with very high wildfire hazard potential.[214]

3. *Wildfires May Have Disparate Fiscal Effects Across Regions*

Unequal regional burdens associated with wildfire management may contribute to differences in NEPA decision-making times. A 2006 Office of Inspector General Report found that wildland urban interface (WUI) protection "was the major driver of [Forest Service] suppression costs, with some staff estimating that between 50 to 95 percent of large wildfire suppression expenditures were directly related to protecting private property and homes."[215] Where Forest Service protection responsibilities are directly adjacent to housing developments, Forest Service Line Officers often feel compelled to aggressively suppress wildfires, even if the fires pose no threat to National Forest resources.[216] The Office of Inspector General reported that Regions 1, 5, and 6 bore "an inequitable wildfire protection burden" because wildland fire protection agreements between the Forest Service and other agencies in Oregon, Washington, California, Montana and Idaho had not been renegotiated to reflect appropriate WUI protection responsibilities."[217] While updates may have partially addressed these concerns, fire related responsibilities continue to increase and dated or inadequate agreements would have impacted the decisions reviewed in this analysis. The Wildfire Hazard Potential map,[218] produced by the Forest Service, demonstrates that Regions 1, 3, 4, 5 and 6 have the highest concentration of wildfire hazard potential. With regards to NEPA decision-making times,

---

nation in population growth" and that recent warming in that region is "among the most rapid in the nation, significantly more than the global average in some areas").

[214] CONG. RSCH. SERV., R42346, FEDERAL LAND OWNERSHIP: OVERVIEW AND DATA 7–8 (2020) (providing tally of total federal acreage in each state and showing that Nevada, Utah, and Idaho, Oregon, and Wyoming have the highest percentage of federal land in the lower 48); *see also Wild Fire Hazard Potential*, U.S. Forest Serv., https://www.firelab.org/project/wildfire-hazard-potential [https://perma.cc/3WZV-WNWU] (last visited Oct. 1, 2021) (providing map of Wildfire Hazard Potential in the United States).

[215] U.S. DEPT. OF AGRIC., OFF. OF INSPECTOR GEN., WESTERN REGION, REP. NO. 08601-44-SF, AUDIT REPORT: FOREST SERVICE LARGE FIRE SUPPRESSION COSTS 7 (2006) [*hereinafter* OIG, LARGE FIRE SUPPRESSION COSTS REPORT]; *see also* Karen M. Bradshaw, *A Modern Overview of Wildfire Law*, 21 FORDHAM ENV'T L. REV. 445, 456 (2010) ("The increasing costs of fire suppression can thus be partially attributed to the increase of wildlife-urban interface areas which are a product of new land use patterns."); RANDAL O'TOOLE, THE THOREAU INST., REFORMING THE FIRE SERVICE: AN ANALYSIS OF FEDERAL FIRE BUDGETS AND INCENTIVES (2002), http://www.ti.org/firesvc.pdf [https://perma.cc/S23B-EKAW].

[216] *Id.* at 8; *see also id.* at 10 ("FS managers and staff said that the public expects FS to protect structures and residences regardless of the values involved and that aggressive suppression actions must be taken (even when ineffectual) in order to demonstrate to the public that FS is doing everything it can to suppress the fire.").

[217] OIG, LARGE FIRE SUPPRESSION COSTS REPORT, *supra* note 215, at 7.

[218] *See Wild Fire Hazard Potential*, U.S. Forest Serv., https://www.firelab.org/project/wildfire-hazard-potential [https://perma.cc/3WZV-WNWU] (last visited Oct. 1, 2021).

Regions 1, 2, 3, and 4 are associated with the longest regional decision-making times.

Other than the correlation identified above, it would be difficult to link the budgetary shortfalls caused by wildfire suppression to regional differences in decision-making times. According to the GAO, the Forest Service does not systematically track such impacts at a national level.[219] Understanding the cause of regional differences in decision-making times is an important aspect of NEPA reform. If regional differences in decision-making times are caused by ecological differences, evolving demographics, or disparate budgetary challenges, those underlying management challenges should be recognized and addressed. If budgetary shortfalls cause delay, then fiscal, rather than NEPA reforms, should be considered.

D. Background Factors Affecting NEPA Decision-making Timeframes

Through our research, two issues arose consistently: budgetary uncertainty caused by wildfire borrowing and a culture of litigation aversion within the Forest Service. These two dynamics likely influence decision-making times, even though the effect cannot be specifically identified through the MYTR database or our regression modeling. We discuss each issue in turn.

1. Budgetary Uncertainty Caused by Wildfire Borrowing Affects Program Efficacy, Including Planning and Environmental Analysis

Wildfire suppression costs exceeded appropriations in most years since 1990.[220] When firefighting expenses exceed funds appropriated for wildfire suppression, Congress allows the Forest Service to transfer funds from other programs to cover those costs in a practice referred to as "fire borrowing."[221] Congress typically reimburses the Forest Service for unanticipated firefighting expenses, but the reimbursement is often incomplete or delayed.[222] For example, the Forest Service, beginning in the mid-1980s,

---

[219] U.S. GOV'T ACCOUNTABILITY OFF., GAO-04-612, WILDFIRE SUPPRESSION: FUNDING TRANSFERS CAUSE PROJECT CANCELLATIONS AND DELAYS, STRAINED RELATIONSHIPS, AND MANAGEMENT DISRUPTIONS 32 (2004) [*hereinafter* GAO, WILDFIRE SUPPRESSION FUNDING TRANSFERS CAUSE DELAYS].

[220] *Id.* at 7.

[221] Fire borrowing was common during the period of study (from 2004 to 2016). The FY2018 omnibus included the "wildfire funding fix," which changed how Congress appropriates funding by authorizing an adjustment to the discretionary limits for wildfire suppression operations. The purpose of this, and other measures enacted by the 115th Congress, was to stabilize funding and avoid concerns that "fire borrowing" has a detrimental effect on other agency programs. *See* KATIE HOVER ET AL., CONG. RSCH. SERV., R45696, FOREST MANAGEMENT PROVISIONS ENACTED IN THE 115TH CONGRESS 19–20 (2019) [*hereinafter* CRS, FOREST MANAGEMENT PROVISIONS OF THE 115TH CONGRESS].

[222] GAO, WILDFIRE SUPPRESSION FUNDING TRANSFERS CAUSE DELAYS, *supra* note 219, at 12.

transferred funds primarily from a trust fund created by the Knutson-Vandenberg Act of 1930, which collects a portion of timber sale receipts to pay for reforestation projects.[223] From the mid-1980s to 1999, the Forest Service transferred more than $2.3 billion from this fund, over $400 million of which was not reimbursed.[224]

Concerned about the viability of that fund, in 2001, the Forest Service began transferring funds from other management programs and activities. While this practice ensured that bills were paid, it left other obligations, likely including NEPA, with less discretionary funding.[225] Congress recognized this problem and its implications for National Forest System management,[226] and in fiscal year 2018, Congress enacted legislation to stabilize funding.[227] While this legislation will likely go a long way towards stabilizing funding, fire borrowing continued through the course of this study.[228] Determining whether funding reforms result in improved NEPA efficacy is a question that cannot be answered yet based on the MYTR database and that will require further research.

Throughout our study period, fire borrowing affected the staff and resources available to complete NEPA projects and thereby increased NEPA compliance times.[229] A 2004 GAO report investigating fire borrowing concluded that the Forest Service "canceled or delayed numerous projects, failed to fulfill certain commitments to partners, and faced difficulties in managing their programs when funds were transferred for fire

---

[223] *Id.* at 10 n.4 and accompanying text.
[224] *Id.*
[225] *See* EADM ROUNDTABLES NATIONAL SYNTHESIS REPORT, *supra* note 131, at 15 ("Turnover, detail assignments, and fire response often reduce productivity due to interruptions in project momentum and changes in project direction.").
[226] *Id.* at 22.
[227] *See generally* CRS, FOREST MANAGEMENT PROVISIONS OF THE 115TH CONGRESS, *supra* note 224.
[228] *See, e.g.*, Darryl Fears, *U.S. Runs Out of Funds to Battle Wildfires*, WASH. POST (Oct. 7, 2012), https://www.washingtonpost.com/national/us-runs-out-of-funds-to-battle-wildfires/2012/10/07/d632df5c-0c0c-11e2-bd1a-b868e65d57eb_story.html [https://perma.cc/8L23-7AM9] (discussing implications of fire borrowing on Forest Service programs from 2002 to 2012 and failure of the Federal Land Assistance, Management, and Enhancement fund (FLAME), which was intended to fix the funding problem); Jon Kyl and Kris Kiefer, *The Wildfire Menace: Will the West Learn or Burn?*, 48 ARIZ. ST. L.J. 1, 5 (2016) (explaining that fire borrowing had occurred in seven of the past ten years and quoting Forest Service Chief Tom Tidwell, "Each time the agency transfers money out of accounts to pay for fire suppression there are significant and lasting impacts across the entire Forest Service . . . [including] the ability of the Forest Service to conduct stewardship work on national forests . . . "); Jeremy Martin, *Active Forest Management and the "New Normal": Advocating for an Integrative Wildfire Management* Policy, 46 OHIO N.U.L. REV. 137, 142 (2020) (describing provisions of the Consolidated Appropriations Act of 2018 enacted to solve the fire borrowing program by providing enhanced stable funds for wildfire suppression).
[229] *See* EADM ROUNDTABLES NATIONAL SYNTHESIS REPORT, *supra* note 131, at 15 ("Turnover, detail assignments, and fire response often reduce productivity due to interruptions in project momentum and changes in project direction.").

suppression."[230] In some cases, this practice "increased the costs and time needed to complete projects."[231] Additionally, transfers "disrupted agency efforts to effectively manage programs, causing planned activities to go unfunded and, in some cases, causing programs to be depleted or overspent."[232] Further, "officials often had to duplicate their efforts because of [budgetary] transfers, which prolonged delays and added costs."[233] The stop-start funding also caused "a domino effect: deferring one year's projects displaces the next year's projects, which must in turn be deferred to the following year."[234]

A 2019 Report from the CRS confirmed that the practice of wildfire borrowing continued to affect other Forest Service programs, including activities that are central to NEPA compliance.[235] "Fire expenditures continue to climb, affecting the implementation of other programs . . . through personnel and funds transferred to fire control."[236] Additionally, "stakeholders identify other administrative barriers—such as inadequate program funding levels and training—as preventing FS from implementing planning requirements in a more efficient manner."[237]

The uncertainty caused by wildfire suppression activities was identified as a cause of delay complicating NEPA compliance during the 2018 EADM roundtables.[238] "Budget shortfalls and statutory mandates on funding for fire response, combined with a shortage of trained employees in areas other than fire and/or a frequent diversion of staff to emergency response or shifting priorities, hamper the ability of the Agency to make progress on other important forest and grassland resource management efforts."[239] As an example of how fire borrowing affected resource management projects, consider a project from the Bitterroot National Forest (Region 1). In that case, a project to stabilize nine miles of dirt road was delayed when

---

[230] GAO, WILDFIRE SUPPRESSION FUNDING TRANSFERS CAUSE DELAYS, *supra* note 219, at 14.
[231] *Id.*
[232] *Id.*
[233] *Id.* at 15 ("For example, officials had to revise budgets and construction plans, update cost estimates and rewrite land acquisition documents when delays caused them to be outdated, all of which further compounded project delays. . . . In addition, when delays were prolonged, supply costs increased, land prices rose, and impacts to natural resources spread, which also increased the projects' costs.").
[234] *Id.* at 31. The report went on to project that "the agencies and the Congress will repeatedly confront difficult decisions in determining how much funding to transfer from which programs and how much to reimburse." *Id.*
[235] HOOVER & RIDDLE, *supra* note 144, at 22 ("Congress has expressed concern about the impact of fire borrowing on other NFS management activities and about the increasing portion of FS budget going toward suppression funding.").
[236] *Id.* at 24.
[237] *Id.*
[238] *See supra* note 131 and accompanying text.
[239] EADM ROUNDTABLES NATIONAL SYNTHESIS REPORT, *supra* note 131, at 18; *see also id.* at 15 ("Turnover, detail assignments and fire response often reduce productivity due to interruptions in project momentum and changes in project direction.").

$1.2 million was transferred to wildfire suppression in 2002.[240] The road was collapsing, causing sediment to run into a stream and jeopardizing fish habitat (including a threatened species).[241] Two years after the transfer, only $430,000 was reimbursed to the project.[242] With reduced funding, the project shrank to two of the original nine miles, but in the interim, additional sediment had accumulated in the stream, exacerbating the problem and making restoration even more complex.[243] Although the GAO report describing this project did not discuss the NEPA decision-making process required for this project, one can imagine how it could be affected. Delayed implementation and deteriorating environmental conditions could result in new or more significant issues, requiring supplemental environmental analysis.[244] These changes could extend NEPA decision-making times, even though the cause of delay was budgetary uncertainty.

NEPA decision-making times could also be extended by staff reductions or shifting personnel from project management to wildfire duties.[245] Personnel temporarily assigned to a fire, for example, would be unavailable to work on NEPA projects. Temporary reassignments could also impact the availability to complete fieldwork required for the NEPA analysis. A hypothetical project involving impacts to a sensitive plant species may require botanical surveys coinciding with the period when the plant flowers. Temporarily reassigning a botanist to a fire may only last a few weeks, but if that reassignment overlaps with the botanical survey window, that brief reassignment could delay the analysis by a year. In such cases, delays would be captured by the time that lapsed between project initiation and a final decision, but attributing those delays to NEPA would obscure the true problem and increase the risk that reforms would not produce the desired results.

1. Litigation Risk Aversion Causes Delay and Unwieldy Documents

Litigation aversion also delays the NEPA process. During the EADM Regional Roundtables conducted in 2018, concern over litigation aversion featured prominently in every region.[246] Regions 1, 2, 3, 6, and 8 combined

---

[240] GAO, WILDFIRE SUPPRESSION FUNDING TRANSFERS CAUSE DELAYS, *supra* note 219, at 22.

[241] *Id.*

[242] *Id.*

[243] *Id.*

[244] *See* 40 C.F.R. § 1502.9(d)(1)(ii) (2020) (requiring supplementation where "there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.").

[245] RYAN RICHARDS, CTR. FOR AM. PROGRESS, DEFINING SUCCESS FOR THE WILDFIRE FUNDING FIX 12 (2018) (reporting that the number of non-fire personnel at the Forest Service declined from 18,000 in 1995 to 11,000 in 2015); *see also* GAO, WILDFIRE SUPPRESSION FUNDING TRANSFERS CAUSE DELAYS, *supra* note 219, at 31 (reporting that some regions encourage staff to go on fire suppression detail so that their salaries would be paid from fire suppression funds).

[246] REGION 1 ROUNDTABLE REPORT, *supra* note 192, at 6, 9 (identifying "risk aversion" and "move on, move up" concept as barriers); REGION 2 ROUNDTABLE REPORT, *supra* note 192, at 6 (identifying risk aversion as a barrier because line officers have "fear of litigation and repercussion"); REGION 3 ROUNDTABLE REPORT, *supra* note 200, at 6–9 (identifying the Forest Service employees

risk aversion with comments suggesting that Forest Service staff avoid making controversial decisions for fear of affecting opportunities for promotion.[247]

Litigation aversion leads to unwieldy, bulky, time-consuming documents. The EADM Roundtables National Synthesis Report summarized the problem as follows: "Minimal litigation or objection is viewed as a positive outcome in terms of a project moving to implementation, but the negative costs of defensive over-analysis, unwieldy documentation, and narrowing the scope of projects in order to 'fly under the radar' of litigants are not usually considered."[248] The concern resurfaced later in the report when discussing lengthy documents as a barrier to efficient decision-making. "Risk aversion and a history of legal challenges to USFS decisions have led to the 'bullet-proofing' of environmental analysis documents and specialist reports."[249] The report continued, noting that "the complexity and size of analysis is often inconsistent with the complexity and size of the project."[250]

The report explicitly distinguished between this dynamic, which it identified as a cultural barrier within the Forest Service and the NEPA process itself. "NEPA is often blamed for these problems, when really it is not the law itself but the Agency's process that is the cause [of lengthy documents]."[251] This observation is consistent with external research on Forest Service NEPA practice. In 2010, Mortimer et al., found that the threat of litigation had more influence than the degree of environmental impacts on Forest Service decisions whether to prepare an EA or an EIS for recreation and

---

as "risk averse," fearful of "backlash," "not feeling supported in making risky decisions," "perceived risk of being litigated and fear of losing in court" and feeling criticized for taking a risk where "success [is] defined as lack of objections or litigation"); REGION 4 ROUNDTABLE REPORT, *supra* note 195, at 8 (identifying Forest Service staff as "risk averse" and hemmed by a "sue and settle" reality); REGION 5 ROUNDTABLE RESULTS, *supra* note 192, at 6, 20, 28 (identifying "risk averse USFS staff" with "fear of making decisions based on imperfect data" and stating that "fear of litigation results in excessive time spent and detail in EADM documents" where EADM documents are "'padded' to mitigate risk of litigation" and "litigation threat undermines opportunities to conduct large landscape EADM"); REGION 6 ROUNDTABLE REPORT, *supra* note 192, at 6 (identifying "risk aversion" as a barrier with line officers "not wanting to 'rock the boat'"); REGION 8 ROUNDTABLE REPORT, *supra* note 192, at 6, 8 (identifying "fear of litigation and defensive NEPA stance" as well as reluctance toward "taking on large projects for fear of objection to one small part," suggesting that District Rangers resist a project for political reasons "until they change jobs"); REGION 9 ROUNDTABLE REPORT, *supra* note 192, at 6 (characterizing a "risk averse USFS culture at all levels" that produces "excessive documentation"); REGION 10 ROUNDTABLE REPORT, *supra* note 200, at 6 (describing "risk aversion" as a barrier with Forest Service "litigation-proofing documents" based on a "perception that all NEPA documents are challenged when only a small percent are challenged").

[247] REGION 1 ROUNDTABLE REPORT, *supra* note 192; REGION 2 ROUNDTABLE REPORT, *supra* note 192; REGION 3 ROUNDTABLE REPORT, *supra* note 200; REGION 6 ROUNDTABLE REPORT, *supra* note 192; REGION 8 ROUNDTABLE REPORT, *supra* note 192.

[248] EADM ROUNDTABLES NATIONAL SYNTHESIS REPORT, *supra* note 131, at 13.

[249] *Id.* at 19.

[250] *Id.*

[251] *Id.*

road management decisions between 2003 and 2007.[252] That report also reviewed litigation during this same time period and found that EAs and EISs were equally defensible.[253] Accepting litigation risk and rewarding transparent, decisive actions could reduce this source of delay.

Those outside of the Forest Service also recognize the problem. As one practitioner remarked, "[i]t has been the author's frequent experience that BLM and the Forest Service delay decision-making in order to prepare more and lengthier documents in an effort to bulletproof their decisions from appeal. As a result, the diversion of agency resources and attention to the preparation of up-front disclosures documents under NEPA means less attention and resources are devoted to on the ground efforts such as monitoring the effects of agency decisions."[254]

V. RECOMMENDATIONS

Changes to NEPA practice and to NEPA's implementing regulations should be driven by data on all NEPA decisions rather than anecdotal information about outliers. Analyzing over 41,000 Forest Service NEPA determinations at every level of review taught us unexpected lessons about potential causes of delay within the NEPA process.

We learned that the level of analysis is an imperfect predictor of the time required to comply with NEPA. Forcing a project that merits analysis in an EIS into an EA may not result in a faster decision, and CEs are not synonymous with swift decisions. Reforms should focus on identifying efficient strategies for analyzing complex and controversial projects rather than forcing analyses into a lower level of review.

We observed that reduced agency capacity, inadequate funding, and low prioritization of NEPA-related activities like planning and monitoring cause delays. Without stabilizing agency capacity and providing secure agency funding for NEPA-related activities, even the most elegantly drafted NEPA reforms will falter.

We found that some delays attributable to the NEPA process may be external, including market forces and compliance with other laws. Truncating NEPA compliance will not affect these external forces, but it will reduce

---

[252] Michael J. Mortimer et al., *Environmental and Social Risks: Defensive National Environmental Policy Act in the US Forest Service*, 109 J. FORESTRY 27, 29–30 (2011).
[253] *Id.* at 31.
[254] Laura Lindley, *NEPA Streamlining: Some Observations on Its Use in the Context of BLM and Forest Service Oil and Gas Program*, *in* ROCKY MT. MIN. L. FOUND., NATURAL RESOURCES AND ENVIRONMENTAL ADMINISTRATIVE LAW AND PROCEDURE II (2004) (listing "inexperienced and/or unempowered team leaders" as a source of delay in the NEPA process).

transparency and may compromise agencies' capacity to comply with other legal duties.

Finally, we learned that cultural influences, including litigation aversion, cause delay. These cultural influences can be addressed without regulatory reform and enable more prompt, creative, and transparent agency decisions. As regulatory changes to NEPA are contemplated, these cultural, fiscal, and practice-oriented reforms should also be considered.

A. Potentially Useful Changes to NEPA Practice

Our recommendations flow from, and were sometimes included in, preceding sections. In this section, we sought to pair recommendations with real-world examples to demonstrate the practicality, effectiveness, and feasibility of each suggestion.

1. Ground Change in Good Information, Measure Changes, and Adapt as Needed

There is ample information on the time required to complete an EIS,[255] but the amount of time required to complete the analysis does not tell us why some projects lag. Available data also focuses almost exclusively on EISs, which account for just 1% of all NEPA decisions. It is impossible to design meaningful reform without understanding how NEPA operates for 99% of decisions.

More importantly, and as noted at the outset, NEPA's twin goals involve meaningful public engagement and careful consideration of environmental impacts. Faster does not necessarily mean better progress towards advancing these objectives. It is also impossible to test whether reforms succeed without better data. Databases must also allow for tracking of projects through revisions and litigation.

The Forest Service should be commended for developing the MYTR database and the detailed information captured within it. We are unaware of any other federal agency that maintains comparable data.[256] Analyzing information in the MYTR database provided an opportunity to identify nuances in NEPA practice that were unexpected and sometimes counterintuitive. We strongly encourage federal agencies to compile statistical information on NEPA decisions that would enable similar future insights. Such information could benefit individual agencies and could facilitate

---

[255] *See* CEQ, EIS TIMELINES 2010-2018 *supra* note 88.

[256] Both the Bureau of Land Management and the Department of Energy compile information on NEPA analysis, and both agencies deserve commendation for these efforts, but neither dataset contains the level of information found in MYTR.

comparison of NEPA practice across agencies, highlighting successful practices that could be beneficial if adopted elsewhere.

There are at least three pieces of information that are not captured in MYTR but would be helpful in identifying future NEPA reforms. First, MYTR does not compile information regarding the source of authority relied upon for a CE decision memo. An investigative report by Wild Earth Guardians reviewed the Forest Service's use of specific CE authorities from January through March of 2020 based on projects found on the agency's Schedule of Proposed Action (SOPAs).[257] Wild Earth Guardians reviewed the SOPAs for 75 national forests across 11 states in Regions 1 through 6,[258] concluding that the SOPAs often failed to identify the specific CE authority for projects.[259] Of 175 fuel management projects across 58 forests, 43% failed to disclose the CE authorities in the scoping document.[260] Only 41 projects issued decision memos that identified the CE authority used.[261] Failing to provide the source of authority for a CE forecloses opportunities to assess whether CEs were applied appropriately. Gathering information regarding the source of CE authority would also allow the Forest Service to assess the frequency with which certain CEs are used and analyze whether some CEs are disproportionately associated with litigation or delay.

Second, MYTR does not indicate whether a decision was initiated as a CE and elevated to an EA due to the existence of extraordinary circumstances. Gathering this data would be helpful in identifying areas or CEs that regularly require more thorough analysis due to extraordinary circumstances. Third, MYTR does not indicate how many alternatives were considered in an EA or EIS. The number of alternatives considered may be useful in considering the extent to which agencies achieve NEPA's twin aims of taking a hard look at the environmental impacts of an action and engaging the public.[262] Other research found a relationship between the number of alternatives considered and achievement of NEPA's goal to reduce environmental impacts—a larger number of alternatives resulted in fewer environmental impacts.[263]

---

[257] WILD EARTH GUARDIANS, THE FOREST SERVICE AND CATEGORICAL EXCLUSIONS: MISUSE AND OBFUSCATION REVEAL A CLEAR NEED FOR CHANGES (2020) http://pdf.wildearthguardians.org/site/DocServer/The-Forest-Service-and-Categorical-Exclusions-report-Sept-2020.pdf [https://perma.cc/2J4A-FNAG].

[258] *Id.* at 6.

[259] *Id.* at 7.

[260] *Id.* at 8.

[261] *Id.*

[262] *See supra* notes 33–34 and accompanying text for summary of NEPA's requirements, including the "hard look" and public engagement.

[263] John Ruple & Mark Capone, *NEPA—Substantive Effectiveness Under a Procedural Mandate: Assessment of Oil and Gas EISs in the Mountain West*, 40 GEO. WASH. J. ENERGY & ENV'T L. 39, 44 (2016) (finding that oil and gas EISs that considered more than 4 alternatives had greater reductions in the environmental impacts of the project than EISs that considered 3 or fewer alternatives); John Ruple & Mark Capone, *NEPA, FLPMA, and Impact Reduction: An Empirical*

Agencies should not be shy about sharing NEPA data. Transparency regarding the NEPA process has proven to increase efficiency. For example, the Federal Infrastructure Projects Dashboard was created in an effort to increase the efficiency of infrastructure development.[264] The Dashboard enables federal agencies to publicly track schedules and status information on pending federal infrastructure projects.[265] Publishing the schedule facilitates interagency cooperation by creating an incentive for agencies to resolve issues in a timely manner in order to meet the agreed upon schedule.[266] According to one participant, "The increased level of accountability helps to ensure that federal agencies are not unnecessarily sidetracked in their NEPA review process."[267] The benefits of this simple transparency device are evident. Since its creation, over thirty high-priority federal infrastructure projects have completed the environmental review and permitting process more quickly than pre-Dashboard projects.[268]
As we noted earlier, it is hard to fix something without first understanding how it works. It is also hard to tell whether reforms have delivered the intended outcome without a performance metric. Reforms should include gathering data, analyzing the data, and incorporating the lessons learned in future actions to ensure that reforms function as intended and are corrected if they fall short of that goal.

2. *Focus on Improving Capacity, Not Downscaling Analysis*

Common NEPA reform recommendations include expanding the use of CEs and avoiding the obligation to conduct an EIS.[269] However, CEs already constitute the vast majority of NEPA analyses. The CEQ estimated that about 95% of NEPA analyses are CEs.[270] During the course of our study, 81% of Forest Service Decisions were covered by a CE.[271] Moreover, even a cursory glance at the agency-by-agency list of CEs, which the CEQ compiled in 2020, demonstrates that there are already hundreds of CEs available covering a wide array of agency actions.[272] Additionally, an abbreviated analysis does not always result in reduced decision-making time. The fastest 25% of EISs

---

Assessment of BLM Resource Management Planning in the Mountain West, 46 ENV'T L. 953, 956 (2016) (comparing draft Resource Management Plans to Final Resource Management Plans and finding a substantive reduction in environmental impacts achieved through NEPA's iterative consideration of alternatives).

[264] Serassio, *supra* note 107, at 329-330.

[265] *Id.*

[266] *Id.*

[267] *Id.*

[268] *Id.*

[269] *See supra* note 107.

[270] GAO, NEPA: LITTLE INFORMATION EXISTS, *supra* note 3, at 8.

[271] *See supra* Part II.D.

[272] EXEC. OFF. OF THE PRESIDENT, COUNCIL ON ENV'T QUALITY, FACT SHEET: CEQ LIST OF FEDERAL CATEGORICAL EXCLUSIONS (CE LIST) (2020), https://ceq.doe.gov/nepa-practice/categorical-exclusions.html [https://perma.cc/MD9N-8B3K].

are completed more quickly than the slowest 25% of EAs. CEs also do not guarantee fast decision-making. The slowest 25% of CEs were completed almost as quickly as the fastest 25% of EAs, and 11% of CEs took longer than the median time to complete an EA.

Rather than forcing decisions into a less rigorous analysis, agencies should promote a strategically-sized analysis for long-term efficiency. Although this approach may require additional work on the front-end, it can result in long-lasting efficiencies. Below we discuss three real-world examples where this approach yielded demonstrably improved decision-making times and efficient project implementation over the long-term.

First, programmatic NEPA documents can leverage long-term efficiency by facilitating tiering and accelerating subsequent decisions that require a lower level of analysis. This can be achieved through programmatic analyses to which implementation decisions may be tiered, and through monitoring programs that provide real-time, accurate data to which implementation decisions can be tiered. For example, the Government Accountability Office analyzed the average time to review an Application for Permit to Drill in selected BLM field offices between 2016 and 2019.[273] Where decision-making times for other field offices ranged from 106 to 220 days, the Pinedale Office averaged 49 days to make a decision.[274] Rather than avoiding environmental review, Pinedale's efficiency was attributable to careful up-front analysis and effective tiering. Pinedale had conducted thorough programmatic EISs for each of the three oil and gas fields it managed. With the potential environmental impacts of oil and gas drilling to work from, agency officials could efficiently expedite review by tiering a CE to the relevant programmatic analysis.[275] This efficiency was achieved without sacrificing the transparent, deliberative process required by NEPA.

Along these lines, several commentators have recommended implementing post-decisional monitoring processes to simplify future decisions by eliminating the need to repetitively gather data or hypothesize about the effects of a project or a mitigation measure.[276] One benefit of this approach is the ability to incorporate new knowledge acquired through the implementation of a plan. "[T]he experience in implementing a plan can identify the need to change the assumptions and projections made as part of the original NEPA analysis."[277] Knowledge acquired, or changes in circumstance, can alter the

---

[273] GAO, ACTIONS NEEDED TO IMPROVE BLM'S DATA SYSTEM, *supra* note 155, at 22.
[274] *Id.* at 22–23.
[275] *Id.*
[276] Dinah Bear, *Some Modest Suggestions for Improving Implementation of the National Environmental Policy Act*, 43 NAT. RSCH. J. 931, 949 (2003) ("[T]he acquisition of on-the-ground information could certainly reduce the need to engage in the type of costly, lengthy modeling exercises that some agencies feel obliged to undertake because of lack of empirical information.").
[277] Daniel R. Mandelker, *New Directions in Environmental Law: The National Environmental Policy Act: A Review of Its Experience and Problems*, 32 Wash. U. J.L. & POL'Y 293, 303 (2010).

appropriateness of assumptions in a plan, as well as the adequacy of the NEPA analysis supporting it.[278] Producing a supplemental EIS to respond to these changed circumstances has proven time-consuming and burdensome.[279] In contrast, a monitoring program would enable the incorporation of new information obtained through monitoring in future decisions more seamlessly. For planning agencies, like the Forest Service, this approach would shift the emphasis from periodic large-scale forest plans to a more regular and continuous incremental decision-making process.[280] Where this approach has been adopted, the monitoring process reduced conflict by generating evidence that could be used to develop mutual understanding.[281] For example, in eastern Oregon and Washington, monitoring led to broad consensus among stakeholders for treatments in dry forests.[282] Thus, post-decisional monitoring can simplify the NEPA process, increase agency credibility, and facilitate the improved environmental decision-making intended by NEPA's authors.

Second, using the NEPA process as a framework for structured inter-agency collaboration on large projects can facilitate decision-making and implementation through the life of the project. In a pilot project selected by the CEQ for developing best practices for NEPA implementation, the Federal Railroad Administration (FRA) initiated a two-stage EIS for improving intercity passenger rail service in the Northeast Corridor.[283] Multi-state transportation projects of this scale often encounter delays attributed to conflicting jurisdictions, overlapping authorities, and interagency conflicts. To avoid these delays, the FRA used the NEPA process to engage stakeholders early.[284] For example, to overcome the challenge of inter-agency variance in decision-making, formal points of contact were established for each federal and state resource and regulatory agency.[285] This early effort enabled agencies to speak to the FRA with "one voice." Engaging stakeholders as collaborative partners in NEPA compliance (for example, developing a

---

[278] *Id.*

[279] *See infra* note 333 and accompanying text.

[280] Stark Ackerman, *Observation on the Transformation of the Forest Service: The Effects of the National Environmental Policy Act on U.S. Forest Service Decision-making*, 20 ENV'T L 703, 731 (1990); Mandelker, *supra* note 277, at 280 (promoting Ackerman's recommendation).

[281] U.S. FOREST SERV., COLLABORATIVE FOREST LANDSCAPE RESTORATION PROGRAM 10-YEAR REPORT TO CONGRESS 8 (2019) https://www.fs.fed.us/restoration/documents/cflrp/REF_Report-CollaborativeForestLandscapeRestoration-508.pdf [https://perma.cc/8MWV-QKSF] [hereinafter CFLRP 10-YEAR REPORT].

[282] *Id.*

[283] *CEQ NEPA Pilot Program*, COUNCIL ON ENV'T QUALITY (Jan. 26, 2022), https://obamawhitehouse.archives.gov/administration/eop/ceq/initiatives/nepa/nepa-pilot-project [https://perma.cc/DJ7A-M5RL].

[284] COUNCIL ON ENV'T QUALITY, NATIONAL ENVIRONMENTAL POLICY ACT PILOT PROJECT: U.S. Department of Transportation, Federal Railroad Administration: *NEC Future-Tier 1 Environmental Impact Statement,, Best Practices Memorandum*, BEST PRACTICES MEMO (Mar. 2013), https://obamawhitehouse.archives.gov/sites/default/files/best_practices_memo.pdf [https://perma.cc/99MM-F8KQ].

[285] *Id.* at 2.

purpose and need statement, formulating alternatives, and developing impact assessment methodology) facilitated coordination. Partner agencies could provide timely information that the technical team utilized, avoiding conflict down the road.[286] The communication protocols also enabled the creation of an interactive dataset encompassing multiple local and state jurisdictions, transportation authorities, and watersheds that could be used for other environmental analyses.[287] Though this collaborative process imposed demands on agencies' time that were uncommon on the front-end, it avoided conflict on the backend.[288] Moreover, the communication protocols, data-sharing, and decision-making procedures developed during the NEPA process created a framework for interagency collaboration that would foster continued efficiencies beyond project implementation because future projects can utilize the established inter-jurisdictional database and communication protocols.

Third, utilizing the NEPA process to develop consensus can avoid delays caused by conflict and expand agency resources through partnerships. This has been demonstrated in several pilot collaborative forest planning initiatives. For example, in 2012, the Forest Service completed the 4FRI EIS, which analyzed the largest number of acres in Forest Service history for restoration-based mechanical treatments.[289] The project goal was to restore the ponderosa pine forest stretching across northern Arizona (incorporating four different national forests), while reducing the threat of destructive wildfire to communities, rehabilitating ecosystems, and sustaining forest industries that strengthen local economies.[290] It was "the largest collaborative landscape-scale restoration initiative in the country, the largest initiative of its kind ever endeavored."[291] Despite its ambitious scale, the EIS was completed more quickly than the average (mean) timeframe for EISs completed that year.[292] Although not specifically included in the reports, it is likely that adequate funding and high prioritization of the planning effort helped speed completion. When it came to implementation, the Forest Service was not delayed by litigation.[293] This result was possible because the collaborative process increased stakeholder support for the

---

[286] *Id.* at 3 (noting particularly that agencies expressed appreciation for being engaged before project alternatives were developed as opposed to a "post-decisional" consultation).
[287] *Id.* at 5.
[288] *Id.* at 4.
[289] BRYCE ESCH & DIANE VOSICK, ECOLOGICAL RESTORATION INST., THE FOUR FOREST RESTORATION INITIATIVE (4FRI): THE ROLE OF COLLABORATION IN ACHIEVING OUTCOMES 7 (2016).
[290] Annette Fredette, *4FRI and the NEPA Process*, 48 ARIZ. ST. L. J. 139, 139 (2016).
[291] *Id.* (noting also that the EIS was "far more complex than the average EIS, having integrated a collaborative dimension, meeting the site specificity requirement for almost a million acres, and incorporating a legislated monitoring and adaptive management framework").
[292] ESCH & VOSICK, *supra* note 289, at 7 (reporting that when compared to NEPA timelines from other agencies for 2012, the EIS took 141 days less than the average; specifically, the EIS took 1,571 days in comparison to the average of 1,675 days).
[293] Only one lawsuit was filed, and the claimants did not seek injunctive relief. *Id.* at 3, 8 (the case was dismissed within a year for lack of standing).

Forest Service decisions, increased trust that the best available science was used in the EIS, and facilitated design of a Monitoring and Adaptive Management Plan with a multi-party working group that would analyze the monitoring data collected and provide recommendations for adaptive management.[294]

The efficiencies achieved through collaboration in the 4FRI project are not unique. Other pilot projects demonstrate that using the NEPA process to develop consensus on landscape scale decisions can promote efficiency by leveraging partner assistance to implement environmental monitoring and mitigation. In 2009, Congress created the Collaborative Forest Landscape Restoration Program.[295] It selected twenty-three projects that focused on enhancing forest and watershed health, reduced risk from uncharacteristic wildfire, and benefited rural economies through collaborative science-based approaches to forest management.[296] The projects ranged in size from 130,000 acres to 2.4 million acres.[297] Leveraging private funds through partnerships expanded the pace and scale of implementation, including monitoring and critical expertise that can be used for adaptive management.[298] Every dollar spent by the fund attracted $1.80 from partner investments.[299] Nearly 70% of the participants said third party science organizations (such as land-grant universities or The Nature Conservancy) provided capacity or expertise to implement monitoring.[300] According to a survey conducted by the National Forest Foundation in 2020, 81% of the participants in these programs agree that more restoration is being accomplished.[301] Moreover, the initial investment of time and effort continued to pay dividends. Several Forest Service members felt that the collaborative landscape scale approach gave them social license to complete larger analyses (for subsequent projects) in less time.[302]

These are some examples of how focusing on public engagement and informed decision-making, rather than analytical downsizing, can produce long-lasting efficiencies. An annual inter-agency, inter-governmental training hosted by the CEQ highlighting "lessons learned" from the past year would help propagate best practices. Further research is warranted to explore additional best practices for conducting thorough, transparent, and efficient NEPA analyses at each level of review. These future studies should focus on best practices for effectively scaling lower levels of analysis,

---

[294] *Id.*
[295] Omnibus Public Land Management Act of 2009, Pub. L. No. 111-11, 123 Stat. 991.
[296] CFLRP 10-YEAR REPORT, *supra* note 281].
[297] *Id.* at 1.
[298] *Id.* at 6–7.
[299] *Id.* at 7 (between 2010 and 2019, these projects attracted more than more $470 million in partner funding and in-kind contributions.).
[300] *Id.* at 8.
[301] *Id.* at 7.
[302] CFLRP 10-YEAR REPORT, *supra* note 281, at 7.

leveraging existing environmental analyses through tiering, and using the results of monitoring to develop consensus and simplify future environmental analyses. Finally, pilot projects and research are only effective if they are replicated and practiced. Training staff to utilize best practices is necessary. Without training, effective practices, like tiering, early development of communication protocols, consensus building through collaborative decision-making, and incorporation of monitoring results in future decisions, are unlikely to be implemented, regardless of their usefulness.

3. Increase and Stabilize Agency Capacity

Inadequate staffing, a lack of experienced staff, unpredictable staff availability, temporary reassignments, and inadequate or unstable funding were frequently identified as sources of delay. This theme arose in GAO reports identifying delays associated with specific activities. It surfaced again in each of the EADM Roundtables. And it was echoed in industry comments regarding sources of delay in the NEPA permitting process.
Problems associated with inexperienced staff plague multiple agencies. In a 2004 Rocky Mountain Mineral Law Institute Article, Laura Lindley emphasized "inexperienced and/or unempowered team leaders" as a major source of delay in the oil and gas permitting process. Specifically, she noted that the interdisciplinary team leader "may be preparing his/her first EIS."[303] The "lack of training results in unnecessary wasted time" including "failing to tier to earlier documents, focusing on formatting or other non-substantive details, re-creating the EIS format or layout each time [and] failing to focus on the proposed action and reasonable alternatives."[304] Where the document is written too narrowly, project changes require a new analysis. For example, where other drilling occurs while the NEPA document is being produced, an applicant may revise its plan with respect to spacing or anticipated number of wells. "The result can be the need to commence an additional NEPA document as soon as the current one is completed."[305] In other words, inexperience causes delay.

The importance of agency capacity in avoiding NEPA delays was also emphasized by Helen Serassio, who spent fourteen years working at the Department of Transportation. "Insufficient staff and resources are two of the biggest hurdles federal agencies face when working to meet their NEPA requirements in a timely manner. Budgets of federal agencies continue to, with few exceptions, be decreased by Congress in annual appropriations, yet the workload remains."[306] A report by the Office of Inspector General in

---

[303] Laura Lindley, *NEPA Streamlining: Some Observations on Its Use in the Context of BLM and Forest Service Oil and Gas Program*, *in* ROCKY MT. MIN. L. FOUND., NATURAL RESOURCES AND ENVIRONMENTAL ADMINISTRATIVE LAW AND PROCEDURE II (2004).
[304] *Id.*
[305] *Id.*
[306] Serassio, *supra* note 107, at 323 n.40.

2011 found that a lack of Forest Service staff trained in NEPA had led to a backlog of more than 3,500 expired special use authorizations that were awaiting NEPA review.[307] Even Congress recognizes that funding increases efficiency. For example, the first legislative infrastructure bill devoted to increasing the efficiency of the permitting process for infrastructure projects included a funding mechanism to help agencies achieve established timelines.[308] Several years later, Congress explicitly recognized the connection between prompt environmental review and financial resources by directing that "adequate resources," devoted to ensuring that expeditious environmental reviews are implemented, be made available.[309] That language was retained in later legislation and remains in effect.[310]

Increasing and stabilizing funding for staff with expertise in environmental planning and decision-making would improve NEPA efficacy. Funding to develop and train interdisciplinary team leaders, resource specialists, and avoiding staff reassignments during a project would reduce delays. Providing funding to support landscape scale environmental analyses to which project-level decisions can be tiered would enable agencies to realize efficiency gains. Stabilizing funding for environmental planning and monitoring would help agencies develop interagency databases, collaborative protocols, and landscape scale analyses that could produce long-lasting efficiencies across agencies. Without addressing these common-sense sources of inefficiency, efforts to systemically improve the NEPA process will falter.

4. Foster an Agency Culture that Incentivizes Action and Public Engagement

---

[307] OFF. OF INSPECTOR GEN., U.S. DEP'T AGRIC., AUDIT REP. 08601-55-SF, FOREST SERVICE ADMINISTRATION OF SPECIAL USE PROGRAM 8 (2011), https://www.usda.gov/sites/default/files/08601-55-SF.pdf [https://perma.cc/ZD9V-LDGG] ("FS has relatively few NEPA specialists that support special uses, and other employees are reluctant to conduct the reviews themselves.").

[308] *Id.* at 323. *See also* Transportation Equity Act for the 21st Century, Pub. L. No. 105-178, § 1309 112 Stat. 107, 234 (1998) ("The secretary may approve a request by a State to provide funds made available . . . for the project subject to the coordinated environmental review process established under this section to affected Federal agencies to provide the resources necessary to meet any time limits established under this section.").

[309] *See* Moving Ahead for Progress in the 21st Century Act, 112 Pub. L. 141, § 1306, 126 Stat. 405, 539 (2012) (MAP-21).

[310] *See* 23 U.S.C. § 139(h)(8) ("To ensure that federal environmental decisions are expeditiously made . . . adequate resources made available under this title shall be devoted to ensuring that applicable environmental reviews under the National Environmental Policy Act of 1969 (42 U.S.C. § 4321–4347) are completed on an expeditious basis and that the shortest applicable process under the Act is implemented."). The subsequent transportation act was Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Pub. L. No. 109-59, 119 Stat. 1144 (2005) (SAFETEA-LU).

Litigation aversion was repeatedly identified as a source of delay, even though only a small percentage of decisions are litigated.[311] Government-wide, only about two-tenths of one percent of more than 50,000 NEPA decisions that are documented each year result in litigation.[312] Litigation rates are higher for the Forest Service than for the government as a whole.[313] An investigation by the GAO regarding Forest Service fuel reduction projects from fiscal years 2006 through 2008 revealed that only 29 out of 1,415 decisions were litigated, and litigation impacted about 1% of lands slated for fuel reduction projects.[314]

Rather than attempting to avoid litigation by developing overly expansive and detailed documents, the Forest Service could acknowledge litigation as part of the transparency function of NEPA. This shift in focus would enable agencies like the Forest Service to encourage field officers to act promptly. Indeed, the CEQ encourages agencies to focus the analysis on significant issues and refine the breadth of issues to address through a scoping process.[315] Selecting the issues of importance is an exercise of discretion, which is subject to judicial deference.[316]

Public participation helps justify the exercise of that discretion. For example, although it is not required by the regulations, providing a public scoping process and publishing a draft EA provides an opportunity for the agency to document and justify the reasons for distinguishing between

---

[311] David E. Adelman & Robert L. Glicksman, *Presidential and Judicial Politics in Environmental Litigation*, 50 ARIZ. ST. L.J. 3, 7 (2018) (conducting an empirical study of NEPA litigation during the presidencies of George W. Bush and Barack Obama, and observing, "[w]e find little evidence that litigation under NEPA is out of control or that NEPA's processes are overly burdensome").

[312] Serassio, *supra* note 107, at 333-334. *See also*, Ruple & Race, *supra* note 90, at 500 (finding a litigation rate of 0.22%).

[313] Ruple & Race, *supra* note 90, at 509 (reporting that an estimated 0.6% of all Forest Service NEPA decisions are litigated).

[314] U.S. GOV'T ACCOUNTABILITY OFF., GAO 10-337, FOREST SERVICE: INFORMATION ON APPEALS, OBJECTIONS, AND LITIGATION INVOLVING FUEL REDUCTION ACTIVITIES, FISCAL YEARS 2006 THROUGH 2008 1 (2010).

[315] The CEQ regulations define scoping as "an early and open process" to identify potentially significant issues for consideration in a NEPA analysis. 40 C.F.R. § 1501.7 (2019); *id.* § 1501.9 (2020). *See also id.* § 1500.4(g) (2019); 40 C.F.R. § 1500.4(i) (2020) (encouraging agencies to use "the scoping process, not only to identify significant environmental issues deserving of study, but also to deemphasize insignificant ones"); *id.* § 1500.5(d) (2019); *id.* § 1500.5(f) (2020) (encouraging agencies to use "the scoping process for an early identification of what are and what are not the real issues.").

[316] *See, e.g.*, Kleppe v. Sierra Club, 427 U.S. 390, 414 (1976) (holding that determining the scope of cumulative impacts, particularly identification of the geographic area, is a task "assigned to the special competency of the appropriate agencies" and may be influenced by "practical considerations of feasibility"); Selkirk Conservation Alliance v. Forsgren, 336 F.3d 944, 960 (9th Cir. 2003) (affording discretion to agency's decision to limit geographic scope of analysis where the agency provided support and justified its decision to exclude other regions from analysis); Theodore Roosevelt Conservation P'ship v. Salazar, 744 F. Supp. 2d 151 (D.D.C. 2010), *aff'd*, 616 F.3d 497 (affording deference to BLM decision to limit geographic scope of analysis of impacts on sage grouse populations).

significant and non-significant issues and limiting the scope of the EA. It may seem counter-intuitive to achieve efficiency by inviting public comments on an EA, however, this approach enhances efficiency in five ways. First, it facilitates compliance with other statutory obligations that require public participation.[317] Second, it provides an opportunity for the agency to ensure that it has focused on the significant issues. "If agency staff truly understand the public's concerns at the beginnings, they can avoid spending time and money on issues in which the public has no interest."[318] Third, the response to comments provides a public forum for explaining the agency's decision for focusing the scope of the analysis, which builds a record enhancing the likelihood of success in litigation.[319] Fourth, providing an opportunity for public comment narrows the range of claims that can be litigated and ensures that an agency is not surprised by an issue raised for the first time in litigation.[320] NEPA litigants must generally raise their objections during the administrative process to preserve their right to litigate.[321] Litigants are also generally barred from raising issues not aired during the administrative process.[322] No such limits exist where agencies forgo public engagement. Finally, public participation provides an opportunity to identify controversial issues and may help diffuse tensions surrounding controversy.[323]

It is also helpful to remember that litigation may serve a positive function. As Robert Dreher, a professor at Georgetown testified, "[c]ritics overlook the essential role that the independent federal judiciary plays under NEPA. When Federal agencies fall short, citizen suits are the only mechanism that enforce the act's commands for environmental review and public consultation."[324] There may be some projects that simply should not move forward without additional consideration or mitigation. Litigation provides this procedural backstop. Even though litigation is rare,[325] it often has merit.

---

[317] Serassio, *supra* note 107, at 340.

[318] Sharon Buccino, *NEPA's Promise: A Future in Which We All Thrive*, 50 ENV'T L. REP. 10197, 10199200 (2020).

[319] Serassio, *supra* note 107, at 341.

[320] *Id.*

[321] Dep't of Transp. v. Pub. Citizen, 541 U.S. 752, 764 (2004) (noting that parties challenging an agency's compliance with NEPA must structure their participation in the process to alert the agency to the party's position and allow the agency to give the issue meaningful consideration).

[322] *Id.* (barring litigants from raising alternatives that were not suggested during the NEPA process).

[323] Buccino, *supra* note 318, at 10201 ("[p]ublic satisfaction with a decision is strongly linked to belief in the fairness of the participation process.") (citing Marion Hourdequin et al., *Ethical Implications of Democratic Theory for U.S. Participation in Environmental Impact Assessment*, 35 ENV'T IMPACT ASSESSMENT REV. 37 (2012)).

[324] *NEPA: Lessons Learned and Next Steps: Hearing Before the Task Force on Updating the National Environmental Policy Act of the H. Comm. on Resources*, 109th Cong. (2005) (statement of Professor Robert G. Dreher, GEO. UNIV. L. CTR.).

[325] Ruple & Race, *supra* note 90, at 499–501 (finding that only 0.22% of NEPA decisions were challenged between 2008 and 2013, that the rate of litigation is declining more quickly than

Just 0.22% of NEPA decisions result in litigation,[326] and a recent study of NEPA litigation observed that environmental plaintiffs won more often at both the district court and appellate level than other litigants.[327] The authors concluded that low rates of challenge and high rates of success provide "strong evidence that NEPA litigation is grounded on legitimate claims," rather than strategic efforts to delay government projects.[328] These studies affirm Professor Dreher's observation. When federal agencies fall short, citizen suits enforce agencies' statutory duties.

In practice, accepting the risk of litigation requires experienced and knowledgeable staff who are capable of utilizing the discretion afforded to agencies, and who feel supported by their superiors. That demands expertise and an investment in personnel. Promoting a culture of action, rather than incentivizing avoidance, may help avoid NEPA decision-making times that are elongated by fears about blame and job security.

B. Changes to Avoid

Our research confirmed the observation made by the Congressional Research Service that many delays blamed on NEPA actually arise elsewhere. Common external sources of delay identified in our research were inadequate staff and funding, operator decisions and market influences, coordination with other entities, and compliance with other legal or regulatory requirements. Many of the "changes to avoid" discussed below fail to recognize these common causes of delay. It is also important to remember that NEPA's charge is to make transparent and informed decisions, and while efficient decisionmaking is important, speed may not be the best measure of efficacy.

1. Treating the Wrong Problem

The regulatory changes introduced by the CEQ in 2020 were intended to "facilitate more efficient, effective, and timely NEPA reviews by Federal agencies."[329] To achieve this result, the new regulations impose page limits, eliminate the requirement to consider the cumulative effects of a project, and mandate aggressive deadlines.[330] These reforms treat the symptom not

---

the rate at which agencies prepare EISs, and that the rate of NEPA litigation is declining while general civil litigation against the federal government is on the rise).

[326] *Id.* at 500.

[327] Adelman & Glicksman, *supra* note 311, at 27.

[328] *Id.*

[329] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,304, 43,304 (proposed July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–1505, 1507, 1508).

[330] *See* Glicksman & Camacho, *supra* note 76, at 10284–89 (describing 2020 regulatory changes and implications for NEPA's functionality as a forum for transparency and public participation).

the cause and leave agencies vulnerable to violating NEPA's statutory mandate of transparency and deliberation.

First, page limits stand in contradiction to NEPA's mandate of fulsome disclosure.[331] Imposing page limits on a disclosure document is like imposing page limits on a telephone book. The only way to meet the page limits is either to remove relevant information or reduce the scope of the disclosure. Neither of these two approaches meet NEPA's aims of transparency and public engagement.

Second, attempting to streamline NEPA by eliminating the scope of required disclosure is like treating a water leak by turning off the water—it ends the problem, but it does so at the expense of the entire program. In an era of compounding challenges (like climate change, drought, urbanization, and wildfires) a myopic analysis of effects will not facilitate agencies' abilities to achieve NEPA's mandate of deliberate and informed decision-making.

Third, arbitrary page limits and deadlines may have unintended consequences. Indirectly encouraging agencies to cut projects into bite-sized analyses that meet the regulatory page limit standard could result in legally impermissible segmentation.[332] Furthermore, during judicial review of NEPA compliance, courts evaluate compliance with NEPA's statutory procedures and assess whether the agency took a hard look at environmental consequences and shared that information with the public.[333] Previous research observed that there is an inverse relationship between the amount of time spent preparing an EIS and the likelihood that an EIS will be challenged in court.[334] Other research suggests that rushed EISs may be more likely to require supplementation, which causes unintended delay.[335]

---

[331] 42 U.S.C. § 4332(C).

[332] "'Impermissible segmentation' occurs when parts of an otherwise 'major' federal action have not been evaluated together in the same NEPA document— 'segmented'—in order to avoid conducting the NEPA analysis that would be required if the segmented actions had been evaluated together." Oak Ridge Env't Peace All. v. Perry, 412 F. Supp. 3d 786, 831–32 (E.D. Tenn. 2019).

[333] Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989) ("[t]he sweeping policy goals announced in section 101 of NEPA are thus realized through a set of 'action-forcing' procedures that require that agencies take a 'hard look' at environmental consequences, and that provide for broad dissemination of relevant environmental information."); Nat'l Audubon Soc'y v. Dep't of the Navy, 422 F.3d 174, 185 (4th Cir. 2005) ("[w]hat constitutes a 'hard look' cannot be outlined with rule-like precision. At the least, however, it encompasses a thorough investigation into the environmental impacts of an agency's action and a candid acknowledgement of the risks that those impacts entail."). *See also* MANDELKER ET AL., NEPA LAW AND LITIGATION, *supra* note 10, § 3.8 (discussing judicial review standards applied to NEPA decisions).

[334] Ruple & Race, *supra* note 90, at 498; Adelman & Glicksman, *supra* note 311, at 38.

[335] Ruple & Capone, *supra* note 180, at 963 (finding that Resource Management Plans that required supplementation to cure a defect in their analysis resulted in a delay averaging 363.4 days, which represented a 17% increase in the time necessary to complete the NEPA review); *see also* Piet deWitt & Carole A. deWitt, *How Long Does It Take to Prepare an Environmental Impact Statement?*, 10 ENV'T PRAC. 164, 169–70 (2008) (finding that across all agencies between 1998 and 2006, the requirement to supplement an EIS increased preparation time by almost 2.3 additional years).

Arbitrary deadlines and page limits may, in short, make it more difficult for agencies to demonstrate that they met their statutory obligations.

Finally, aggressive deadlines may undermine NEPA's function as an umbrella statute coordinating compliance with other statutory and permitting requirements. For example, a commercial logging project may require road building across a wetland and through sensitive wildlife habitat contiguous to tribal lands. In addition to requiring a NEPA analysis, this project would also likely trigger permitting requirements with the U.S. Army Corps of Engineers for a fill and dredge permit under the Clean Water Act, consultation with the Fish and Wildlife Service under the ESA, and consultation obligations with the Tribe under the NHPA. All of these statutory obligations are independent of NEPA's obligations and are not subject to its regulatory deadlines. Requiring the NEPA process to be completed independent of these interrelated statutory procedures would be inefficient, time-consuming and confusing.

These reforms treat the wrong problem, are unlikely to produce beneficial results, and may have unintended consequences that result in project delays.

2. *Avoid Inviting Unintended Consequences*

Some proposed reforms invite unintended consequences that may decrease long term efficiency by increasing NEPA's complexity and inviting litigation. Three examples illustrate this possibility.

First, in an effort to avoid perceived delays from the NEPA process, Congress has revised the NEPA process by creating legislative CEs for specific federal actions, mandating streamlining processes, limiting participating agency input, imposing unique administrative review requirements, and limiting public participation.[336] This ad hoc approach creates a complex and confusing compliance matrix with varying legal standards depending on the proposed action and the agency or agencies involved. Having different NEPA requirements for various federal agencies makes a combined analysis difficult and could also lead to unpredictable judicial determinations.[337] Inconsistent requirements also create challenges for stakeholders and cooperating agencies who may need to respond to multiple and inconsistent agency requirements. The network of shortcuts may therefore be less efficient than a clear and consistent path forward.

Second, multiple "streamlining" bills introduced in Congress establish mandatory deadlines with financial penalties for agencies that miss a deadline and de facto approvals if the NEPA analysis is not completed within the

---

[336] Serassio, *supra* note 107, at 321 (providing examples of MAP-21, SAFETEA-LU, the Energy Policy Act, the Healthy Forests Restoration Act, and the Water Resources Development Act).

[337] *Id.* at 322.

deadlines established for the act.[338] Imposing financial penalties on agencies with limited funding will only exacerbate delays caused by limited funding. Mandatory approvals if arbitrary deadlines are missed creates an incentive to game the system and foster delays in the hope of receiving a permit by default. And prioritizing speed over deliberation leaves society vulnerable to projects with unjustified and unmitigated environmental effects.

Third, the temptation to fast-track politically favorable projects through vast categorical exclusions subverts the ability to consider environmental consequences. For example, within the Forest Service, the desire for speedy action has led to a proliferation of regulatory categorical exclusions authorizing large scale vegetation management, timber sales, logging, thinning, and prescribed burning.[339] Additionally, wildfire risk has led to statutory categorical exclusions authorizing massive operations in the name of hazardous fuel management.[340] Fast tracking projects in large CEs results in limited deliberation, truncated consideration of alternatives (if any), and scant assessment of the indirect and cumulative impacts. While extraordinary circumstances can limit the availability of a CE, cumulative effects are not included in the list of extraordinary circumstances.[341] Thus, a forest could endure a thousand cuts authorized in CEs without undertaking NEPA's requisite "hard look" or meaningfully engaging with those who will most likely suffer injury.

According to investigative research by WildEarth Guardians, during the first quarter of 2020, Regions 1 through 6 used CEs to authorize hazardous fuel

---

[338] *See* Undoing NEPA's Substantial Harm by Advancing Concepts that Kickstart the Liberation of the Economy ("UNSHACKLE" Act) S. 717, 117th Cong. (2021); Reducing Environmental Barriers to Unified Infrastructure and Land Development Act of 2013 ("REBUILD Act"), H.R. 2097, 113th Cong. (2013) (re-introduced 2015, H.R. 211, 114th Cong. (2015); Responsibly and Professionally Invigorating Development Act of 2013 (RAPID ACT), H.R. 2641, 113th Cong. (2013).

[339] For examples of regulatory CEs authorizing large-scale timber management activities, see 36 C.F.R. § 220.6(e)(6) (2021) (authorizing timber stand and/or wildlife improvement activities with no acreage limit); *id.* § 220.6(e)(11) (authorizing post-fire rehabilitation activities on up to 4,200 acres); *id.* § 220.6(e)(12) (authorizing the harvest of live tress on less than 70-acre projects with the construction of temporary road of less than ½ mile including commercial thinning); *id.* § 220.6(e)(13) (authorizing the salvage of dead and dying trees on less than 250 acres with temporary road construction of ½ mile); *id.* § 220.6(e)(14) (allowing commercial and non-commercial sanitation harvest up to 250 acres to control insects and disease).

[340] *See, e.g.*, 16 U.S.C. § 6591d (authorizing hazardous fuel reduction projects on up to 3,000 acres); 16 U.S.C. § 6591e (authorizing vegetation management activities up to 4,500 acres to restore sage grouse or mule deer habitat); 16 U.S.C. § 6591b (authorizing unlimited acreage of hazardous fuels reduction projects within the wildland urban interface); Water Infrastructure Improvements for the Nation Act of 2016, Pub. L. No. 114-322, § 3603, 130 Stat. 1627, 1778–93 (authorizing activities to reduce forest fuels in Lake Tahoe Basin for up to 3,000 acres of mechanical thinning on up to 10,000 acres of land); Omnibus Appropriations Act of 2009, Pub. L. No. 111-8, § 423, 123 Stat. 523, 748 (authorizing hazardous fuel reduction projects up to 5,000 acres with 1,500 acres of mechanical thinning).

[341] 36 C.F.R. § 220.6(b)(1) (2021) (listing seven resource conditions that would trigger extraordinary circumstances analysis).

or timber management activities on at least 3.79 million acres.[342] In addition to these known projects, there were a significant number of additional projects where the Schedule of Proposed Actions did not disclose the amount of acreage affected, including 38% of the projects in Regions 2 and 3.[343] If the first quarter of 2020 was representative of common practice, then the Forest Service may be logging as much as 15 million acres or more annually while sidestepping NEPA's hard look requirement and with minimal public review. This "leap before you look" approach to environmental decision-making may result in projects with environmentally harmful effects that could have been avoided or mitigated through NEPA's "hard look" procedures.

3. Avoid Diluting NEPA's Guiding Principles

When considering regulatory reforms, we should not lose sight of NEPA's original purpose. NEPA was passed shortly after Time Magazine published stunning photos of the badly polluted and burning Cuyahoga River in Ohio—the thirteenth time the river had caught fire.[344] NEPA also followed on the heels of the Santa Barbara oil spill which spread oil across hundreds of miles of pristine California beaches.[345] NEPA's eloquent preamble articulates the guiding principles for reform. "[I]t is the continuing policy of the Federal Government . . . to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."[346]

The principal drafter of NEPA, Senator Henry Jackson, eloquently summarized NEPA's objectives as a "declaration that that we do not intend, as a government or as a people, to initiate actions which endanger the continued existence or the health of mankind: that we will not intentionally initiate actions which will do irreparable damage to the air, land, and water which

---

[342] WILDEARTH GUARDIANS, THE FOREST SERVICE & CATEGORICAL EXCLUSIONS: MISUSE AND OBFUSCATION REVEAL A CLEAR NEED FOR CHANGES 10 (2020), http://pdf.wildearthguardians.org/site/DocServer/The-Forest-Service-and-Categorical-Exclusions-report-Aug-2020-final.pdf [https://perma.cc/X2Z5-MKL7]. Region 5 authorized 1.3 million acres. Other Regions authorized significantly fewer acres, but also had a larger proportion of CEs that did not specify the number of acres affected. *Id.* at 9–10.

[343] *Id.* at 10. Regions 6 and 5 had the next highest rates at 35% and 25% respectively, while Regions 4 and 1 had the lowest amount of unspecified acreage at 10% and 7 % respectively.

[344] Jonathan H. Adler, *The Fable of the Burning River, 45 Years Later*, WASH. POST (June 22, 2014), https://www.washingtonpost.com/news/volokh-conspiracy/wp/2014/06/22/the-fable-of-the-burning-river-45-years-later/ [https://perma.cc/2S46-X9DA].

[345] *See* CRAIG COLLINS, TOXIC LOOPHOLES: FAILURES AND FUTURE PROSPECTS IN ENVIRONMENTAL LAW 55–56 (2010).

[346] 42 U.S.C. § 4331(a).

support life on earth."[347] Almost 30 years later, Dinah Bear, who served as General Counsel for CEQ for a total of twenty-two years, characterized NEPA as a process "grounded on certain basic beliefs about the relationship between citizens and their government."[348] Those beliefs include "an assumption that citizens should actively participate in their government, that information matters, that the environmental impact assessment process should be implemented with both common sense and imagination, . . . that there is much about the world that we do not yet understand. . . [and] that the social and economic welfare of human beings is intimately connected with the environment."[349]

These complex and multi-faceted goals cannot be achieved by implementing every proposed federal action exactly as it was originally envisioned or by boring holes through substantive and procedural requirements. A fully functioning NEPA will allow simple projects to pass through its review process quickly, while more complex projects will take time. Projects with unacceptable environmental effects may require mitigation. Within this process, a slow decision is not necessarily a bad decision.

VI. CONCLUSION

When considering strategies for streamlining or reforming NEPA, it is important to remain focused on NEPA's objectives. Fifty-one years ago, Congress recognized "the profound impact of man's activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances."[350] In response, Congress directed agencies to "utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and decision-making."[351] NEPA's twin goals are to foster public engagement in agency decisions, and to facilitate informed agency decision-making. Congress believed that a "hard look" coupled with public engagement would produce less impactful and more sustainable decisions.[352] These lofty ambitions can be achieved without compromising efficiency.

---

[347] 115 CONG. REC. 40,416 (1969) (statement of Sen. Jackson); Adelman & Glicksman, *supra* note 311, at 14 (providing the quote and excellent commentary).

[348] Dinah Bear, *Some Modest Suggestions for Improving Implementation of the National Environmental Policy Act*, 43 NAT. RSCH. J. 931, 932 (2003).

[349] *Id.*

[350] 42 U.S.C. § 4331(a).

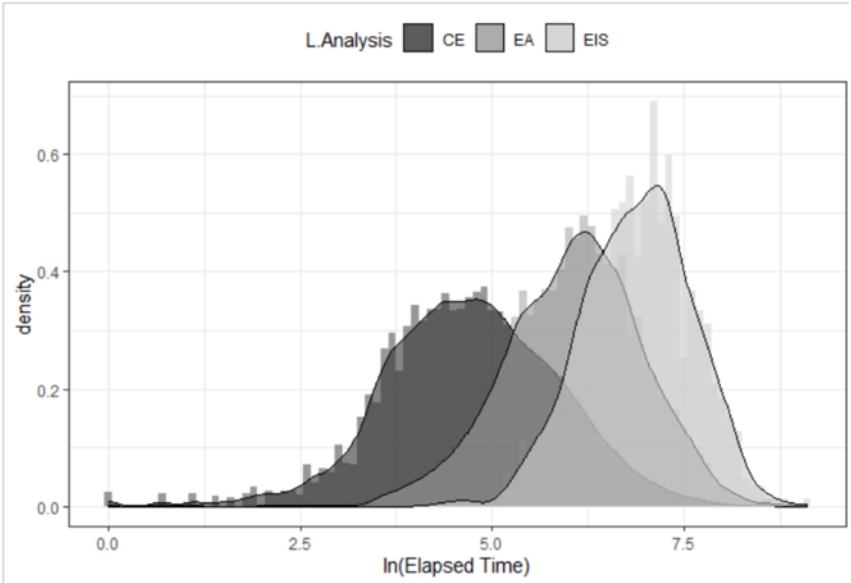
[351] 42 U.S.C. § 4332(2)(A).

[352] N.M. ex rel. Richardson v. Bureau Land Mgmt., 565 F.3d 683, 703 (10th Cir. 2009) ("[b]y focusing both agency and public attention on the environmental effects of proposed actions, NEPA facilitates informed decision-making by agencies and allows the political process to check those decisions.").

Reviewing over 41,000 NEPA decisions made by the Forest Service over a 16-year period, we observed that reports on average decision-making times across agencies are skewed by outlying decisions with extended timeframes. Focusing on the median decision-making times reveals that the majority of decisions adhere to a more predictable timeframe that is shorter than reported averages. Moreover, level of analysis does not dictate decision-making times. The fastest 25% of EISs are completed more quickly than the slowest 25% of EAs, and the fastest 25% of EAs are completed more quickly than the slowest 25% of CEs. This overlap demonstrates that efficiencies can be achieved at each level of analysis without foregoing the "hard look" required by NEPA. Focusing on activities associated with delay revealed that many sources of delay attributed to NEPA are caused by external factors. Some of these delay factors, like inadequate staffing, insufficient funding, time spent on inter-agency coordination, and litigation aversion can be addressed through fiscal and cultural reforms. Other sources of delay, like delays obtaining information from permittees, are not caused by NEPA and should not drive NEPA reforms. Finally, when used properly, NEPA's function as an umbrella statute and can mitigate or avoid delays caused by compliance with other statutory and regulatory requirements. We hope that our work, focusing on real-world problems causing delay within NEPA implementation, will provide a springboard to reforms that improve NEPA efficacy and advance the twin goals of public engagement and informed decision-making.

APPENDIX 1: THE REGRESSION MODEL

We used a weighted least squares regression model to predict elapsed time on a log scale.[353] A plot of elapsed time after the log transformation is below.



The equation for the model is provided below.

1. Model Equation

$$ln\ ln\ (elapsed\ time) = L.Analysis + year + year^2 + (L.Analysis \times year) + (L.Analysis \times year^2) + Region + (Region \times L.Analysis) + Activities$$

- $L.Analysis$ is a categorical variable with three levels: CE, EA, and

[353] We used a weighted least squares model because residual plots from the ordinary least squares model also showed unequal variances from one level of analysis to the other. Essentially the magnitude of the "miss" for our predictions varied by level of analysis. This is referred to more formally as "heteroscedasticity" and requires a weighted least squares regression model.

EIS

- *year* is a numeric variable representing the year in which the Forest Service initiated the NEPA analysis for a project, and is scaled so that *year* = 0 is 2004.
- $year^2$ is a numeric variable representing the potential quadratic trend over time.
- *L. Analysis* × *year* is an "interaction" term between level of analysis and year. It allows CE, EA, and EIS cases to all have separate linear trends over time.
- *L. Analysis* × $year^2$ is an "interaction" term between level of analysis and year squared. It allows CE, EA, and EIS cases to all have separate quadratic trends over time.
- *Region* is a categorical variable with nine different levels corresponding to the Forest Service's administrative regions: R1, R2, R3, R4, R5, R6, R8, R9, R10
- *Region* × *L. Analysis* is an "interaction" between region and level of analysis. It allows the effect of each region on duration to change from one level of analysis to another.
- *Activities* is an indicator variable for each activity found in the data. This model tested independently for each activity. Several projects included multiple activities. The model considers the type and number of activities included in each project—a dynamic we referred to as the "complexity" of the project.

2. Model Efficacy--R squared Results

R-squared is a statistical measure of the proportion of the variance for a dependent variable (in our mode time to complete the NEPA analysis) that is explained by the variables in a regression model. The R-squared value for the weighted least squares regression model was 0.248 and the adjusted R-squared value was 0.246. The proximity of these values indicates the absence of unnecessary or redundant independent variables in the model. The R-squared value of 0.248 indicates that of all the variability in elapsed time on a log scale across all cases, 25% is explained by knowing the level of analysis, year, region, and activities involved in the case. As discussed below, each of the independent variables influence the elapsed time for a NEPA case, but there is still substantial variation in elapsed time that cannot be accounted for by the level of analysis, year, region, or activities involved.

3. Model Accuracy--Root Mean Square Error (RMSE)

The root mean square error or RMSE for our model was 1.003. This can be interpreted as the "average" or "typical" miss in our prediction of elapsed

time on a log scale. To ensure this value is unbiased, we performed cross-validation analysis. 90% of the data was used to "train" or develop the model, and the remaining 10% was held back to "test" the model developed from only the 90%. For three different iterations where the training data set and testing data sets were randomly selected, the average RMSE was 1.001. This validates our RMSE, and indicates that if we use our model to predict the elapsed time for a future NEPA case, the typical error will be just over 1 on a log scale. Given that the overall average duration for elapsed time on a log scale is around 5, the relative error of prediction is approximately 20%.

APPENDIX 2: EXCERPT FROM PALS USER GUIDE PROVIDING DEFINITIONS OF PROJECT ACTIVITIES354

V. Appendix B – Project Activity Metrics Definitions

These are the project activity metrics available for selection in PALS Step 2.

Activity	Project Definition	Metric
Abandoned mine land clean-up (ML)	Restoration, closure, safety improvements and other activities associated with mining activities	each, acres, miles
Biomass (BM)	Removal, disposal of products or materials NOT included in Special Products Sales (NC)	tons, acres
Boundary adjustments (BL)	Administrative boundary changes	miles, feet
Directive creation/modification (DC)	Administrative processes related to Directive management	each
Dispersed recreation mgmt (GA)	Actions associated with management of existing or creation of dispersed recreation areas/sites	each, acres, miles
Electric Transmission (ET)	Actions related to creation, maintenance, modification of transmission infrastructure	miles, feet, acres
Environmental compliance actions (EC)	Actions required to comply with specific environmental laws	each, acres, miles
Facility improvements/construction (FI)	Actions related to creation or modification of facilities	each
Facility maintenance (MF)	Actions related to maintenance of facilities	each
Forest vegetation improvements (FV)	Vegetation improvements NOT associated with NC, SS	acres
Fuel treatments (non-activity fuels) (FN)	Fuels treatments for purposes other than fund generation (NC, SS) for reduction of fuels	acres
Geothermal (GT)	Leasing of lands related to geothermal production	acres
Grazing allotment management (GP)	Continuation, modification or development of allotment management plans, activities to implement	acres, each
Grazing authorizations (GR)	Authorization or reauthorization of grazing permits	each
Grazing structural improvements (SI)	Actions to construct, modify or remove improvements on grazing allotments	each, miles
Heritage resource management (HR)	Actions to manage cultural and historical properties and resources	each, acres, miles

354 WO/EMC/NEPA SERVICES GROUP, U.S. FOREST SERVICE, EMNEPA, ELECTRONIC MANAGEMENT OF NEPA, PALS USER GUIDE V5.12 (2020).

Hydropower (HP)	Construction, modification, removal of hydropower facilities and associated infrastructure	acres, each
Land exchanges (PJ)	The exchange of lands	acres
Land purchases (LP)	Purchase of lands	acres
Land use adjustments (AL)	Adjustment of land uses	acres
Minerals or Geology plan of ops (MO)	Authorization or reauthorization of permits for minerals and geology	each, acres
Natural Gas (NG)	Authorization or reauthorization of permits for Natural Gas	each, acres, miles
Noxious weed treatments (NW)	Actions to manage or eradicate noxious weeds	acres, miles
Oil (OL)	All actions related to oil exploration, development and management?	each, acres, miles
Order creation/modification (OC)	Creation or modification of legal orders	each
Plan amendment (MP)	Forest Plan Amendment	each
Plan creation/revision (CP)	Forest Plan creation/revision	each
Rangeland veg improvements (RV)	All actions related to improvements to rangeland vegetation	acres
Regulation creation/modification (RC)	Creation or modification of regulations	each
Research and Development (RE)	Actions associated with research and development	acres, miles, each
Road decommissioning (DR)	Actions to remove roads from the travel system	miles
Road improvements/construction (RI)	Actions to construct, modify or otherwise improve roads	miles
Road maintenance (RD)	Maintenance actions on roads	miles
Roadless area management (RA)	Actions to manage, restore or improve roadless area characteristics	acres, miles
Scenery management (SC)	Actions to manage scenery	acres
Solar (SL)	Actions that develop, maintain, or remove solar power infrastructure	acres
Special area management (SA)	Actions to manage, restore or improve special area characteristics	acres
Special products sales (NC)	sales of special products, non-commercial	acres, each
Special use authorizations (LA)	Authorizations, modifications and extensions of special uses	acres, miles, each,

Species habitat improvements (HI)	Actions to maintain or improve habitat for wildlife and/or flora	acres
Species population enhancements (PE)	Actions that enhance species population viability	acres, each
Timber Sales (green) (NC)	Commercial timber sales of live trees	acres, ccf
Timber Sales (salvage) (SS)	Commercial timber sales of dead and dying trees	acres, ccf
Trail management (MT)	Actions that maintain or improve trail systems	miles
Travel management (TR)	Actions that manage the overall travel system	miles
Watershed improvements (WC)	Actions that maintain or improve watershed function	acres, miles
Wilderness (WD)	Actions to manage, restore or improve wilderness characteristics	acres
Wind (WI)	Actions that develop, maintain, or remove wind power infrastructure	acres

APPENDIX 3: REGRESSION MODEL RESULTS– ESTIMATED COEFFICIENTS FOR ACTIVITIES

* Results shown in bold are statistically significant

Activity	Coefficient	Lower CI bound	Upper CI bound	Estimated % change if present
CP.Plan.creation.revision...activity	0.679	0.437	0.921	97.2%
OL.Oil...activity	0.631	0.214	1.048	87.9%
PJ.Land.exchanges...activity	0.562	0.449	0.675	75.5%
AL.Land.use.adjustments...activity	0.456	0.340	0.571	57.7%
BL.Boundary.adjustments...activity	0.279	0.064	0.493	32.1%
MT.Trail.management...activity	0.205	0.164	0.246	22.7%
GR.Grazing.authorizations...activity	0.203	0.131	0.276	22.6%
TS.Timber.salves..green....activity	0.194	0.154	0.235	21.4%
WD.Wilderness.management...activity	0.172	0.057	0.287	18.8%
FN.Fuel.treatments...activity	0.163	0.129	0.198	17.7%
NW.Noxious.weed.treatments...activity	0.132	0.080	0.185	14.2%
MP.Plan.amendment...activity	0.128	0.047	0.208	13.6%
ML.Abandoned.mine.land.clean.up...activity	0.107	-0.006	0.221	11.3%
BM.Biomass...activity	0.103	-0.215	0.420	10.8%
RV.Rangeland.vegetation.improvements...activity	0.095	0.005	0.185	10.0%
ET.Electric.transmission...activity	0.077	-0.156	0.310	8.0%
HI.Species.habitat.improvements...activity	0.077	0.042	0.111	8.0%
SA.Special.area.management...activity	0.067	-0.019	0.152	6.9%
TR.Travel.management...activity	0.056	0.005	0.108	5.8%
WC.Watershed.improvements...activity	0.037	-0.001	0.075	3.8%
RC.Regulation.creation.modification...activity	0.013	-0.319	0.346	1.4%
RD.Road.maintenance...activity	0.003	-0.042	0.049	0.3%
EC.Environmental.compliance.actions...activity	0.000	-0.139	0.138	0.0%
SC.Scenery.management...activity	-0.007	-0.101	0.088	-0.7%
NC.Special.products.sales...activity	-0.013	-0.109	0.083	-1.3%
FV.Forest.vegetation.improvements...activity	-0.018	-0.052	0.016	-1.8%
GP.Grazing.allotment.management...activity	-0.019	-0.080	0.041	-1.9%
RI.Road.improvements.construction...activity	-0.025	-0.073	0.024	-2.4%
DR.Road.decommissioning...activity	-0.025	-0.080	0.030	-2.5%
PE.Species.population.enhancements...activity	-0.033	-0.105	0.039	-3.2%
MO.Minerals.or.geology.plans.of.operations...activity	-0.034	-0.080	0.011	-3.4%
DS.Developed.site.management...activity	-0.039	-0.090	0.012	-3.8%
LA.Special.use.authorizations...activity	-0.044	-0.072	-0.016	-4.3%

GA.Dispersed.recreation.management...activity	-0.045	-0.096	0.007	-4.4%
RA.Roadless.area.management...activity	-0.050	-0.199	0.098	-4.9%
SI.Grazing.structural.improvements...activity	-0.065	-0.137	0.007	-6.3%
MF.Facility.maintenance...activity	-0.108	-0.189	-0.027	-10.2%
NG.Natural.gas...activity	-0.130	-0.486	0.226	-12.2%
FI.Facility.improvements.construction...activity	-0.131	-0.191	-0.072	-12.3%
HR.Heritage.resource.management...activity	-0.161	-0.260	-0.062	-14.9%
SS.Timber.sales..salvage....activity	-0.259	-0.304	-0.214	-22.8%
RE.Research.and.development...activity	-0.368	-0.477	-0.260	-30.8%
OC.Order.creation.modification...activity	-0.453	-0.686	-0.220	-36.5%

Senator MERKLEY. Thank you.

It says, the delays we found, and they are talking about delays that happened in implementing getting licenses to do projects, are often caused by factors only tangentially related to NEPA, like inadequate agency budget, staff turnover, delays receiving information from permit applicants, and compliance with other laws. Improving NEPA efficacy, we argue, should therefore focus on improving the capacity of the agency.

Do you share that view?

Ms. GOLDFUSS. Absolutely.

Senator MERKLEY. I have seen a whole series of projects in Oregon that have moved very slowly. Almost always, it has to do with the actor not getting the information that is required to go through the next step.

I am very concerned, Mr. Chairman, that we are on a path here where we are not actually addressing the real problem. It isn't a problem with NEPA, and my colleague Senator Markey just pointed out six factors that all have to do with FERC. I can point out many, many examples of where the delays are overwhelmingly caused by the lack of the applicant getting the information required or the shortage of staff to review those.

So, I would suggest that we not go on the wrong path that ends up basically doing damage to the worldwide effort to take on climate change as we proceed as a committee.

Thank you, Mr. Chairman.

Senator CARPER. Senator Merkley, thank you. Thanks for those words and for joining us today.

Senator Capito, second round.

Senator CAPITO. Thank you, Mr. Chairman.

Both of us began our statements saying that we wanted to try to find a bipartisan sweet spot here, and I laid out some tenets of what I thought would be some of the things I want, knowing I am not going to get everything. One of them was a technology or fuel neutral to benefit energy projects of all kinds. I just have a couple comments from some of the things I have heard.

Ms. Johnson, Senator Cardin talked about the Reconnect Program that we built into the IIJA. He talked specifically about a project in Baltimore that occurred in the 1970's, I think, where it split and very much damaged a community of color.

To try to make that right, there is going to be a project there, however, that project has to get permitted. We could be sitting here 10 years from now, and Senator Cardin could be sitting here, and he could have the very same problems that we are talking about, litigious deadlines that aren't met, and all the things that we have talked about. I think we have to keep in mind, no matter what we want to see in the future, permitting is at the base of all this.

Ms. Goldfuss, your organization sues a lot of people. It sues a lot in the environmental area. That is your sweet spot, there. We heard about CHIPS. We passed a CHIPS program where we are going to build EVs and we are going to put all these chips in here, but you have to permit the mine in order to get the materials to put into the chips, because there are made in America provisions in here.

Have you and your organization ever supported a mine for critical minerals anywhere in this Country?

Ms. GOLDFUSS. That is not really our role to support mines. We only oppose them if they are in special places or critical habitat where it is going to cause damage to the environment.

Senator CAPITO. The process is set up to look at the critical habitat through Fish and Wildlife so that you have mitigations, so that you, I looked into a project along the Ohio, so that you re-situate the 100,000 mussels in the river, and you work with the manufacturer and you work with the company to mitigate all of this.

That provision was not done because somebody sued, that provision was done because the process went forward and Fish and Wildlife said, this is what you have to do. The company was there, the community was there. This unending delay in the judicial system really is, I think, set up to delay, not just delay projects, but to actually have them be discontinued.

Would you say any kind of judicial review should be part of a reform in our permitting process as we look at this?

Ms. GOLDFUSS. The statistics on how much NEPA is sued, it is less than one percent of the decisions that are made, .22 percent is the fact. There are all kinds of numbers being thrown out here. There is NEPA, there is the Endangered Species Act, there are all these different steps that need to happen.

I think what we have been trying to say is, if we have a good process on the front end, there is less likely to be judicial review or any kind of challenge on the back end.

Senator CAPITO. Agreed, but I mean, I think, in my view, a good process on the front end is not skirting any environmental provisions. We have all talked about that. We have talked about community involvement and how very important that is, getting everybody at the table.

But if we are going to go to an energy transition where it is all windmills and it is all solar panels, and all the provisions for resiting or building a new natural gas or doing CCUS, which we have tax incentivized here at the Senate level with the Presidential signature, those are not going to be ones that we are ever going to permit because of the fuel source that they have, even though they are cleaning up a coal plant or a natural gas plant that might be a high emitter.

That doesn't make any sense to me, because we can not go to these other sources, because we do not have the battery capacity. Let's find that. I am very concerned.

My heart is in this permitting reform thing. I want to work out a compromise here. I am concerned because I feel like it is going to be to the exclusion of other things that make sense. That is concerning to me.

When I hear that the solution to the problem is to hire more people, you know, Senator Markey was talking about the bell whistle words that everybody hears, to me, that just means postpone, delay, grow the bureaucracies, and that is troubling.

Thank you for letting me get that off my chest. That is all.

Senator CARPER. Senator Whitehouse, I think you are next. I know you have a lot going on today. Thank you for being here.

Senator WHITEHOUSE. Great. Yes, no, it has been a busy day for a lot of us, but it is great to be here, and I appreciate the hearing.

Let me ask Mr. Timmons and Mr. Durbin for their organizations, as between the permitting reform that we are talking about here and working on in the Senate EPW committee, and the permitting reform as it has manifested itself in Speaker McCarthy's, we call it, default bill, for want of a better name, which would your organizations prefer to see enacted?

Mr. TIMMONS. I should let you take this first, Marty.

Senator WHITEHOUSE. Give him the next one first. It doesn't get any easier.

[Laughter.]

Mr. TIMMONS. As you might expect, Senator, and let me just say, thank you for that question. Your questions to me are always thought-provoking, and I appreciate that.

We are not going to engage in picking winners and losers between House versions and Senate versions. The interest is working on a bipartisan and obviously, a cross-chamber and with the Administration proposal that will actually get done, that everybody can feel good about. That is what we are headed for. That is why we are here today.

Senator WHITEHOUSE. Mr. Durbin?

Mr. DURBIN. Thank you, Senator Whitehouse.

We supported the House bill. We think it does move the ball forward, but we also understand the entire Congress has to act. We are so anxious to be part of the conversation here today, we launched a campaign last week as 350 organizations from around the Country, all different types of businesses that are simply saying, get something done.

So we do support H.R. 1, but we are engaged and fully committed to this process, as well.

Senator WHITEHOUSE. Is it important to your organization that the permitting reform supports clean energy efforts as well as fossil fuel infrastructure and development?

Mr. DURBIN. Absolutely. Clean energy, traditional energy, we have had a lot of energy discussion here, but let us not forget about the roads and the bridges and the water technology and broadband. We have talked about the CHIPS Act. It is all of those.

Senator WHITEHOUSE. Mr. Timmons, as between a bill that supports primarily fossil fuel infrastructure and permitting reform that supports clean energy development and your clean energy constituents?

Mr. TIMMONS. Sure. As you and I have discussed before, we do support an all-of-the-above approach to reduce the overall cost of energy in this Country. One of the reasons for that is exactly what Mr. Durbin pointed out.

We also need to be thinking about all the other projects that were funded in the Transportation Infrastructure Bill, the CHIPS and Science Act, as well as IRA. One of the ways that we do that is my reducing the cost of doing business here in the United States, so that we can produce the products that will help achieve those goals.

Senator WHITEHOUSE. As to the House Republican effort to repeal the IRA credits for clean energy, I will start with you, Mr. Durbin. Does your organization support that effort at repeal?

Mr. DURBIN. Let me first say that, with regard to the debt limit, our view is that is not an option. We can not allow default. So No. 1, whatever it takes to keep that from happening, and that solution is going to have to be bipartisan, so whatever it takes for Congress to now figure out how do you avoid default, but we did support the IRA provisions, and many of our companies do, as well.

Senator WHITEHOUSE. Just to be clear, you did support the IRA provisions in the IRA, not supporting the IRA provisions in the McCarthy bill that would repeal the IRA provisions?

Mr. DURBIN. Correct.

Senator WHITEHOUSE. Got it. So, you do not support the repeal, you do support the provisions.

Mr. Timmons, your organization?

Mr. TIMMONS. I echo what Mr. Durbin has said. Full faith in credit of the United States must never be in question, but we have not engaged in that discussion.

Senator WHITEHOUSE. So, you have not taken a position in support of the House bill that would repeal the IRA?

Mr. TIMMONS. Correct.

Senator WHITEHOUSE. Have you taken a position against it, or are you neutral?

Mr. TIMMONS. We haven't engaged in that yet.

Senator WHITEHOUSE. Last, with respect to the House effort to repeal the methane fee that our Chairman had such a significant role in moving into the Inflation Reduction Act, landing the support of the Energy Committee Chairman for that as well, which was no small feat. That methane fee, the methane pollution fee, would be repealed in the House measure.

Do either of your organizations support that repeal?

No from Mr. Timmons. Was that also no from Mr. Durbin?

Mr. DURBIN. No.

Senator WHITEHOUSE. Two noes. OK, thank you very much. My time is up.

Senator CARPER. Let me just note, those are the right answers. Thank you. Thank you, Sheldon.

Senator Ricketts, you are next, and then I will wrap it up. Take your time.

Senator RICKETTS. Great. Thank you very much, Mr. Chairman. Did you just say take my time?

Senator CARPER. No, I said take your time.

Senator RICKETTS. Oh, take my time, as in my time now, OK. I thought you meant I got like, we are going to be here for another hour.

[Laughter.]

Senator CARPER. I will be back after lunch.

[Laughter.]

Senator RICKETTS. Again, getting back to the need to be able to do this, in this committee earlier, at previous hearings, we talked about the electric vehicle emissions standards and so forth, rules that came out that would require two-thirds of all new vehicles by 2032 being electric vehicles. Some of the testimony there was that,

if you applied that same rules that were going to be, say, if you electrified the entire U.S. vehicle fleet, like cars and light trucks and so forth, you would use up 40 percent of our current power generation that we are doing today. For heavy trucks, it would be 10 percent.

Clearly, there is going to be a need for additional power generation. It does have an impact.

I can tell you, Nebraska is the only public power State, 100 percent public power. In working, for example, with our officials at the Omaha Public Power District, with demand they have there with a growing community, and this is not directly related to permitting, but they have had to keep online coal-burning plants they were planning on transitioning over to natural gas plants because of the demand. If you can not build the demand, then you are going to keep dirtier sources like the coal-burning plants. This is an important thing that we figure out to be able to accomplish the growth of our Country and create jobs and that sort of thing.

Getting back to what I was talking about with permitting, Ms. Hayes, are you familiar with Lean Six Sigma, or have heard of process improvement methodologies like that?

Ms. HAYES. I have not heard of that one in particular, no, sir.

Senator RICKETTS. Are you familiar with the idea of process improvement? I guess where I am going is, would you agree that looking at the process that was described earlier, that is a potential for us to be able to streamline this process without sacrificing any sort of environmental quality?

Ms. HAYES. There sounds to be merit in that proposal.

Senator RICKETTS. OK, good. That is good enough. I will take that.

Mr. Durbin, I am going to ask basically the same question. Are you familiar with Lean Six Sigma and process improvement analogies?

Mr. DURBIN. I am, from days representing the chemical industry and DuPont's use of Six Sigma.

Senator RICKETTS. Oh, OK, great. So, you are familiar with it.

Do you think that this should be part of a solution that we are looking at when we are looking at, how can we streamline the process to turn these permits around faster without sacrificing environmental quality?

Mr. DURBIN. I think there are huge opportunities to use that type of process improvement strategy to define where are the challenges.

Ms. Goldfuss mentioned earlier the FIPC and FAST–41, which has created some improvements by having a dashboard and streamlining the process.

By the way, I should note that the FAST–41 and One Federal Decision that created FIPC was actually a proposal that was put out there by the U.S. Chamber and NRDC, so there is hope. There is hope that we can make progress here on this issue as well.

Ms. GOLDFUSS. That is right.

Senator RICKETTS. Very good, very good.

Mr. Timmons, could you talk to me a little bit about what are some of the challenges your members face with the current, maybe you can elaborate, I know we mentioned it before, but can you

elaborate a little bit, what are some of the challenges your members face when they run into these permit processes that are taking longer than they expect? What kind of impact does that have on creating jobs for American workers?

Mr. TIMMONS. Well, any type of uncertainty leads to, frankly, investment, people have to figure out where they are going to put their investments. I think the thing that is most concerning to those of us who represent manufacturers in America is when the demand for a product increases, there has to be an investment made somewhere to create the supply to meet that demand. We want that done here in the United States.

Oftentimes in other countries, permitting processes are more expeditious, not necessarily better, by the way. So if a manufacturer has to make an investment decision, sometimes those decisions either can get delayed if the facility is going to be made here, or that investment can be made offshore. We simply do not want to see that.

We have, and I noted earlier, during the pandemic, we say pretty stark situations where much of our, for instance, our personal protective equipment was not being made here in the United States. If we have a commitment to doing that here in the United States, then we need to get that done now. We have to move those projects along.

The projects that were part of the infrastructure funding, the CHIPS and Science Act, the Inflation Reduction Act, all of those projects have such potential here in this Country. However, they are not going to get done anytime soon if we can not move the permitting process along. That means jobs; that means lost opportunities in terms of jobs and wages and strengthening communities. That is why we are pushing for this reform.

Senator RICKETTS. Great. Thank you very much, Mr. Timmons. Mr. Chairman, I will turn it back over to you.

Senator CHAIRMAN. You did a great job, thanks.

I have one or two more quotes to share here that seem to be relevant. A lot of figures are being thrown around here. I have lost track of them, actually. They are being used to take different sides of the same argument.

I always wondered who used to say, "figures do not lie, but liars do figure." How do you like that? Figures do not lie, but liars do figure. That was Mark Twain. I didn't know that, but it comes to mind.

One of my favorite Mark Twain quotes that I use, we had a big event at Delaware State University this week, the No. 2 ranked HBCU in the Country now. We had about 150 students from all over the State that were selected by the schools as extraordinary scholars.

I shared with them another Mark Twain quote. Most people do not know that Mark Twain said this, but Mark Twain said this: "The two most important days in our life are the day we are born and the day we figure out why." The two most important days in our lives, the day we are born, and the day we figure out why. Those are probably ones that we can take, if we can take nothing else away from this hearing today, that might be a good one.

I was joking earlier about adjectives we could use to describe this panel. I think the last one I used was "legendary." I think another one that would be appropriate would be "helpful." I want to ask you to be helpful for just a little bit longer.

I want to go to, Mr. Durbin, I will ask you to maybe just go first here, but I like to ask questions near the end of a hearing like this, where something that is an issue as important as this, about which there are sometimes strongly held differences, but also agreement.

I like to ask sometimes in a closing question, maybe the last question I will ask is, where is the common ground? Where is the common ground that we need to focus on? One of the things that this committee is really good at, we are workhorses in this committee, and we also believe that bipartisan solutions are lasting solutions. We try to work with a lot of respect for one another.

Where is the common ground on these issues, please? Go ahead.

Mr. DURBIN. Senator, thank you for the question, and thanks again for the invitation to be here.

We have seen a lot of common ground here as far as a need to improve a process to get projects built. I want to make clear again, this is not about undermining environmental statutes, and I couldn't agree more with Ms. Johnson on the need for early engagement from project developers and everyone else involved.

Senator CARPER. Could you say that again, just repeat those words again? That is worth repeating.

Mr. DURBIN. Absolutely. We fully support the idea of having early engagement of affected communities with the project developers and everyone else involved. We agree that can help to offset problems later down the road.

Again, I think that when we look at the totality of the opportunities in front of us that were provided by laws passed by the previous Congress and the great needs that we have, the priorities we have for reducing emissions, for strengthening our energy security, for maintaining our global competitiveness economically, that is why we were able to get such a broad coalition around supporting doing something.

We are very bullish on the idea that working with you and the other committees here in the Senate that we can get something done this year.

Senator CARPER. Mr. Timmons, go ahead.

Mr. TIMMONS. Thank you, Mr. Chairman. I am going to quote you again.

Senator CARPER. This is my favorite part of the hearing, when the witnesses start quoting me.

[Laughter.]

Mr. TIMMONS. You said at the very beginning, if it is not perfect, you make it better. I think that is what we can agree on. Four and half years for permitting, do we know what the magic number is? No, but I think we know intuitively that amount of time is too long. Five, 10, 15 years, when other countries like Canada, the European Union, Australia, they are able to move projects along two to three years maximum, oftentimes, and they have similar environmental protections that we do.

We have laws that were written in the last century. They can be improved, and I think we can all agree on that. I also like to look

at the ultimate goals. What are we trying to achieve? We are trying to make America stronger. We are trying to protect our economic security, our national security. We are trying to strengthen manufacturing here in the United States, create more well-paying jobs, cleaner air, cleaner water, healthier environment, and stronger communities.

I think when we all have that as our goal, and we figure out how we can achieve that, and certainly take full advantage of Infrastructure Investment Act, IRA, and the CHIPS and Science Act, we are going to go a long way to achieving those goals.

Senator CARPER. Good. Thank you for that.

Ms. Hayes?

Ms. HAYES. Thank you for the question.

I think there were a number of elements of commonality you heard today. Maybe a better answer to Senator Ricketts in talking about process improvement is, I think it is important to focus on not just individual components of the environmental process, but the beginning and the end, and making sure that there is certainty there, and providing process improvements to make sure that the review can be completed within that period of time.

I saw that NAM also supported having enforceable deadlines, and we agree very much with that.

We also agree with Senator Whitehouse's proposal around setting a clear threshold for Federal jurisdiction for high-capacity, regionally significant transmission. I will note that Ms. Goldfuss also supported that provision in her written testimony that was submitted prior to today's hearing.

Thank you very much for the question and for hearing our testimony today.

Senator CARPER. Thank you, ma'am.

Ms. Johnson?

Ms. JOHNSON. Sure. I think that we can all agree that we have a shared vision for an energy future that helps us reach our emissions reduction goals that prioritizes people, whether we are talking about jobs or improved health outcomes.

We have a vision for renewable energy deployment, but I think that two things can be true in the conversation that we are having today, in that we have to be clear that we do not sacrifice communities as we do the work of improving our permitting process. For us, it is clear that public participation, consideration of incremental and cumulative impacts are important. We have made investments through the Inflation Reduction Act in the process, and we must ensure that we continue to prioritize people as we move forward.

Senator CARPER. OK, thank you, ma'am.

Ms. Goldfuss?

Ms. GOLDFUSS. Chairman Carper, thank you so much for this hearing. I have participated in a lot of permitting conversations, hearings here, in the House, and this was a really productive conversation.

Senator CARPER. Would you say that again, ma'am?

[Laughter.]

Ms. GOLDFUSS. A really productive conversation.

Senator CARPER. Thank you so much.

Ms. GOLDFUSS. I am just heartened by the complete alignment I heard here around the need for early engagement. That is new. I do not know exactly what that looks like in terms of legislative language, but that is really, really promising.

I also heard a lot of agreement around transmission. There are administrative solutions to that, as Senator Markey laid out, but there is also the potential for Congress to step in on that front.

Then I also heard, and this is a huge step forward, because of all the actions that were taken in the last Congress, and the opportunity before the United States right now to build the future we need, to talk about the people, to talk about the places, but also to talk about the projects that we need as a Country, we all agree that there are changes that need to happen, and that is also a huge change.

Senator CARPER. Good. Thank you very much for those words.

I go back and forth on a train most days to Washington in the morning, and back home at night to Delaware. It is about a 90-minute ride. It is some of my most productive time. I just love to be in Delaware and sleep in my own bed.

Last night when I was home, I was sitting down and having a bite to eat with my wife, and she said, well, what did you all do today? I shared with her a couple of things. I said, one of the best parts of my day, though, I invited one of the Republican House members who actually chairs a sister committee to us in the House, I invited him just to come to meet me in the Capitol and maybe have a cup of coffee and just talk and get to know each other.

I think Joe Biden has a saying, I have heard a lot of his, and he has heard a few of mine, but one of the things he has, politics is personal, all diplomacy is personal. I think, in an interesting way, this idea of outreach to communities, maybe communities of color, communities that are disadvantaged or whatever, but the idea of that early outreach, that is what I do.

I think one of the most, one of the reasons why Senator Capito and I get along so well and our staffs work so well together, we kind of like, it is trickle down, and I think it kind of trickles down amongst the other members of this committee, is we try to meet every Thursday, just about every Thursday, either in person or on the phone, just to talk about her priorities, what we are doing right, what we are doing wrong, legislation that we ought to be taking up. It makes a real difference.

I think the conversation I had with the House Republican leader and the chairman of the committee of jurisdiction, sister committee, I think that will make a difference, too, for both of us, and I hope for our Country.

I am really glad we started with agreement of the value in the early engagement. We have a great opportunity here, and I do not want us to squander it. It is a great opportunity. Not everyone in that Senate voted for the IRA, and we know in the House, but there is a lot of good there. We are pushing a lot of money toward doing a lot of good.

I have been a strong believer, my colleagues here have heard me say more than they want to remember, it is possible to do good things for our planet, preserve our planet, clean air, clean water,

address climate change, and create jobs and economic opportunity at the same time. It is just imperative that we do that.

I like to use, for example, Kigali. For people that might be watching us on television, what the heck is Kigali? It is a treaty that we adopted in the Senate last year that will reduce emissions from refrigerants in our air conditioners, our freezers, and refrigerators, that refrigerants that are HFCs, hydrofluorocarbons, they are about, I think, a thousand times more potent than carbon dioxide as a greenhouse gas. We have agreed to phase them down over 15 years, and at the same time, creating tens of thousands of jobs, American jobs, good-paying jobs, and billions of dollars of economic activity and value.

We have, I think, a great opportunity to replicate with respect to permitting reform here, a great opportunity to replicate that earlier example, and that is my intent. I do not want to speak for Senator Capito, but I believe that is her intent, as well. That would be a great thing for this Country and for our workers and a great thing for our planet.

I do not know President Macron well, but I have met him a couple of times. Once right before he gave an address to a joint session of the Congress about two, three, four years ago, he came in, just like it was the President coming in to give the State of the Union Address. He came in, and almost all the House and Senate members were there to hear him speak.

He spoke in English, but as he came through the aisle, I got to shake hands with him. It just happened by dumb luck. I was standing in the right place, and I spoke to him a little bit in French, and he spoke back.

It was interesting when he gave his address, a couple of times our eyes met, and I was trying to give him encouragement in what he was saying. One of the things he said that day I will never forget. He talked about our planet Earth. He said, this is the only planet we are going to have. There is no planet B. Think about that: no planet B. We have to take care of it.

I think this hearing today is maybe going to help us do that, to take care of this planet, because there is no planet B.

Ms. Johnson, I thought near the beginning, when you spoke, you talked about highlighting your data, about one percent of Federal actions require an Environmental Impact Statement, which is the most stringent review under NEPA. You went on to say approximately four percent of projects are completed within an Environmental Assessment, which is a less stringent review. You went on to say, the other 95 percent of all Federal actions are completed as categorical exclusions.

The last piece of what you said was this, this is data that has been shared by the Council on Environmental Quality and helps to put the role of NEPA into perspective. I think that was especially, every one of you made great contributions here today, every one of you, but you sort of led off with that, and I remember that. If you do not mind, I will quote you in the future. I will, of course, take credit for it.

[Laughter.]

Senator CARPER. I actually quote President Macron a lot. We have no planet B. I quote him a lot. He was at a State dinner

hosted by President Biden a couple of months ago in Washington. I got to meet him again, and I told him about that quote. I said, I have quoted you, like, a hundred times or more, including on national TV, and I have never given you credit for it. He said, we have words in French that describe people like you. So he has a sense of humor.

One housekeeping item. I am going to ask unanimous consent to submit for the record letters of support and other materials for the nominations and the legislation that our committee approved today.

[The referenced information follows:]

ISRI is the voice of the recycling industry, promoting safe, economically sustainable and environmentally responsible recycling through networking, advocacy and education.

April 26, 2023

The Honorable Tom R. Carper
United States Senate
513 Hart Senate Office Building
Washington, DC 20510

The Honorable Shelley Moore Capito
United States Senate
172 Russell Senate Office Building
Washington, DC 20510

The Honorable John N. Boozman
United States Senate
141 Hart Senate Office Building
Washington, DC 20510

Re: The Recycling and Composting Accountability Act and the Recycling Infrastructure and Accessibility Act

Dear Chairman Carper, Ranking Member Capito, and Ranking Member Boozman:

The Institute of Scrap Recycling Industries, Inc. (ISRI) strongly supports the re-introduction of the Recycling and Composting Accountability Act (RCAA) and the Recycling Infrastructure and Accessibility Act (RIAA).

Recycling is one of the most important activities that all of us can do every day to help protect our environment, conserve natural materials, reduce energy use, and help combat climate change because recycled materials are important building blocks in the global manufacturing chain. For example, using recycled aluminum saves 95% of the energy needed to make virgin aluminum.

Over the past several years, there have been anecdotal claims that our nation's residential recycling streams are broken. These claims are simply not based on data nor are the proposed solutions data driven. Only accurate recycling data will enable the public and policymakers to understand the markets for recycled materials and make informed decisions towards improving our nation's recycling programs.

Accordingly, the RCAA would establish baseline data on recycling and composting in the United States and collect data on the amounts of materials that are being diverted to landfills or incineration. This data is essential to fill the existing data gaps and provide policymakers with a better understanding of our nation's recycling programs as we discuss policy prescriptions.

Moreover, the RCAA will provide the necessary data to illustrate the strengths and weaknesses in our nation's residential recycling systems and facilitate data driven public policy conversations resulting in substantial and durable improvements.

Additionally, the Recycling Infrastructure and Accessibility Act would address barriers to rural and economically depressed communities face in accessing residential and municipal recycling programs as well as the challenges municipal recycling facilities face in providing these important services.

It is important to note that effective recycling requires long-term, reliable, and sustainable markets for these materials. Having the proper infrastructure to collect, sort and separate are vital towards these goals. Americans overwhelming want to recycle their household items but often do not have the necessary infrastructure to easily recycle. We hope that this legislation will help develop improve residential recycling by developing pilot projects through awarding grants on a competitive basis to eligible entities to improve accessibility to recycling systems for underserved communities and serve as a model for recycling infrastructure development.

ISRI supports your efforts and welcomes the opportunities working with you as this important legislation advances towards enactment.

Sincerely,

William H. Johnson

Chief Lobbyist

1250 H St NW Suite 400, Washington, DC 20005 | (202) 662-8500 | isri@isri.org | ISRI.org

Chris Jahn
President & CEO

American Chemistry Council

April 26, 2023

The Honorable Thomas Carper
United States Senate
Washington, DC 20510

The Honorable Shelley Moore Capito
United States Senate
Washington, DC 20510

The Honorable John Boozman
United States Senate
Washington, DC 20510

Dear Senators Carper, Capito and Boozman:

The American Chemistry Council (ACC) supports S. 1189, the "Recycling Infrastructure and Accessibility Act," and S. 1194, the "Recycling and Composting Accountability Act." S. 1189 and S. 1194 highlight the critical importance of recycling and the need to improve and increase the collection and recycling of materials. Americans deserve better than the status quo – we can and must do better.

S. 1189 and S. 1194 promote necessary improvements in recycling accessibility, collection, sortation, research, and federal policy – all critical areas necessary to enhance and expand recycling and contribute to a circular economy in which materials remain in productive use. ACC also commends your forward-thinking efforts to explore opportunities for implementing a national composting strategy.

Improving and expanding domestic recycling requires an "all-of-the-above" strategy that leverages many of the ideas and policies included in these two important legislative proposals. As the 118th Congress continues to address and debate federal recycling priorities, important alignment continues to be driven between various stakeholders and their goals. For example, access to recycling, particularly in rural areas, must be improved. Materials-neutral collection and sortation technology must be improved. Education and research must be improved. The continued growth and scaling of advanced technologies that address hard-to-recycle and mixed plastics must be improved if we are to achieve national recycling targets.

Indeed, we believe increasing recycling access and rates and collecting reliable data is a bipartisan issue, and America's plastic makers are helping to provide sustainable solutions.

From reducing food waste through efficient, lightweight packaging to enabling wind and solar energy technologies, plastics are an essential material for achieving a lower carbon future. We

will continue to work with Congress and all stakeholders to expand recycling and build on the sustainability of plastics.

We applaud the great work that you have done to contribute positively to a greater understanding of what can be recycled, how collection can be improved, how the government can help fund and grow markets for valuable recyclable materials, and how we all can contribute to greater recycling rates that can create cleaner communities for future generations. We look forward to continuing to work with you, other Members of Congress, and all stakeholders to advance recycling and sustainability in our communities.

Sincerely,

Chris Jahn
President and CEO

american cleaning institute®

May 18, 2023

The Honorable Tom Carper
Chairman
Committee on Environment & Public Works
U.S. Senate
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Shelley Moore Capito
Ranking Member
Committee on Environment & Public Works
U.S. Senate
410 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Carper and Ranking Member Capito:

Thank you for introducing and advancing S. 1189, the Recycling Infrastructure and Accessibility Act, and S. 1194, the Recycling and Composting Accountability Act. The American Cleaning Institute® (ACI)[1] supports these bipartisan bills that look to address shortcomings in our nation's recycling system. Increasing data collection and funding pilot programs to expand access to recycling will help us achieve our shared goals.

ACI recognizes the need to mitigate the impacts associated with the creation, use, and disposal of our product packaging. Cleaning product packaging is designed to protect the health and safety of consumers and their families, while also ensuring safe transport, storage and use of cleaning products during all stages of a product's lifecycle.

The optimization of ACI member company product packaging is a priority to deliver the performance of the products ACI members produce. It is for this reason that we have established guiding principles that help us ensure our products, which provide hygiene and cleanliness, do so in a manner that is environmentally sound, socially responsible and economically viable. Our members have collaborated on guidelines to help direct design and manufacturing, and to aid in the development and use of recyclable packaging. We have also charted a roadmap aiming to achieve 100 percent collection and reuse, recycling or composting of cleaning product packaging waste by 2040.[2]

ACI remains committed to working with Congress on finding recycling solutions that evolve and advance our nation's materials reclamation systems. We appreciate your work in this area and look forward to working with you on the continued advancement of S. 1189 and S. 1194.

Sincerely,

Douglas M. Troutman
General Counsel, Corporate Secretary & SVP, Government Affairs

[1] ACI represents the $60 billion U.S. cleaning product supply chain. ACI members include the manufacturers and formulators of soaps, detergents, and general cleaning products used in household, commercial, industrial and institutional settings; companies that supply ingredients and finished packaging for these products; and chemical distributors. ACI serves the growth and innovation of the U.S. cleaning products industry by advancing the health and quality of life of people and protecting our planet. ACI achieves this through a continuous commitment to sound science and being a credible voice for the cleaning products industry.
[2] https://media.acihq.org/gsp/gs/mediaobjects/docs/Sustainability/ACI_circularpackaging.pdf

AMERICAN BEVERAGE
DRIVING SOLUTIONS TOGETHER

April 26, 2023

The Honorable Tom Carper
Chairman, Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Shelley Moore Capito
Ranking Member, Senate Committee on Environment and Public Works
172 Russell Senate Office Building
Washington, DC 20510

The Honorable John Boozman
Member, Senate Committee on Environment and Public Works
555 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Carper, Ranking Member Capito, and Sen. Boozman:

On behalf of the American Beverage Association, which represents the unified voice of America's non-alcoholic beverage industry, I thank you for your leadership in holding today's legislative hearing on "Opportunities to Improve Project Reviews for a Cleaner and Stronger Economy."

One of our industry's highest priorities is creating a circular economy for our valuable, 100 percent recyclable bottles and cans. We are taking action at every stage of the life cycle of our plastic bottles to help them make their way back and be remade into new bottles as intended, not wasted in landfills or ending up in nature. We are encouraged that today's hearing will bring together many voices to advance the shared goal of improving our nation's recycling infrastructure and composting systems. Your leadership is essential to the pursuit of pragmatic and impactful solutions to this complex issue.

The *Recycling and Composting Accountability Act* and the *Recycling Infrastructure and Accessibility Act of 2023* represent positive steps toward achieving a circular economy for recyclable materials. We support both bipartisan measures and look forward to continuing our work with the Committee on Environment and Public Works to build effective policies that achieve circularity for our beverage containers.

Sincerely,

Kevin W. Keane
Interim President & CEO

1275 Pennsylvania Avenue NW, Suite 1100 | Washington, DC 20004 | Tel 202.463.6732 | Fax 202.463.8277 | www.americanbeverage.org

AMERIPEN
The power of packaging in balance.

1350 Main Street • Suite 1100 • Springfield, Massachusetts 01103
Phone: +1 413-686-9198

April 25, 2023

The Honorable Shelly Moore Capito
United States Senate
172 Russell Senate Office Building
Washington, DC 20510

The Honorable Tom Carper
United States Senate
513 Hart Senate Office Building
Washington, DC 20510

The Honorable John Boozman
United States Senate
141 Hart Senate Office Building
Washington, DC 20510

RE: Support for the Recycling Infrastructure and Accessibility Act of 2023

Dear Senator Capito, Senator Carper and Senator Boozman,

AMERIPEN – the American Institute for Packaging and the Environment – is writing to support the Recycling Infrastructure and Accessibility Act of 2023 that would provide grants for projects to make recycling programs more accessible to rural and disadvantaged communities. This type of federal funding will play a critical role in increasing recycling access and rates as the U.S. Environmental Protection Agency (EPA) seeks to increase the national recycling rate to 50 percent by 2030 under their National Recycling Goal.

AMERIPEN is a coalition of stakeholders dedicated to improving packaging and the environment. We are the only material neutral packaging association in the United States representing the entire packaging supply chain, including materials suppliers, packaging producers, consumer packaged goods companies and end-of-life materials managers. We focus on science and data to define and support our public policy positions and our comments are based on this rigorous research rooted in our commitment to achieve sustainable packaging, and effective and efficient recycling policies. The packaging industry supports nearly 1.7 million jobs and accounts for nearly $538 billion in total economic output in the United States.

The Recycling Infrastructure and Accessibility Act of 2023 would establish the pilot Recycling Infrastructure and Accessibility Program at the EPA. This pilot program would award grants, on a competitive basis and up to $15 million each, to eligible entities to improve recycling accessibility in a community or communities within the same geographic area. The goal of the program is to fund eligible projects that will significantly improve accessibility to recycling systems in rural and underserved communities through a hub-and-spoke model for recycling infrastructure development.

AMERIPEN
The power of packaging in balance:

1350 Main Street • Suite 1100 • Springfield, Massachusetts 01103
Phone: +1 413-686-9198

Previously, AMERIPEN supported the RECYCLE Act and Save our Seas 2.0 Act Post Consumer Materials Management Grants program that was included in the final version of the Infrastructure Investment and Jobs Act of 2021 (H.R.3684). Similarly, the grant funding mechanism in the Recycling Infrastructure and Accessibility Act of 2023 will go a longways towards jump-starting increased packaging recycling and recovery in the U.S. that has been negatively impacted by shifting recyclables markets over the past few years and further exacerbated by COVID-19 over the past three years. We are at a critical juncture to provide additional funding to local governments, states, Native American tribes and public-private partnerships to improve accessibility to recycling systems. We must improve material recycling and recovery systems, including in rural and underserved communities, so we can reuse more materials and achieve a more circular economy. Enacting the Recycling Infrastructure and Accessibility Act of 2023 is another critical bi-partisan step Congress can take now to improve recycling in the U.S.

Once again, **AMERIPEN supports the Recycling Infrastructure and Accessibility Act of 2023**, and we hope that this legislation can move forward this year to support the improvement of recycling in the United States. We look forward to being part of the discussion on this key initiative and hope that the Environment and Public Works Committee, and the whole Senate, will make this proposal a key priority this year. Please feel free to contact me or Andy Hackman, with Serlin Haley, LLP (ahackman@serlinhaley.com) with any question on our support or other issues.

Sincerely,

Dan Felton
Executive Director

AMERIPEN
The power of packaging in balance.

1350 Main Street • Suite 1100 • Springfield, Massachusetts 01103
Phone: +1 413-686-9198

April 25, 2023

The Honorable Tom Carper
United States Senate
513 Hart Senate Office Building
Washington, DC 20510

The Honorable Shelly Moore Capito
United States Senate
172 Russell Senate Office Building
Washington, DC 20510

The Honorable John Boozman
United States Senate
141 Hart Senate Office Building
Washington, DC 20510

RE: Support for the Recycling and Composting Accountability Act of 2023

Dear Senator Carper, Senator Capito and Senator Boozman,

AMERIPEN – the American Institute for Packaging and the Environment – is writing to support the Recycling and Composting Accountability Act of 2023 that would require the U.S. Environmental Protection Agency (EPA), among other things, to collect, maintain and publish data on recycling and composting rates across the country. We applaud your efforts to improve transparency for recycling and composting and believe this baseline data is critical to help boost these rates and reduce waste in the U.S.

AMERIPEN is a coalition of stakeholders dedicated to improving packaging and the environment. We are the only material neutral packaging association in the United States representing the entire packaging supply chain, including materials suppliers, packaging producers, consumer packaged goods companies and end-of-life materials managers. We focus on science and data to define and support our public policy positions and our comments are based on this rigorous research rooted in our commitment to achieve sustainable packaging, and effective and efficient recycling policies. The packaging industry supports nearly 1.7 million jobs and accounts for nearly $538 billion in total economic output in the United States.

The Recycling and Composting Accountability Act of 2023 will provide an accurate reflection of recycling and composting performance nationally and at the state level – information that will be critical to improving existing recycling and composting programs and evaluating future recycling policies. The Act will also explore the potential of a national residential composting strategy – something AMERIPEN believes is critical to identifying barriers to composting and help compostable packaging become even more successful in the U.S.

AMERIPEN
The power of packaging in balance:

1350 Main Street • Suite 1100 • Springfield, Massachusetts 01103
Phone: +1 413-686-9198

As noted in the EPA's ***National Recycling Strategy: Part One of a Series on Building a Circular Economy for All***, increased data accessibility, aggregation, collection, consistency, standardization, analyses, reporting, and transparency is critical and necessary for increasing recycling and recyclable materials in the U.S. and will likely go a longways to helping to achieve the EPA's National Recycling Goal to increase the national recycling rate to 50 percent by 2030. We believe this keen focus will also improve the accessibility of better baseline data for packaging and product designers and procurement decision makers as they look to better understand how materials are being collected, sorted, processed and are then available for incorporation into new packaging and products following their prior life. AMERIPEN has been an avid supporter of and actively involved in the EPA's America Recycles Network since its inception and is looking forward to the possibility of leading or supporting various aspects of the implementation of EPA's National Recycling Strategy.

AMERIPEN also appreciates that the Recycling and Composting Accountability Act of 2023 includes language to require EPA to provide an update on the Save Our Seas 2.0 Act report on recyclable material end market sales from material recovery facilities that process recyclable materials collected from households and publicly available recyclable materials drop-off centers, and prepare a report on the end-market sale of compost from all compostable materials collected from households and publicly available compost drop-off centers. AMERIPEN is passionate about end market development, as evidence by our State Market Development Task Force made up of state recycling market development professionals from across the U.S., and we are pleased to see this legislation supporting related efforts. Related, you may be interested in our report, ***Best Practices for State Market Development Centers***, released in October 2021 that we developed in collaboration with Resource Recycling Systems (RRS) to assist state governments and related stakeholders in establishing or improving local recycling market development centers.

Once again, **AMERIPEN supports the Recycling and Composting Accountability Act of 2023**, and we hope that this legislation can move forward this year to support the improvement of recycling and composting in the United States. We look forward to being part of the discussion on this key initiative and hope that the Environment and Public Works Committee, and the whole Senate, will make this proposal a key priority this year. Please feel free to contact me or Andy Hackman, with Serlin Haley, LLP (ahackman@serlinhaley.com) with any question on our support or other issues.

Sincerely,

Dan Felton
Executive Director

AMP ROBOTICS®

1875 Taylor Avenue
Louisville, CO 80027
amprobotics.com
(888) 402-1686

April 25, 2023

The Honorable Tom Carper
513 Hart Senate Office Building
Washington, DC 20510

The Honorable John Boozman
141 Hart Senate Office Building
Washington, DC 20510

The Honorable Shelley Moore Capito
172 Russell Senate Office Building
Washington, DC 20510

Dear Senators Carper, Boozman, and Capito,

AMP Robotics would like to thank Chairman Carper, Senator Boozman, and Senator Capito for sponsoring the "Recycling and Composting Accountability Act" and to express support for this bipartisan and innovative legislation.

AMP Robotics fully subscribes to one of the principal goals of this legislation: improving the reporting of data collected at materials recovery facilities (MRF). We believe the standardization of this data and the ability to provide accurate and verifiable reports to the appropriate regulatory authorities is a critical step in creating a mechanism to improve the purity of the recycling stream in the United States.

Located in Louisville, Colorado, AMP Robotics is a market leader in supplying the recycling industry with advanced sortation equipment that uses the power of artificial intelligence to drive the accurate sortation of materials. We have field tested the application of artificial intelligence and robotics under every conceivable MRF configuration, weather condition and operating environment imaginable. With over 240 robots installed in over 102 locations in the U.S. and worldwide, we have successfully proven the application of artificial intelligence in the recycling industry.

We believe that leveraging innovative technology such as artificial intelligence can significantly improve the ability for municipal recovery facilities to identify, sort and process the materials that come into the facility. The technology provides a revolutionary solution for MRF operators who can now capture key data on the types and amounts of materials that are being processed.

Traditionally, MRFs must employ hand-sorting methods to capture data through periodic manual bale audits that take time and are less accurate. These manual waste audits are useful but only evaluate small samples of the overall waste stream. Audits are expensive to undertake frequently enough to be statistically relevant. Constant sampling requires MRFs to dedicate space, time, labor, equipment, and other resources which drive up operational costs. Additionally, increased sampling exposes workers to safety risks, is cumbersome and time consuming, and is becoming outdated compared to the pace of market changes.

Automated, anonymous, and consistent real time monitoring of material flowing through the MRF can give an exact and accurate picture of the types of materials that are being recycled. This process will provide the data needed to ensure the program is working as designed, while eliminating the use of manual audit thereby reducing the MRFs overall operational costs.

AMP Robotics has developed vision systems powered by artificial intelligence that can provide real-time data collection. AMP Neuron™ is our core AI platform which applies the latest computer vision technology to visually recognize materials for recovery by 'seeing' different colors, textures, shapes, sizes, patterns, and even brand labels to identify t the materials coming down a belt. When paired with AMP Clarity™, a web-based data portal that provides real-time material characterization and performance measurement, MRFs have the tools they need to not only characterize the materials flowing across their conveyors, but the ability to analyze and process that data to make key decisions on the operation of their facility.

At AMP Robotics, we stand ready to help advance the goals of the "Recycling and Composting Accountability Act, and believe technology that provides anonymous, consistent, real-time data is critical to the legislation's mission.

Thank you once again for your leadership and vision and we look forward to discussing further how technology and artificial intelligence can provide the recycling solutions of the future.

Sincerely,

Christopher Wirth

Chris Wirth
Vice President
Corporate Affairs

Hi Annie, Hanna, and Jake,

I hope you are having a great start to the week and I know things are busy on your end. Per your requests, below you find quotes in support of both bills, for Chairman Carper and Ranking Member Capito's respective "what they're saying" press releases.

The Recycling and Composting, and Accountability Act
"With our nation's recycling rate at only 32 percent, we must do more to strengthen recycling and composting infrastructure, protect the environment, and grow the circular economy. Data collection is critical to achieving these goals, which is why BASF supports Senators Carper, Capito, and Boozman's bipartisan legislation that seeks to fill much needed information gaps. Only when we have the full picture of our communities' capabilities can we work to effectively strengthen recycling and composting infrastructure, help our communities thrive, and sustainably protect the environment." **– Catherine Trinkle, Vice President and Deputy General Counsel, Regulatory, Environmental & Government Affairs**

The Recycling Infrastructure and Accessibility Act
"Recycling accessibility is a key component to strengthening our nation's waste management system and BASF applauds this bipartisan effort to expand recycling access to underserved communities. Ensuring materials are recoverable through curbside recycling programs or local materials recovery facilities is vital to strengthening communities, protecting the environment, and growing a circular economy. We look forward to working with Senators Capito, Carper, and Boozman on this bill to help build robust recycling infrastructure nationwide." **– Catherine Trinkle, Vice President and Deputy General Counsel, Regulatory, Environmental & Government Affairs**

If you could let me know when you intend to issue press releases that would be helpful, as I want to flag this for folks on my team and in our communications department. Please let me know if you have any questions or would like to discuss further.

Thanks so much!

April 19, 2023

The Honorable Tom Carper
Chairman
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

The Honorable Cathy McMorris Rodgers
Chair
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

The Honorable Shelley Moore Capito
Ranking Member
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

The Honorable Frank Pallone
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Chairs Carper and McMorris Rodgers and Ranking Members Capito and Pallone:

The undersigned organizations would like to work together with you to improve and pass the Recycling and Composting Accountability Act (RCAA) and the Recycling Infrastructure and Accessibility Act.

Knowing there are concerns with some provisions of the RCAA, we look forward to collaborating with you and all stakeholders to address such challenges and advance this legislation and other policies that prioritize materials neutral, circular approaches to recycling.

The Senate passed these bipartisan bills by unanimous consent in 2022, representing consensus support for meaningful incremental progress on this important issue. Both the Senate and House of Representatives now have the opportunity to advance these bills to promote policies to catalyze the circular economy, and which build on the recycling provisions contained in the Infrastructure Investment and Jobs Act, and EPA's National Recycling Strategy.

Moreover, the data and public-private partnerships resulting from these bills will help improve the accessibility of recycling infrastructure and collection of solid waste in underserved communities across the United States, ultimately reducing waste, fostering economic growth, and protecting the environment.

Please feel free to contact Chuck Chaitovitz, Vice President, Environmental Affairs and Sustainability, U.S. Chamber of Commerce at cchaitovitz@uschamber.com should you require additional information.

Sincerely,

American Chemistry Council
American Forest & Paper Association
Consumer Brands Association
Corn Refiners Association
Glass Packaging Institute
National Waste and Recycling Association
Plant Based Products Council
Plastics Industry Association
The Aluminum Association
U.S. Chamber of Commerce
United States Composting Council

April 20, 2023

The Honorable Tom Carper
Chairman
U.S. Senate Committee on Environment & Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Shelley Moore Capito
Ranking Member
U.S. Senate Committee on Environment & Public Works
456 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairman Carper and Ranking Member Capito:

The Consumer Brands Association commends you on the reintroduction of two important pieces of legislation: the *Recycling and Composting Accountability Act* and the *Recycling Infrastructure and Accessibility Act*. Together the bills will expand rural access to recycling infrastructure and improve recycling composting data gathering. Both bills passed the Senate by unanimous consent in 2022 and we look forward to seeing their swift passage in this Congress.

Consumer Brands is the trade association for manufacturers of consumer packaged goods, representing nearly 2,000 brands that make the food, beverage, cleaning and personal care products that American consumers depend on every day. A core focus of our organization is promoting thoughtful federal solutions that will reduce waste and fix the broken recycling system. These bills are solid examples of such policies and reflect a bipartisan, bicameral commitment to addressing our nation's recycling challenges.

The *Recycling and Composting Accountability Act* will address a critical problem with the U.S. recycling system: a nationwide lack of reliable, accessible data on recycling and composting. This bill will fill information gaps and provide the data businesses need to spur recycling and composting innovation.

Additionally, the *Recycling Infrastructure and Accessibility Act* will support rural communities around the country in their efforts to build out the infrastructure required to expand recycling access and foster circular economies. These investments will enable underserved communities to realize the economic and environmental benefits recycling provides. The grant program will also help bolster the nation's abysmal recycling rate, which lingers at less than 35 percent.

Thank you for your continued leadership on recycling and waste policy. Consumer Brands believes these two proposals will help to bolster U.S. recycling rates and promote a circular economy. We look forward to continuing our work with the committee as it seeks to advance these sensible and timely bills.

Sincerely,

John Hewitt
Vice President, Packaging Sustainability
Consumer Brands Association

CC: Members of the Senate Committee on Environment & Public Works

Consumer Brands Association
1001 19th Street North, 7th Floor
Arlington, VA 22209

Powering every day.

April 26, 2023

The Honorable Tom Carper
Chairman
U.S. Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

Comments in Support of the S. 1189, the *Recycling Infrastructure and Accessibility Act of 2023* and S. 1194, the *Recycling and Composting Accountability Act*

Dear Chairman Carper and Members of the Committee,

On behalf of the Glass Packaging Institute (GPI), I am pleased to provide comments in support of **S. 1189**, *the Recycling Infrastructure and Accessibility Act of 2023* and **S. 1194**, the *Recycling Infrastructure and Accessibility Act.*

Together, this legislation addresses key recycling data, infrastructure, investment opportunities and challenges facing the glass container and other recycling-focused manufacturing industries. We appreciate your, Sen. Capito's and Senator Boozman's long-time dedication and attention to recycling issues, and identification of areas for improvement that can be made across the board.

Background
GPI is the North American trade association for the glass food and beverage container manufacturing companies, glass recyclers, as well as suppliers of raw materials and equipment to the industry. The industry works throughout the country on issues surrounding sustainability, recycling, energy and greenhouse gas emissions reduction efforts.

Glass has long been recognized as a core, and one of the original, recyclable packaging materials. It is a circular and sustainable package format that can be reused, and infinitely recycled back into containers with no loss of quality.

Glass Container Recycling – *Improving Energy Efficiency & Air Quality*
Recycled glass use is an integral component of the manufacturing process. The domestic glass container industry purchases 2.3 million tons of recycled glass each year. This reduces plant GHG emissions over 800,000 tons (equivalent to taking greater than 90,000 cars off the road for a year) and negates the need for over 2.6 million tons of virgin materials use, saving natural resources.

The average glass container manufactured in the US is made with over 25% post-consumer recycled glass content. For every 10% of recycled glass re-melted to produce new bottles and jars, manufacturing energy use can be reduced 2-3%. For every three tons of recycled glass used, carbon dioxide emissions are reduced by one ton. This is because recycled glass melts at lower temperatures than raw materials alone.

S. 1189, the Recycling Infrastructure and Accessibility Act of 2023
GPI supports the centerpiece of S. 1189, which would create the *Recycling Infrastructure and Accessibility Program*, providing federal funds via competitive grants to underserved communities, in support of spoke and hub recycling infrastructure and investments. As we have stated in testimony to the US Congress and state legislatures across the country, there is both a need and a role for policymakers to include direct funding to improve the collection and processing in recycling streams.

GPI and its members are engaged in ongoing discussions with local and state policymakers to examine how glass can be collected in underserved and remote areas (those with one or fewer materials recovery facilities within 75 miles, as defined in the legislation).

The geographic distance provides an excellent opportunity for local governments and communities to model and develop drop-off or separated collection for glass bottles and jars, and to leverage funding for aggregation (collection) sites, to ensure the quality of the glass remains clean. Supporting funding could be leveraged for this effort under the draft's *collecting and transporting recyclable materials in underserved communities* eligibility provision.

Keeping glass (and other recyclables) separate from one another provides the best chance for any recyclable to come back as a new product. The more remote areas outlined in the draft lend itself nicely for glass recycling collection efforts that will result in higher quality of the recycled glass collected, providing an easier path to container manufacturing end markets.

S. 1194, the Recycling and Composting Accountability Act
GPI also supports **S. 1194** *Recycling and Composting Accountability Act,* which would provide a comprehensive review of recycling program effectiveness.

Section 5 of the bill is critically important to understanding glass recycling from the manufacturing end. It directs the EPA to review and report on how glass, and other recyclables are prevented from remaining in a "circular economy".

This review, and subsequent Report to Congress and accompanying recommendations for recycling program improvements is welcomed by the glass container industry.

Many of the recycling and hauling companies also operate landfill operations, where much of the collected glass is ultimately sent to for disposal. The EPA should also review under **Section 7** the economics of landfill disposal for glass and other recyclables, and how they may be improved to provide a greater incentive to recycle what has been collected.

To this point, we continue to recommend to all policymakers that disposal of glass in landfills (for use as alternative daily cover, ADC), should not count towards recycling or recovery rates for municipalities.

A thorough review of the recycling process will provide insight as to the effectiveness of various recycling programs and will likely highlight the challenges glass faces in many of the single-streams programs as currently structured.

We look forward to working with the EPA and other stakeholders on **Section 7** to ensure the Report and recommendations remained focused on quality improvements, and cleaner streams of materials for glass and other circular economy products.

Section 6
GPI very much appreciates that glass is now included among the list of materials required to be studied as part of the materials recovery facility (MRF) data collection. It remains important for the federal government to undertake the proposed assessment for MRFs in this section; their capabilities, contamination levels, materials accepted, alongside other data on quality inputs and outputs.

Due to the lack of glass sorting equipment, and how glass is treated at the majority of single stream recycling MRFs, contamination rates found in glass commodity piles are among the highest of any recyclable materials, artificially deflating the true value of recycled glass, and increasing the costs for communities to continue providing glass recycling as an option for their residents.

Thank you for your consideration of our comments on both bills. We look forward to continuing our work with the Committee on all recycling related issues in the future.

Please contact me with any questions you may have.

Sincerely,

Scott DeFife
President

World Wildlife Fund
1250 24th Street, NW | Washington, DC 20037 | 202 293 4800 | 202 293 9211 fax

worldwildlife.org

Senator Tom Carper, Chair
Senator Shelley Moore Capito, Ranking Member
Committee on Environment and Public Works
United States Senate
Washington, DC

April 26th, 2023

Dear Chairman Carper, Ranking Member Capito, and Members of the Committee on Environment and Public Works,

World Wildlife Fund (WWF) would like to express our support for the Recycling and Composting Accountability Act (S.1194) and the Recycling Infrastructure and Accessibility Act (S.1189). These important pieces of legislation will expand accessibility to recycling infrastructure and solid waste collection and help us to better understand recycling and composting activities across the United States. With a more complete understanding of consumer access and infrastructure needs, we can ensure that no one gets left behind in our transition to a circular economy, especially in rural and underserved areas.

With millions of tons of trash entering the natural environment every year, we need to do more to protect communities from waste and give consumers the tools they need to do more with less. At WWF we are committed to ensuring no plastic enters nature by 2030. This involves an approach that looks at the entire picture – from materials sourcing and production, to use, reuse, recycling and disposal.

Over 80% of Americans agree that our recycling system needs improvement. [1] This overwhelming support for investing in and improving our recycling system showcases how important it is that S.1196 and S.1189 become law, and that we work beyond these bills to make our recycling system work. That begins with an accurate understanding of the systems we have, and includes expanding producer responsibility nationwide, protecting our communities from harm and advocating for an ambitious, effective global treaty on plastic pollution.

We appreciate Senator Carper and Senator Capito's leadership in expanding America's domestic recycling infrastructure and waste management capabilities. We look forward to working to advance this legislation and other policies that will help the United States transition to a circular economy, where no plastic longer enters nature.

Sincerely,

Alejandro Pérez
Senior Vice President, Policy and Government Affairs
World Wildlife Fund

---

[1] Public Opinion Surrounding Plastic Consumption and Waste Management of Consumer Packaging, WWF

Ball Corporation
2111 Wilson Blvd., Suite 900
Arlington, VA 22201

April 25, 2023

Chairman Tom Carper
Environment and Public Works Committee
410 Dirksen Senate Office Building
Washington, DC 20510

Ranking Member Shelley Moore Capito
Environment and Public Works Committee
172 Russell Senate Office Building
Washington, DC 20510

Dear Chairman Carper and Ranking Member Capito,

I am writing on behalf of Ball Corporation in support of S. 1189, the Recycling Infrastructure and Accessibility Act of 2023.

Ball Corporation, headquartered in Westminster, Colorado, is the world's largest manufacturer of aluminum beverage cans and employs 21,000 people worldwide. Founded in 1880, Ball supplies sustainable aluminum packaging for beverage and personal care containers, as well as for aerospace applications and other technologies.

Ball supports the Recycling infrastructure Accessibility Act of 2023. The bill will be instrumental in addressing limited access to recycling faced by underserved communities. The proposed grant funding allowing communities to establish a hub-and-spoke recycling model will increase access to recycling and help keep recyclable material out of landfills.

An estimated $1 billion worth of recyclable aluminum beverage cans are thrown into landfills each year. Increasing access to recycling will keep aluminum cans in the circular economy and provide a much needed alternative to simply throwing valuable cans into landfills.

Thank you introducing the Recycling Infrastructure and Accessibility Act of 2023 and for your continued leadership on recycling issues.

Sincerely,

John Campbell
Vice President of Government Relations
Ball Corporation

Tracey Campbell, Executive Vice President, Sustainability and Corporate Affairs, LyondellBasell:

LyondellBasell is excited to see efforts from Congress to reduce the mismanagement of plastic waste, improve recycling accessibility and data, and increase recycling rates in the United States. Reintroduction of the Recycling Infrastructure and Accessibility Act and the Recycling and Composting Accountability Act are great examples of the growing support we see from governments, industry and society to end plastic waste in the environment. We look forward to working with Congress towards building a circular economy.

Brandon Farris
VP
Energy & Resources Policy

April 19, 2023

The Honorable Tom Carper
Chairman
Committee on Environment
and Public Works
United States Senate
Washington, DC 20510

The Honorable Shelley Moore Capito
Ranking Member
Committee on Environment
and Public Works
United States Senate
Washington, DC 20510

The Honorable John Boozman
Ranking Member
Committee on Agriculture, Nutrition
and Forestry
United States Senate
Washington, DC 20510

Dear Chairman Carper, Ranking Member Capito and Ranking Member Boozman:

As the nation's largest manufacturing association, the NAM represents nearly 14,000 small, medium and large manufacturers in every industrial sector and in all 50 states. Manufacturers in the U.S. are committed to the communities in which they live and serve, and are dedicated to protecting the health, safety, and vibrancy of those communities.

The NAM commends you on reintroducing two bipartisan bills, the Recycling and Composting Accountability Act (RCAA) and the Recycling Infrastructure and Accessibility Act of 2023. These bills are important to achieve a better understanding of current recycling rates, accessibility of recycling infrastructure and solid waste collection in disadvantaged communities. Additionally, these proposals are helpful tools that can bolster the circular economy and increase recycling in communities across the United States.

These bipartisan bills passed the Senate via unanimous consent in 2022, the NAM looks forward to working with you to advance this legislation again and other policies that prioritize materials neutral, circular approaches.

Sincerely,

Brandon Farris
VP, Energy & Resources Policy

ADITYA BIRLA
NOVELIS

April 20, 2023

The Honorable Tom Carper
Chairman
Senate Environment and Public Works
Committee
410 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable John Boozman
U.S. Senator
555 Dirksen Senate Office
Washington, D.C. 20510

Dear Chairman Carper and Senator Boozman:

Thank you for your strong commitment to assess the needs and capabilities of America's recycling infrastructure, including improved data reporting and transparency, through the reintroduction of the Recycling and Composting Accountability Act (RCAA), alongside the Recycling Infrastructure and Accessibility, with Senator Shelley Moore Capito. Novelis is supportive of this bipartisan legislation. We believe it will help ensure a strong recycling infrastructure, increase recycling rates, and serve as a catalyst for additional policies that will advance American recycling and expand the circular economy.

Novelis is the world's largest aluminum recycler and a leading manufacturer of flat-rolled aluminum products. Through recycling, we preserve the value of aluminum to maximize their economic and environmental benefits. Our aluminum is used to make passenger and commercial vehicles, beverage cans, buildings and many other sustainable products. We proudly employ approximately 5,200 Americans across the country at our R&D, recycling and manufacturing facilities.

There is tremendous opportunity to improve recycling rates in the U.S. For example, around half of aluminum beverage cans that should be recovered and recycled to make new cans are buried in landfills. Not only is this outcome detrimental to the environment, but it is also bad for business. The Aluminum Association estimates that $800 million worth of cans are lost each year to landfills. These cans, which are infinitely recyclable, are a key input for new can production at a time when demand for sustainable beverage packaging is increasing.

We believe the RCAA is a crucial step in the right direction for recycling. It will enable informed decision-making on recycling programs that improve consumer recycling rates, create jobs and support sustainable aluminum manufacturing.

Thank you for your leadership on this important policy matter. We look forward to working with you and your staff as the bill moves through the legislative process.

Sincerely,

Christopher A. Cerone

Christopher A. Cerone
VP, Public Affairs and Communications
Novelis, Inc.

Novelis Inc.
3550 Peachtree Rd, Suite 1100, Atlanta, GA 30326
T: +1 404-760-4000 | W: www.novelis.com

NWRA Applauds Reintroduction of Bipartisan Recycling and Composting Bills

Arlington, VA – The National Waste & Recycling Association (NWRA) thanks Senate Environment & Public Works Committee Chairman Tom Carper (D-DE), Ranking Member Shelley Moore Capito (R-WV) and Sen. John Boozman (R-AR) for reintroducing The Recycling and Composting Accountability Act and The Recycling Infrastructure and Accessibility Act of 2023, two pieces of bipartisan legislation focused on improving recycling and composting systems in the U.S. These bills were first introduced last year and passed in the Senate by unanimous consent. While companion legislation was introduced in the House and a hearing was held on the bills in the House Committee on Energy and Commerce's Subcommittee on Environment and Climate Change in June 2022, the tight election-year legislative calendar did not permit sufficient time for their passage.

"NWRA applauds Sens. Carper, Capito and Boozman for reintroducing these bipartisan bills to improve rural recycling accessibility and data collection for recycling and composting," stated NWRA President and CEO Darrell Smith. "The Recycling and Composting Accountability Act and the Recycling Infrastructure and Accessibility Act are both integral to advancing America's domestic recycling infrastructure and capabilities. We look forward to supporting this legislation again."

NWRA has been working with congressional leaders and their staffs on these bills for over a year and a half, providing information, data and feedback on them prior to their original introduction in 2022 as well as testimony from NWRA's then-Chairman Ben Harvey before the Senate Environment & Public Works Committee. NWRA has continued holding Capitol Hill meetings on these bills since the start of the 118th Congress in January.

ADITYA BIRLA
NOVELIS

April 20, 2023

The Honorable Shelley Moore Capito
Ranking Member
Senate Environment and Public Works Committee
410 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Ranking Member Capito:

Thank you for demonstrating your strong commitment to improving access to recycling for all Americans through the reintroduction of the bipartisan Recycling Infrastructure and Accessibility Act (RIAA) of 2023, alongside the Recycling and Composting Accountability Act, with Chairman Tom Carper and Senator John Boozman. Novelis is supportive of this bipartisan legislation. We believe it will spur unique public-private partnerships and serve as a catalyst for additional policies that will advance American recycling and expand the circular economy.

Novelis is the world's largest aluminum recycler and a leading manufacturer of flat-rolled aluminum products. Through recycling, we preserve the value of aluminum to maximize their economic and environmental benefits. Our aluminum is used to make passenger and commercial vehicles, beverage cans, buildings and many other sustainable products. We proudly employ approximately 250 West Virginians at our Buckhannon and Fairmont manufacturing plants.

We applaud your continued focus on underserved recycling communities in RIAA. According to The Recycling Partnership, only half of Americans have equitable access to curbside recycling. Recycling is not currently a convenient nor realistic option for many rural communities. As a result, far too many aluminum beverage cans, which are infinitely recyclable, are buried in landfills instead. Not only is this outcome detrimental to the environment, but it is also bad for business. The Aluminum Association estimates that $800 million worth of cans are lost each year to landfills. These cans are a key input for new can production at a time when demand for sustainable beverage packaging is increasing.

Novelis supports the market-oriented approach of RIAA, especially the numerous ways grant funding can be used, e.g., increasing the number of transfer stations, expanding curbside recycling access, and leveraging public-private partnerships to support recycling infrastructure. We believe this policy direction is an essential step toward improving consumer recycling rates, creating jobs and supporting sustainable aluminum manufacturing.

Thank you for your leadership on this important policy matter. We look forward to working with you and your staff as the bill moves through the legislative process.

Sincerely,

Christopher A. Cerone

Christopher A. Cerone
VP, Public Affairs and Communications
Novelis, Inc.

Novelis Inc.
3550 Peachtree Road, Suite 1100, Atlanta, GA 30326
T: +1 404-760-4000 | W: www.novelis.com

PAPER RECYCLING COALITION

April 24, 2023

The Honorable Tom R. Carper
United States Senate
513 Hart Senate Office Building
Washington, DC 20510

The Honorable Shelley Moore Capito
United States Senate
172 Russell Senate Office Building
Washington, DC 20510

The Honorable John N. Boozman
United States Senate
141 Hart Senate Office Building
Washington, DC 20510

Dear Chairman Carper, Ranking Member Capito, and Ranking Member Boozman:

On behalf of the Paper Recycling Coalition (PRC) – an organization of eight domestic manufacturers of 100% recycled paper packaging products – we write in support of S. 1194, the "Recycling and Composting Accountability Act" (RCAA) and S. 1189, the "Recycling Infrastructure and Accessibility Act." These bills would, among other things, establish essential baseline data on recycling in the United States, study the amount of recyclable material that is being diverted to incinerators and landfills, and provide funding to communities to improve recycling access.

From cereal boxes to beverage containers to e-commerce shipping, 100 percent recycled paperboard and containerboard products are a ubiquitous and integral component of the nation's economy and the daily lives of all Americans. Indeed, paper recycling is an American success story with significant environmental benefits. We can recycle fiber up to seven times, putting it to work in our economy, providing good paying jobs, and adding value to the material each step of the way until it is turned into new paper products. We are proud of the fact that in 2021, over 68 percent of all paper consumed by Americans was recovered to be recycled into new products.

The PRC believes the RCAA will fill an important gap that is currently lacking in federal recycling policy discussions: data, especially as it relates to recycling rates, material recovery facilities (MRFs), federal recycled product procurement, and the diversion of recyclable materials to energy uses. Similarly, the PRC supports the RIAA's objective of expanding access to recycling in communities that historically have had limited access to recycling collection programs.

There are several proposed legislative "solutions" circulating in Congress to "fix" the state of recycling in the United States. However, these bills are not based on factual data, mainly because there is insufficient information on the recycling landscape to inform these policy choices. The RCAA, in particular, would provide an important step to filling this data gap and providing important baseline data by which narrowly tailored, workable policy solutions may be developed in the future, if necessary.

We applaud and support your efforts on the RCAA and RIAA and look forward to continuing our work on these bills as they move through the Committee process.

Thank you for your vision and leadership.

Sincerely,

Brian McPheely
Chairman, Paper Recycling Coalition, Inc.
Global CEO, Pratt Industries

Michael P. Doss
Vice Chairman, Paper Recycling Coalition, Inc.
President/CEO, Graphic Packaging Int'l, LLC

Terese Colling
President, Paper Recycling Coalition, Inc.

PLASTICS
INDUSTRY ASSOCIATION

FOR IMMEDIATE RELEASE

April 20, 2023

Contact: Camille Gallo cgallo@plasticsindustry.org

Plastics Industry Association Supports Bipartisan Legislation to Improve America's Recycling Infrastructure

---

Washington D.C.— The Plastics Industry Association (PLASTICS) applauds the reintroduction of two bipartisan pieces of legislation focused on improving America's recycling infrastructure. The Recycling and Composting Accountability Act and the Recycling Infrastructure and Accessibility Act of 2023 were reintroduced by Senators Shelley Moore Capito (R-WV), Tom Carper (D-DE) and John Boozman (R-AR).

"We need to recycle more, period, and these bipartisan bills will help us achieve that goal," said Matt Seaholm, President and CEO of the Plastics Industry Association. "Improving the country's recycling infrastructure is paramount to increasing our recycling rates for all materials and ensures we keep waste in the circular economy and out of landfills."

The Recycling and Composting Accountability Act would improve data collection on our nation's recycling systems and explore the potential of a national composting strategy. The Recycling Infrastructure and Accessibility Act would establish a pilot recycling program at the EPA. This program would award grants, on a competitive basis, to eligible entities for improving recycling accessibility in a community or communities within the same geographic area.

The Plastics Industry Association (PLASTICS) is the only organization that supports the entire plastics supply chain, including Equipment Suppliers, Material Suppliers, Processors and Recyclers, representing over one million workers in our $468 billion U.S. industry. PLASTICS

advances the priorities of our members who are dedicated to investing in technologies that improve capabilities and advances in recycling and sustainability and providing essential products that allow for the protection and safety of our lives. Since 1937, PLASTICS has been working to make its members, and the sixth largest U.S. manufacturing industry, more globally competitive while supporting circularity through educational initiatives, industry-leading insights and events, convening opportunities and policy advocacy, including the largest plastics trade show in the Americas, NPE2024: The Plastics Show

###

The Aluminum Association

703.358.2960
1400 Crystal Drive, Suite 430
Arlington, Virginia 22202

April 25, 2023

The Honorable Tom Carper
United States Senate
513 Hart Senate Office Building
Washington, DC 20510

The Honorable Shelly Moore Capito
United States Senate
172 Russell Senate Office Building
Washington, DC 20510

The Honorable John Boozman
United States Senate
555 Dirksen Senate Office Building
Washington, DC 20510

Dear Senators Carper, Capito, and Boozman,

On behalf of the Aluminum Association and its member companies, I am writing to express our support for the recently introduced *Recycling and Composting Accountability Act*.

The Aluminum Association represents the U.S. aluminum industry across the entire value chain. Recycling, or secondary production, is a critical part of that value chain with 80% of U.S. production today coming from recycled aluminum. Aluminum is the most profitable item in the recycling bin and often makes the collection of less-valuable materials possible. While aluminum cans are recycled at far higher rates than glass or plastic, these rates have fallen below 50% in recent years. In industrial markets, aluminum recycling rates remain over 90%.

The *Recycling and Composting Accountability Act* will provide a comprehensive and uniform dataset on material recovery facilities that will allow for the targeting of future investments in our nation's recycling system. Having more information about the facilities, what type of aluminum products they accept, and material diversion from the circular economy can often make the difference in saving our critical feedstock from landfills.

We appreciate the leadership you and your staff have shown in considering this bipartisan legislation and welcome the opportunity to assist you in advancing these priorities.

Respectfully submitted,

Virginia Gum Hamisevicz
Vice President Government Relations & International Programs
The Aluminum Association

April 21, 2023

The Honorable Tom Carper
Chairman
U.S. Senate Committee on Environment and Public Works
Washington, DC 20510

The Honorable Shelley Moore Capito
Ranking Member
U.S. Senate Committee on Environment and Public Works
Washington, DC 20510

CC: Members of the Senate Committee on Environment and Public Works

Dear Chairman Carper and Ranking Member Capito:

As members of the Recycling Infrastructure Now (RIN) Coalition, we write to offer our strong support for the reintroduction of the following legislative proposals to expand and improve domestic recycling and composting programs:

- The *Recycling and Composting Accountability Act*, S. 1194, which would improve data collection by requiring the EPA to collect, and make publicly available, data on recycling and composting rates across the country.

- The *Recycling Infrastructure and Accessibility Act,* S. 1189, which would establish a pilot rural recycling program at the Environmental Protection Agency (EPA) to award competitive grants to eligible entities that improve recycling accessibility in underserved communities.

RIN supported the passage of both bills last year, and we were highly encouraged to see the Senate pass both measures by unanimous consent. These bills will help ensure that underserved rural communities have access to recycling infrastructure, and will help generate

critical data needed to expand recycling where it is needed most. We also appreciate the bills' targeted changes, which will help gain bipartisan support in the House, and hopefully ease the bills' path to enactment in the 118th Congress.

The RIN Coalition is actively working to serve as a catalyst for government, industry, environmental groups, and consumers to coalesce around innovative ideas to ensure discarded materials are collected and recycled into new, environmentally friendly products. The complementary bills you have introduced with bipartisan support are important steps in reaching our mutual goal of creating a more circular domestic economy. We look forward to their swift passage in Congress and stand ready to support your efforts to advance them.

Thank you again for your leadership in advancing policies that will improve recycling rates in all communities across the United States.

Sincerely,

FMI - The Food Industry Association

American Beverage

The Aluminum Association

International Bottled Water Association

Glass Packing Institute

Closed Loop Partners

The Recycling Partnership

Retail Industry Leaders Association

Yum! Brands

Sazerac Company

Restaurant Brands International

National Restaurant Association

Foodservice Packaging Institute

Consumer Brands Association

04.26.23

SFPA Statement on the Reintroduction of Bipartisan Recycling Legislation

Washington, April 26, 2023 – The Sustainable Food Policy Alliance made the following statement regarding the introduction of S. 1194, the Recycling and Composting Accountability Act of 2023 and S. 1189, the Recycling Infrastructure and Accessibility Act of 2023:

"The Recycling and Composting Accountability Act and the Recycling Infrastructure and Accessibility Act sponsored by Senators Tom Carper (D-DE), Shelly Moore Capito (R-WV), and John Boozman (R-AR) represent a bipartisan approach to improving American recycling infrastructure. Both bills stand to make a measurable difference in our recycling system through activities like increasing and improving recycling data collection and authorizing a new pilot program at the Environmental Protection Agency to boost recycling services in underserved areas."

"While the Sustainable Food Policy Alliance supports and advocates for broader transformational change to our recycling system, like national extended producer responsibility, this legislation represents a good starting point. Everyday our members are investing in improving recycling systems around the world, innovating our packaging design, and collaborating with suppliers, local communities, and retail customers to advance forward-looking solutions that help our consumers make a difference and impact the planet. SFPA is grateful to these Members for their leadership on circular economy

###

About the Sustainable Food Policy Alliance

The Sustainable Food Policy Alliance seeks to accelerate the pace of change in the food industry through individual company leadership and collective support for public policies that raise the bar and inspire further action in this critical journey. As some of the world's best-known food companies, founding members Danone North America, Mars, Incorporated, Nestlé USA, and Unilever United States recognize our responsibility to drive positive change for the people who use our products, the people who supply them, and the planet on which we all rely. To learn more about the Sustainable Food Policy Alliance, visit www.foodpolicyalliance.org.

Tetra Pak®
PROTECTS WHAT'S GOOD

April 25, 2022

The Honorable Tom Carper
Chairman
Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Carper:

I am writing to follow up on the comments Tetra Pak U.S. and Canada submitted in January of 2022 in support of the *Recycling Infrastructure and Accessibility Act (S1189)* and the *Recycling and Composting Accountability Act (S1149)*.

We at Tetra Pak understand the necessity to create federal standards for recycling, provide federal investment in recycling infrastructure, and incentivize domestic end markets for recycled material. Both bills are primarily aligned with what is necessary to realize these three objectives, and for that reason, we are pleased to offer our support. We can only recycle what is collected in our communities.

Tetra Pak also works closely with the Carton Council in the United States, which allows us to collaborate with other carton manufacturers as we seek ways to improve the recycling system in the U.S.

We encourage continued consideration of these bills and all efforts to support and encourage carton recycling as the bills proceed through the process. We stand ready to serve as an additional resource and support as you continue your important work.

Sincerely,

Eric Harris
Director of Government Relations and Public Affairs for the United States and Canada

"The National Waste and Recycling Association applauds Senators Carper, Capito and Boozman for reintroducing these bipartisan bills to improve rural recycling accessibility and data collection for recycling and composting," **stated the National Waste and Recycling Association President and CEO Darrell Smith**. "The Recycling and Composting Accountability Act and the Recycling Infrastructure and Accessibility Act are both integral to advancing America's domestic recycling infrastructure and capabilities. We look forward to supporting this legislation again."

"Once again we are glad to see a bipartisan bill around federal planning and data collection for composting and recycling. We have to know where we are to be most effective in planning where we're going, and this bill can get us there," **said Frank Franciosi, Executive Director of the US Composting Council.**

A coalition of businesses, led by the U.S. Chamber of Commerce said "The Senate passed these bipartisan bills by unanimous consent in 2022, representing consensus support for meaningful incremental progress on this important issue. Both the Senate and House of Representatives now have the opportunity to advance these bills to promote policies to catalyze the circular economy, and which build on the recycling provisions contained in the Infrastructure Investment and Jobs Act, and EPA's National Recycling Strategy."

"These bills would, among other things, establish essential baseline data on recycling in the United States, study the amount of recyclable material that is being diverted to incinerators and landfills, and provide funding to communities to improve recycling access," **said the Paper Recycling Coalition (PRC)**. "The PRC believes the RCAA will fill an important gap that is currently lacking in federal recycling policy discussions: data, especially as it relates to recycling rates, material recovery facilities (MRFs), federal recycled product procurement, and the diversion of recyclable materials to energy uses."

"**The Recycling Infrastructure Now (RIN) Coalition** strongly supports these important measures that will help ensure underserved rural communities have access to critical recycling infrastructure. They will also help generate critical data needed to expand recycling where it is needed most. The RIN Coalition strongly supported these measures in the previous Congress and will work with our stakeholders to help advance them in the 118th Congress."

"The Recycling and Composting Accountability Act and the Recycling Infrastructure and Accessibility Act will expand access to recycling infrastructure and help us better understand recycling and composting activities across the United States. Congress should advance these bills as important steps toward achieving a future where plastic no longer enters nature." **Alejandro Pérez, Senior Vice President, Policy and Government Affairs World Wildlife Fund**

"We need to recycle more, period, and these bipartisan bills will help us achieve that goal," **said Matt Seaholm, President and CEO of the Plastics Industry Association**. "Improving the country's recycling infrastructure is paramount to increasing our recycling rates for all materials and ensures we keep waste in the circular economy and out of landfills."

"We believe the Recycling and Composting Accountability Act is a crucial step in the right direction for recycling," **said Novelis, the world's largest aluminum recycler.** "[The bill] will enable informed

decision-making on recycling programs that improve consumer recycling rates, create jobs and support sustainable aluminum manufacturing."

"**The National Association of Manufacturers** commends you on reintroducing two bipartisan bills, the Recycling and Composting Accountability Act (RCAA) and the Recycling Infrastructure and Accessibility Act of 2023. These bills are important to achieve a better understanding of current recycling rates, accessibility of recycling infrastructure and solid waste collection in disadvantaged communities. Additionally, these proposals are helpful tools that can bolster the circular economy and increase recycling in communities across the United States."

"Consumer Brands appreciates the strong, bipartisan effort in Congress to tackle the glaring issues within America's fragmented recycling system that are keeping us from reaching our potential. Sen. Carper and Capito's recycling bills considered by the committee today incorporate the key provisions that previously received strong support as well as critical changes that will boost their potential movement through both chambers as we continue pushing for their ultimate signature into law. These bills make crucial investments and add the tools and resources needed to improve our current recycling systems and evaluate future recycling policies, while improving access to recycling systems in underserved communities," **said the Consumer Brands Association.**

"AF&PA applauds the leadership of Senators Carper, Capito and Boozman on reintroducing the Recycling and Composting Accountability Act and the Recycling Infrastructure and Accessibility Act," said **the American Forest and Paper Association**. "We look forward to working with Congress to address any concerns and move this legislation to improve recycling data and accessibility forward."

"The Recycling and Composting Accountability Act of 2023 will provide an accurate reflection of recycling and composting performance nationally and at the state level – information that will be critical to improving existing recycling and composting programs and evaluating future recycling policies," **said AMERIPEN – the American Institute for Packaging and the Environment.** "The Act will also explore the potential of a national residential composting strategy – something AMERIPEN believes is critical to identifying barriers to composting and help compostable packaging become even more successful in the U.S."

"The **Can Manufacturers Institute (CMI)** applauds Sens. Carper, Capito and Boozman for introducing these two bipartisan recycling bills. These bills will help the metal can industry with data to understand where the gaps are in metal can collection and recycling, so we can assess where investments should be made in better collection and sorting. These recycling bills are a good first step in helping the metal can industry achieve its goal of higher national recycling rates for metal cans through better data, consumer incentives and education. However, more action is needed if the United States is to achieve a higher national recycling rate, including a national recycling refund for beverage containers." **Mike Smaha, CMI's Vice President of Government Relations**

"The data is clear: Americans want to recycle more. As the voice of plastic recycling, the Association of Plastic Recyclers believes that these bills are important next steps in a continuing series of federal initiatives and actions to make recycling easier and more convenient for all Americans. With more recycling, we can reduce greenhouse gas emissions, limit plastic waste, and build a more resilient,

domestic supply chain for products made from recycled materials. When we recycle more, we can all use less." **- Kate Bailey, Chief Policy Officer, Association of Plastic Recyclers (APR)**

"Increasing recycling is one of the simplest ways to reduce manufacturing carbon emissions while growing the economy and shoring up supply chain security. Recycling aluminum is around 95% less carbon and energy intensive than making new aluminum. Both of these bills will help ensure that less aluminum ends up in landfills each year by improving recycling data quality, infrastructure, and access. With genuinely transformative investment underway for the U.S. aluminum industry, now is time to bring more of this material back into the economy." **– Charles Johnson, President & CEO, The Aluminum Association**

"Americans deserve the same level of access to compost as they do trash, which is why the RCAA is so necessary. BPI supports the Act because it provides the tools and information we need to understand existing gaps in compost access, collection and processing infrastructure. Without it, we won't be able to reduce the millions of tons of landfill GHG emissions generated from our food and other organic waste in landfills and divert them to be repurposed as a valuable soil amendment." – **Biodegradable Products Institute**

"We at **Tetra Pak** understand the necessity to create federal standards for recycling, provide federal investment in recycling infrastructure, and incentivize domestic end markets for recycled material. Both bills are primarily aligned with what is necessary to realize these three objectives, and for that reason, we are pleased to offer our support. We can only recycle what is collected in our communities." - **Eric Harris, Director of Government Relations and Public Affairs for the United States and Canada**

"**AMP Robotics** would like to thank Chairman Carper, Senator Boozman, and Senator Capito for sponsoring the "Recycling and Composting Accountability Act" and to express support for this bipartisan and innovative legislation. AMP Robotics fully subscribes to one of the principal goals of this legislation: improving the reporting of data collected at materials recovery facilities (MRF). We believe the standardization of this data and the ability to provide accurate and verifiable reports to the appropriate regulatory authorities is a critical step in creating a mechanism to improve the purity of the recycling stream in the United States."- **Chris Wirth, Vice President, Corporate Affairs**

"With our nation's recycling rate at only 32 percent, we must do more to strengthen recycling and composting infrastructure, protect the environment, and grow the circular economy. Data collection is critical to achieving these goals, which is why **BASF** supports Senators Carper, Capito, and Boozman's bipartisan legislation that seeks to fill much needed information gaps. Only when we have the full picture of our communities' capabilities can we work to effectively strengthen recycling and composting infrastructure, help our communities thrive, and sustainably protect the environment." **– Catherine Trinkle, Vice President and Deputy General Counsel, Regulatory, Environmental & Government Affairs**

"**LyondellBasell** is excited to see efforts from Congress to reduce the mismanagement of plastic waste, improve recycling accessibility and data, and increase recycling rates in the United States. Reintroduction of the Recycling Infrastructure and Accessibility Act and the Recycling and Composting Accountability Act are great examples of the growing support we see from governments, industry and society to end plastic waste in the environment. We look forward to working with Congress towards building a circular economy." **Tracey Campbell, Executive Vice President, Sustainability and Corporate Affairs**

"The American Chemistry Council commends the sponsors' ongoing dedication to necessary improvements in recycling and advancing policies that promote circularity. Improving data collection across the nation is a critical and necessary step to measure progress, identify gaps in the recycling system, and promote collaborations to recycle more material. America's plastic makers will continue to work with Congress and all stakeholders to expand recycling and build on the sustainability of plastics."
– Joshua Baca, Vice President, Plastics at the American Chemistry Council

Senator CARPER. Also, Senators will be allowed to submit questions for the record for today's hearing through the close of business on Wednesday, May 10th. We are going to compile those questions and send them to our witnesses and ask all of you to try to reply by Wednesday, the 24th of May.

I love to do unanimous consent requests like this right at the end, especially when there is nobody here to object, and so, I can get away with murder. However, in this case, I am going to get away with salvation, and the salvation of our planet and the people who live on it and will live on it in the future.

With that, I think it is a wrap, and this hearing is adjourned. Thank you all very, very much. God bless.

[Whereupon, at 12:20 p.m., the hearing was adjourned.]

○