EVIDENCE-BASED RECOMMENDATIONS FOR OVERCOMING BARRIERS TO FEDERAL TRANSMISSION PERMITTING
About this Report

This report is the culmination of a year-long investigation conducted by the Niskanen Center and Clean Air Task Force. Our goal was to establish a comprehensive evidentiary record of permitting challenges faced by electric transmission projects and offer fact-based insights into:

- What prevents the transmission buildout needed to achieve federal and state policy goals;
- The levels (federal, state, local) and/or nexuses (e.g., developer-community relations) at which transmission permitting faces critical hurdles; and
- Concrete opportunities to improve transmission permitting while preserving and bolstering protections of vulnerable communities and the environment.

We compiled a database and conducted in-depth case studies of permitting for identified transmission projects.

We convened an advisory group to help guide and shape our work. Advisory group members were chosen for their expertise and perspective on federal transmission permitting; their participation in no way implies that the individuals or the organizations they represent support or endorse this report’s findings or recommendations.

In addition to in-depth case studies and data analysis, the Niskanen Center and Clean Air Task Force conducted numerous interviews with transmission line developers, industry consultants, and government officials to inform this report. These interviews were conducted anonymously; all findings and recommendations in this report should not be attributed directly to anyone interviewed on background during our research. This endeavor yielded critical insights, culminating in a set of recommendations that would address the identified challenges, discussed below.

This nonpartisan, independent research was conducted with support from Breakthrough Energy. The results presented in this report reflect the views of the authors and not necessarily those of the supporting organization.

We would like to express deep appreciation and thanks to everyone who contributed or reviewed this report and played a part in its inspiration and completion.

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EXECUTIVE SUMMARY

The United States (U.S.) stands at a critical juncture in modernizing its energy infrastructure. Multiple studies estimate that a three- to four-fold increase of transmission capacity will be required to meet burgeoning demand within the next thirty years.1 So far, the U.S. has not kept pace with the challenge; in fact, there was an overall decrease in annual transmission investment for large powerlines (100 kilovolts [kV] and above) from 2010 to 2020,2 and the nation’s transmission investment requirements will reach more than $40 billion annually by 2031.3 As discussed in this report, developing sufficient transmission to meet emerging needs will require significant changes in how transmission is planned, permitted, and financed.

The rationale for bolstering high-capacity, modernized transmission lines is multifold. First, it will provide an urgently needed boost to the grid’s resilience against disruption from extreme weather, climate change, security threats, and other challenges. Second, it will accelerate the deployment of renewable and clean energy generation, enabling decarbonization. Third, transmission plays a pivotal role in alleviating grid congestion and constraints, potentially benefiting consumers by allowing lower-priced energy to flow to areas with high wholesale electricity prices.4 Finally, it supports economic development by facilitating load growth that accompanies new manufacturing and industrial facilities and the proliferation of data centers.5 Investment in transmission is a cornerstone for achieving grid reliability, economic development, energy affordability, security, resiliency, and climate objectives. On the other hand, if the U.S. does not build more transmission, new power generation resources will remain stranded in interconnection queues, aging infrastructure will become increasingly vulnerable to failure, and growth in burgeoning economic sectors will be stifled.

There are many reasons why transmission deployment has faltered in the U.S.: planning is short-sighted and uncoordinated across regions, cost allocation is contentious, and financial realities favor incremental transmission expansion at the expense of building grid-beneficial large projects, just to name a few. Federal permitting of these long, complex engineering projects is just one of multiple challenges, and for many transmission projects may be a secondary or tertiary concern relative to other barriers. Yet, according to our research, for the

4. See above note 2.
3.5% of all transmission projects that underwent the most rigorous federal environmental review in the 2010s—constituting 26% of the total miles of new powerlines—federal permitting mattered. And for many of the hundreds of new projects that must be built across the country in the coming years, barriers to effective and expeditious federal permitting could pose significant impacts. Therefore, refinement of the federal environmental review and authorization process could play a critical role in facilitating deployment of major transmission projects—the focus of this report.

The National Environmental Policy Act (NEPA) process establishes a framework whereby environmental review forms a substantial part of the record for an agency’s decision and supports greater public awareness of and participation in influencing federal actions and their potential environmental consequences. In doing so, it creates foundational community and environmental protections. NEPA implementation has evolved since the law was established in 1970, driven by updated regulations, case-law, legislation, and government norms. The most recent changes include NEPA amendments in the Fiscal Responsibility Act of 2023 (FRA) and recent and pending updates to NEPA implementing regulations. As of the date of this report’s publication, the Department of Energy is finalizing its Coordinated Interagency Transmission Authorizations and Permits (CITAP) Program, providing a framework for interagency coordination for transmission project environmental reviews, at the developer’s request. The full report discusses how our recommendations align with these ongoing changes to the federal environmental review process.

As it currently stands, the permitting process is frequently protracted and complex even without accounting for preparatory work required before a formal application filing. There is growing consensus across the political spectrum that processes need to be improved and strengthened, as recent and ongoing reforms make evident. However, there is currently little evidence and consolidated information to ensure these reforms are as impactful as possible for transmission permitting.

In response to this gap, the Niskanen Center (Niskanen) and Clean Air Task Force (CATF) embarked on a comprehensive study, developing an extensive evidentiary record through the compilation of a database, interviews with developers and federal officials, and in-depth case studies of identified transmission projects. This endeavor yielded critical insights, culminating in a set of recommendations addressing the identified challenges.

The results of Niskanen and CATF’s analysis underscore the importance of a reasoned approach to improving transmission permitting, while protecting the core functions of NEPA—the cornerstone of the federal permitting and environmental review process—including its coordination and information-sharing provisions which support early identification and resolution of potential conflicts during environmental review.

It is imperative that any reforms to the federal environmental review and permitting processes for transmission be conscientiously designed to safeguard and empower impacted communities, particularly those communities historically marginalized or disproportionately affected by legacy energy infrastructure. Our recommendations are predicated on the principle that enhancing federal permitting processes need not degrade community protections or environmental integrity. On the contrary, neglecting community engagement or diminishing protections fuels uncertainty, prolongs timelines, and undermines the long-term feasibility of proposed transmission projects. The path forward is one of balance, ensuring a sustainable and inclusive energy transition.

6. It is essential to acknowledge that not all transmission projects require federal permits. Many can proceed under state or local regulations without any federal intervention. However, federal permits are often imperative to larger scale and inter-regional projects, as they are more likely to cross federally managed land or state borders, or require other federal action. See Natalie Manitius, Johan Cavert, Casey Kelly, Contextualizing Electric Transmission Permitting: Data from 2010 to 2020 (Mar. 2024), Clear Air Task Force and The Niskanen Center, https://www.catf.us/resource/contextualizing-electric-transmission-permitting.
Our recommendations, listed below, coalesce around three principal themes.

1. IMPROVING FEDERAL AGENCY COORDINATION, COOPERATION, AND CAPACITY

1.1: The President should continuously recognize transmission infrastructure permitting as a national priority. The Administration should establish clear transmission deployment goals and priorities to galvanize a shared vision across the Executive Branch. This approach should be reinforced by regular Cabinet-level alignment and coordination, use of Permitting Council authorities, and assignment of a transmission director to oversee transmission efforts.

1.2: Congress and agencies should enhance transparency in project review and project timelines. An iterative, agile process with consistent communication among agencies, developers, and stakeholders is needed to identify and address concerns early and often. The permitting process should include interagency coordination during the pre-application phase.

1.3: Congress should invest in interagency coordination, interagency cooperation, and agency capacity. Senior agency personnel who report directly to agency decision-makers should be assigned to each major project under environmental review. Agency staff should be trained on the nuances of transmission infrastructure and interagency staffing should be dedicated to joint-agency projects. Solutions to interagency coordination shortfalls that only expand agency function or authority without providing appropriate investment to support agency coordination, cooperation, and capacity will be insufficient. Finally, Congress and agencies should continue to modernize permitting review processes, including by investing in digital tools and data platforms.

1.4: The Department of Energy (DOE), the Federal Permitting Improvement Steering Council (“Permitting Council”), and other agencies should require transparency and accountability through use of the Permitting Dashboard. DOE can recommend nationally and regionally significant projects, including all transmission projects requiring Environmental Impact Statement (EIS) review, be added to the Dashboard. Projects should be on the Dashboard before the Notice of Intent to prepare an EIS is filed.

2. STREAMLINING INTERACTIONS AMONG SOVEREIGN AUTHORITIES

2.1: Federal agencies, with Congressional support, should enhance state and Tribal capacity to conduct and participate in permitting processes. Federal agencies should take a leading role in boosting state and Tribal capacity, through dedicated grant programs, technical support, and best practices sharing. Federal agencies should conduct earlier and more comprehensive engagement with Tribes, on par with federal engagement with states and developers.

2.2: Congress should consolidate permitting and siting authority for multi-state projects that are in the national public interest. Congress should grant FERC comprehensive and plenary permitting and siting powers for key transmission projects. The Streamlining Interstate Transmission of Electricity (SITE) and Clean Electricity and Transmission Acceleration (CETA) Acts serve as possible legislative models.

2.3: States should harmonize their permitting processes to create regulatory efficiency and allow more concurrent processes. Though this report centers on federal initiatives, our research unearthed opportunities for optimizing project timelines through more harmonized state permitting processes with those mandated federally. Joint state and federal environmental reviews, incorporation by reference of state or federal environmental reviews by the other jurisdictions, and project-specific memoranda of understanding (MOU) are opportunities to improve regulatory alignment. States may also participate in federal FAST-41
reviews under an MOU. To avoid unnecessary inefficiencies inherent in sequential review processes, states should revise their need and environmental review processes to be concurrent with federal reviews.

2.4: The Permitting Council should work with Chief Environmental Review and Permitting Officers (CERPOs) to advance projects and coordinate with and support local authorities. The essential NEPA function of providing information to states, Tribes, and other decision-makers provides an opportunity for CERPOs to support local authorities in making timely permitting decisions.

3. IMPROVING THE ENVIRONMENTAL REVIEW AND PERMITTING PROCESS

3.1: Agencies and developers should conduct early, sustained, and meaningful stakeholder outreach. Timely, meaningful engagement with impacted communities must be conducted as a part of project planning, approval, and post-implementation monitoring. Government-to-government interactions with Tribes, distinct from other stakeholder consultations, are essential for respecting sovereign authorities and ensuring projects avoid unnecessary opposition and delays, highlighting the need for federal agencies to facilitate these interactions effectively from the project’s inception.

3.2: Agencies should implement robust pre-filing processes. The pre-filing process provides an opportunity to constructively debate, raise environmental and community issues, and consider alternative routes, and can streamline reviews once applications are filed. Agencies should implement agency-specific pre-filing processes and encourage applicants to opt in to pre-filing.

3.3: Developers and agencies should engage in early and collaborative identification of alternatives to be analyzed in an EIS. Project alternatives should be identified as early as possible in a collaborative process that includes relevant federal agencies, the project developer, state and local officials, Tribes, other stakeholders, and the public. Project developers and agencies can initiate and lead alternative route identification and evaluation efforts, and Council on Environmental Quality guidance can support these efforts.

3.4: Agencies should carefully expand categorical exclusions for transmission development. Appropriate use of categorical exclusions with adequate environmental and community safeguards for much-needed transmission projects with no significant impacts can accelerate deployment of transmission. Available categorical exclusions should be expanded for projects within existing project rights-of-way that are known to have no significant impacts.

3.5: Agencies should expand the use of programmatic EIS (PEIS) reviews for transmission infrastructure projects, and Congress should ensure that agencies have sufficient capacity to do so. PEISs can be used to identify environmental impacts common to transmission lines, and can be applied where these impacts are “well understood” given the location or nature of particular projects. PEISs could be prepared alongside Independent System Operator/Regional Transmission Organization transmission development plans. Congress should provide sufficient funding to ensure data, staff, and other resources are available to prepare useful and sufficiently detailed PEISs.

3.6: DOE and FERC should minimize environmental review redundancy for the National Interest Electricity Transmission Corridor (NIETC) process. DOE, FERC, and relevant environmental agencies must collaborate closely to streamline environmental review processes in NIETCs, ensuring that environmental protections are upheld without unnecessary duplication of efforts.
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A. Introduction and Motivation

1. The U.S. must rapidly expand transmission infrastructure

The United States’ electric grid is aging and needs to be updated and rapidly expanded in order to meet emerging challenges. Most of the country’s transmission system was built in the 1950s and 1960s, with an expected lifespan of 50 years. Now, nearly 70 percent of transmission lines are more than 25 years old.7 The U.S. transmission system was also not designed to accommodate the integration of new, cleaner generation from a wider variety of sources. As the system ages, it also becomes increasingly vulnerable to the impacts of climate change, including more frequent severe weather. Outages may become more common, with disproportionate impacts on the most vulnerable populations.8

Investing in modernized, resilient transmission infrastructure supports grid reliability, lowers energy costs, facilitates economic development, and reduces the proportion of household income spent on energy needs.9 Updating and expanding the grid also enhances grid resilience by allowing for integration of new, geographically- and resource-diverse renewable generation. As diverse and dispersed resources are brought online, they can protect the grid and compensate for losses in other regions, including those due to extreme weather, if there is sufficient inter-regional transmission capacity.10 This, in turn, reduces congestion and curtailment, reducing costs associated with both. Updating the grid also presents opportunities to modernize grid security, as cyber threats can increasingly wreak havoc on transmission grids, shutting down critical infrastructure.11 Finally, grid upgrades support


10. See Liza Reed & Andrew Xu, FERC is coalescing around the idea of minimum transfer capacity but needs data and definitions, NISKANEN CTR. (Sept. 8, 2022), https://www.niskanencenter.org/ferc-is-coalescing-around-the-idea-of-minimum-transfer-capacity-but-needs-data-and-definitions/.

economic development by facilitating load growth that accompanies new manufacturing and industrial facilities and the proliferation of data centers.13

Transmission investment also supports the achievement of U.S. decarbonization targets.13 These targets are coupled with aggressive electrification goals, including plans to electrify significant amounts of transportation, homes, businesses, and industry by 2050.14 Achieving these ambitious goals will require replacing aging fossil-fuel generation with modern clean energy generation and expanding energy storage.15 But transmission is a crucial limiting factor for adding new generation and storage to the grid, so these projects may be delayed or face additional costs when there is inadequate supporting transmission to bring new resources online.16 Therefore, transmission and generation capacity will need to be expanded in tandem.17

2. The U.S. has failed to build critical transmission infrastructure at the pace it needs, despite continued acknowledgement of the challenge

In the face of the immense scale of needed transmission upgrades and modernization, the United States has not kept up with required infrastructure investments. The DOE, in its 2023 National Transmission Needs Study, found that there was an overall decrease in annual investment for transmission projects larger than 100 kV from 2010 to 2020.18 Similarly, a study of planned interstate, bulk power transmission projects from 2010 to 2020 in the western United States found that few projects were built compared to expectations in a 2010 projection of planned projects.19 Although spending has increased slightly in recent years, the U.S. is still experiencing chronic public and private under-investment in transmission, and the nation’s transmission investment requirements will reach more than $40 billion annually by 2031.20

Meanwhile, there has been a record amount of new generation and storage capacity added to interconnection queues and unable to connect to the grid.21 A 2023 study from Lawrence Berkeley National Laboratory found that there are more than 1,000 gigawatts of clean energy stuck in interconnection queues due to transmission constraints and poor interconnection processes, and that the average time projects spend in interconnection queues has grown substantially to five years, compared to three years in 2015 and less than two years in 2008.22 Long waits and lack of transmission capacity contributed to the fact that only about 20 percent of projects requesting
interconnection over the period from 2000-2017 actually reached commercial operation by the end of 2022.23

Several presidential administrations have acknowledged this critical need for more transmission, with some proposing solutions at the federal level to address the problem. For example, in 2001, then-Deputy Secretary of Energy Francis Blake testified to Congress that “investment in new transmission capacity has failed to keep pace with growth in demand and with changes in the industry’s structure...Since the transmission system is both Interstate and International, regulation of the grid is a federal responsibility.”24 He noted that legislation “should provide for federal siting of transmission facilities that are in the national interest.”25

In the Energy Policy Act of 2005 (EPAct), signed into law by President George W. Bush, Congress created section 216 of the Federal Power Act (FPA) with the goal of increasing the buildup of important electric transmission infrastructure. This statute granted the Federal Energy Regulatory Commission (FERC) authority to approve transmission lines (i.e., “backstop authority”) if states withheld approval for more than one year or lacked authority to consider interstate benefits, or if the utility proposing the transmission line did not qualify to apply for a permit because there were no end-use in-state customers.26 The Infrastructure Investment and Jobs Act (IIJA), signed into law in November 2021 by President Biden, expanded and clarified FERC’s backstop authority under section 216 and gave DOE more authority to help incentivize projects, including on public-private partnerships and loans.27 The Inflation Reduction Act (IRA), which became law in August 2022, also made available direct loan programs for transmission project development.28

Section 216 of the FPA also gave DOE power to coordinate all applicable federal authorizations, Tribal consultations, and state agency reviews required to designate National Interest Electric Transmission Corridors (NIETC) and construct needed transmission lines in those corridors. DOE intends for transmission lines constructed in NIETCs to be eligible for public-private partnerships and loan programs under the IRA and IIJA,29 as well as FERC backstop siting authority if the necessary conditions are met.

Despite recognition from several administrations of the need for more transmission and significant policy levers available, the federal government has not yet successfully leveraged its authorities to deploy transmission at the necessary pace and scale. For example, the potential benefits to transmission projects from NIETC designations, including FERC’s backstop authority, have yet to be fully realized after FERC’s interpretation of its backstop authority was partially struck down and its transmission-related regulations implementing the National Environmental Policy Act (NEPA) vacated,30 and DOE’s initial designation of corridors was vacated for failing to comply with NEPA.31 DOE and FERC are currently developing regulations pursuant to DOE’s updated NIETC authorities from IIJA. The crux of the challenge does not lie entirely within the bounds of statutory authority, but also in the practical application and implementation of these policies.

23. Id. Note that there is more than one reason for this statistic – some argue that this reflects the fact that to address lack of information about system congestion prior to joining the queue, developers will submit multiple interconnection requests for every project they actually intend to build.


25. Id. at 35.


31. See Cal. Wilderness Coal. v. DOE, 631 F.3d 1072 (9th Cir. 2011).
While the federal government can provide powerful tools and funds to foment change, it must work with states, Tribes, and local authorities to deploy transmission successfully. But providing funds without technical assistance will not address the most fundamental challenges to transmission permitting. Strong federal leadership and guidance can help build state capacity and knowledge on the intricacies of high-voltage, long-distance transmission permitting and ensure effective coordination with the right entities on the complexities of the permitting process.

3. Successful deployment of transmission faces significant challenges, including federal permitting

Contributing to the lack of recent investment is the fact that deployment of planned and financed transmission faces significant challenges, including effective implementation of federal environmental review and permitting processes. Given the diversity of jurisdictional permit and decision-making authorities, the process of obtaining permits to develop new interstate transmission lines or to upgrade existing interstate lines is inherently lengthy, complicated, and costly. Transmission projects that are located entirely on federal lands, that cross federal lands, or that involve federal funding or authorizations are subject to environmental review under NEPA and other federal authorities.\(^{32}\) Federal permitting must also be coordinated with state, Tribal, and local governments with the authority to permit and site transmission projects. While interagency environmental review coordinated through NEPA can help foster decisions that reduce adverse project impacts, existing barriers to efficient and effective decision-making often prevent timely permitting decisions.

While there is a plethora of proposed federal permitting reforms, there is too little evidence about which specific solutions are most likely to meaningfully expedite transmission expansion. That is the gap Niskanen and CATF have sought to begin filling with this study. Transmission faces many challenges beyond federal permitting, including difficulties with the planning process, cost allocation, disjointed and overlapping siting authorities, and opposition. Although these challenges are interrelated, this report’s underlying analysis and findings focus on federal environmental review and permitting processes.

This paper begins by presenting an overview of and legal background on the permitting status quo and barriers to transmission development. Then, we present our findings and propose informed solutions that would meaningfully expedite transmission expansion.

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32. The Fiscal Responsibility Act of 2023 clarified which federal actions are not required to undergo NEPA review, including those “with no or minimal federal involvement where a federal agency cannot control the outcome of the project,” loans or loan guarantees where the agency “does not exercise sufficient control and responsibility over the subsequent use of such financial assistance or the effect of the action.” 42 U.S.C. § 4336e(10)(B)(2023). Future rulemaking and judicial review will elucidate what levels and types of funding are excluded from NEPA review.
B. Overview of and Legal Background on the Permitting Process for Transmission Development

The permitting process for the construction of transmission facilities is convoluted, multi-layered, and project-specific. Most transmission projects require environmental review and a multitude of permits or authorizations. The number of approvals from different authorities (federal, state, Tribal, and local) generally expands as the size and jurisdictional reach of the transmission project increases. This section begins by summarizing the NEPA process, then notes frameworks for coordination among decision-making authorities, and finishes with a discussion of recent federal efforts to facilitate coordination of environmental review and permitting.

1. Transmission projects face numerous permitting requirements, carried out in conjunction with NEPA and its framework for interagency coordination

NEPA was established in 1970 as a tool to enable transparency and informed decision-making and ensure that all federal agencies consider the reasonably foreseeable environmental effects of proposed federal actions before making final decisions, including whether to fund, permit, or authorize a project. This was, in part, a response to past failings by government and industry to take into account the impact and externalities of human impacts on the environment. The NEPA process establishes a framework whereby consideration of environmental impacts forms a substantial part of the record for an agency’s decision and supports greater public awareness of and participation in influencing federal actions and their potential environmental consequences. Effective environmental review is a key component of responsible development as it, ideally, enlightens the decision-maker and the public as to whether a proposed activity will significantly affect the human environment, and whether mitigation measures would avoid, minimize, or compensate for those effects.

The Council on Environmental Quality (CEQ), established by NEPA, advises on NEPA implementation, is responsible for government-wide NEPA implementing regulations, and plays a coordinating role.

33. 42 U.S.C. § 4332(2)(C) (2022). The term “authorization” is defined as “any license, permit, approval, finding, determination, or other administrative decision issued by an agency that is required or authorized under Federal law in order to implement a proposed action.” 40 C.F.R. § 1508.1(c) (2024).

across agencies. Agencies have also prescribed their own regulations for integrating the NEPA process of environmental review into their decision-making. For actions not expected to have significant adverse effects on the environment, agencies may conduct a less-detailed environmental assessment (EA) to document impacts and mitigation measures which may result in a Finding of No Significant Impact (FONSI) for the proposed action. Other actions are “categorically excluded” from environmental analysis if an agency has found that the category of action is not expected to have significant adverse effects absent extraordinary circumstances. Agency NEPA procedures can identify these categories of actions that, under normal circumstances, will not have a significant environmental impact, and require action-specific review for extraordinary circumstances that warrant additional scrutiny.

For those projects expected to have significant adverse effects on the quality of the human environment or where an EA determines significant effects are likely, an environmental impact statement (EIS) must be prepared that considers the proposed action, action alternatives, and required mitigation measures, among many other topics. The vast majority of transmission lines do not undergo an EIS, typically because their development does not involve a major federal action that would require a NEPA review, but those that do are more likely to be longer interstate lines and make up a significantly larger proportion of new line miles built. The 33 lines in our dataset compiled for this effort with an EIS in progress or completed between 2010 and 2020 make up 3.5 percent of all new transmission lines built in that period, but 26 percent of all new line miles built in the decade.

Importantly, NEPA review for infrastructure projects can serve as a means for coordinating permitting with numerous federal, state, and Tribal agencies and provides a basis for decisions by cooperating agencies. How federal agencies approach the permitting process for transmission projects varies tremendously. Environmental review and approvals for transmission projects must be coordinated among the federal agencies and state, Tribal, and local authorities with jurisdiction. The specific authorizations required for a project depend on the jurisdictional nexus and on land use, ownership, financing, and geography. Each state follows different procedures for approving transmission infrastructure, and interstate lines must comply with the legal requirements of each state. This leads to a complex permitting pathway for a transmission line crossing state or Tribal boundaries and different types of federal land. Each step of approvals may result in “critical adjustments to planning, cost allocation, and siting processes,” and prompt re-evaluation of whether the project is worth advancing.

The NEPA process provides a procedure for structuring interagency coordination and consultation, requiring concurrent and integrated environmental impact analyses and related surveys and studies mandated by all other federal environmental review laws and Executive Orders applicable to the proposed action, including the Fish and Wildlife Coordination Act, the National Historic Preservation Act (NHPA), and the Endangered Species Act. NHHPA procedures for coordination with NEPA encourage agencies to coordinate compliance with NHPA Section 106 consultation as early as possible in the NEPA process, even to the point of NEPA process substitution for Section 106 consultation.

36. See, e.g., DOE’s NEPA Implementing Procedures, 10 C.F.R. pt. 1021, et seq.
37. 40 C.F.R. §§ 1501.5-6 (2024).
38. 40 C.F.R. § 1501.4 (2024).
41. See above note 6 at 4.
Any federal agency that has jurisdiction or special expertise with respect to the environmental impact involved must be consulted, and their comments on the EIS must be made publicly available. An essential purpose of NEPA is to make information available to decision-makers and potentially impacted communities and to coordinate that information-sharing. In this capacity, NEPA acts as a valuable public resource; such information would not necessarily be publicly available or accessible otherwise. Where there is more than one agency involved, one or more federal agencies may act as the “lead agency” or “joint lead agencies” and coordinate the NEPA effort. Because linear infrastructure often overlaps jurisdictions, state, Tribal, or local agencies may also serve as joint lead agencies, and these or other federal agencies may also participate as cooperating agencies.

The purpose of the lead, co-lead, and cooperating agency framework in CEQ’s NEPA regulations is to ensure efficient and consistent environmental reviews. CEQ also encourages active involvement by non-federal cooperating agencies, and proposed revisions to CEQ’s NEPA regulations would expand provisions for interagency coordination to involve state, Tribal, and local agencies early in the scoping and development of EISs. In a recent proposed rulemaking, discussed later in this report, CEQ noted that early conversations and coordination, in advance of receipt of a complete application, “can improve efficiencies in the NEPA process and ultimately lead to better environmental outcomes.”

In recent and pending updates to NEPA’s implementing regulations, and amendments to NEPA in the Fiscal Responsibility Act of 2023 (FRA), these core functions of NEPA have been preserved. The FRA amendments, which represent the most substantive amendments to NEPA since its enactment in 1970, codified many aspects of existing NEPA practice. One potentially impactful change from the FRA is a new definition of a “major Federal action” as “an action that the agency carrying out such action determines is subject to substantial Federal control and responsibility.” The statute also includes a significant codification of some of the case law that has developed under NEPA. The amendments narrow the scope of NEPA applicability and explicitly exclude projects “with no or minimal Federal involvement where a Federal agency cannot control the outcome of the project,” loans or loan guarantees where the agency “does not exercise sufficient control and responsibility over the subsequent use of such financial assistance or the effect of the action,” and Small Business Administration loan guarantees and other financial instruments. The FRA amendments also codified time limits from the 2020 CEQ regulations, including that an agency must complete an EIS no later than two years after determining that an EIS is required and an EA no later than one year after determining that an EA is required, unless an agency determines that without additional time it cannot meet such deadlines and consults with project applicants on the deadline extension. The amendments further provide a project sponsor with rights for judicial intervention if an agency allegedly fails to meet applicable deadlines. The practical effect of these amendments remains to be seen and potentially could be counterproductive.

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49. 40 C.F.R. §§ 1500.4, 1500.5 (2024).
51. Id. at 49946.
55. Id.
57. See 42 U.S.C. § 4336a(g) (2023).
2. Recent efforts to facilitate coordination among permitting authorities have focused on improving transparency and reducing timelines

While NEPA provides a broad framework for intergovernmental coordination, additional statutory and agency measures aim to streamline permitting further. This section briefly describes some of these measures.

a. Title 41 of the FAST Act

Title 41 of the FAST Act (FAST-41), passed in 2015, established the Federal Permitting Improvement Steering Council (“Permitting Council”), an interagency council of Deputy Secretaries whose Presidentially-appointed Executive Director is charged with maintaining project timelines and resolving interagency disputes. Under FAST-41, each agency is also required to designate Chief Environmental Review and Permitting Officers (CERPOs), who report to that agency’s Deputy Secretary on environmental reviews and authorizations. FAST-41 also established the Permitting Dashboard, an online database to track the status of federal environmental reviews and authorizations for covered projects. FAST-41 also reduces the statute of limitations for lawsuits on covered projects from six to two years. It also narrows legal standing on NEPA claims to not only parties who submitted comments during the project’s environmental review but also provided sufficiently detailed comments to alert the lead agency to specific issues that might be pursued in court. This aims to limit uncertainty arising from potential litigation in opposition to a project.

Under FAST-41, all federal and state entities, Tribes, and localities “likely to have financing, environmental review, authorization, or other responsibilities with respect to the proposed project” will be invited to become participating or cooperating agencies. A cooperating agency has authority over or special expertise relevant to a covered project, and is commensurate with the same designation as a “cooperating agency” under NEPA. FAST-41 also allows federal and state entities, Tribes, and localities that do not have jurisdiction or authority over a project, but may have other interests or responsibilities, to elect to participate in the permitting process. If, for example, a state elects to participate in the FAST-41 process, a memorandum of understanding (MOU) would be developed that includes a coordination plan, setting a permitting timetable, and subjecting all relevant state agencies to FAST-41 requirements consistent with state law.

According to the Permitting Council, FAST-41 has saved project sponsors over $1 billion through improvements in permitting efficiency, enhanced coordination, and avoidance of communication from the Infrastructure Investment and Jobs Act, the Executive Director of the Permitting Council can post projects other than FAST-41 covered projects to the Dashboard in the interest of transparency. Smaller transmission projects that do not meet the $200 million threshold may therefore be listed on the Dashboard at the discretion of the Permitting Council.

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60. 42 U.S.C.A. § 4370m(2), 4370m-1(b)(2)(A)(x)(i)(I) (2022). CERPOs were created under FAST-41, but they have a broader role, including to: advise the respective agency member of the Permitting Council on matters related to environmental reviews and authorizations; act on behalf of their agency or between their agency and other federal agencies to support timely identification and resolution of potential disputes; make recommendations to their agency’s Permitting Council member for ways to improve their agency’s environmental review and decision-making process; and review and develop training programs for agency staff that support and conduct environmental reviews or authorizations.
61. A FAST-41 “covered” project is any infrastructure project involving a total investment of over $200 million that is subject to NEPA analysis, authorization by more than one agency, and is one of several infrastructure categories that include transmission infrastructure. To become a “covered” project, the sponsor of a qualified project must submit a FAST-41 Initiation Notice. Several transmission projects currently under federal permitting jurisdiction have initiated FAST-41 procedures as “covered” projects, and future projects should continue to qualify, assuming they exceed the $200 million threshold. According to data from Niskanen and CATP’s analysis on recently proposed and completed transmission projects in the United States, the majority of the 37 transmission projects we researched would have qualified for FAST-41 coverage. Further, under an amendment to the Infrastructure Investment and Jobs Act, the Executive Director of the Permitting Council can post projects other than FAST-41 covered projects to the Dashboard in the interest of transparency. Smaller transmission projects that do not meet the $200 million threshold may therefore be listed on the Dashboard at the discretion of the Permitting Council.
failures.\textsuperscript{65} FAST-41 was cited as one of the reasons why an EIS for the Ten West Link transmission line in Arizona and California was completed in a relatively quick 2.5 years.\textsuperscript{66}

When Congress passed FAST-41, it was subject to a seven-year sunset clause. The IIJA made FAST-41 permanent law and amended FAST-41 to incorporate more aggressive timelines, including schedules that do not exceed two years “to the maximum extent practicable, and consistent with applicable federal law.”\textsuperscript{67} Federal agencies must also issue a record of decision (ROD), a public final document stating the outcome of the NEPA process, within 90 days of issuance of a final EIS. To encourage efficiency, the IIJA also required preparation of a single, joint, interagency EIS and subsequent joint ROD.

The IIJA shortened the timeline to identify all federal and non-federal agencies with decision-making authority with respect to proposed projects from 45 to 21 days. The law also made it more difficult to amend permitting schedules, requiring consultation with the Executive Director of the Permitting Council before any consultation among parties as to the permitting timetable. However, as highlighted elsewhere in this report (see below Recommendation 1.2), mandated or shortened timelines do not resolve key factors that determine the success of federal permitting—leadership, coordination, capacity, and effective implementation.

\textit{b. Interagency Memorandum of Understanding on Federal Power Act section 216(h)}

Under the FPA section 216(h), created by EPA, DOE has the authority to act as lead agency for federal authorizations and environmental reviews conducted for electric transmission lines.\textsuperscript{68} Under this authority and following a 2009 interagency MOU, DOE established a process in 2016 that allows developers to convene with federal agencies before submitting a formal permitting application.\textsuperscript{69} The Integrated Interagency Pre-Application (IIP) process also identifies an agency to take the lead on NEPA review and allows developers to prepare an early environmental assessment that can inform the federal effort.\textsuperscript{70} Developers can invoke the optional IIP process for interstate high-voltage projects that cross jurisdictions administered by more than one federal agency, or projects that cross at least one federal jurisdiction and where federal financial assistance will be provided.\textsuperscript{71}

In May 2023, nine federal agencies signed an updated MOU to implement FPA section 216(h), coordinate federal review of transmission projects, and to expedite siting, permitting, and construction.\textsuperscript{72} In signing the MOU, the “signatory agencies recognized that insufficient budgetary resources, lack of agency staff, and limited mechanisms for coordination across federal agencies have contributed to delays in permitting timelines for transmission facilities.”\textsuperscript{73}


66. At groundbreaking for the Ten West Link transmission line, Christine Harada, then-executive director of the Permitting Council, stated that the relatively quick approval of Ten West demonstrated “the fruits of the coordination, collaboration, and transparency of the FAST-41 interagency coordination process” and “what is possible when infrastructure projects are covered by FAST-41.” Permitting Dashboard, Ten West Link Transmission Line Project Breaks Ground (updated Jan. 20, 2023), https://www.permits.performance.gov/fpisc-content/ten-west-link-transmission-line-project-breaks-ground.


70. The program was created under section 216(h)(4)(C) of the Federal Power Act.

71. 10 C.F.R. § 900.3 (2024).

72. See above note 69.

The 2023 MOU aims to further improve coordination between federal agencies as well as between agencies, states, and Tribes. The MOU allows DOE to designate the agency that has the “most significant interest” in the lands or waters traversed by a transmission line as co-lead agency for NEPA review. The terms of the MOU also require the Secretary of Energy to update the DOE regulations implementing 216(h) to: (1) make participation in the IIP a precondition for participation in the coordinated 216(h) process; (2) require submission of resource reports and public engagement plans for affected communities; (3) require public engagement with Tribes and communities affected by the project; and (4) harmonize the IIP process, 216(h) implementing regulations, and the FAST-41 process. In early August 2023, DOE announced a proposed rule to update its regulations accordingly.74

The new MOU is not limited to projects sited on federal lands but would include, for example, projects for which federal financial assistance would be provided (similar to qualifying projects under the IIP process). For all projects, DOE will establish prompt and binding intermediate milestones and ultimate deadlines for decisions on federal authorizations and related environmental reviews, including a final decision on all federal authorizations within two years of publishing a Notice of Intent (NOI) to prepare an EIS. Any disagreements among agencies will be elevated to the chair of CEQ and director of Office of Management and Budget (OMB) for prompt resolution.

74. See above note 73, 88 Fed. Reg. 55826.
C. Research Findings: Data and Litigation Analysis

Political actors on both sides of the aisle recognize that large-scale transmission projects take too long to site, permit, and construct. In an effort to provide ambitious, evidence-based, politically durable solutions, Niskanen and CATF engaged in months-long information-gathering and analysis efforts, including quantitative and legal assessments of recent transmission project permitting processes. These efforts intended to establish insights to inform ongoing dialogues around transmission permitting and set a fact-based context for our recommendations.

75. See, e.g., efforts from opposing sides of the aisle to speed project review, including the Fiscal Responsibility Act, the SITE Act, Big WIRES, and the Biden Administration’s Permitting Action Plan.

1. Contextualizing federal permitting of electricity transmission through data analysis

To better inform the ongoing dialogue regarding transmission permitting, we gathered and analyzed a dataset of major new high-capacity transmission lines. Our dataset contains 37 electric transmission lines that had an EIS environmental review in progress or completed between 2010 and 2020. These data were derived from various sources, including academic papers, federal agencies, and inventories accessible to the public. Because there is no central database for transmission projects, this dataset cannot be assumed to definitively represent all electric transmission projects that meet the criteria; some eligible lines may have been unintentionally overlooked.

76. See above note 6 at 3.
The following criteria determined the inclusion of the 37 lines included in our analysis:

- New transmission lines only (excludes rebuilds and upgrades)
- Federal Review Status: Projects that had an EIS in progress or completed between 2010 and 2020 (meaning the project published an NOI, FEIS, ROD, or was in the process of having an EIS prepared at some point during the decade)
- Voltage of at least 115 kV
- Line length of at least 5 miles
- At least one domestic endpoint

Of the 37 lines, four lines were canceled, two projects have yet to release an ROD, and one never published an NOI. Evaluating the timeline for the remaining 30 projects, Niskanen and CATF found that:

- EIS reviews took on average 4.3 years between publication of an initial NOI and the release of a ROD, with a median review time of 3.7 years.
- Of the 17 large transmission lines (longer than 100 miles and above 345 kV) that were not canceled, the average NOI to ROD timeline was 4.7 years — roughly comparable with the timelines CEQ found for all federal environmental reviews.

In 2020, CEQ examined 1,276 EISs for which a Notice of Availability of a final EIS was published between January 1, 2010 and December 31, 2018, and for which a ROD was issued by June 18, 2019. CEQ found that “across all Federal agencies, the average (i.e., mean) EIS completion time (from NOI to ROD) was 4.5 years . . . and the median was 3.5 years.”77 These timelines exclude any pre-application processes, for which data are typically not publicly available.

Figure 1: Map of the 33 Completed Lines in the EIS Lines Dataset, by Voltage Class. (4 of the original 37 lines were canceled and therefore not included)

In addition, our review found:

- 17 of the 30 lines completed federal environmental permitting review under NEPA within four years.
- EIS reviews ranged from 1.2 to 11 years.
- Transmission projects that had an EIS prepared between 2010 and 2020 made up 3.5% of projects, but 26% of total domestic transmission line miles.

2. Understanding the impact of litigation and opposition on projects undergoing federal permitting

Legal challenges are commonly cited as a major factor contributing to delays or cancellations of transmission line projects. However, research on the true impact of litigation on project delay or cancellation is limited. Our in-depth analysis of 37 high-capacity transmission line projects considered whether litigation and significant non-litigation opposition is correlated with project delay. We found that the majority of projects in our analysis (54%) did not face litigation or substantial non-litigation opposition. Of the projects analyzed, around a quarter (27%) faced litigation or significant non-litigation opposition and were either delayed or canceled.

In addition, our review found that:

- The majority of projects proceeded to completion or are in progress, despite litigation and opposition. Notably, of the 37 lines investigated, only four were canceled.
- Most lawsuits filed by project opponents were decided in favor of the project. We identified 18 lawsuits opposing the projects, and only two were resolved in favor of opponents to a project (both of those lawsuits involved a

78. James W. Coleman, Pipelines & Power Lines: Building the Energy Transport Future, 80 Ohio St. L.J. 264, 292 (2019) (“...while oil pipelines grab the national headlines, power-lines across the country are being held up using the same legal arguments.”), https://scholar.smu.edu/cgi/viewcontent.cgi?article=1037&context=law_faculty.
79. For a discussion of impacts of NEPA litigation on transport and energy infrastructure projects broadly, see Michael Bennon & Devon Wilson, NEPA Litigation Over Large Energy and Transport Infrastructure Projects, STANFORD UNIV. (Oct. 2, 2023) (“our goal was to directly link data on infrastructure projects to NEPA studies to lawsuits to outcomes, which has not been done before”), https://cddrl.fsi.stanford.edu/publication/nepa-litigation-over-large-energy-and-transport-infrastructure-projects.
single project, which has been constructed). One lawsuit remains pending as of the time of this analysis.\textsuperscript{80}

- The analysis also considered the impact of preliminary injunctions,\textsuperscript{81} finding that courts almost always denied motions for preliminary injunctions filed by project opponents. Of the seven preliminary injunction motions identified, five were denied, and one was granted but never went into effect. One motion remains pending at the time of this analysis.\textsuperscript{82}

These findings are consistent with the conclusion that, although litigation and opposition can influence delays and cancellations, factors that cause delays likely compound and it is difficult to draw a throughline from litigation to the extended timelines common for transmission line projects. Addressing these challenges requires a multifaceted approach to ensure greater efficiency and effectiveness in the permitting process. The evidence-based recommendations in this report are tailored to address concurrent challenges in the permitting process and ensure greater efficiency in federal environmental review.\textsuperscript{83}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{percentage_of_evaluated_transmission_projects_by_litigation_and_opposition_status.png}
\caption{Percentage of evaluated transmission projects by litigation and opposition status.}
\end{figure}

\textsuperscript{80} Susan Montoya Bryan & Ken Ritter, Tribes, environmental groups ask US court to block $10B energy transmission project in Arizona, AP NEWS (Jan. 23, 2024 12:43 PM PDT). https://apnews.com/article/wind-energy-sunzia-transmission-lawsuit-f414b9c3e4d7fc0ae2aae40777be92f.

\textsuperscript{81} A preliminary injunction is a court order that can delay or stop a project’s construction or regulatory progress.

82. See above note 80.

In addition to our litigation and quantitative analyses, Niskanen and CATF evaluated case studies of transmission projects undergoing federal permitting and conducted extensive stakeholder interviews. The sum total of these efforts intended to establish an evidentiary record of permitting challenges faced by electric transmission projects and fact-based insights into: (1) what prevents the pace and scale of transmission buildout needed to achieve a reliable, resilient, clean grid; (2) the levels (federal, state, Tribal and local) and/or nexuses (e.g., developer-agency coordination) at which transmission permitting faces critical hurdles; and (3) concrete opportunities to improve transmission permitting, focusing on federal environmental permitting.

Niskanen and CATF’s research identified three key themes, into which we categorize our summary recommendations. These themes are: (1) the importance of improving federal agency coordination, cooperation, and capacity; (2) the need for clarifying interactions between federal, state, local, and Tribal authorities; and (3) the need for improvements in the environmental review process.

1. Improving Federal Agency Coordination, Cooperation, and Capacity

From in-depth review of 37 transmission projects, supporting data analysis of the federal environmental transmission permitting process, and conversations with transmission stakeholders, Niskanen and CATF found that a lack of federal agency leadership and prioritization of transmission, coupled with insufficient support for agency coordination, cooperation, and capacity, contributes to longer permitting timelines.

Although the NEPA process offers avenues for interagency coordination and collaboration (see above Section B.1), a lack of sustained engagement and focus on project timelines by an agency until “its turn” in the regulatory review process results in conflicts,

84. See Appendix, List of Transmission Line Case Studies, for in-depth project reviews.
85. See Appendix, List of Transmission Line Case Studies, for in-depth project reviews.
86. “Transmission stakeholders” refers to transmission permitting experts, transmission developers, federal officials with knowledge of and experience in transmission siting and permitting, and representatives from Tribal entities and utilities.
duplicated efforts, and delay. This issue stems from the linear, or “waterfall,” approach to regulatory review where one agency’s activities begin upon the completion of the actions of an agency upstream in the process.87 If potential conflicts are wrestled with earlier in the process, i.e., before an agency waits for “its turn” on a project approval, issues could be resolved or avoided altogether. Further, insufficient and inconsistent staffing levels and a lack of comprehensive transmission infrastructure expertise can create bottlenecks in the NEPA process.88

For example, the TransWest Express and SunZia Southwest transmission projects both suffered from a lack of consistent federal agency coordination, cooperation, and capacity that contributed to longer permitting timelines. In the case of TransWest Express, although routine coordination calls were held weekly and monthly for more than five years, “major issues remained unresolved as decisions were only finalized if there was a ‘consensus.’”89

87. As aptly put by Jennifer Pahlka in her book Recoding America, “Whether fed by one source or many, waterfalls determine how information, insights, agency, and power flow. The flow goes only one way: down.” JENNIFER PAHLKA, RECODING AMERICA: WHY GOVERNMENT IS FAILING IN THE DIGITAL AGE AND HOW WE CAN DO BETTER (2023). This problem was also noted by legal scholar and former Deputy Secretary of the Department of Interior David J. Hayes: “The linear approach to federal permitting causes problems because when agencies are on the sidelines until late in the process, the project that they are finally presented with is likely to have well-defined and studies features that have been through an EIS process and have been validated by the lead agency. If these late-reviewing agencies identify a serious flaw in the project that was overlooked by, or was not in the jurisdictional purview of the lead agency; it may be too late to reorient the project to avoid that result. What might have been a relatively easy adjustment for a project proponent to make early in the permitting process, before the EIS was prepared and the lead agency completed its work, now becomes difficult or impossible.” David J. Hayes, Leaning on NEPA to Improve the Federal Permitting Process, 45 ENV’T L. REP. 10018, 10019 (2015), https://law.stanford.edu/wp-content/uploads/sites/default/files/publication/824999/doc/slspublic/Hayes%20LEANING%20ON%20NEPA.pdf.


In testimony before the Senate Energy and Natural Resources Committee, Roxane Perruso of The Anschutz Corporation stated the lack of timely issue resolution “substantially increased permitting time and costs” and could have been avoided with more senior-level agency involvement.90

Similarly, in development of the SunZia Southwest Transmission Project, the Department of Defense raised concerns regarding impacts of the line on the White Sands Missile Range. The project was controversial and the mitigation measures included in the 2015 ROD issued by Bureau of Land Management (BLM) did not settle the Department of Defense’s concerns. After the 2016 presidential election, the Department of Defense stated that national security interests and operations would be hampered by the transmission line and that the developer should pursue potential alternative routes farther from the missile range. Due in part to these concerns, in 2019, the developer performed a siting study to evaluate other routes, and in 2020, submitted an application to amend the right-of-way. Beginning July 29, 2021, SunZia was covered under FAST-4191 and the project was closely monitored by federal agencies and the Permitting Council. BLM (the lead agency) hosted weekly meetings with the federal cooperating agencies in 2021, leading up to the preparation of the Draft EIS for the amended application, and hosted quarterly meetings with all cooperating agencies, including the non-federal agencies.92 The increased collaboration under the auspices of the Permitting Council ultimately led to permits being granted in 2023, and a ROD issued in May 2023, less than two years after coverage under FAST-41.93

90. Id.


93. On January 30, 2024, the Tohono O’odham Nation, San Carlos Apache Tribe, Center for Biological Diversity, and Archaeology Southwest filed a motion for preliminary injunction, seeking to halt construction of the SunZia transmission line and alleging that BLM inadequately considered Traditional Cultural Property under the NHPA. As of the date of publication of this report, the litigation is
Improving federal agency coordination and capacity is fundamental to a more streamlined and effective transmission permitting process. Given the importance of high-voltage, long-distance transmission lines to the security, resilience, and decarbonization of the electric grid, the executive branch should continue to push transmission development as a high-visibility priority for federal agencies. Congress can provide funding for more dedicated agency staff, and DOE, the Permitting Council, and other entities can push for transparency, conflict resolution, and coordination around permitting within their purviews.

a. Recommendation 1.1: The President should continuously recognize transmission infrastructure permitting as a national priority

Executive leadership, spearheaded by the President, plays a pivotal role in establishing and championing strategic national priorities. By actively prioritizing transmission infrastructure, the President can significantly influence the entire executive branch and ensure that every Cabinet secretary, political appointee, frontline manager, and permitting official in the country understands that transmission permitting is a daily priority and interagency conflicts should be avoided or effectively resolved.

The President should establish clear transmission deployment goals and priorities to galvanize a shared vision and concerted effort across the executive branch. This effort should be reinforced by regular coordination at the Cabinet level, facilitation of departmental coordination, and mobilization of support for delivering on federal goals.

Through regular Cabinet-level alignment, and fully leveraging the authorities of the Permitting Council, the President should drive whole-of-government follow-through on the planning, establishment, and construction of long-distance lines of national importance

94. E.g., lines that enhance national energy security and reliability, lines that facilitate efficient and sustainable energy interstate transmission from production to consumption sites, and lines that promote interregional cooperation and economic growth.

95. One example, which has had some success in the transmission planning space, is the Joint Federal-State Task Force on Electric Transmission, in which FERC and NARUC participate. https://www.ferc.gov/TFSOET (last updated Mar. 5, 2024).

To actualize a coordinated transmission effort, the White House should appoint a transmission director with specific authority to oversee these efforts. This director will not only ensure alignment across agencies but will also play a critical role in educating existing agency staff on how to build transmission equitably and expeditiously.

Transmission projects are ripe for conflict—between landowners and developers, among agencies, and among federal, state, Tribal, and local authorities. Often, delays in permitting arise due to interagency conflicts that are not identified or resolved in a timely manner. A senior official in the Executive Office of the President should have the authority to assist in resolving interagency disputes, and the tools and gravitas to successfully advance projects.

A noteworthy example of executive leadership is the Biden administration’s clear setting of goals, provision of support, and whole-of-government approach to offshore wind development. This approach has yielded significant milestones, including the approval of six offshore wind farms, four offshore...
wind lease auctions, power reaching the grid from the first and second utility-scale offshore wind farms in the United States, and proposed regulatory reforms to modernize offshore wind development. The President should similarly elevate transmission infrastructure modernization as a national priority. And, as administrations change, outgoing officials should emphasize communication and cooperation with their corollaries to align current practice and ensure a shared commitment to the prioritization of transmission as necessary infrastructure.

b. Recommendation 1.2: Congress and agencies should enhance transparency in project review and project timelines

Congress and federal agencies should work to enhance transparency in project timelines and in each step of review. Improving project review timelines and permitting review outcomes does not merely take more mandates and deadlines, which have been the focus of recent reforms. Mandating general timelines without addressing underlying substantive issues (including a lack of proper staffing and resources, see below Recommendation 1.3) can have unintended consequences; for example, the two-year EIS deadline imposed in the FRA does not address the substance of the underlying issues that cause delays at the start of the formal siting and permitting processes. Requiring that agencies complete a process in less time does not help agencies do so. Tight timelines can also reduce the quality of work, which can in turn expose projects to greater litigation risk.

The larger issue is the failure to create and support an iterative, agile process with continuous and consistent communication among federal agencies, project developers, and stakeholders to identify and address concerns early and often. Instead of relying on mandating timelines alone to address delays resulting from inadequate interagency coordination, the permitting process should include interagency coordination during the pre-application phase—as outlined in DOE’s IIP process—and at specific points in the environmental review process. This, coupled with—where appropriate and logistically feasible—use of a public docket throughout the permitting process could take significant strides toward ensuring real-time, effective communication among relevant governmental and non-governmental entities. An informative example of smart use of a public docket is FERC’s pre-filing docket and public dockets generally. All this combined would support transparent processes, transparent timelines, and ultimately, commitments to timelines. Use of the Permitting Dashboard should also be encouraged to enhance transparency and commitment to timelines. See below Recommendation 1.4.

c. Recommendation 1.3: Congress should invest in interagency coordination, interagency cooperation, and agency capacity

Insights from conversations with developers and federal government officials underscore a significant barrier to advancing transmission development: limitations on agency capacity. Signatory agencies to DOE’s MOU under FPA section 216(h)

101. See https://www.ferc.gov/media/pre-filing-environmental-review-process (includes pre-filing process flowchart) (last visited Mar. 13, 2024); see generally FERC’s eLibrary, linking to pre-filing and other dockets, https://elibrary.ferc.gov/eLibrary/search.
103. See also, Jamie Pleune, Choosing between Environmental Standards and a Rapid Transition to Renewable Energy is a False Dilemma, ROOSEVELT INST. 15 (May 2023), https://rooseveltinstitute.org/publications/choosing-between-environmental-standards-and-a-rapid-transition-to-renewable-energy-is-a-false-dilemma/.
also recognized that insufficient budgets and agency staff, along with limited mechanisms for interagency coordination, contribute to delays in permitting timelines for transmission.104

Addressing these coordination shortfalls requires a holistic approach. Simply focusing on expanding agency functions or authorities, without appropriate investment in supporting agency coordination, cooperation, and capacity, will likely fail. Agencies need appropriate resources and expertise to contribute to transmission modernization as a national priority. More funding or more staff does not necessarily mean increased efficiency or effectiveness, however, and there needs to be additional support for retaining, supervising, empowering, and training agency staff, particularly on the nuances of transmission and linear infrastructure. To this end, Congress should also increase funding for interagency coordination and staff dedicated to joint-agency projects. This need extends beyond federal entities to include state and Tribal agencies, which have similar needs for such support. See below Recommendation 2.1.

Congress should provide the funding necessary through annual appropriations to ensure that federal agencies have sufficient resources to conduct expeditious, coordinated reviews and permit decisions. The IRA provided more than $1 billion to support the environmental review process—including $350 million to the Permitting Council, $30 million to CEQ, and $625 million to federal agencies, including DOE, the Department of the Interior, the Forest Service, and the U.S. Department of Agriculture (USDA), to hire and train personnel, support public engagement, and develop helpful tools to improve transparency105—which represents a significant step forward. However, while the episodic nature of large appropriation packages such as the IRA can boost funding for permitting for a number of years, relying on individual, unpredictable bills for funding makes it difficult for agencies to recruit and retain qualified permitting staff. Regular appropriations for permitting activities, rather than intermittent financial injections, will provide a more reliable foundation for attracting and retaining the skilled personnel necessary for this vital government function.

Senior agency personnel should be assigned to each major project under environmental review and should report directly to appointed decision-making officials at agency headquarters. One option could be to resume the use of National Project Managers, which existed within BLM. These positions were formerly filled by experienced career staff dedicated to shepherding transmission projects through the permitting process. Their upstream oversight of field offices was combined with a long-term, national view of projects and the experience necessary to make key decisions. After a gradual phase out due to staff retirements and turnover, reestablishing such a role across federal agencies through executive order or personnel action should be prioritized.

Finally, investments in digital tools and data platforms, potentially leveraging new developments in artificial intelligence and DOE’s computing capabilities, could pay dividends of more targeted, effective, and expeditious reviews.106 The Permitting Council’s commitment of $25 million from the IRA to modernize and develop technology solutions for federal environmental review is a commendable step. Sustained investments will help ensure new software and computing developments are harnessed to serve the public interest in efficient and effective federal permitting processes.

104. 88 Fed. Reg. at 55828; see also above note 69.


d. Recommendation 1.4: DOE, the Permitting Council, and other agencies should require transparency and accountability through use of the Permitting Dashboard.\textsuperscript{107}

The Permitting Dashboard should be used to enhance transparency and accountability for transmission projects. Agencies should establish clear timeline goals and track key project information, including for projects not eligible for FAST-41 coverage. \textit{See above Recommendation 1.2.} To further increase the Dashboard’s utility, DOE can work with lead and cooperating agencies to recommend nationally and regionally significant transmission projects, including all transmission projects requiring EIS review, be added to the Permitting Dashboard for their environmental review and authorization processes. Federal agencies can be project proponents under the FAST-41 definition, so federal leadership on transmission does not need to be constrained by the limitations of project applicants.

To support transparency efforts, the Permitting Council should increase the scope and detail of the Permitting Dashboard. Projects should be on the Dashboard before the NOI to prepare an EIS is filed. Where there are coordinated project plans with detailed timelines before the NOI, the Dashboard should track those timelines and project plans with the same level of detail; any points of implementation that can hold up a decision should be tracked on the Dashboard. This allows the Dashboard to function as a spotlight on developer-agency interactions, keeping the agency on track and moving efficiently, even before an NOI is filed.

\section*{2. Streamlining Interactions Among Sovereign Authorities}

From our in-depth review of 37 transmission projects,\textsuperscript{108} supporting data analysis of the federal environmental transmission permitting process, and conversations with transmission stakeholders,\textsuperscript{109} Niskanen and CATF found that slow and/or sequential state and federal regulatory processes can add significant time to the total duration of project permitting. For example, on the \textit{Boardman to Hemingway Transmission Line}, the Oregon and Idaho processes have substantially lagged the federal process.\textsuperscript{110} Interviews with permitting experts singled out Oregon’s Facility Siting Council as a noteworthy example of state and federal misalignment, particularly as Oregon law requires that a Site Certificate application cannot be found to be complete until all federal permit applications are submitted and each federal agency has identified when they will issue a permit decision.\textsuperscript{111} This regulatory discordance can add years to a project’s total permitting timeline.

Moreover, state and local political opposition can create formidable barriers completely independent of the federal permitting process. In the case of the \textit{SunZia Southwest Transmission Project}, BLM originally approved a right-of-way that crossed the Rio Grande near Socorro, New Mexico, a ranching and farming community.\textsuperscript{112} Some individuals impacted by the route successfully lobbied the New Mexico Public Regulation Commission to reject SunZia’s application, causing additional project delays.\textsuperscript{113} The \textit{Plains and Eastern Clean Line}, which would have traversed Oklahoma, Arkansas,

\begin{itemize}
  \item \textsuperscript{107} See Appendix, case study: 18. Tehachapi Renewable Transmission Project.
  \item \textsuperscript{108} See Appendix, List of Transmission Line Case Studies, for in-depth project reviews.
  \item \textsuperscript{109} “Transmission stakeholders” refers to transmission permitting experts, transmission developers, federal officials with knowledge of and experience in transmission siting and permitting, and representatives from Tribal entities and utilities.
  \item \textsuperscript{110} See Appendix, case study: 3. Boardman to Hemingway Transmission Line.
  \item \textsuperscript{111} “The Department may not find the site certificate application to be complete before receiving copies of all federally-delegated permit applications and a letter or other indication from each agency responsible for issuing a federally-delegated permit stating that the agency has received the permit application, identifying any additional information the agency is likely to need from the applicant and estimating the date when the agency will complete its review and issue a permit decision.” OR. ADMIN R. 345-021-0000(6) (2024).
  \item \textsuperscript{112} See Appendix, case study: 21. SunZia Southwest Transmission Project.
\end{itemize}
and Tennessee, has failed to come to fruition after considerable political opposition.\textsuperscript{114} In its proposal to DOE, the project developer stated the project would “make possible some $12 billion of renewable energy projects that otherwise cannot be built due to limitations of the existing grid.”\textsuperscript{115} Arkansas rejected Clean Line’s application to operate as a public utility “based on [...] information about its current business plan and present lack of plans to serve customers in Arkansas.”\textsuperscript{116} Members of the Arkansas congressional delegation proposed legislation to impede and stop the project. Even in Tennessee, where it enjoyed some support,\textsuperscript{117} the project sustained vocal opposition from a Tennessee senator and other Tennessee congressional members for years.\textsuperscript{118} The Tennessee Valley Authority ultimately decided not to buy power from the project, even though analyses appeared to show the project would have resulted in competitive pricing. The original developer sold a portion of the project in 2017.\textsuperscript{119}

Finally, insufficient state and Tribal resources to participate in federal permitting processes and a lack of comprehensive federal leadership cause additional hurdles. As interstate transmission lines do not always directly benefit each state or Tribe they traverse, the federal government must lead in demonstrating the importance of transmission development for national and regional policy goals.

To address these challenges and promote a more efficient permitting process, several strategic initiatives are recommended to facilitate and support more streamlined interactions between and among states, Tribes, and federal authorities. Federal agencies should use Congressional funding to enhance state and Tribal capacity to fully partake in the permitting process. The Permitting Council can serve an important coordinator role among permitting officials at federal agencies to ensure cross-agency and cross-jurisdictional alignment. Congress can consolidate permitting and siting authority for multi-state projects in the national interest. And though the focus of this report is federal, our research unearthed the potential of better-harmonized state permitting processes to speed projects undergoing federal reviews. This promising avenue warrants further exploration to identify effective strategies for federal support of harmonization efforts.

\textbf{a. Recommendation 2.1: Federal agencies, with Congressional support, should enhance state and Tribal capacity to conduct and participate in permitting processes}

State and Tribal resource constraints can contribute to the lengthy timelines attributed to federal, state, and Tribal interactions and reviews. For state and Tribal agencies to actively participate in federal permitting processes and avoid delays from sequential review or political challenges, federal agencies should take a leading role in boosting state and Tribal capacity. Federal agencies should also conduct earlier and more comprehensive engagement with Tribes, on par with federal engagement with state entities and developers.

Federal agencies typically have more resources than state or Tribal institutions and can retain extensive expertise on critical technical matters. To make these resources more accessible, Federal agencies should lay out best practices on how local, state, Tribal, and community entities can and should engage in the permitting process. Federal agencies

\begin{itemize}
  \item See Appendix, case study: 37. Plains and Eastern Clean Line.
  \item Wesley Brown, Controversial $2.5 billion Clean Line project stalled: will evaluate options, officials say, TALK BUS. & POL. (Jan. 3, 2018), https://talkbusiness.net/2018/01/controversial-2-5-billion-clean-line-project-stalled-will-evaluate-options-officials-say/.
\end{itemize}
should provide technical assistance and make funding available for states and Tribes to hire experts to interpret and conduct any required technical analyses. Such practices can play a major role in equitably distributing knowledge and resources to those entities engaged in the permitting process.

Agencies should also provide funding and support for public engagement around transmission line benefits and costs. Federal assistance should be provided to assist state, Tribal, and local entities in enforcing siting decisions and corridor selection. Tribal consultation and outreach should be prioritized and, when done effectively and intentionally, can lead to more predictable development outcomes and the possibility of including Tribal Nations in financial project development partnerships. And while federal agencies should use their resources to support Tribes in overcoming barriers to participation in the federal permitting process, this only goes so far. Developers themselves—even before the beginning of the formal federal permitting process—can hire dedicated Tribal affairs consultants, akin to the current standard practice of engaging professional government affairs staff or environmental consultants.

One option for providing technical assistance is for Congress to appropriate funds to DOE’s National Labs to make transmission experts available on-call to eligible entities. Another example of funding support is through existing Transmission Siting and Economic Development (TSED) grants from DOE, where state and Tribal agencies can pursue federal funding to hire dedicated staff with legal and engineering backgrounds to participate actively in the siting and permitting processes for specific large, interstate or offshore transmission projects. In August 2023, DOE released a funding opportunity announcement for $300 million under the TSED program to support state, Tribal, and local entities in analyzing the impacts of high-voltage transmission projects, assessing alternative corridors, participating in regulatory proceedings, and facilitating other actions that could aid the permitting process. In the case that conflict arises during the permitting process, the use of a neutral third-party facilitator can also support conflict resolution among federal, state, Tribal, and local authorities. A report from the federal Forum on Environmental Collaboration and Conflict Resolution (ECCR) supports using conflict resolution techniques to shepherd projects to approval. This ECCR study shows how increasing the effective use of environmental conflict resolution and building institutional capacity for collaborative problem solving can produce cost savings and more timely decisions, improve relationships between the government and stakeholders, and result in more creative and lasting solutions to even long-term or entrenched disagreements by increasing understanding among stakeholders and reaching durable agreements.

A skilled neutral third-party facilitator can assist with government-to-government consultation between Tribes and federal agencies, facilitate agency and departmental collaborations, and help resolve state and federal differences and conflicts involving multiple levels of government and the public. To avoid delays, disputes should be brought to the attention of alternative dispute resolution professionals as soon as problems are identified. So far, the Permitting Council has not used its authority for this purpose. This effort should be supported by the Permitting Council, which received

120. See Appendix, case study: 1. Southline Transmission Line Project.
121. For example, DOE GDO currently administers a Tribal Nation Offshore Wind Transmission Technical Assistance Program, which offers capacity building through educational resources and provides on-call assistance from experts. See more information at: https://www.energy.gov/gdo/tribal-nation-offshore-wind-transmission-technical-assistance-program.

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$350 million in the IRA to fund the implementation and enforcement of FAST-41 through 2031.125

b. Recommendation 2.2: Congress should consolidate permitting and siting authority for multi-state projects that are in the national public interest

Large multi-state transmission lines offer outsized reliability, cost savings, and resilience benefits at the regional and national levels. Yet local opposition, while often rooted in legitimate concerns, can overlook or underestimate the collective value of transmission. The disconnect between local opposition and broader national public interest necessitates a recalibration of the permitting and siting authority paradigm.

Congress should vest and consolidate permitting and siting authority at the federal level for multi-state transmission lines that are in the public interest. This approach is not unprecedented; it draws upon some of the existing framework for siting in NIETCs, which already empowers FERC to step in under specific circumstances.126 However, the scope of current federal statutory authority for transmission siting is limited and does not fully address the complexities and scale of need for modern, multi-state transmission projects.

Congress should build on FERC’s current backstop siting authority for projects in NIETCs by granting comprehensive permitting and siting powers for such projects. The Streamlining Interstate Transmission of Electricity (SITE)127 and Clean Electricity and Transmission Acceleration (CETA)128 Acts serve as possible legislative models, aiming to bolster grid security and reliability through enhanced federal authority, balanced with ample and sensible stakeholder engagement and protections.

This recommendation is made with a clear understanding of the delicate balance between federal oversight and local autonomy, which warrants a structured, transparent, and collaborative approach, ensuring that all stakeholders, including state authorities, local communities, and private entities, are engaged in a constructive dialogue throughout the project lifecycle. This approach is not about undermining local concerns but about elevating and aligning these concerns within a broader national framework, ensuring that the collective benefits of these projects are realized effectively and equitably.

c. Recommendation 2.3: States should harmonize their permitting processes to create regulatory efficiency and allow more concurrent processes 129

State processes need to be harmonized among themselves (state-state) and with federal processes (state-federal). State determinations of project need, through State Certificates of Public Convenience and Necessity (CPCN) or similar siting approval processes, and state-level environmental permitting are often required for transmission facilities. These permitting processes vary greatly in their timelines and applicant requirements, creating a patchwork of distinct regulatory requirements. In some cases, these processes require much more and specific information than federal environmental reviews. Harmonizing state permitting requirements need not require lessening the rigor or authority of state reviews; instead, neighboring states can identify the

best of their distinctive processes to inform reforms that align between them and with federal permitting.

One example of effective harmonization between state and federal environmental reviews is in California under the California Environmental Quality Act (CEQA). The projects reviewed by Niskanen and CATF demonstrate multiple examples of joint EISs and Environmental Impact Reports (EIRs) prepared under NEPA and CEQA. While CEQA’s complexity can leave projects more vulnerable to litigation, it provides an example of how state and federal processes can align, as there is the ability for joint CEQA/NEPA review and state agencies can serve as co-lead agencies under the NEPA process. However, CEQA processes include additional procedural rigor and substantive standards that should not be confused with the requirements for federal environmental review under NEPA and federal authorizations.

Incorporation by reference of state environmental review materials for purposes of federal environmental reviews should also be used as appropriate, following proper validation and verification. For example, in the Hampton-Rochester-La Crosse Transmission System Improvement Project, the Rural Utilities Service (RUS) incorporated by reference information from the Minnesota and Wisconsin EISs in preparing its final EIS.

Project-specific MOUs between state and federal permitting authorities can also help to align processes and tailor coordination to particular needs. While MOUs will not fix all underlying issues in coordination, developing cross-state MOUs requires the type of deeper examinations of state processes that can help identify and routinize areas of alignment between state permitting processes. States should also take advantage of opportunities to participate in FAST-41 under an MOU. So far, no state has opted to do so for a transmission project.

To avoid lengthy sequential review processes, states should revise their need and environmental review processes to be concurrent with federal reviews. In Oregon, for example, the state’s siting process requires a final route be determined before their review can begin, greatly extending permitting timelines for projects that also undergo federal review like the Boardman to Hemingway Transmission Line. Many other states lack such requirements. Another example of streamlining state and federal reviews would be exempting projects that receive thorough federal environmental review from the state environmental review process. Additionally,

134. For example, Massachusetts, Rhode Island, and Connecticut entered into an MOU to coordinate their selection of offshore wind projects to maximize regional benefits and reduce costs. This kind of coordination could serve as a model for interstate coordination on transmission. See Conn., R.I., Mass., Memorandum of Understanding on Offshore Wind Multi-State Coordination (Oct. 3, 2023), https://energy.rj.gov/sites/g/files/xkgbur741/files/2023-10/MA-RI-CT%20Offshore%20Wind%20Procurement%20Collaboration%20Memorandum%20of%20Understanding%20-%20Final%202010-3-23%20CEM%20Sig%20SB45%20.pdf. See also CEQ, in collaboration with states and local jurisdictions that have environmental review processes, has been preparing memoranda which compare and contrast state and local environmental review requirements with NEPA requirements. As CEQ notes, the memoranda are “designed to…find opportunities to realize efficiencies through collaboration with state and local governments by aligning, where appropriate, combining the environmental review process.” https://ceq.doe.gov/laws-regulations/States.html (last visited Mar 13, 2024).

135. See Appendix, for relevant case study: 3. Boardman to Hemingway Transmission Line.

136. For example, a bill introduced during Oregon’s 2024 legislative session would have excluded renewable energy facilities or transmission lines proposed wholly on federal lands and subject to NEPA review from additional state-level review. See HB 4090, 82nd Legislative Assembly (Oregon, 2024), https://olis.oregonlegislature.gov/liz/2024R1/Measures/Overview/HB4090.
there are ongoing discussions regarding the degree to which a federal need designation can be effective in moving a project forward.\textsuperscript{137}

Finally, to support successful state-federal harmonization, Congress and the federal agencies should provide support to states to participate in the federal permitting process and/or to states that incorporate national needs into their siting and permitting processes. See Recommendation 2.1.

d. Recommendation 2.4: The Permitting Council should work with CERPOs to advance projects and coordinate with and support local authorities

Given the balkanization of authority over interstate transmission lines, there is a clear need for centralized federal transmission leadership to coordinate and support states, Tribes, and local authorities along the permitting and approvals process. The Permitting Council should take advantage of existing positions within agencies to support this effort. Specifically, the Council should work with each agency’s CERPO to advance transmission projects.

Federal agencies should not sit passively during the environmental review process for transmission lines; instead, they should take a leading role and use NEPA as a tool to inform other decision-makers and the public about transmission projects. The essential NEPA function of providing information to states, Tribes, and other decision-makers provides an opportunity for CERPOs, the Permitting Council, and other agency staff to support local authorities in making timely related permitting decisions.

3. Improving the Environmental Review and Permitting Process

The NEPA process is intended to support informed federal decision-making and guarantee that information on the environmental effects of major federal actions is made available to a larger audience in the decision-making process. NEPA’s requirements for information sharing have made NEPA the foundation of federal coordination and assessment of environmental impacts of major federal actions. Decades of NEPA implementation have also shown the importance of NEPA-driven coordination with the communities that infrastructure is intended to serve, creating a framework for developing greater social license for major infrastructure projects and identifying ways to mitigate the impacts of projects that are ultimately built.

While upholding these important goals and purposes of NEPA, there are opportunities to improve efficiencies in the federal permitting process. As found through Niskanen and CATF’s in-depth review of 37 transmission projects,\textsuperscript{138} supporting data analysis of the federal environmental transmission permitting process, and conversations with transmission stakeholders,\textsuperscript{139} purposeful and collaborative pre-planning efforts can lead to a more efficient NEPA process. This includes pre-application engagement between developers and agencies to reduce overall project timelines. As one example, Minnesota Power, the developer of the Great Northern Transmission Line, a 220-mile, 500 kV line,\textsuperscript{140} conducted extensive outreach with federal, state, and local agencies, Tribal governments, and landowners along the proposed routes prior to filing applications with the Minnesota Public Utility Commission and DOE for a Presidential Permit required for crossing international borders.\textsuperscript{141} This developer’s approach to stakeholder engagement demonstrates that pre-planning and early collaboration is an important component

\textsuperscript{137} For example, the District Court for the Middle District of Pennsylvania issued a decision in December 2023 limiting state authority to deny transmission projects that a Regional Transmission Organization had determined were needed. See Transource Pennsylvania, LLC v. Steven M. Defrank, et al, 1:21-CV-01101 (M.D. Pa. Dec. 6, 2023), https://casetext.com/case/transource-pa-llc-v-defrank.

\textsuperscript{138} See Appendix, List of Transmission Line Case Studies for in-depth project reviews.

\textsuperscript{139} “Transmission stakeholders” refers to transmission permitting experts, transmission developers, federal officials with knowledge of and experience in transmission siting and permitting, and representatives from Tribal entities and utilities.

\textsuperscript{140} See Appendix, for relevant case study: 26. Great Northern Transmission Line.

of an efficient permitting process; there were only three years\(^\text{142}\) from the issuance of an NOI to prepare an EIS to the start of project construction.\(^\text{143}\) Further, pre-application work can assist in building stakeholder relationships that mitigate conflict in advance of formal federal review. Transparent processes (see above Recommendation 1.4) can provide additional clarity to all stakeholders.

Implementation of these recommendations does not require legislative changes to NEPA. Instead, agencies should take advantage of existing processes and authorities, including through associated rulemakings.\(^\text{144}\) Fuller use of already-established mechanisms to carry out the below proposals will result in a more coordinated, efficient, and inclusive environmental review and permitting process.

\textit{a. Recommendation 3.1: Agencies and developers should conduct early, sustained, and meaningful stakeholder outreach\(^\text{145}\)}

Early, sustained, and meaningful stakeholder outreach is critical to improving project design and identifying and resolving potential conflicts that can create delays in transmission development. Done well, pre-application stakeholder outreach that occurs before the formal start of the NEPA process can increase the efficiency of permitting processes, and the outreach and information-sharing requirements of NEPA itself further support efficient timelines. In particular, developer coordination and engagement with Tribal communities early in the project design process can help ensure mutually beneficial outcomes. Projects that fail to engage in meaningful outreach are exposed to avoidable opposition and delays that slow timelines.

As previously noted, the \textit{Great Northern Transmission Line} provides an example where early and meaningful engagement improved permitting outcomes. This project was planned to cross the U.S.-Canada border near Roseau, Minnesota and continue on to Grand Rapids, Minnesota. In its pre-filing process, the project developer, Minnesota Power, proposed routes that it developed through 75 voluntary meetings and other outreach forums over a five-year period.\(^\text{146}\) The route that emerged at the end of the lengthy stakeholder engagement process had been modified several times to accommodate stakeholders and received letters of support from counties bordering the project and the Red Lake Band of Chippewa Indians, whose land would also border the proposed project.\(^\text{147}\) The resulting federal permitting timeline was comparably quick. After the publication of an NOI in June 2014, it only took until November 2016 for an ROD to be released. Without this up-front stakeholder engagement, the transmission line could have been mired in more serious and time-consuming opposition and litigation.\(^\text{148}\)

Timely, meaningful engagement with impacted communities must be conducted as part of project planning, approval, and post-implementation monitoring. It is also crucial to emphasize the distinct government-to-government responsibilities of federal agencies to ensure robust engagement through the permitting process when consulting with Tribes on projects that may impact natural and cultural

\(^{142}\) Compared with an average of 4.3 years as indicated by findings from our data analysis, See Section C.

\(^{143}\) MINN. STAT. § 216E.03(Subd. 3a, Subd3b), requires any utility that is planning to file an application for a route permit with the Minnesota PUC for a new transmission project to notify local governmental officials within a possible route of the existence of the project and the opportunity for a pre-application meeting.

\(^{144}\) Of course, keeping in mind the pending Supreme Court case that will likely impact Chevron deference to agency decision-making, \textit{Loper Bright Enters., Inc. v. Raimondo}, 45 F.4th 359 (D.C. Cir. 2022), \textit{cert. granted in part}, 2023 WL 358352 (2023) (granting the petition as to Question 2: “Whether the Court should overrule Chevron or at least clarify that statutory silence concerning controversial powers expressly but narrowly granted elsewhere in the statute does not constitute an ambiguity requiring deference to the agency.”).


\(^{148}\) See above note 83.
resources. State and local agencies can coordinate
with Tribal agencies, including through NHPA con-
sultations involving state and Tribal Historic Pres-
servation Officers, and applicants are encouraged to
coordinate with Tribal agencies with jurisdiction or
special expertise regarding the effects of their pro-
posed actions and alternatives. However, coordina-
tion on environmental review under NEPA or con-
sultation under NHPA Section 106 should not be
confused with the sovereign authorities of Tribes to
consult with federal agencies on a government-to-
government basis.149

Transmission developers do many studies pre-
application, but historically Tribes have only been
involved or engaged once the formal study begins.
In some cases, agency consultation issues are to
blame—for example, our research uncovered that
agencies have wrongly told developers not to talk
to Tribes prior to the commencement of the formal
consultation period. Agencies should be resourced
and empowered to invest in capacity-building pro-
grams to support agency personnel and communi-
ties’ ability to meaningfully participate. Implemen-
tation of the NEPA process must prioritize early,
robust, and responsive stakeholder outreach as an
essential aspect, ensuring an efficient and timely
permitting process.

b. Recommendation 3.2: Agencies should
implement robust pre-filing processes 150

Pre-filing processes provide an opportunity for the
applicant and agency to have detailed interactions
before the official commencement of environmental
review. The key purposes of pre-filing are: 1) to allow
an agency and applicant to discuss the application
requirements to create a common understanding of
what must be filed, and 2) to allow an applicant to
vet its project with the agency before filing so that
the agency can identify potentially significant prob-
lems with the project.

FERC has recognized the value of pre-filing pro-
cesses in issuing certificates for natural gas pipe-
lines, and encourages pre-filing procedures for all
major pipelines, noting that it “reduces the time it
takes to develop the record … while ensuring the
highest levels of environmental protection and pub-
lic participation.”151 FERC has found that pre-filing
“provides an opportunity for constructive discus-
sions about potential issues and environmental con-
cerns, and early consideration of alternative pipe-
line routing.”152 FERC adds that, if used effectively,
the pre-filing process “can streamline the review
once an application is filed. It allows the Commis-
sion to focus on any remaining significant issues,
and to make more timely decisions.”153 As part of its
2023 Notice of Proposed Rulemaking on the siting
of interstate electric transmission facilities, FERC
has proposed to revise its policy that the Commis-
sion’s pre-filing processes must begin at least one
year after the filing of relevant state siting applica-
tions in NIETCs, acknowledging that federal and
state pre-filing processes beginning simultaneously
can eliminate an unneeded delay.154

A recent proposal to support pre-filing procedures
is DOE’s proposed Coordinated Interagency Trans-
mission Authorizations and Permits (CITAP) Pro-
gram.155 The CITAP Program would improve the IIP
Process, make participation in the IIP Process
mandatory for a permitting decision from DOE
pursuant to the 2023 MOU (see Section B.2.b),
and set milestones and deadlines for the review of authorizations and environmental reviews.156

Following FERC and DOE’s lead, agencies making decisions about transmission should implement agency-specific pre-filing processes and encourage applicants to opt in to pre-filing where appropriate.157 Agencies are best situated to know what they need from an applicant and whether a project presents a problem that should be dealt with before an application is filed. For this reason, there is not necessarily an advantage to standardizing the pre-filing process across different agencies, although there should be predictability and transparency in what the pre-filing process requires.158 Some amount of standardization at this stage can facilitate coordination at later stages. CEQ can assist this effort by issuing pre-filing guidance specific to transmission. See below, Recommendation 3.3. Pre-filing processes should also be supported with sufficient investments in agency capacity and coordination. See above Recommendation 1.3.

Moreover, to maximize the efficacy and efficiency of pre-filing processes, it is essential that these procedures are designed to complement, rather than replicate, the formal permitting or application processes. By focusing on early identification and resolution of potential issues, pre-filing should streamline the subsequent stages of project approval without introducing unnecessary redundancies. This approach ensures a pre-filing phase adds value by fostering a more collaborative, informed, and efficient path through the regulatory landscape, ultimately benefiting both the agency and the applicant by saving time and resources.

c. Recommendation 3.3: Developers and agencies should engage in early and collaborative identification of alternatives to be analyzed in an environmental impact statement (EIS) 159

The consideration of alternatives is the heart of the environmental analysis of a proposed project. Identifying and evaluating alternatives that meet a project’s purpose, need, and technical requirements is time- and resource-intensive. Evidence from the transmission projects evaluated by Niskanen and CATF demonstrates that project alternatives should be identified as early as is feasible in a collaborative process that includes relevant federal agencies, the project developer, state and local officials, Tribes, relevant stakeholders, and the public. This facilitates the permitting process by identifying the least contentious alternatives early in the planning process, reducing the likelihood of delay from project opposition. See also Recommendation 3.1. That, in turn, creates a strong foundation for the preparation of the EIS and subsequent permitting actions based on the environmental analysis.

For example, Southline Transmission, LLC, based on a series of public meetings, routing workshops, and meetings with local, state, and other federal agencies prior to developing the Southline Transmission Line Project, published a project routing study. Many different route segments were identified and analyzed. This process resulted in two alternatives for the new build section of the project (the other section of the project would upgrade an existing transmission line owned by the Western Area Power Administration [WAPA]). Southline presented the two alternatives to the BLM and WAPA, the joint lead agencies in the preparation of the EIS.

156. Id. at 55828.
157. FERC in early 2023 issued a Notice of Proposed Rulemaking to update backstop siting authority that would, if adopted, allow developers to start pre-filing process with FERC at the same time they start state permitting process (cutting down on delays if backstop siting ultimately becomes primary). See above note 154, 88 Fed. Reg. 2770.
158. For example, the USDA Rural Utilities Service requires applicants to submit special preliminary studies when applying for financing assistance for classes of electric generation and/or transmission projects that require preparation of an EIS. These preliminary studies are the Alternative Evaluation Study, the Site Selection Study and the Macro-Corridor Study. 7 C.F.R. § 1794.51(c) (2024).
Because WAPA and BLM participated in Southline’s routing study and public outreach, they each understood why various route segments were selected or rejected. Both agencies analyzed the Southline alternatives and used the NEPA process to identify reasonable, technically and economically feasible alternatives. As stated by WAPA in its ROD, “[d]ue to Southline’s thorough routing process, extensive stakeholder outreach, and early route screening with Western and the BLM, agency alternatives developed through the NEPA process resulted in only small route variations which could potentially reduce or avoid local resource conflicts.”

Project developers can proactively initiate the investigation of potential alternatives themselves. Agencies can lead early evaluation of project alternatives by engaging with project sponsors and by adopting practices such as the Macro-Corridor Study, a preliminary study that USDA’s RUS requires applicants to submit in anticipation of developing an EIS. CEQ can also support these efforts by developing guidance encouraging early and collaborative identification of alternatives.

**d. Recommendation 3.4: Agencies should carefully expand categorical exclusions for transmission development**

One means of accelerating transmission infrastructure delivery and decreasing project costs is to increase the efficiency of the environmental review and permitting process through the strategic and appropriate use of categorical exclusions. Appropriately using categorical exclusions with adequate environmental and community safeguards for much-needed transmission projects that are known to have no significant impacts is an important way for agencies to accelerate the deployment of transmission infrastructure. Categorical exclusions are not absolute, meaning that if the agency finds an extraordinary circumstance (e.g., identification of adverse effects on threatened or endangered species in the project area) exists and determines that the presumption of a categorical exclusion is overcome, an EA or EIS will be required. This extraordinary circumstances requirement provides a critical safeguard to the use of categorical exclusions where they would not be appropriate.

Available categorical exclusions should be expanded for more categories of projects within existing project rights-of-way that are known to have no significant impacts. Agencies should look for opportunities to establish or expand existing categorical exclusions for transmission development, where EIS-level review is unnecessary. As an example, a recently proposed rule from DOE would revise an existing categorical exclusion (B4.13, which applies to upgrading or rebuilding transmission lines that are approximately 20 miles in length or less) to exclude the mileage limitation. DOE indicated that its experience with power line upgrades and rebuilds does not suggest that a particular mileage limit is a reliable threshold for whether a project has significant effects. Instead, the potential significance of environmental impacts from upgrading or rebuilding power lines more often depends on local environmental conditions, which well-designed definitions of and screening for extraordinary circumstances can safeguard against. Agencies should look to their existing categorical exclusions and, based on their institutional knowledge, consider how they can be thoughtfully expanded to increase the efficiency of environmental review without causing significant impacts to the environment or impacting public participation.

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161. Id. at 22077.
162. As required under the FRA NEPA amendments, an EIS must consider a “reasonable range” of alternatives that includes a consideration of “any negative environmental impacts of not implementing the proposed agency action in the case of the no action alternative,” signaling the benefits of agency action. 42 U.S.C. § 4332(2)(C) (2022).
e. Recommendation 3.5: Agencies should expand the use of programmatic EIS (PEIS) reviews for transmission infrastructure projects, and Congress should ensure that agencies have sufficient capacity to do so.\(^{165}\)

CEQ’s NEPA implementing regulations support the use of broader, programmatic environmental reviews that consider the impacts of programmatic federal actions; for example, actions occurring in the same geography, or actions with relevant similarities, including timing, impacts, implementation, or subject matter.\(^{166}\) CEQ’s NEPA regulations also encourage the use of “tiering” to increase the efficiency of environmental review, eliminate repetitive discussions, and focus on issues ripe for decision.\(^{167}\) Tiering refers to citing earlier NEPA review documents to expedite project-specific environmental review.

For transmission development, a programmatic EIS (PEIS) can be used to identify potential environmental impacts that are common to electric transmission lines, such as viewsheds, migratory birds, and land-use changes. These reviews can be applied where common impacts of transmission development, given the location or nature of particular projects, are “well understood.”\(^{168}\) Programmatic reviews could also identify areas that are more (or less) conducive to transmission and identify potential mitigation measures to be applied on an individual project basis. For example, BLM has issued a draft PEIS to plan for utility-scale solar energy development on public lands throughout the West.\(^{169}\) Under the draft’s proposed alternative, BLM would amend its Western Solar Plan for public land management to make lands available for solar development that have minimal natural resource constraints (e.g., avoiding habitat for sensitive species), less than 10 percent slope, and are located within 10 miles of existing or planned transmission lines.\(^{170}\) Once finalized, this PEIS will also provide a foundation for subsequent, tiered environmental reviews for individual solar projects.

As one potential approach, a transmission PEIS could be prepared alongside Independent System Operator/Regional Transmission Organization plans for transmission development. Additionally, agencies could expressly make PEIS data available to federal and non-federal permitting entities, including state and Tribal Historic Preservation Offices, for purposes of their own environmental reviews.\(^{171}\)

Programmatic reviews are a significant investment of federal resources and so must still be implemented carefully to ensure there are subsequent benefits from improved and faster tiered reviews. For example, programmatic reviews that are likely to facilitate many future project-specific reviews are much more valuable than programmatic reviews with vague, small, or speculative future use. Agencies should consider how they can use their authority to conduct PEISs and do so where there are efficiency gains and where PEIS-level review is appropriate. Congress should provide sufficient funding to agencies to ensure data, staff, and other resources are available to prepare useful PEISs with sufficient levels of detail. Environmental reviews for specific transmission projects could then be tiered off of these PEISs.

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165. See Appendix, case studies: 5. Susquehanna to Roseland Transmission Line; 7. Southwest Intertie Project-South.
166. 40 C.F.R. § 1502.4(b) (2024).
167. 40 C.F.R. § 1501.11 (2024).
f. Recommendation 3.6: DOE and FERC should minimize environmental review redundancy for the NIETC process

There is the potential for a duplication of efforts with respect to NEPA analysis and permitting review process for the use of the NIETC process—first for DOE's corridor designation process, and subsequently through FERC's siting decision for a project through the DOE-designated corridor. This potential redundancy not only risks delaying the implementation of vital infrastructure projects but also imposes additional burdens on the agencies and stakeholders involved. However, given the different focus for each review, in some instances both agencies may need to conduct separate reviews. For the NIETCs that could benefit from coordinated NEPA reviews, existing regulations may help mitigate the risk of redundancy and delays.¹⁷²

To reduce redundancy and truly capitalize on the benefits of the updated FPA, it is imperative that DOE, FERC, and other relevant agencies use existing regulatory authorities and practices to collaborate closely and streamline environmental review for FERC's siting decision, ensuring that environmental protections are upheld without unnecessary duplication of efforts. These existing tools—including tiering, FERC's participation as a cooperating agency in DOE's review, and FERC's adoption of DOE's review—allow DOE and FERC to collaborate directly on environmental reviews and FERC to use part or all of DOE's environmental review for a NIETC when subsequently permitting a transmission line. To the extent the environmental reviews actually address the same issues, these tools will allow FERC's analysis to proceed expeditiously.

¹⁷² See, e.g., collaboration as cooperating agencies, 40 C.F.R. 1501.8; tiering, 40 C.F.R. 1501.11; incorporation by reference, 40 C.F.R. 1501.12; and adoption, 40 C.F.R. 1506.3
E. Conclusion

A significant scale up of high-voltage, long-distance transmission lines is critical to relieving congestion, keeping electricity affordable, interconnecting new clean resources, meeting decarbonization goals, and hardening the grid to weather and security threats. Many have identified the federal permitting process as one area of transmission development due for improvement, but little concrete evidence exists to support claims for suggested improvements.

Niskanen and CATF’s analysis of transmission permitting data, deep dives on key transmission line permitting timelines and litigation, and interviews with developers, government officials, and other transmission stakeholders provide substantial evidence of the current challenges facing federal transmission permitting. These findings are foundational to the recommendations offered in this report to improve permitting while maintaining protections for communities and the environment.

Our recommendations reflect the need for clear, specific, and ongoing leadership from the President, at the White House, and within federal agencies. Maintaining transmission development as a national priority and identifying key actors responsible for permitting process coordination will pay dividends in resolving disputes, clarifying roles, and reducing review timelines. There are opportunities for existing bodies, like the Permitting Council, to lean into their role of coordinating agencies. Making transmission an ongoing national priority will require boosted agency capacity and the use of expertise on transmission infrastructure and joint-agency projects. Though many of our recommendations do not require legislative action, Congress can play a significant role by providing federal agencies with the funding needed to plan and deploy transmission and by consolidating permitting and siting authorities for interstate projects in the public interest.

Transmission lines requiring federal permits can pass through different states, Tribal Nations, and local jurisdictions, each with their own regulatory and community engagement processes. At the same time, they involve and impact communities, developers, and other stakeholders key to project success. Our recommendations posit that federal support of and alignment with state, Tribal, and local processes will improve the entire permitting process. This means federal agencies, in tandem with project developers, should conduct meaningful and sustained stakeholder outreach and help identify alternative routes with stakeholder input. Federal agencies should ensure that state, Tribal, and local entities have enough capacity to participate fully in the permitting process. And where appropriate and responsible, federal agencies can propose categorical exclusions or PEISs.

Finally, our data analysis, the interviews we conducted with stakeholders, and our recommendations show that more data transparency is needed across the board to fully understand permitting processes and timelines, and to promote accountability for each step. Existing tools like the Permitting Dashboard should be better leveraged to enable interagency coordination and provide visibility to the public. Better data collection can make digital tools under development today much more useful and comprehensive while enabling future advances.

Throughout the course of our work, several avenues for continuing research emerged. Though this report focused on federal matters, interviews and transmission line data show that harmonization of state regulatory requirements and processes is integral to the success of interstate transmission lines. More work can be done to investigate federal incentives to smooth out regulatory differences between states, or to investigate ways for states to better coordinate among themselves. It is also likely that there are federal authorities already in effect not explicitly identified in this report that can be leveraged to better the current permitting process.

Niskanen and CATF conducted this work in order to build an evidentiary record for transmission permitting reforms. In doing so, we hope to have provided
not just our own perspective on opportunities to improve the permitting process, but we also hope to have created a body of work from which others may reference, analyze, and draw solutions. We look forward to furthering this important conversation and hope our work prompts additional recommendations that go beyond our own.
Appendix: Transmission Case Studies

This Appendix contains a high-level summary of the 37 electric transmission lines analyzed for this report, with a focus on the National Environmental Policy Act (NEPA) timeline for each project. The goal in reviewing the transmission lines was to develop a thorough understanding of how each project navigated (or failed to navigate) the Federal regulatory process. In particular, the reviews focused on what factors led to efficient permitting, extended permitting, or cancelation of a proposed transmission line.

As noted in the report, there is no centralized database for transmission projects, and, as the authors of this Appendix found, locating permitting documents and decisions for individual projects can be extremely difficult. Although the Permitting Dashboard for Federal Infrastructure Projects was developed to create a comprehensive inventory of environmental reviews and authorizations, in practice it does not provide sufficient information to document the complex, multi-layered permitting process that most electric transmission line developers experience.

Accordingly, the authors analyzed the 37 projects through a piecemeal information-gathering process by reviewing NEPA documents, developers’ websites, court opinions, media and press releases, studies conducted by other interested entities and, where applicable, state permitting agency documents.

To prepare this portion of the analysis of transmission lines that underlies the report, the Niskanen Center and Clean Air Task Force contracted the services of Nils Nichols and Elisabeth Blaug, both of whom worked for many years at the Federal Energy Regulatory Commission (FERC) on legal and policy issues with respect to Federal permitting and siting issues for natural gas infrastructure and hydroelectric projects. Mr. Nichols and Ms. Blaug have extensive NEPA and environmental law backgrounds; Nils is the author of the ‘NEPA Caselaw Digest’ published by the American Bar Association, and Elisabeth worked for the White House’s Council on Environmental Quality from 1991-1998.

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List of Transmission Line Case Studies:

1. Southline Transmission Line Project
2. TransWest Express Transmission Project
3. Boardman to Hemingway Transmission Line
4. Big Eddy-Knight Transmission Project
5. Susquehanna to Roseland Transmission Line
6. Hampton-Rochester-La Crosse Transmission System Improvement Project
7. Southwest Intertie Project-South
8. Sun Valley to Morgan Transmission Line Project
9. Antelope Valley Station-Neset Transmission Line
10. Central Ferry-Lower Monumental Transmission Line Project
11. Vantage to Pomona Heights Transmission Line Project
12. City of Tallahassee Southwestern Transmission Line
13. Tropic to Hatch Transmission Line Project
14. Barren Ridge Renewable Transmission Project
15. Hooper Springs Transmission Project
16. Bemidji-Grand Rapids Transmission Line Project
17. Sigurd to Red Butte Transmission Line Project
18. Tehachapi Renewable Transmission Project
19. Teckla-Osage-Rapid City Transmission Line Project
20. New England Clean Power Link
21. SunZia Southwest Transmission Project
22. Gateway South Transmission Project-Segment
23. Surry-Skiffes Creek-Whealton Project
24. Kake to Petersburg Transmission Intertie Project
25. McClellanville Transmission Project
26. Great Northern Transmission Line
27. Champlain Hudson Power Express
28. Ten West Transmission Line Project
29. Gateway West Transmission
30. Cardinal-Hickory Creek Transmission Line Project
31. Mona to Oquirrh Transmission Corridor Project
32. Sunrise PowerLink Transmission Project
33. Devers-Palo Verde No. 2 Transmission Line
34. Northern Pass Transmission Line Project
35. Potomac-Appalachian Transmission Highline
36. San Luis Transmission Project
37. Plains & Eastern Clean Line
1. Southline Transmission Line Project

Main Takeaways

- Early collaboration among stakeholders facilitates the NEPA process.
- Once a project is permitted, it may take years to complete engineering, acquire needed lands, and finalize commercial arrangements before construction can begin.

Summary

Southline Transmission proposed to construct the Southline Transmission Line Project in New Mexico and Arizona. The project would, among other things, upgrade 120 miles of the Western Area Power Administration's (WAPA) Saguaro-Tucson and Tucson-Apache 115-kV single-circuit transmission lines to a double-circuit 230-kV transmission line. The project would include 225 miles of new 345-kV line between New Mexico and Arizona.

In March 2011, Southline requested financing from WAPA. Based on a series of public meetings, routing workshops, and engagement with local, State, and other Federal agencies prior to developing the project, Southline published a project routing study in April 2012. The study analyzed different route segments designed to maximize the paralleling of existing linear infrastructure, maximize use of existing access roads, and identify and reject route segments with substantial environmental conflicts. This resulted in a “Proponent Preferred” or northern route, and a “Proponent Alternative” or southern route for the New Build portion of the project.

In April 2012, BLM issued a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) with WAPA as a joint lead agency. BLM issued the draft EIS (DEIS) in March 2014 and the final EIS (FEIS) in November 2015. WAPA issued its Record of Decision (ROD) on April 14, 2016, noting that due to Southline’s April 2012 project routing study, alternatives developed through the NEPA process resulted in only small route variations from those originally proposed. BLM issued its ROD on May 6, 2016.

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4. NOI to Prepare EIS at 20412.
6. Id. at 22077.
7. Id.
8. Id.
9. Southline NOI to Prepare EIS.
10. Southline DOE DEIS.
12. Southline WAPA ROD at 22077.
Southine obtained approval from Arizona and New Mexico in February 2017 and August 2017, respectively; the New Mexico State Land Commission granted a right-of-way (ROW) for the project on August 30, 2016.

Southline’s website states that the project is in the final stages of development, which includes completing engineering, concluding land acquisition, and finalizing commercial arrangements. Southline states that “all major...permits have been obtained” and it expects to commence construction in 2025 for Phase 1 (Hidalgo to Vail), which could be operational by 2027, with Phase 2 operational by 2028. In October 2023, the Department of Energy (DOE) announced Phase 1 as one of three transmission lines selected as part of a $1.3 billion funding commitment through the Bipartisan Infrastructure Law’s Transmission Facilitation Program (TFP).

Timeline:

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<tr>
<th>Date</th>
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<tbody>
<tr>
<td>April 4, 2012</td>
<td>BLM NOI to prepare EIS</td>
</tr>
<tr>
<td>March 2014</td>
<td>BLM DEIS</td>
</tr>
<tr>
<td>November 2015</td>
<td>BLM FEIS</td>
</tr>
<tr>
<td>April 5, 2016</td>
<td>WAPA ROD</td>
</tr>
<tr>
<td>May 6, 2016</td>
<td>BLM ROD</td>
</tr>
<tr>
<td>August 30, 2016</td>
<td>New Mexico State Land Commission ROW</td>
</tr>
<tr>
<td>February 2017</td>
<td>Arizona completes siting process</td>
</tr>
<tr>
<td>August 2017</td>
<td>New Mexico completes siting process</td>
</tr>
<tr>
<td>October 2023</td>
<td>DOE selects Phase 1 as TFP project</td>
</tr>
</tbody>
</table>

2. TransWest Express Transmission Project

Main Takeaways:

- Agency coordination is paramount.
- Project scale impacts timelines: TransWest Express is an approximately 730-mile line crossing four states, 14 counties, 15 BLM field offices and five Forest Service offices, convening 49 cooperating agencies in the NEPA review.
- State and federal approvals issued on piecemeal or staggered basis resulted in delay.
- Two federal agencies worked at cross purposes resulting in litigation that delayed the project.

17. Id.
Summary

In November 2007, National Grid filed a ROW application with BLM to construct a transmission line from Wyoming to delivery points in the southwestern U.S., crossing Wyoming, Colorado, Utah, and Nevada.\(^{19}\) The project includes approximately 730 miles of 600 kV transmission lines and two terminals, each containing an AC/DC converter station.\(^ {20}\) The segment between Wyoming and Utah will be a 3,000 MW direct current line; between Utah and Nevada will be two 1,500 MW alternating current segments.\(^ {21}\) In 2008, the project was transferred to TransWest Express, LLC, a newly formed affiliate of the Anschutz Corporation.\(^ {22}\) TransWest Express submitted amended ROW applications in December 2008 and in January 2010 to reflect changes in the proposed project.\(^ {23}\)

WAPA, which provided funding, and BLM, which issued a ROW permit, were joint lead agencies in preparing an EIS.\(^ {24}\) There were 49 cooperating agencies including the Forest Service and Bureau of Reclamation ("Reclamation").\(^ {25}\) The lead agencies issued the NOI to prepare an EIS on January 4, 2011.\(^ {26}\) The Notice of Availability (NOA) of the DEIS on July 3, 2013;\(^ {27}\) and the NOA of the FEIS on May 1, 2015.\(^ {28}\) BLM, WAPA, Reclamation, and the Forest Service issued separate RODs: BLM published its NOA of its ROD on December 16, 2016;\(^ {29}\) WAPA issued its NOA of its ROD on April 3, 2017,\(^ {30}\) and The Forest Service published its NOA of its ROD on May 31, 2017.\(^ {31}\) Reclamation issued its ROD on June 19, 2017.\(^ {32}\)

By January 2020, all federal, state, and county permitting decisions were complete.\(^ {33}\) By June 2021, TransWest Express secured nearly all of the ROWs for the route, including those over 99% of the privately owned lands.\(^ {34}\) The likely hold up of the ROW for the less than one percent of remaining privately owned lands appeared to be from litigation over a conservation easement issued in December 2014 by the Natural Resources Conservation Service (NRCS), part of the U.S. Department of Agriculture (USDA) that

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21. TransWest Express application to BLM for ROW.
23. TransWest Express application to BLM for ROW.
25. Id.
34. Id.
encompassed 0.19 percent of the total conservation easement needed for the project.\textsuperscript{35}

TransWest Express filed a lawsuit against the USDA on December 19, 2019 and a second amended complaint on March 20, 2020.\textsuperscript{36} The parties ultimately reached a settlement in December 2021, which included as a condition that the private parties would grant easements only if NRCS approved applications to waive interest in the easements.\textsuperscript{37} In 2022, TransWest Express finalized acquisition of the remaining private lands.\textsuperscript{38} In September 2023, TransWest began construction in Wyoming.\textsuperscript{39}

**Timeline:**

<table>
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<th>Date</th>
<th>Event Description</th>
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</thead>
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<td>November 2007</td>
<td>National Grid files ROW application</td>
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<tr>
<td>July 2008</td>
<td>TransWest forms and acquires project</td>
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<tr>
<td>December 2008</td>
<td>TransWest amends preliminary BLM ROW application</td>
</tr>
<tr>
<td>January 4, 2011</td>
<td>BLM NOI to prepare EIS</td>
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<tr>
<td>July 3, 2013</td>
<td>BLM NOA of DEIS</td>
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<tr>
<td>May 1, 2015</td>
<td>BLM NOA of FEIS</td>
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<td>December 16, 2016</td>
<td>BLM NOA of ROD</td>
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<tr>
<td>April 3, 2017</td>
<td>WAPA NOA of ROD</td>
</tr>
<tr>
<td>May 2017</td>
<td>Forest Service NOA of ROD</td>
</tr>
<tr>
<td>June 2017</td>
<td>Reclamation NOA of ROD</td>
</tr>
<tr>
<td>December 19, 2019</td>
<td>TransWest files lawsuit against NRCS/USDA</td>
</tr>
<tr>
<td>January 2020</td>
<td>All federal, state and county permits complete</td>
</tr>
<tr>
<td>June 2021</td>
<td>TransWest secures nearly all ROWs</td>
</tr>
<tr>
<td>December 2021</td>
<td>Parties to easement lawsuit file settlement</td>
</tr>
<tr>
<td>June 2022</td>
<td>TransWest finalizes acquisition of all private easements</td>
</tr>
<tr>
<td>September 2023</td>
<td>Construction activity starts in Wyoming</td>
</tr>
</tbody>
</table>

### 3. Boardman to Hemingway Transmission Line

**Main Takeaways**

- Oregon’s approval processes are out of sync with the federal NEPA process; route selection is required before approval process can occur.
- Oregon issued approvals more than 3 ½ years after the federal government issued RODs.

\textsuperscript{36} Id. at 2.
\textsuperscript{38} Project website, https://www.transwestexpress.net/about/history.shtml.
\textsuperscript{39} Id.
Summary

PacifiCorp, Bonneville Power Administration (BPA), and Idaho Power Company proposed to develop a 290-mile, 500-kV line from the Longhorn substation near Boardman, Oregon to the Hemingway substation near Boise, Idaho. The project will provide additional exchange capacity between the Pacific Northwest and the Intermountain West. The line is part of PacifiCorps’ Energy Gateway Transmission Expansion Project, a plan to build more than 2,300 miles of new high-voltage transmission lines, primarily in Wyoming, Utah, Idaho, and Oregon.

The developers applied to BLM for a ROW on December 19, 2007. BLM served as the lead agency alongside several other cooperating federal agencies, including the Army Corps of Engineers (“Corps of Engineers”), BPA, Navy, the U.S. Forest Service (“Forest Service”), Reclamation, and the U.S. Fish and Wildlife Service (FWS). The agencies issued a NOI to prepare an EIS on July 27, 2010, an NOA of the DEIS on December 18, 2014, and the FEIS on November 28, 2016. BLM issued the ROD authorizing a ROW in November 2017.

The Forest Service issued its ROD on November 9, 2018, approving a special-use authorization for the line to cross lands administered by the Wallowa-Whitman National Forest. The Navy issued its ROD on October 19, 2019, allowing for an easement on Navy-administered land.

Oregon requires an energy project developer to obtain a Site Certificate from the Oregon Department of Energy’s Energy Facility Siting Council (ESFC) to construct the project on state land. For a linear facility, like a transmission line, the process requires the transmission line boundary be established (a route selected) and fully evaluated to determine if the project meets established standards.

40. Bonneville Power Administration (BPA) is a federal agency within the U.S. Department of Energy (DOE) that owns and operates more than 15,000 circuit miles of high-voltage transmission lines in the Pacific Northwest. Agency website, https://www.bpa.gov/.
43. Project website.
45. Boardman to Hemingway BLM ROD at 51-52 (Nov. 2017), available at https://eplanning.blm.gov/public_projects/nepa/68150/152690/20171117_Record_Of_Decision.pdf. 34% (100 miles) of the approved route crosses Federal land (29% BLM-administered land, 2% land administered by the U.S. Forest Service, less than 1% land administered by Reclamation, and 2% land administered by the U.S. Department of Defense.
49. Boardman to Hemingway BLM Revised NOI to prepare EIS.
Idaho Power submitted its NOI to apply for a site certificate on August 28, 2008. Throughout the next 10 years, Idaho Power engaged in community outreach and public meetings to obtain input and refine the proposed project. In September 2018, Idaho Power finalized its application for a Site Certificate. EFSC issued a final order on September 27, 2022. In a separate proceeding, on June 29, 2023, the Oregon Public Utility Commission (PUC) issued a Certificate of Public Convenience and Necessity (PCN) authorizing the project.

To date, project construction has not started; PacifiCorps' website states the project is "expected to be placed in-service in 2026."

**Timeline:**

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<td>December 19, 2007</td>
<td>Developers jointly apply for BLM ROW</td>
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<td>August 28, 2008</td>
<td>Idaho Power NOI to apply for Oregon Site Certificate</td>
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<td>July 27, 2010</td>
<td>BLM NOI to prepare EIS</td>
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<td>December 18, 2014</td>
<td>BLM NOA DEIS</td>
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<td>November 28, 2016</td>
<td>BLM NOA FEIS</td>
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<td>November 2017</td>
<td>BLM ROD</td>
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<td>January 9, 2018</td>
<td>BLM ROW</td>
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<tr>
<td>September 2018</td>
<td>Idaho Power applies for Oregon Site Certificate</td>
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<tr>
<td>November 9, 2018</td>
<td>Forest Service ROD</td>
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<tr>
<td>October 19, 2019</td>
<td>Navy ROD</td>
</tr>
<tr>
<td>September 27, 2022</td>
<td>Oregon Site Certificate</td>
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<tr>
<td>March 29, 2023</td>
<td>Oregon Supreme Court upholds Site Certificate</td>
</tr>
<tr>
<td>June 29, 2023</td>
<td>Oregon PUC Certificate of PCN</td>
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</table>

4. Big Eddy-Knight Transmission Project

**Main Takeaway**

- A smaller project will facilitate streamlined review.

**Summary**

As approved, the Big Eddy-Knight Transmission Project is a 28-mile, 500-kV line between BPA's existing Big Eddy Substation in The Dalles, Oregon and a proposed new Knight Substation that would connect to an exist-
The project will accommodate transmission service requests by increasing BPA’s 500-kV transmission capability to move power from the east side of the Cascade Mountains to load centers on the west side of the Cascades and to major transmission lines serving California. On June 3, 2009, BPA, as lead agency, published a NOI to prepare an EIS; Washington Energy Facility Site Evaluation Council and the Oregon Energy Facility Siting Council also participated in preparing the EIS. On December 10, 2010, they published the NOA of the DEIS. BPA issued the FEIS in July 2011 and its ROD in September 2011.

On July 11, 2012, BPA issued a supplemental analysis concluding that the construction of certain temporary structures and roads not previously evaluated did not represent a substantial change to the project. On November 28, 2012, BPA issued another supplemental analysis examining information relevant to the existing transmission line’s crossing of an area of high cultural importance that would be further impacted by construction of the project. The supplemental analysis concluded that the potential to disturb cultural sites and adverse effects will be minimized by design adjustments, and that such design adjustments are not substantial changes to the actions described in the FEIS and the ROD.

Construction of the project began in fall 2011 and underwent design adjustments in the latter half of 2012 and 2013 to accommodate newly discovered culturally sensitive sites along the route. The project was energized in the fall of 2015.

**Timeline:**

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<td>BPA NOI to prepare EIS</td>
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<td>December 2010</td>
<td>BPA NOA of DEIS</td>
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<td>BPA NOA of FEIS</td>
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<td>September 2011</td>
<td>BPA ROD</td>
</tr>
<tr>
<td>July 11, 2012</td>
<td>BPA issues supplemental environmental analysis</td>
</tr>
<tr>
<td>November 28, 2012</td>
<td>BPA issues second supplemental environmental analysis</td>
</tr>
<tr>
<td>Fall 2015</td>
<td>Project energized</td>
</tr>
</tbody>
</table>

61. Id. at 26680.
62. Big Eddy-Knight BPA NOI to prepare an EIS.
68. Id.
5. Susquehanna to Roseland Transmission Line

Main Takeaways

- Locating a transmission line on an existing transmission ROW can expedite a project.
- RTO directives can give projects an imperative and a timeline.
- Compensatory mitigation can assuage critical concerns over project impacts.

Summary

In 2007, PJM Interconnection identified a 500-kV transmission line between the Susquehanna Substation in Pennsylvania and the Roseland Substation in New Jersey as the solution for reliability violations forecasted as part of the FERC-approved Regional Transmission Expansion Plan process.\(^\text{71}\)

In response, Pennsylvania Power and Light Electric Utilities (PPL) and Public Service Electric and Gas Company’s (PSEG) jointly proposed the Susquehanna to Roseland Transmission Line, a 146-mile, 500-kV line that would link the Susquehanna and Roseland substations.\(^\text{72}\) The project, which would upgrade an existing 230-kV line, crosses three units of the National Park Service (NPS): the Delaware Water Gap National Recreation Area, Appalachian National Scenic Trail, and Middle Delaware National Scenic and Recreational River in Pennsylvania and New Jersey.\(^\text{73}\)

PPL filed an application with the Pennsylvania PUC on January 6, 2009,\(^\text{74}\) which authorized the Pennsylvania portion of the line on January 14, 2010.\(^\text{75}\) The New Jersey Board of Public Utilities’ determination of need for the project was granted on February 11, 2010.\(^\text{76}\)

The applicants filed for construction and ROW permits from the NPS to cross three NPS units covering a 4.5 mile section of the 146 mile line.\(^\text{77}\) On January 21, 2010, NPS issued a NOI to prepare an EIS.\(^\text{78}\) The FWS served as a cooperating agency.\(^\text{79}\) NPS published the NOA of the DEIS on November 21, 2011.\(^\text{80}\) In their January 30, 2012, comments on the DEIS, PPL and PSEG proposed as compensatory mitigation a Middle

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73. Susquehanna to Roseland NPS ROD at 63857.
78. Id.
Delaware Mitigation Fund to preserve, restore and enhance NPS lands in the area.\textsuperscript{81} NPS published an NOA of the FEIS on August 31, 2012\textsuperscript{82} and issued the ROD on October 1, 2012.\textsuperscript{83} In December 2012, NPS issued permits for the project and entered into a Memorandum of Agreement with the applicants that established a $66 million compensatory mitigation fund.\textsuperscript{84}

On October 15, 2012, ten environmental groups filed a complaint in the U.S. District Court for the District of Columbia against NPS claiming violations of NEPA and other environmental laws.\textsuperscript{85} In August 2013, the court granted summary judgment for NPS and dismissed as moot a request for a preliminary injunction.\textsuperscript{86} The final portion of the project was energized in May 2015.\textsuperscript{87}

**Timeline:**

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<td>2007</td>
<td>PJM determines project is needed</td>
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<tr>
<td>January 6, 2009</td>
<td>PPL requests authorization from PA PUC</td>
</tr>
<tr>
<td>January 14, 2010</td>
<td>PA PUC approves project</td>
</tr>
<tr>
<td>January 21, 2010</td>
<td>NPS NOI to prepare an EIS</td>
</tr>
<tr>
<td>February 11, 2010</td>
<td>NJ BPU approves project</td>
</tr>
<tr>
<td>November 21, 2011</td>
<td>NPS NOA of DEIS</td>
</tr>
<tr>
<td>August 2012</td>
<td>NPS NOA of FEIS</td>
</tr>
<tr>
<td>October 1, 2012</td>
<td>NPS ROD</td>
</tr>
<tr>
<td>October 15, 2012</td>
<td>Sierra Club et al. lawsuit opposing project</td>
</tr>
<tr>
<td>August 30, 2013</td>
<td>DC District Court grants summary judgment for NPS</td>
</tr>
<tr>
<td>May 2015</td>
<td>Project energized</td>
</tr>
</tbody>
</table>

### 6. Hampton-Rochester-La Crosse Transmission System Improvement Project

**Main Takeaway**

- State and federal coordination results in a more efficient process.

**Summary**

Dairyland Power Cooperative, Xcel Energy, Southern Minnesota Municipal Power Agency, Rochester Public Utilities, and WPPI Energy proposed a 345-kV transmission line (with a new 161-kV line component)

\textsuperscript{83} Susquehanna to Roseland NPS ROD (Oct. 1, 1012), available at https://parkplanning.nps.gov/showFile.cfm?projectId=25147&MIMEtype=application%252Fpdf&filename=SRTRecord%5Fof%5FDecision%5FFINAL%2 Epdf&sfid=143473. 
between Hampton, Minnesota, and La Crosse, Wisconsin.\textsuperscript{88} The total length of the lines as approved is approximately 141 miles.\textsuperscript{89}

On May 28, 2009, the Rural Utilities Service (RUS) published a NOI to prepare an EIS, noting that Dairyland requested financing for the project and that pursuant to the RUS procedures, Dairyland submitted an Alternative Evaluation Study and a Macro Corridor Study for the RUS review.\textsuperscript{90} Based on these studies, the NOI identified preliminary proposed transmission line corridors and siting areas for substations to be considered in the EIS.\textsuperscript{91}

On May 22, 2009, the Minnesota PUC granted a Certificate of Need.\textsuperscript{92} On January 20, 2010, the applicant filed a Route Permit application,\textsuperscript{93} which required a state-level EIS from the Minnesota Department of Commerce.\textsuperscript{94} The Minnesota Department of Commerce published a DEIS in March 2011 and FEIS in August 2011.\textsuperscript{95} The Minnesota PUC approved the Route Permit in May 2012.\textsuperscript{96}

On January 20, 2010, the applicant filed a Route Permit application,\textsuperscript{93} which required a state-level EIS from the Minnesota Department of Commerce.\textsuperscript{94} The Minnesota Department of Commerce published a DEIS in March 2011 and FEIS in August 2011.\textsuperscript{95} The Minnesota PUC approved the Route Permit in May 2012.\textsuperscript{96}

The Wisconsin Public Service Commission (PSC) and the Wisconsin Department of Natural Resources jointly prepared an EIS to inform the Wisconsin PSC's certificate determination.\textsuperscript{97} The DEIS was published in November 2011 and the FEIS was published in January 2012.\textsuperscript{98} The Wisconsin PSC approved the project on May 30, 2012.\textsuperscript{99}

The RUS used information directly from the Minnesota and Wisconsin EISs in preparing its EIS.\textsuperscript{100} The DEIS was issued in December 2011\textsuperscript{101} and the FEIS was issued in July 2012.\textsuperscript{102} The ROD was issued in January 2013.\textsuperscript{103} Construction started in January 2013 and the project was completed in September 2016.\textsuperscript{104}

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\textsuperscript{89} Id. at 4.
\textsuperscript{91} Id. at 25486.
\textsuperscript{94} Minn. Sta. 216B.2425; Minnesota Admin. Rules 7850.1900 Subpart 2; see Hampton-Rochester-La Crosse RUS FEIS, Executive Summary at 4 (July 2012), available at https://www.rd.usda.gov/sites/default/files/UWP_Wi64-Dairyland_CapXHRLC_FEIS-Cover-TOC.pdf.
\textsuperscript{95} See Hampton-Rochester-La Crosse RUS FEIS, Executive Summary at 4-5.
\textsuperscript{96} Minnesota Commerce Department website, Docket No. E002/TL-09-1448.
\textsuperscript{98} Hampton-Rochester-La Crosse RUS FEIS, Executive Summary at 4-5.
\textsuperscript{100} Hampton-Rochester-La Crosse RUS DEIS at 3.
\textsuperscript{102} Hampton-Rochester-La Crosse RUS FEIS.
\textsuperscript{103} Hampton-Rochester-La Crosse RUS ROD.
\textsuperscript{104} Minnesota Commerce Department website, Docket No. E002/TL-09-1448.
### Timeline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 22, 2009</td>
<td>Minnesota PUC Certificate of Need</td>
</tr>
<tr>
<td>May 28, 2009</td>
<td>RUS NOI to prepare EIS</td>
</tr>
<tr>
<td>January 20, 2010</td>
<td>Dairyland applies for Route Permit</td>
</tr>
<tr>
<td>March 2011</td>
<td>Minnesota DEIS</td>
</tr>
<tr>
<td>August 2011</td>
<td>Minnesota FEIS</td>
</tr>
<tr>
<td>November 2011</td>
<td>Wisconsin DEIS</td>
</tr>
<tr>
<td>December 2011</td>
<td>RUS DEIS</td>
</tr>
<tr>
<td>January 2012</td>
<td>Wisconsin FEIS</td>
</tr>
<tr>
<td>May 2012</td>
<td>Minnesota approves Route Permit</td>
</tr>
<tr>
<td>May 30, 2012</td>
<td>Wisconsin approves certificate of PC&amp;N</td>
</tr>
<tr>
<td>July 2012</td>
<td>RUS FEIS</td>
</tr>
<tr>
<td>January 2013</td>
<td>RUS ROD/construction starts</td>
</tr>
<tr>
<td>September 2016</td>
<td>Project completed</td>
</tr>
</tbody>
</table>

### 7. Southwest Intertie Project-South

**Main Takeaway**

- Adopting previous NEPA reviews facilitates streamlined decisions.

**Summary**

Idaho Power Company, and later Great Basin Transmission, proposed the Southwest Intertie Project (SWIP), a 520-mile, 500-kV transmission line from the Harry Allen Substation near Las Vegas, Nevada, to the Midpoint Substation, near Twin Falls, Idaho. In July 1993, BLM prepared an EIS, and in December 1994 issued a ROD for SWIP. Great Basin Transmission decided to develop SWIP as two independent transmission projects: SWIP-South and SWIP-North. SWIP-South comprises a 235-mile, 500-kV southern portion of SWIP, extending from the Harry Allen Substation near Las Vegas, Nevada, northward to the proposed ThirtyMile Substation near Ely, Nevada.

In July 2008, BLM prepared an Environmental Assessment (EA) for SWIP-South, which analyzed the impacts of amending the previously approved ROWs for SWIP, and updated relevant areas evaluated in the 1994 SWIP EIS. In July 2008, the BLM issued a Finding of No Significant Impact (FONSI).

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106. Id.
107. Id.
108. Id.
In response to Great Basin’s request for partial financing from WAPA, WAPA issued an EIS in January 2010 comprising a four-page cover letter in which it attached and adopted BLM’s 1993 SWIP EIS and 2008 SWIP EA, finding that WAPA’s financing would not change the environmental impacts.\(^{112}\) Because WAPA later decided not to provide financial assistance for SWIP-South, DOE decided to conditionally support SWIP-South through DOE’s its Loan Guarantee Program, and on October 26, 2010, published a ROD stating it based its decision on WAPA’s January 2010 EIS (which had adopted BLM’s 1993 EIS and 2008 EA).\(^{113}\) In January 2014, the line, renamed One Nevada Transmission Line, was completed.\(^{114}\)

### Timeline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1993</td>
<td>BLM issues EIS for entire SWIP project</td>
</tr>
<tr>
<td>December 1994</td>
<td>BLM ROD for entire SWIP project</td>
</tr>
<tr>
<td>July 2008</td>
<td>BLM EA for SWIP-South</td>
</tr>
<tr>
<td>January 2010</td>
<td>WAPA issues EIS that adopts BLM EIS/EA</td>
</tr>
<tr>
<td>October 26, 2010</td>
<td>DOE issues ROD that adopts WAPA EIS</td>
</tr>
<tr>
<td>January 2014</td>
<td>Project completed</td>
</tr>
</tbody>
</table>

### 8. Sun Valley to Morgan Transmission Line Project

#### Main Takeaways

- Projects within one state have fewer complications; a key federal permit was issued in less than 3 years from the start of the NEPA process.
- Small project means fewer complications; here, the transmission line was 38 miles.
- Early state approval is key: the state certificated the project route before the federal permitting process started.

#### Summary

In July 2008, Arizona Public Service (APS) filed an application with the Arizona Corporation Commission (ACC) proposing a 38-mile, 500-kV and 230-kV transmission line from the Sun Valley Substation to the Morgan Substation.\(^ {115}\) The lines would be constructed on monopole structures.\(^ {116}\)

In March 2009, the ACC certificated a route that modified the APS proposal to include the BLM lands

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north of State Route 74. The BLM rejected the application in April 2010 because the Bradshaw-Harquahala Resource Management Plan for the area did not include a BLM-designated utility corridor along State Route 74. APS appealed the decision and in December 2010 BLM agreed to prepare an EIS to consider an amendment to the Resource Management Plan to include a utility corridor along the requested route.

The BLM published a NOI to prepare an EIS on April 11, 2011 and an NOA of the DEIS on November 16, 2012. In June 2013, the BLM issued the FEIS and issued its ROD granting a right-of-way on January 16, 2014. The project was in-service as of April 2018.

**Timeline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2008</td>
<td>APS submits proposal to ACC</td>
</tr>
<tr>
<td>March 2009</td>
<td>ACC certificates project route</td>
</tr>
<tr>
<td>April 2010</td>
<td>BLM rejects APS ROW application</td>
</tr>
<tr>
<td>December 2010</td>
<td>BLM agrees to prepare an EIS for the project</td>
</tr>
<tr>
<td>April 11, 2011</td>
<td>BLM NOI to prepare EIS</td>
</tr>
<tr>
<td>November 16, 2012</td>
<td>BLM NOA of DEIS</td>
</tr>
<tr>
<td>June 2013</td>
<td>BLM FEIS</td>
</tr>
<tr>
<td>January 16, 2014</td>
<td>BLM ROD</td>
</tr>
<tr>
<td>April 2018</td>
<td>Project in-service</td>
</tr>
</tbody>
</table>

**9. Antelope Valley Station-Neset Transmission Line**

**Main Takeaway**

- Project in a single state has fewer complications and results in faster permitting.

**Summary**

Basic Electric Power Cooperative proposed the Antelope Valley Station-Neset Line to meet the need for addi-
tional transmission capacity in northwestern North Dakota. The final project design included a 265-mile, 345-kV transmission line, a 13-mile, 230-kV line, and five new substations. The project would connect the Integrated System to the high-voltage transmission grid in the upper Great Plains, managed by WAPA, at several locations.

Basin requested financial assistance from the RUS, which served as the lead federal agency for the NEPA review. WAPA and the Forest Service were cooperating agencies. They published the NOI to prepare an EIS on November 2, 2011, the DEIS in November 2012, and the supplemental DEIS in December 2013 to evaluate project changes that resulted from an increase in the electric load forecast. In May 2014, the RUS issued the FEIS.


Timeline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 2, 2011</td>
<td>RUS NOI to prepare an EIS</td>
</tr>
<tr>
<td>November 2012</td>
<td>RUS DEIS</td>
</tr>
<tr>
<td>December 2013</td>
<td>RUS supplemental DEIS</td>
</tr>
<tr>
<td>April 2014</td>
<td>North Dakota PSC approval</td>
</tr>
<tr>
<td>May 2014</td>
<td>RUS FEIS</td>
</tr>
<tr>
<td>September 22, 2014</td>
<td>RUS NOA of ROD</td>
</tr>
<tr>
<td>December 8, 2014</td>
<td>WAPA ROD</td>
</tr>
<tr>
<td>2017</td>
<td>Project completed</td>
</tr>
</tbody>
</table>

128. Id.
130. Antelope Valley Station-Neset RUS ROD.
131. Antelope Valley Station-Neset RUS NOI to prepare EIS.
10. Central Ferry-Lower Monumental Transmission Line Project

Main Takeaway

- A smaller project in a single state has fewer complications.

Summary

BPA proposed the Central Ferry-Lower Monumental Transmission Line Project in Washington, comprising a 38–40 mile, 500-kv line from BPA's new Central Ferry Substation in Garfield County, Washington west to BPA's existing Lower Monumental Substation in Walla Walla County, Washington.\(^ \text{139} \)

BPA served as the lead agency.\(^ \text{140} \) In furtherance of cooperative agreements between BPA and Washington, the Washington Energy Facility Site Evaluation Council also participated in preparation of the EIS.\(^ \text{141} \) The agencies issued a NOI to prepare an EIS on June 19, 2009,\(^ \text{142} \) the DEIS in July 2010,\(^ \text{143} \) and the FEIS in February 2011.\(^ \text{144} \) BPA issued the ROD in March 2011 approving the 38-mile line.\(^ \text{145} \)

In August 2011, BPA put the project on hold because of uncertainties regarding the readiness of customer utilities.\(^ \text{146} \) After an approximately two year delay, project construction moved forward, and the line was energized in late 2015.\(^ \text{147} \)

Timeline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 19, 2009</td>
<td>BPA NOI to prepare EIS</td>
</tr>
<tr>
<td>July 2010</td>
<td>BPA DEIS</td>
</tr>
<tr>
<td>February 2011</td>
<td>BPA FEIS</td>
</tr>
<tr>
<td>March 2011</td>
<td>BPA ROD</td>
</tr>
<tr>
<td>August 2011</td>
<td>BPA puts project on hold to reassess need</td>
</tr>
<tr>
<td>2013</td>
<td>BPA decides to move forward with project</td>
</tr>
<tr>
<td>Late 2015</td>
<td>Project energized</td>
</tr>
</tbody>
</table>

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142. Id.


11. Vantage to Pomona Heights Transmission Line Project

Main Takeaway

- Early identification of a new alternative delayed the issuance by 2 years.

Summary

Pacific Power, a division of PacifiCorp, proposed the Vantage to Pomona Heights Transmission Line Project, a new 230-kV line that would extend approximately 40 miles from Yakima County, Washington to Grant County, Washington.\(^{148}\)

In April 2008, Pacific Power submitted a request to BPA to interconnect the project to BPA's Vantage Substation.\(^{149}\) In October 2008, Pacific Power filed ROW applications with the BLM and the Army Joint Base Lewis-McChord Yakima Training Center (JBLMYTC).\(^{150}\) In April 2011, Pacific Power filed a ROW application with Reclamation.\(^{151}\) Pacific Power filed updated applications with JBLMYTC in November 2013, and with the BLM and Reclamation in June 2016.\(^{152}\) The BLM served as the lead federal agency, with twelve other public entities, including Reclamation and BPA, as cooperating agencies.\(^{153}\)

The BLM published a NOI to prepare an EIS on January 5, 2010.\(^{154}\) On January 4, 2013, the BLM issued the DEIS.\(^{155}\) Comments on the DEIS identified a new alternative route, triggering a supplemental DEIS, which they issued in January 2015.\(^{156}\) On October 21, 2016, BLM issued the FEIS.\(^{157}\) In January 2017, Reclamation issued its ROD.\(^{158}\) On October 16, 2017, BPA issued its ROD.\(^{159}\) Project was completed in May 2020.\(^{160}\)

Timeline:

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>2008</td>
<td>Pacific Power submits ROW applications</td>
</tr>
<tr>
<td>April 2008</td>
<td>Pacific Power files to interconnect with BPA</td>
</tr>
<tr>
<td>January 2010</td>
<td>BLM NOI to prepare EIS</td>
</tr>
</tbody>
</table>

149. Id. at 2.
150. Id.
151. Id.
152. Id.
153. Id.
April 2011  Pacific Power submits ROW application to Reclamation
January 4, 2013  BLM DEIS
November 2013  Pacific Power updates ROW application
January 2, 2015  BLM NOA of supplemental DEIS
June 2016  Pacific Power updates ROW application
October 21, 2016  BLM FEIS
January 13, 2017  Reclamation ROD
October 16, 2017  BPA ROD

12. City of Tallahassee Southwestern Transmission Line

Main Takeaways

• A small project within one state will result in more efficient environmental review.
• Unclear what happened to this project.

Summary

The City of Tallahassee proposed the 230-kV Southwestern Transmission Line that would connect the Hopkins-Crawfordville 230-kV line south of the Tallahassee Regional Airport with the existing BP-5 S Substation.\(^{161}\) The project would be approximately eight miles long, of which 6.4 miles would be in the Apalachicola National Forest.\(^{162}\) The portion of the project in the forest would be adjacent to an existing utility corridor currently under a Forest Service special use permit with Florida Gas Transmission Company.\(^{163}\)

On October 14, 2010, the Forest Service issued a NOI to prepare a DEIS.\(^{164}\) They published the NOA of the DEIS on December 23, 2011.\(^{165}\) The Forest Service issued the FEIS in March 2012\(^{166}\) and the ROD authorizing the issuance of a special use permit on March 16, 2012.\(^{167}\) Further information about the final project status is not easily accessible in the public record.

Timeline:

October 14, 2010  Forest Service NOI to prepare EIS
December 23, 2011  Forest Service NOA of DEIS
March 2012  Forest Service FEIS
March 16, 2012  Forest Service ROD


\(^{162}\) Id.

\(^{163}\) Id.

\(^{164}\) Id.


13. Tropic to Hatch Transmission Line Project

Main Takeaway

- Smaller project footprint has fewer permitting complications.

Summary

Garkane Energy Cooperative proposed a 138-kV line from a new East Valley Substation east of Tropic to the Hatch Substation along a 31-mile route. The project would cross federal lands and therefore requires a Forest Service special use easement across the Dixie National Forest, a BLM ROW, a proposed amendment to the Grand Staircase-Escalante National Monument Management Plan, potential Bryce Canyon National Park issuance of a special park permit for a ROW, and Utah School and Institutional Trust Lands Administration issuance of a ROW.

The Forest Service served as the lead agency, and the BLM and the NPS as cooperating agencies. The agencies published a NOI to prepare an EIS on February 21, 2008, the DEIS in December 2009, and the FEIS in April 2011. The Forest Service issued its ROD in April 2011. The BLM published its NOA of the ROD on September 14, 2011. Construction began in 2013 and the project was energized in 2019.

Timeline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 21, 2008</td>
<td>BLM NOI to prepare an EIS</td>
</tr>
<tr>
<td>December 2009</td>
<td>BLM DEIS</td>
</tr>
<tr>
<td>April 2011</td>
<td>BLM FEIS</td>
</tr>
<tr>
<td>April 2011</td>
<td>Forest Service ROD</td>
</tr>
<tr>
<td>September 14, 2011</td>
<td>BLM NOA of ROD</td>
</tr>
<tr>
<td>2013</td>
<td>Construction commences</td>
</tr>
<tr>
<td>2019</td>
<td>Project energized</td>
</tr>
</tbody>
</table>


171. Tropic to Hatch Forest Service NOI to prepare EIS.


14. Barren Ridge Renewable Transmission Project

Main Takeaway

- Smaller project footprint within one state helps streamline the permitting process.

Summary

In February 2007, the Los Angeles Department of Water and Power (LADWP) filed a special use application with the Forest Service to cross the Angeles National Forest for the Barren Ridge Renewable Transmission Project in California, which would, as proposed: expand the existing Barren Ridge Switching Station and construct a new Haskell Canyon Switching Station; add 61 miles of new double-circuit, 230-kV transmission between the two switching stations; upgrade the existing Barren Ridge-Rinaldi 230-kV line with larger capacity conductor wires for 76 miles between the Barren Ridge Switching Station and the Rinaldi Station; add 12 miles of new 230-kV line to be attached to existing towers between Haskell Canyon and the Castaic Power Plant.\(^{177}\)

The proposed line would cross BLM and National Forest System lands.\(^{178}\) The Forest Service and the BLM served as co-lead agencies for the EIS.\(^{179}\) LADWP was the lead agency for the California Environmental Impact Report (EIR).\(^{180}\) The BLM, Forest Service, and LADWP published a NOI to prepare a joint EIS/EIR on April 7, 2008.\(^{181}\) They published the NOA of the DEIS/EIR on August 26, 2011\(^ {182}\) and the NOA of the FEIS/EIR on August 10, 2012.\(^ {183}\)

LADWP approved those components of the project under its jurisdiction in August 2012 and issued a Notice of Determination on September 26, 2012.\(^ {184}\) The BLM signed its ROD on September 24, 2012.\(^ {185}\) The Forest Service issued its ROD on June 14, 2013.\(^ {186}\) The project was placed in service on September 29, 2016.\(^ {187}\)

Timeline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 7, 2008</td>
<td>Forest Service and BLM NOI to prepare EIS</td>
</tr>
<tr>
<td>August 2011</td>
<td>Forest Service and BLM NOA of DEIS</td>
</tr>
<tr>
<td>August 2012</td>
<td>Forest Service and BLM NOA of FEIS</td>
</tr>
<tr>
<td>August 14, 2012</td>
<td>LADWP approves its project components</td>
</tr>
</tbody>
</table>

179. Id.
180. Id.
181. Id.
186. Id.; Barren Ridge Forest Service ROD.
15. Hooper Springs Transmission Project

Main Takeaways

- Agencies should identify potential issues as early as feasible while the NEPA process should identify important information that informs and results in project revisions. The later issues are identified, the longer the process takes.

- Here, the NEPA process took six years because route options/alternatives were revised several times.

Summary

BPA proposed the Hooper Springs Transmission Project comprising the following: 1) A new 138/115-kV Hooper Springs Substation; 2) a new 24-mile, 115-kV transmission line extending from the Hooper Springs Substation to a new BPA facility that will connect the new line to Lower Valley Energy's existing transmission system in Caribou County, Idaho; and 3) a new 0.2-mile, single circuit 138-kV transmission line extending from the Hooper Springs Substation to PacifiCorp's existing Threemile Knoll Substation to connect the new line to the regional transmission grid.\(^{188}\)

In May 2009, BPA issued a preliminary EA which revealed that the proposed route crossed contaminated mining sites that are the subject of a Superfund Site Investigation; accordingly, BPA determined that an EIS was required.\(^{189}\)

BPA served as the lead agency, with Forest Service, the BLM, and the Idaho Governor’s Office of Energy Resources as cooperating agencies.\(^{190}\) The agencies issued a NOI to prepare an EIS on July 8, 2010\(^{191}\) and the DEIS in March 2013.\(^{192}\) In May 2014, BPA issued a supplemental DEIS to evaluate an additional route option.\(^{193}\) The agencies issued the FEIS in January 2015.\(^{194}\) BPA issued its ROD in March 2015.\(^{195}\) The Forest Service issued its ROD in February 2015.\(^{196}\) The project was energized in October 2019.\(^{197}\)

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190. Id.
191. Id.
16. Bemidji-Grand Rapids Transmission Line Project

Main Takeaway

- Single state, smaller footprint projects result in a more efficient process.

Summary

Minnkota Power Cooperative, Otter Tail Power Company, and Minnesota Power proposed the Bemidji-Grand Rapids Transmission Line, an approximately 68-mile, 230-kV line between Bemidji, Minnesota and Grand Rapids, Minnesota. The project will meet future electric demand and maintain electric transmission reliability standards. It is part of CapX2020, which is a joint initiative of 11 transmission-owning utilities in Minnesota, North Dakota, South Dakota, and Wisconsin, formed to expand the electric transmission grid to ensure continued reliable service.

Minnkota Power applied to the RUS for project financing. The RUS and the State of Minnesota jointly served as lead agencies, with the Forest Service, Corps of Engineers, U.S. Bureau of Indian Affairs (BIA), and the Leech Lake Band of Ojibwe as cooperating agencies. The RUS issued a NOI to prepare an EIS on July 18, 2008, noting it would prepare the EIS jointly with the Minnesota Department of Commerce, Office of Energy Security. They issued the DEIS in February 2010. They issued the FEIS in September 2010. The RUS issued the ROD in November 2010.

200. Id. at ES-4.
202. Bemidji-Grand Rapids RUS NOI to prepare EIS at 41313.
203. Id.
204. Id. at 41312.
The Minnesota PUC issued its order adopting the proposed Route Permit for the project in November 2010.\textsuperscript{208} The project was energized in September 2012.\textsuperscript{209}

**Timeline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 18, 2008</td>
<td>RUS NOI to prepare DEIS</td>
</tr>
<tr>
<td>February 2010</td>
<td>RUS DEIS</td>
</tr>
<tr>
<td>September 15, 2010</td>
<td>RUS NOA of FEIS</td>
</tr>
<tr>
<td>November 2010</td>
<td>Minnesota PUC Route Permit</td>
</tr>
<tr>
<td>November 2010</td>
<td>RUS ROD</td>
</tr>
<tr>
<td>September 2012</td>
<td>Project energized</td>
</tr>
</tbody>
</table>

17. Sigurd to Red Butte Transmission Line Project

**Main Takeaway**

- Early stakeholder process streamlines the permitting process.

**Summary**

PacifiCorp, d/b/a Rocky Mountain Power (“Rocky Mountain”), proposed a 170-mile line between Sevier County, Utah, and Washington County, Utah to respond to anticipated load growth in southwestern Utah.\textsuperscript{210} The project is one segment of PacifiCorps’ Energy Gateway Transmission Expansion Program.\textsuperscript{211}

On December 19, 2008, Rocky Mountain submitted a ROW application to the BLM and the Forest Service to cross their respective lands, which they revised on September 11, 2009 and July 5, 2011 to reflect changes to the project.\textsuperscript{212} In the year between the initial December 2008 application and the January 5, 2010 NOI to prepare an EIS, the federal agencies and the applicant invested significant resources in the public scoping process.\textsuperscript{213} As a result, the draft EIS included an agency preferred route.\textsuperscript{214} After the close of the DEIS comment period, the applicant had enough certainty and public acceptance of the preferred route to submit applications for all local and state permits.\textsuperscript{215} They received all permits without any public opposition.\textsuperscript{216}

The BLM served as the lead agency, and cooperating agencies included the Forest Service and other federal,\textsuperscript{210, 211, 212, 213, 214, 215, 216}
state, and county agencies. The agencies published the NOA of the DEIS on May 27, 2011. They published their NOA of the FEIS on October 5, 2012. The BLM issued its ROD in December 2012.

On September 17, 2012, Rocky Mountain applied to the Utah PSC for a certificate for the project. Utah PSC issued the certificate on March 19, 2013. The project was placed in service in May 2015.

**Timeline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 19, 2008</td>
<td>Rocky Mountain applies for BLM/Forest Service ROW</td>
</tr>
<tr>
<td>September 11, 2009</td>
<td>BLM and Forest Service revise ROW application</td>
</tr>
<tr>
<td>January 5, 2010</td>
<td>BLM NOI to prepare DEIS</td>
</tr>
<tr>
<td>May 27, 2011</td>
<td>BLM NOA of DEIS</td>
</tr>
<tr>
<td>July 5, 2011</td>
<td>BLM and Forest Service revise ROW application</td>
</tr>
<tr>
<td>September 17, 2012</td>
<td>Rocky Mountain applies for Utah PSC certificate</td>
</tr>
<tr>
<td>December 2012</td>
<td>BLM ROD</td>
</tr>
<tr>
<td>March 19, 2013</td>
<td>Utah PSC issues certificate</td>
</tr>
<tr>
<td>May 2015</td>
<td>Project placed in service</td>
</tr>
</tbody>
</table>

**18. Tehachapi Renewable Transmission Project**

**Main Takeaway**

- Unexpected and unforeseen events can delay the permitting process. Here, shortly before the DEIS/EIR was issued, a fire affected 75% of the project area on Forest Service lands, requiring a supplemental EIS.

- Late identification of an issue raised by another agency extended the NEPA process.

**Summary**

The Tehachapi Renewable Transmission Project is a series of new and upgraded high-voltage electric transmission lines with eight segments totaling 173 miles, proposed to be constructed and operated by Southern California Edison (SCE). The project would be located within Kern, Los Angeles, and San Bernardino counties, California.

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219. Sigurd to Red Butte BLM NOA of FEIS.


222. Id.


225. Id.
On June 29, 2007, SCE filed an application with California PUC for a Certificate of Public Convenience and Necessity to construct the project.\textsuperscript{226} SCE also filed an application for a special use authorization with the Forest Service on June 29, 2007 because the proposed transmission line would traverse approximately 42 miles of National Forest System lands.\textsuperscript{227}

On September 7, 2007, the Forest Service issued a NOI to prepare a joint EIS/EIR with the California PUC.\textsuperscript{228} An NOA for the DEIS/EIR was issued on February 20, 2009.\textsuperscript{229} Shortly before they issued DEIS/EIR, the Station Fire broke out and caused widespread damage in the project area.\textsuperscript{230} An estimated 75\% of the project area on Forest Service lands was affected by the fire.\textsuperscript{231} The Forest Service determined additional analysis was required, but because these changed conditions did not necessitate the preparation of a supplemental EIR, the process to prepare a joint FEIS/EIR was discontinued, and the Forest Service and CPUC proceeded to independently complete their respective environmental reviews.\textsuperscript{232} In October 2009, the CPUC issued its final EIR.\textsuperscript{233}

On February 8, 2010, Forest Service issued a NOI to prepare a draft supplemental EIS addressing impacts of the fire on Forest Service lands.\textsuperscript{234} The Forest Service published the NOA of the draft supplemental EIS on April 30, 2010,\textsuperscript{235} the NOA of the final supplemental EIS on September 24, 2010,\textsuperscript{236} and the ROD on October 4, 2010.\textsuperscript{237}

Earlier approvals of the project by the CPUC and Forest Service required SCE to consult with the Federal Aviation Administration (FAA) for aviation safety.\textsuperscript{238} The FAA recommended installing marker balls on certain transmission line spans and aviation lighting on certain transmission structures, thus requiring project modifications.\textsuperscript{239} In light of this, on September 26, 2012, the Forest Service issued a NOI to prepare a joint supplemental EIS/EIR with CPUC for the project.\textsuperscript{240} The agencies issued the draft on April 11, 2013.\textsuperscript{241}

\begin{itemize}
\item \textsuperscript{227} Id.
\item \textsuperscript{228} Tehachapi Forest Service NOI to prepare EIS.
\item \textsuperscript{230} Tehachapi Forest Service NOI to prepare Supplemental DEIS, 75 Fed. Reg. 6168 (Feb. 8, 2010), available at https://www.govinfo.gov/content/pkg/FR-2010-02-08/pdf/2010-2263.pdf.
\item \textsuperscript{231} Id.
\item \textsuperscript{232} Tehachapi Forest Service ROD at 2 (Oct. 2010), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5212352.pdf.
\item \textsuperscript{233} Id. Contradicting this language in the ROD, the U.S. Forest Service appears to have been a signatory to CPUC's Final EIR. Tehachapi CPUC Final EIR (Oct. 2009), available at https://file.lacounty.gov/SDSInter/bos/supdocs/58826.pdf.
\item \textsuperscript{234} Tehachapi Forest Service NOI to prepare Supplemental DEIS.
\item \textsuperscript{237} Tehachapi Forest Service ROD (Oct. 4, 2010), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5212352.pdf.
\item \textsuperscript{239} Id.
\item \textsuperscript{240} Id.
\end{itemize}
and the final in October 2014. The Forest Service issued its ROD on October 17, 2014. In Q4 2016, the project was energized.

**Timeline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>June 29, 2007</td>
<td>SCE submits special use application to Forest Service</td>
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<tr>
<td>June 29, 2007</td>
<td>SCE submits project certificate application to CPUC</td>
</tr>
<tr>
<td>September 7, 2007</td>
<td>Forest Service NOI to prepare joint EIS/EIR</td>
</tr>
<tr>
<td>February 20, 2009</td>
<td>Forest Service NOA of DEIS/EIR</td>
</tr>
<tr>
<td>Summer 2009</td>
<td>Station fire in project area</td>
</tr>
<tr>
<td>October 2009</td>
<td>Forest Service and CPUC final EIR</td>
</tr>
<tr>
<td>February 8, 2010</td>
<td>Forest Service NOI to prepare draft supplemental EIS</td>
</tr>
<tr>
<td>April 30, 2010</td>
<td>Forest Service NOA of draft supplemental EIS</td>
</tr>
<tr>
<td>September 24, 2010</td>
<td>Forest Service NOA of final supplemental EIS</td>
</tr>
<tr>
<td>October 4, 2010</td>
<td>Forest Service ROD</td>
</tr>
<tr>
<td>September 26, 2012</td>
<td>Forest Service NOI to prepare joint supplemental EIS/EIR</td>
</tr>
<tr>
<td>April 11, 2013</td>
<td>Forest Service draft supplemental EIS/EIR</td>
</tr>
<tr>
<td>October 2014</td>
<td>Forest Service final supplemental EIS/EIR</td>
</tr>
<tr>
<td>Q4 2016</td>
<td>Project energized</td>
</tr>
</tbody>
</table>

19. **Teckla-Osage-Rapid City Transmission Line Project**

**Main Takeaway**

- From the NOI to preparing an EIS to project operation took just more than 5 years.

**Summary**

Black Hills Power proposed a 150-mile, 230-kV, transmission line between Wyoming and Rapid City, South Dakota, to strengthen the regional transmission network, improve system reliability, and help meet regional demand. In South Dakota, the project would cross the Black Hills National Forest. In Wyoming, the project would cross the Thunder Basin National Grasslands, private lands, state lands, and BLM lands.

The Forest Service served as the lead agency with the BLM as a cooperating agency. On August 26, 2011,

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242. *Id.*
243. *Id.*
246. *Id.*
247. *Id.*
248. *Id.*
the Forest Service published a NOI to prepare an EIS. They issued the DEIS in December 2013 and published the NOA of the FEIS on December 5, 2014. On May 19, 2015, the Forest Service and the BLM issued a joint ROD as well as separate RODs for lands within their respective jurisdictions.

Black Hills Power filed an application to the South Dakota PUC on June 30, 2014, which was approved on December 24, 2014. In July 2015, the Wyoming PSC approved Black Hill’s request to construct a 15-mile segment of the project. Black Hills Power started construction in March 2016 and the project was placed in service by December 2016.

**Timeline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 2011</td>
<td>Forest Service NOI to prepare DEIS</td>
</tr>
<tr>
<td>December 24, 2013</td>
<td>Forest Service DEIS</td>
</tr>
<tr>
<td>June 30, 2014</td>
<td>Black Hills applies for South Dakota Certificate of PCN</td>
</tr>
<tr>
<td>July 22, 2014</td>
<td>Black Hills applies for Wyoming Certificate of PCN</td>
</tr>
<tr>
<td>November 2014</td>
<td>South Dakota issues Certificate of PCN</td>
</tr>
<tr>
<td>November 2014</td>
<td>Forest Service FEIS</td>
</tr>
<tr>
<td>May 19, 2015</td>
<td>Forest Service and BLM RODs</td>
</tr>
<tr>
<td>July 2015</td>
<td>Wyoming issues Certificate of PCN</td>
</tr>
<tr>
<td>March 2016</td>
<td>Project construction starts</td>
</tr>
<tr>
<td>December 2016</td>
<td>Project placed in service</td>
</tr>
</tbody>
</table>

20. New England Clean Power Link

**Main Takeaway**

- Single state, underground line that had a quick permitting process, but the developer could not secure power contracts.

**Summary**

On May 20, 2014, TDI New England filed an application with DOE for a Presidential Permit to construct a 154-mile, 300- to 320-kV transmission line extending from the Quebec border under Lake Champlain to Benson, Vermont, where it would follow existing ROWs to a converter station to be built in Ludlow, Vermont.

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249. Id.
255. Id.
The total distance through Lake Champlain would be approximately 97.6 miles, and the 56.1-mile overland portion of the line would be buried, primarily within existing public road and railroad ROWs. On August 26, 2014, DOE, as the lead agency, published a NOI to prepare an EIS with the Corps of Engineers, U.S. Coast Guard, and EPA as cooperating agencies. They issued the DEIS in May 2015 and the FEIS in October 2015. The Vermont Public Service Board issued a Certificate of Public Good on January 5, 2016. DOE published its ROD issuing a Presidential permit to the project on December 12, 2016.

In 2017, TDI proposed the Clean Power Link project in response to Massachusetts Clean Energy Request for Proposals, a program to help utilities procure renewable energy. In January 2018, Clean Power Link was not selected. In February 2023, lacking contracts, TDI filed an application for project funding under DOE’s Transmission Facilitation Program. As of the publication of this report, the New England Clean Power Link has not received funding through the Transmission Facilitation Program.

Timeline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 20, 2014</td>
<td>TDI files application for Presidential Permit</td>
</tr>
<tr>
<td>August 26, 2014</td>
<td>DOE issues NOI to prepare DEIS</td>
</tr>
<tr>
<td>May 2015</td>
<td>DOE issues DEIS</td>
</tr>
<tr>
<td>October 2015</td>
<td>DOE issues FEIS</td>
</tr>
<tr>
<td>January 5, 2016</td>
<td>Vermont Public Service Board issues Cert. of Public Good</td>
</tr>
<tr>
<td>December 12, 2016</td>
<td>DOE issues ROD for Presidential Permit</td>
</tr>
<tr>
<td>2017</td>
<td>TDI files proposal in response to Massachusetts RFP</td>
</tr>
<tr>
<td>January 2018</td>
<td>Massachusetts rejects proposal</td>
</tr>
<tr>
<td>February 2023</td>
<td>TDI files application for project funding from DOE</td>
</tr>
</tbody>
</table>

258. Id. at 2-3, 2-7, 2-15.
21. SunZia Southwest Transmission Project

Main Takeaways

- Large project footprint impacts timing.
- Significant changes to a project will inevitably slow the review process.
- Interagency coordination and stakeholder engagement are paramount.

Summary

On September 11, 2008, Sunzia Transmission, LLC filed an application for a ROW from the BLM to locate two 500-kv transmission lines located across approximately 515 miles of Federal, State, and private lands between central New Mexico and central Arizona. The purpose of the Project is to transport up to 4,500 megawatts of primarily renewable energy from New Mexico to markets in Arizona and California.

Three NEPA analyses were prepared for SunZia between 2009 and 2023:

On May 29, 2009, BLM issued a NOI to prepare an EIS that identified 14 cooperating agencies, including the Department of Defense (DOD) and the U.S. Department of the Army, White Sands Missile Range (WSM-R). On May 29, 2012, BLM issued an NOA of the DEIS. In June 2013, the BLM issued the FEIS. The DOD identified issues with the Preferred Alternative corridor detailed in the EIS, citing potential impacts of the above-ground transmission line on military operations and readiness activities in a locale north of the White Sands Missile Range, and on May 27, 2014, the Secretary of Defense sent a letter to the Secretary of Interior with proposed mitigation measures that would address DOD’s objections.

In November 2014, the BLM prepared an EA to assess the DOD’s proposed mitigation measures that would include placing five miles of the line underground. The BLM concluded that the DOD mitigation measures would not create new impacts significantly different from those analyzed in the 2013 FEIS.

In January 2015, the BLM issued its ROD for the 2013 EIS, which identified the BLM preferred alternative evaluated in the 2013 FEIS that incorporated the DOD’s mitigation measures.

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270. Id.
273. Id.
274. Id.
275. Id.
ROW grant in September 2016.277 However, the DOD continued to raise concerns about the WSMR.278 In addition, stakeholders expressed concerns that the ROW would allow the line to cross the Rio Grande near Socorro, which would affect bird migration routes.279 From 2017 to 2019, SunZia and the DOD engaged in discussions regarding the WSMR.280

On March 27, 2020, as revised on December 21, 2020 and September 14, 2021, SunZia submitted an application to the BLM and the Forest Service to co-locate the SunZia transmission line with existing transmission line easements across the Sevilleta National Wildlife Refuge; obtain a ROW to construct a transmission line on Forest Service lands; and to request amendment of their September 2016 ROW to the Socorro Field Office RMP.281 SunZia’s proposed revisions would result in the project, among other things, crossing the Rio Grande at a different spot and avoiding the WSMR.282

On June 4, 2021, the BLM, as lead agency, issued a NOI to prepare an EIS on the proposed amendments.283 On July 29, 2021, SunZia became a Fixing America’s Surface Transportation Act project pursuant to Title 41 of the Act (“FAST-41”).284 FAST-41 status means the proposed action is closely monitored by Federal agencies and the Federal Permitting Improvement Steering Council.285

On May 2, 2022, the BLM issued an NOA of the DEIS.286 On February 17, 2023, the BLM issued a FEIS addressing only the amendments.287 On May 23, 2023, BLM issued its ROD.288 Construction began on September 1, 2023.289

**Timeline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 11, 2008</td>
<td>SunZia applies for BLM ROW</td>
</tr>
<tr>
<td>May 29, 2009</td>
<td>BLM NOI to prepare EIS</td>
</tr>
</tbody>
</table>


284. SunZia 2023 BLM ROD at 16.

285. Id.


287. SunZia 2023 BLM ROD at vii.

288. Id.

22. Gateway South Transmission Project-Segment F

Main Takeaways

• Large scale projects crossing multiple states take longer to permit.
• Project revisions during the permitting process will delay the project.

Summary

PacifiCorp, d/b/a Rocky Mountain Power, proposed Gateway South, Segment F, a 416-mile, 500-kV single-circuit transmission line that would traverse Wyoming, Colorado, and Utah. The project would begin in Wyoming at the Aeolus Substation and extend south and west to the Clover Substation near Mona, Utah. The project is Segment F of Gateway South, part of Pacificorp's Energy Gateway Transmission Expansion Project.

On November 28, 2007, Rocky Mountain filed an application for a ROW with the BLM and the Forest Service, which they revised in December 2008, October 2010, and January 2013 to reflect changes in the project, including reductions in the project’s geographic footprint and providing a preferred route. The BLM served as the lead agency with numerous federal, state, county, and conservation districts serving as cooperating agencies (including the Forest Service, BIA, Corps of Engineers, DOD, and FWS at the federal level).

291. Id.
292. Id.
On April 1, 2011, the BLM issued a NOI to prepare an EIS. On February 21, 2014, BLM issued the DEIS. On May 13, 2016, the BLM published the NOA of the FEIS.

In December 2016, the BLM issued its ROD, which authorized relocating a two-mile portion of the existing Bears Ears to Bonanza 345-kV transmission line to eliminate multiple line crossings and avoid the Raven Ridge Area of Critical Environmental Concern. In January 2017, the BLM issued a ROW for the portions of the project that would cross BLM land.

In July 2020, PacifiCorp notified the BLM that WAPA had expressed concerns about moving the Bears Ears line due to cost, required service interruptions, impacts on agency workload and staff, and the complications of the government’s contracting process to move.

In December 2020, the BIA issued its ROD, granting a ROW for the project to cross 1.6 miles of tribal land within the Uintah and Ouray Reservation.

In March 2021, PacifiCorp proposed an alternate route to address WAPA’s concerns. On December 21, 2021, the BLM issued a NOI to prepare an EA for the alternative route. In March 2022, the BLM issued the EA and a FONSI. On May 25, 2022, the BLM issued a Notice to Proceed with Construction of Gateway South. PacifiCorp estimates the project will be placed in service at the end of 2024.

Timeline:

November 28, 2007  PacifiCorp submits initial application for BLM ROW
2008-2013  PacifiCorp submits revisions to reflect project changes
April 1, 2011  BLM NOI to prepare a DEIS

295. Id.
23. Surry-Skiffes Creek-Whealton Project

Main Takeaway

- Agencies must work together and respect expertise of other agencies or risk litigation.

Summary

In August 2013, Virginia Electric and Power Company (Dominion) filed with the Corps of Engineers for a Joint Permit Application for a proposed transmission line and associated infrastructure, known as Surry-Skiffes Creek-Whealton project.\(^\text{307}\) The project, which crosses the James River in Virginia, includes a 7.76-mile, 500-kV overhead transmission line from Surry Nuclear Power Plant to the proposed Skiffes Creek switching station in James City County, and 20.2 miles of 230-kV overhead line along an existing ROW from the switching station to Whealton Substation in Hampton, Virginia.\(^\text{308}\) The project would include 17 in-stream transmission towers to support the 500-kV line, and placement of 27 transmission towers in non-tidal wetlands.\(^\text{309}\)

In June 2017, the Corps of Engineers prepared an EA concluding that the project would not significantly affect the environment.\(^\text{310}\) The Corps of Engineers received comments expressing concern with the Project’s proximity to historic sites, including from the NPS.\(^\text{311}\) On July 3, 2017, the Corps of Engineers issued a permit for the project, which several conservation groups challenged in the U.S. District Court for the District of Columbia.\(^\text{312}\) On May 23, 2018, the District Court upheld the permit.\(^\text{313}\) On February 26, 2019, the project was energized.\(^\text{314}\) On March 1, 2019, the U.S. Court of Appeals for the District of Columbia Circuit found

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\(^{309}\) Surry-Skiffes Creek-Whealton Corps of Engineers NOI to prepare EIS at 29177.


\(^{312}\) Id. at 360.

\(^{313}\) Id. at 356–57.

\(^{314}\) Surry-Skiffes Creek-Whealton Corps of Engineers NOI to prepare EIS at 29178.
that the Corps of Engineers’ FONSI was arbitrary and capricious, and reversed and remanded to the District Court with instructions to vacate Dominion’s permit and direct the Corps of Engineers to prepare an EIS. However, the appeals court was unaware that Surry-Skiffes was already constructed and energized by February 26, 2019. Accordingly, on May 19, 2019, it remanded the case to the District Court to consider whether vacatur was appropriate. On November 8, 2019, the District Court remanded the Corps of Engineers without vacatur and with instructions to prepare an EIS.

On June 21, 2019, the Corps of Engineers issued a NOI to prepare an EIS. On November 27, 2020, the Corps of Engineers issued a DEIS. The FEIS is anticipated to be issued in 2024.

**Timeline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 2013</td>
<td>Dominion files Joint Permit Application for Corps permits</td>
</tr>
<tr>
<td>June 2017</td>
<td>Corps EA/FONSI</td>
</tr>
<tr>
<td>July 3, 2017</td>
<td>Corps issues final project permits</td>
</tr>
<tr>
<td>May 2018</td>
<td>Federal District Court upholds Corps permits</td>
</tr>
<tr>
<td>February 26, 2019</td>
<td>Dominion energizes transmission line</td>
</tr>
<tr>
<td>March 1, 2019</td>
<td>Court of Appeals vacates permits and requires EIS</td>
</tr>
<tr>
<td>May 19, 2019</td>
<td>Court of Appeals remands to consider proper remedy</td>
</tr>
<tr>
<td>November 8, 2019</td>
<td>District Court remands with instructions to prepare EIS</td>
</tr>
<tr>
<td>June 21, 2019</td>
<td>Corps NOI to prepare EIS</td>
</tr>
<tr>
<td>November 27, 2020</td>
<td>Corps DEIS</td>
</tr>
<tr>
<td>2024</td>
<td>Corps FEIS anticipated</td>
</tr>
</tbody>
</table>

**24. Kake to Petersburg Transmission Intertie Project**

**Main Takeaway**

- Project approved but not built due to unfavorable economics.

**Summary**

Southeast Alaska Power Agency (SEAPA) proposed to construct the Kake to Petersburg Transmission Intertie Project, a 46.8- to 56.5-mile line connecting the isolated electric system currently serving the city of Kake,
Alaska with SEAPA’s interconnected electric network near Petersburg, Alaska.\textsuperscript{322} The line would cross the Tongass National Forest, requiring a special use authorization from the Forest Service.\textsuperscript{323} On May 7, 2010, the Forest Service issued a NOI to prepare an EIS, which was corrected on July 28, 2014 following changes to the proposal.\textsuperscript{324} The Forest Service published the NOA of the DEIS in 2014,\textsuperscript{325} and the FEIS in June 2016.\textsuperscript{326} The Forest Service issued its ROD on November 30, 2016 authorizing a ROW for the project.\textsuperscript{327}

It appears the project has not yet commenced construction; in 2020, the CEO of SEAPA said the economics of the project are not favorable and that funding for the project would likely have to come from the state.\textsuperscript{328}

**Timeline:**

- May 7, 2010: Forest Service NOI to prepare a DEIS
- July 28, 2014: Forest Service corrected NOI to prepare a DEIS
- 2014: Forest Service NOA of DEIS
- June 2016: Forest Service FEIS
- November 30, 2016: Forest Service ROD

### 25. McClellanville Transmission Project

**Main Takeaway**

- The NEPA process was extensive; stalling after 14 years and still no movement 19 years later.

**Summary**

Central Electric Power Cooperative (“Central Electric”), an electric transmission cooperative that provides transmission to South Carolina’s 20 retail electric cooperatives, proposed a 15-20 mile, 115-kV transmission line through portions of coastal South Carolina.\textsuperscript{329} The project would provide electric service to the McClellanville community and surrounding areas.\textsuperscript{330} Central Electric sought financing from the RUS, and the RUS...
served as the lead agency.\textsuperscript{331} The Forest Service and Corps of Engineers served as cooperating agencies.\textsuperscript{332}

As discussed in its September 17, 2010 NOI to prepare an EIS, the RUS initially determined in 2005 that it would prepare an EA, but based on comments received from agencies and the public, determined that an EIS would be required.\textsuperscript{333} They issued the DEIS in April 2014.\textsuperscript{334}

On August 30, 2019, the RUS issued a supplemental DEIS.\textsuperscript{335} As explained in the Notice, updated engineering and other issues resulted in substantial changes to the proposed action, including the need to evaluate new transmission line corridors and to account for a new winter weather operating agreement between Dominion Energy South Carolina and Berkeley Electric Cooperative that addresses load concerns during the winter months.\textsuperscript{336} In October 2019, the RUS issued a notice of comment period extension on the supplemental DEIS.\textsuperscript{337} There does not appear to have been any action since that time, nor is there readily accessible information as to why there has been no action.

Timeline:

- **September 17, 2010**: RUS NOI to prepare a DEIS
- **April 2014**: RUS DEIS
- **August 30, 2019**: RUS NOA of supplemental DEIS
- **October 2019**: RUS notice of comment extension supplemental DEIS

**26. Great Northern Transmission Line**

**Main Takeaways**

- Extensive pre-application planning, evaluation, and stakeholder outreach can streamline the permitting process. By the time Great Northern submitted a route for state and federal approval, the proposal and border crossing point had been modified several times to accommodate stakeholders.
- Lines that do not cross multiple states have fewer issues.

**Summary**

On October 22, 2013, Minnesota Power (MP) filed an application with the Minnesota PUC for a certificate to construct a 220-mile, 500-kV transmission line to deliver hydropower from the Minnesota-Manitoba, 331. Id. at Attachment, McClellanville Biological Assessment at 1.  
332. Id. at 1.  
334. McClellanville RUS DEIS.  
336. Id. at 2-7.  
Canada border to Grand Rapids, Minnesota.\textsuperscript{338} The project as proposed could transmit up to 750 MW of power.\textsuperscript{339}

Starting in August 2012, and prior to filing state or federal applications, Minnesota Power implemented an outreach strategy to include agency and public comments and concerns early in the project routing process and prior to the regulatory processes.\textsuperscript{340} The feedback gathered from Minnesota Power’s extensive public engagement culminated in the identification of two proposed routes: the “Blue” and alternate “Orange” routes.\textsuperscript{341}

On April 15, 2014, as amended on October 29, 2014, Minnesota Power submitted an application with the Department of Energy for a Presidential Permit.\textsuperscript{342} In the same week it filed its April 15, 2014 application, Minnesota Power also applied to the Minnesota PUC for a Route Permit.\textsuperscript{343} Additionally, on October 22, 2013, Minnesota Power filed an application for a certificate with the Minnesota PUC.\textsuperscript{344} In its Presidential Permit application, Minnesota Power proposed the Orange and Blue Routes, as well as several segment options identified in the stakeholder process.\textsuperscript{345}

On June 27, 2014, DOE issued a NOI to prepare an EIS.\textsuperscript{346} DOE and the Minnesota Department of Commerce—Energy Environmental Review and Analysis served as co-lead agencies.\textsuperscript{347} Cooperating agencies included the Army Corps of Engineers, FWS, Environmental Protection Agency (EPA), and Red Lake Band of Chippewa Indians.\textsuperscript{348}

On October 29, 2014, Minnesota Power submitted an amendment to its Presidential Permit application proposing a new border crossing location.\textsuperscript{349} On June 26, 2015, DOE issued an NOA of the Draft EIS.\textsuperscript{350} In October 2015, the agencies issued the FEIS.\textsuperscript{351}

On December 3, 2015, the Department of Interior, on behalf of the FWS, submitted a comment letter that indicated that the Final EIS did not adequately address impacts to FWS lands or compensatory mitigation.\textsuperscript{352}


\textsuperscript{341} \textit{Id}.


\textsuperscript{343} \textit{Id}.

\textsuperscript{344} Great Northern DOE NOI to Prepare EIS at 36493-36494.

\textsuperscript{345} Great Northern DOE NOA for Presidential Permit.

\textsuperscript{346} Great Northern DOE NOI to Prepare EIS.

\textsuperscript{347} \textit{Id} at 36494.


\textsuperscript{349} Great Northern DOE Notice of Amended Application for Presidential Permit.


\textsuperscript{352} Great Northern DOE ROD for Issuing a Presidential Permit at 83827.
At that time, the Minnesota PUC had not issued a route permit for the project and it was not clear if FWS Interest Lands would be potentially impacted by the project.\textsuperscript{353}

On June 30, 2015, the Minnesota PUC issued a certificate for the project.\textsuperscript{354} The Minnesota PUC approved the route in February 2016.\textsuperscript{355} Because the route crossed FWS land, a ROW permit was required.\textsuperscript{356} FWS prepared an EA for that action and issued a permit in January 2017.\textsuperscript{357}

On November 22, 2016, DOE issued its ROD.\textsuperscript{358} Construction of the line was completed in February 2020.\textsuperscript{359}

**Timeline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2013</td>
<td>Great Northern files for cert. of need with Minnesota PUC</td>
</tr>
<tr>
<td>April 2014</td>
<td>MP files Presidential Permit application with DOE</td>
</tr>
<tr>
<td>April 2014</td>
<td>MP route application with Minnesota PUC</td>
</tr>
<tr>
<td>October 2014</td>
<td>MP files amended application</td>
</tr>
<tr>
<td>June 27, 2014</td>
<td>DOE NOI to prepare EIS</td>
</tr>
<tr>
<td>June 26, 2015</td>
<td>DOE NOA of the DEIS</td>
</tr>
<tr>
<td>June 30, 2015</td>
<td>Minnesota PUC grants certificate</td>
</tr>
<tr>
<td>October 2015</td>
<td>DOE FEIS</td>
</tr>
<tr>
<td>February 2016</td>
<td>Minnesota PUC approves Route Permit</td>
</tr>
<tr>
<td>November 2016</td>
<td>DOE issues ROD and Presidential Permit</td>
</tr>
<tr>
<td>January 2017</td>
<td>FWS issues ROW permit</td>
</tr>
<tr>
<td>February 2020</td>
<td>Project completed</td>
</tr>
</tbody>
</table>

27. Champlain Hudson Power Express

**Main Takeaway**

- Working closely with affected communities and providing community benefits to address their concerns can help overcome project opposition.

**Summary**

Champlain Hudson Power Express (“Champlain”) proposed to construct an underground, 333-mile, 320-

\textsuperscript{353} Id.

\textsuperscript{354} Project website, available at http://greatnortherntransmissionline.com/about.html.


\textsuperscript{356} Great Northern DOE ROD for Issuing a Presidential Permit at 83827.

\textsuperscript{357} Project website; Great Northern DOE ROD for Issuing a Presidential Permit at 83827. It should be noted that DOE asserted that FWS’s concerns raised in the December 3, 2015 DOI/FWS comment letter were resolved pursuant to the execution of a July 26, 2016, “Memorandum of Understanding for Conservation Measures for the Great Northern Transmission Line Project” (source unavailable).

\textsuperscript{358} Great Northern DOE ROD for Issuing a Presidential Permit.

kV transmission line to transmit power from Quebec, Canada to New York City. The project will start at the U.S.-Canada border and run the length of Lake Champlain and through parts of the Hudson River.

On January 25, 2010, Champlain filed an application with the DOE for a Presidential Permit to cross the U.S.-Canada border. The DOE served as the lead federal agency, and cooperating agencies included the Corps of Engineers, EPA, and the New York State Departments of Environmental Conservation and Public Service.

The DOE issued a NOI to prepare an EIS on June 18, 2010. On April 30, 2012, the DOE issued an Amended NOI modifying the scope of the EIS to reflect applicant-proposed revisions to the project. They issued the DEIS on September 1, 2013 and published the FEIS in August 2014. The DOE issued its ROD on September 24, 2014.

The DOE issued Presidential Permit No. PP-362 on October 6, 2014. On April 20, 2015, the Corps of Engineers issued a permit, and on April 18, 2013, New York PSC issued a certificate to construct and operate the project. On July 21, 2020, the DOE issued Presidential Permit PP–481 transferring the facilities authorized in PP–362 to CHPE LLC. On April 30, 2021, DOE issued Presidential Permit No. PP–481–1, amending the permit to incorporate proposed revisions to the project route and authorizing the increase in the project’s capacity from 1,000 MW to 1,250 MW. On March 22, 2022, the DOE issued an amended Presidential Permit No. PP–481–2 to clarify the maximum non-simultaneous rate of transmission to account for anticipated line losses.


361. “Champlain Hudson Power Express Receives Presidential Permit.”


363. Id. at 59259.


Champlain started construction on November 30, 2022 and expects the line to be fully operational in spring 2026.

Champlain worked closely with affected communities throughout project development and provided extensive community benefits that both helped overcome opposition to the project, and garner community support.

Timeline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 25, 2010</td>
<td>Champlain applies to DOE for Presidential Permit</td>
</tr>
<tr>
<td>June 18, 2010</td>
<td>DOE NOI to prepare a DEIS</td>
</tr>
<tr>
<td>April 18, 2013</td>
<td>New York PSC issues certificate</td>
</tr>
<tr>
<td>September 2013</td>
<td>DOE Draft EIS</td>
</tr>
<tr>
<td>August 2014</td>
<td>DOE Final EIS</td>
</tr>
<tr>
<td>September 24, 2014</td>
<td>DOE ROD</td>
</tr>
<tr>
<td>October 6, 2014</td>
<td>DOE Presidential Permit</td>
</tr>
<tr>
<td>April 2015</td>
<td>Corps of Engineers permit</td>
</tr>
<tr>
<td>April 30, 2021</td>
<td>DOE amended Presidential Permit</td>
</tr>
<tr>
<td>March 22, 2022</td>
<td>DOE amended Presidential Permit</td>
</tr>
<tr>
<td>November 30, 2022</td>
<td>Champlain begins construction</td>
</tr>
<tr>
<td>Spring 2026</td>
<td>Project expected to be operational</td>
</tr>
</tbody>
</table>

28. Ten West Link Transmission Line Project

Main Takeaways

- Meaningful stakeholder engagement can help avoid permitting delays.
- Coordination and collaboration facilitates the permitting process.

Summary

DCR Transmission (DCRT) proposed the Ten West Link Transmission Line Project, a 125-mile, 500-kV transmission line from Tonopah, Arizona to Blythe, California. The project is designed to transmit 3,200 MW of electricity and provide interconnection capability for new renewable projects in the region. The proposed route would cross 83 miles of federal land, including lands managed by the BLM, Bureau of Rec-

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lamination, and the FWS-managed Kofa National Wildlife Refuge (NWR).\footnote{on:year=2018}

On September 14, 2015, DCRT filed a ROW application with the BLM.\footnote{on:year=2018} On March 23, 2016, the BLM, as lead agency, issued a NOI to prepare an EIS.\footnote{on:year=2016} On September 22, 2016, the project was listed on the FAST-41 dashboard, which provided a coordinated and transparent environmental review and authorization process involving a number of stakeholders including the BLM, cooperating agencies, tribal leadership, and local communities.\footnote{on:year=2016} In response to scoping comments that raised a number of concerns, most notably the route across the Kofa NWR,\footnote{on:year=2018} the August 2018 DEIS identified a preferred alternative that resolved a number of stakeholder concerns, including avoiding the Kofa NWR.\footnote{on:year=2018} The BLM and cooperating agencies issued a FEIS in September 2019.\footnote{on:year=2019}

As discussed in the BLM’s November 2019 ROD, the Selected Alternative was developed to emphasize the use of BLM utility corridors while minimizing impacts to biological, cultural, recreational, and other resources and public uses, including avoiding the Kofa NWR and areas of dense cultural resources near the Mule Mountains in California, and residential and other development near Quartzsite, Arizona, and Blythe, California.\footnote{on:year=2018} The alternative also minimizes impacts to the Colorado River Indian Tribes (CRIT) Reservation and private agricultural land in California.\footnote{on:year=2018}

The ACC approved the Arizona portion of the project on March 31, 2020.\footnote{on:year=2020} The CPUC issued a certificate on November 5, 2021.\footnote{on:year=2021} DCRT commenced construction of the project on January 19, 2023.\footnote{on:year=2023}

**Timeline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 14, 2015</td>
<td>DCRT files ROW with BLM</td>
</tr>
<tr>
<td>March 23, 2016</td>
<td>BLM NOI to prepare a DEIS</td>
</tr>
<tr>
<td>September 22, 2016</td>
<td>Project listed on FAST-41 dashboard</td>
</tr>
<tr>
<td>August 2018</td>
<td>BLM NOA of DEIS</td>
</tr>
</tbody>
</table>

\footnote{on:year=2018} Ten West Link BLM Scoping Report at 11.
\footnote{on:year=2019} Ten West Link BLM DEIS at 4-49.
\footnote{on:year=2020} Id.
\footnote{on:year=2021} Ten West Link CPUC Decision Granting Certificate of Public Convenience and Necessity (Nov. 5, 2021), available at https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M420/K858/420858355.PDF.
29. Gateway West Transmission

Main Takeaway

• Large scale projects crossing multiple states, federal lands, and private lands present more challenges and take more time to permit.

Summary


In May 2008, the BLM issued a NOI to prepare an EIS. The BLM served as the lead federal agency, and cooperating agencies included a number of federal, state, and local agencies. In April 2013, BLM issued the FEIS, and on November 12, 2013, issued its ROD, which explained that the BLM decided to pursue a phased decision for the project by authorizing Segments 1 through 7 and Segment 10 but deferring the decision for Segments 8 and 9 due to a “lack of complementary siting preferences among federal, state, and local authorizing entities in Idaho.”

In August 2014, the applicants submitted a revised ROW application for segments 8 and 9. On September 19, 2014, BLM issued a NOI to prepare a supplemental EIS. In October 2016, the BLM published a final

396. Id.
400. Id.
supplemental EIS for segments 8 and 9.\textsuperscript{401}

The BLM issued its ROD for Segments 8 and 9 in January 2017.\textsuperscript{402} The State of Idaho, Owyhee County, Idaho, and three environmental organizations appealed the BLM’s ROW decision to the Interior Board of Land Appeals (IBLA), and the Governor of Idaho requested that the BLM reconsider the January 19, 2017 decision and select an alternative with fewer impacts to State and county resources and communities.\textsuperscript{403} On April 18, 2017, the case was remanded to BLM.\textsuperscript{404}

On May 5, 2017, Congress passed the Morley Nelson Snake River Birds of Prey National Conservation Area Boundary Modification Act, directing the BLM to issue a ROW to segments 8 and 9 through the Morley Nelson Snake River Birds of Prey National Conservation Area, which represented the portion of an (unselected) alternative from the supplemental EIS.\textsuperscript{405}

On August 28, 2017, the BLM issued a NOI to prepare an EA that would rely on the 2013 EIS and the 2016 final supplemental EIS.\textsuperscript{406} The final EA and Finding of No New Significant Impact (FONNSI) were issued on January 5, 2018.\textsuperscript{407} On April 26, 2018, the BLM issued a Notice of Availability for the decision authorizing the ROW for segments 8 and 9.\textsuperscript{408} One section of Gateway West is energized, and the others are in various stages of construction.\textsuperscript{409}

**Timeline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 7, 2007</td>
<td>Applicants file for BLM ROW</td>
</tr>
<tr>
<td>October 2007</td>
<td>Applicants revise BLM ROW application</td>
</tr>
<tr>
<td>May 16, 2008</td>
<td>BLM NOI to prepare EIS</td>
</tr>
<tr>
<td>August 2008</td>
<td>Applicants revise BLM ROW application</td>
</tr>
<tr>
<td>May 2009</td>
<td>Applicants revise BLM ROW application</td>
</tr>
<tr>
<td>January 2010</td>
<td>Applicants revise BLM ROW application</td>
</tr>
<tr>
<td>July 2011</td>
<td>BLM DEIS</td>
</tr>
<tr>
<td>April 2013</td>
<td>BLM FEIS</td>
</tr>
</tbody>
</table>


\textsuperscript{406} Gateway West BLM NOI to prepare an EA to Reconsider ROD Approving Segments 8 and 9 at 40798.


\textsuperscript{409} Gateway West Project Website, available at https://www.pacificorp.com/transmission/transmission-projects/energy-gateway/gateway-west.html.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 2013</td>
<td>Applicants revise BLM ROW application</td>
</tr>
<tr>
<td>November 14, 2013</td>
<td>BLM ROD approving segments 1-7, deferring 8 &amp; 9 review</td>
</tr>
<tr>
<td>August 2014</td>
<td>Applicants file ROW application for segments 8 &amp; 9</td>
</tr>
<tr>
<td>September 19, 2014</td>
<td>BLM NOI to prepare supplemental EIS</td>
</tr>
<tr>
<td>October 7, 2016</td>
<td>BLM NOA of supplemental EIS</td>
</tr>
<tr>
<td>January 19, 2017</td>
<td>BLM supplemental EIS ROD</td>
</tr>
<tr>
<td>April 18, 2017</td>
<td>IBLA rescinds and remands supplemental EIS ROD</td>
</tr>
<tr>
<td>May 5, 2017</td>
<td>BLM directed to issue specific ROW for segments 8 &amp; 9</td>
</tr>
<tr>
<td>August 28, 2017</td>
<td>BLM NOI to prepare an EA</td>
</tr>
<tr>
<td>January 5, 2018</td>
<td>BLM final EA and FONSI</td>
</tr>
<tr>
<td>March 30, 2018</td>
<td>BLM ROD/ROW for segments 8 &amp; 9</td>
</tr>
<tr>
<td>2020-to date</td>
<td>Some segments operational, others in construction</td>
</tr>
</tbody>
</table>

30. Cardinal-Hickory Creek Transmission Line Project

Main Takeaways

- An efficient NEPA and permitting process was held up by state and federal litigation.
- Although partially built, the project is awaiting FWS determination to cross Refuge land.

Summary

Dairyland Power Cooperative, American Transmission Company LLC, and ITC Midwest LLC (“utilities”) proposed a 125-mile, 345-kV transmission line between Dane County, Wisconsin and Dubuque County, Iowa. Dairyland Power Cooperative requested RUS financing for its portion of the project. The RUS served as the lead agency and the FWS and Corps of Engineers as cooperating agencies. The FWS evaluated the utilities’ request for a ROW easement and a Special Use Permit to cross the Upper Mississippi River National Wildlife and Fish Refuge (“Refuge”). On October 18, 2016, the RUS published a NOI to prepare an EIS. The RUS issued the DEIS in December 2018, and the FEIS in October 2019. On January 16, 2020, the RUS, FWS, and the Corps signed the ROD. In September 2020, the FWS determined that permitting the line to cross through the Refuge would be compatible with the Refuge Act and granted a ROW permit. Several environmental groups sued, arguing

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411. Id.
412. Id. at 71697.
414. Cardinal-Hickory Creek RUS NOI to prepare EIS.
417. Cardinal-Hickory Creek RUS ROD.
that the permit violated the Refuge Act and NEPA.\textsuperscript{419} While litigation was pending, the utilities applied for an amended permit and also asked the FWS to consider a land exchange as an alternative to the permit.\textsuperscript{420} During this review, in an August 27, 2021 letter, the FWS revoked the compatibility determination and the ROW permit across the Refuge after determining that issuance was based on an erroneous interpretation of existing easements.\textsuperscript{421} The letter also promised to consider the proposed land exchange.\textsuperscript{422}

After protracted litigation regarding the EIS and the FWS permit issuances, on July 19, 2023, the U.S. Court of Appeals for the 7th Circuit removed a preliminary injunction that barred developers from building a section of the project across the Refuge, noting that the issue was “premature” because the FWS had not made a final decision on whether the power line could cross the Upper Mississippi National Fish and Wildlife Refuge, nor on the proposed land swap in exchange for approval to cross the refuge.\textsuperscript{423}

RUS issued the draft Supplemental EA in September 2023.\textsuperscript{424} In October 2023, the RUS issued a final supplemental EA that will be used to inform the FWS on the impacts from a land exchange across the Refuge.\textsuperscript{425}

The eastern half of the project was energized on December 7, 2023.\textsuperscript{426} Project construction in Iowa and Wisconsin is nearly complete.\textsuperscript{427}

**Timeline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 18, 2016</td>
<td>RUS NOI to prepare DEIS</td>
</tr>
<tr>
<td>December 2018</td>
<td>RUS DEIS</td>
</tr>
<tr>
<td>October 2019</td>
<td>RUS FEIS</td>
</tr>
<tr>
<td>January 16, 2020</td>
<td>RUS/Corps/FWS ROD</td>
</tr>
<tr>
<td>September 2020</td>
<td>FWS approves ROW</td>
</tr>
<tr>
<td>August 27, 2021</td>
<td>FWS rescinds Refuge permit/compatibility determination</td>
</tr>
<tr>
<td>July 19, 2023</td>
<td>Seventh Circuit removes preliminary injunction</td>
</tr>
<tr>
<td>September 2023</td>
<td>RUS draft supplemental EA</td>
</tr>
<tr>
<td>October 2023</td>
<td>RUS final supplemental EA</td>
</tr>
<tr>
<td>December 7, 2023</td>
<td>Eastern half of project operational</td>
</tr>
</tbody>
</table>

\textsuperscript{419} Id.
\textsuperscript{420} Id.
\textsuperscript{421} Id.
\textsuperscript{422} Id.
\textsuperscript{423} Id. at 5-6.
\textsuperscript{427} “Dairyland and co-owners, ATC and ITC Midwest, are pleased by Seventh Circuit decision in the Cardinal-Hickory Creek federal National Environmental Policy Act (NEPA) case,” Dairyland Power Website (undated), available at https://www.dairylandpower.com/positive-ruling-cardinal-hickory-creek-project.
31. Mona to Oquirrh Transmission Corridor Project

Main Takeaway

- A shorter line within one state results in a more efficient permitting process. This process took just more than six years from the ROW application to project operation.

Summary

PacifiCorps, d/b/a Rocky Mountain Power, proposed a 69-mile, 500-kV transmission line from the Mona Substation near Mona, Utah, to a new Mona Annex Substation, that would continue on to a new Limber Substation, and two 345kV lines from the Limber Substation comprising 31 miles to the existing Oquirrh Substation in West Jordan, Utah, and a 45-mile line to the existing Terminal Substation in Salt Lake City, Utah.\(^{428}\)

The line is part of PacifiCorps’ Energy Gateway Transmission Expansion Project.\(^{429}\) Between issuance of the draft and FEIS, they revised the project from a 3,000 MW transfer capacity to a 1,500 MW design configuration.\(^{430}\)

Portions of the project would cross lands administered by two BLM Field Offices.\(^{431}\) In January 2007, Rocky Mountain filed a ROW application with the BLM, which acted as the lead agency, and with the Utah Governor’s Public Lands Policy Coordination Office, which represented all Utah state agencies, serving as a cooperating agency.\(^{432}\) The BLM published the NOI to prepare an EIS on October 16, 2007.\(^{433}\) The BLM published the NOA of the DEIS on May 15, 2009\(^{434}\) and issued the FEIS in April 2010.\(^{435}\) The BLM published the NOA of the ROD on February 10, 2011, authorizing a ROW on BLM-administered lands.\(^{436}\)

On June 16, 2010, the Utah PSC approved the project.\(^{437}\) The project was placed in service in May 2013.\(^{438}\)

Timeline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2007</td>
<td>PacifiCorp applies for BLM ROW</td>
</tr>
<tr>
<td>October 16, 2007</td>
<td>BLM NOI to prepare DEIS</td>
</tr>
<tr>
<td>May 15, 2009</td>
<td>BLM NOA of DEIS</td>
</tr>
</tbody>
</table>

429. Project website.
435. Mona-Oquirrh BLM FEIS.
32. Sunrise PowerLink Transmission Project

Main Takeaway

- Early stakeholder engagement can facilitate a more efficient permitting process.

Summary

San Diego Gas & Electric Company (SDG&E) proposed to construct a new 500-kV transmission line from the existing Imperial Valley Substation to a new Central Substation to be located in San Diego County. Between the proposed new Central East Substation and SDG&E’s existing Peñasquitos Substation (in the City of San Diego), SDG&E would construct a new 59-mile 230 kV double-circuit and single-circuit transmission line, portions of which would be underground. The transmission lines would total approximately 150 miles.

To assist in the development of the proposed route, SDG&E initiated a comprehensive public outreach program starting in 2005, designed to include the public and project stakeholders early in the route selection process. On November 2, 2005, SDG&E filed a ROW application with the BLM, and on December 14, 2005, SDG&E filed an application for a Certificate of Public Convenience and Necessity with the CPUC. On August 31, 2006, the BLM issued a NOI to prepare a joint EIS/EIR with the CPUC. Several federal agencies served as cooperating agencies, including the Forest Service. On January 11, 2008, the BLM issued an NOA of the DEIS/EIR. Based on new information involving changes to the “connected actions” analyzed in the DEIS/EIR and route revisions proposed by SDG&E in comments on the DEIS/EIR, the

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440. Id.
441. Id.
444. Id.
BLM and the CPUC issued a Recirculated Draft EIR/Supplemental DEIS on July 11, 2008.\textsuperscript{448} The BLM issued its FEIS/EIR in October 2008.\textsuperscript{449} On December 8, 2008, the CPUC issued a decision approving a certificate for the project.\textsuperscript{450} On January 20, 2009, the BLM issued its ROD.\textsuperscript{451} Both the CPUC and the BLM selected a route that crosses the Cleveland National Forest.\textsuperscript{452} In January 2009, SDG&E applied to the Forest Service for a Special Use Permit.\textsuperscript{453} On December 10, 2010, the Forest Service issued the permit.\textsuperscript{454} Mainline construction started in November 2010 and the project was energized in June 2012.\textsuperscript{455}

**Timeline:**

- **November 2, 2005**  SDG&E applies for BLM ROW
- **December 14, 2005**  SDG&E applies for CPUC Certificate of PCN
- **August 31, 2006**  BLM NOI to prepare a DEIS
- **January 11, 2008**  BLM NOA of DEIS/EIR
- **July 11, 2008**  BLM NOA SDEIS/EIR
- **October 2008**  BLM FEIS/EIR
- **December 8, 2008**  CPUC Certificate
- **January 2009**  SDG&E applies to Forest Service for Special Use Permit
- **January 20, 2009**  BLM ROD
- **July 9, 2010**  Forest Service ROD
- **November 2010**  Mainline project construction begins
- **December 10, 2010**  Forest Service grants Special Use Permit
- **June 2012**  Project energized

### 33. Devers-Palo Verde No. 2 Transmission Line

**Main Takeaways**

- One state can stop or significantly delay a project if it finds insufficient benefits to the state.
- Failing to resolve key issues before an application is filed can add unnecessary challenges to project design.

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\textsuperscript{449} Sunrise PowerLink CPUC/BLM FEIS/EIR.


\textsuperscript{451} Sunrise PowerLink BLM ROD.

\textsuperscript{452} Sunrise PowerLink Forest Service ROD at 1 (July 9, 2010), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5320675.pdf.

\textsuperscript{453} Id.


\textsuperscript{455} CPUC website, available at https://ia.cpuc.ca.gov/Environment/info/aspen/sunrise/sunrise.htm#constprog_mm.
Summary

On April 11, 2005, Southern California Edison (SCE) filed an application with the CPUC for the Devers-Palo Verde No. 2 (DPV2) Transmission Line, proposing 278 miles of transmission line, with approximately 176 miles in California and 102 miles in Arizona, and an upgraded 48.2 miles of SCE’s existing 230-kV lines between the Devers Substation west to San Bernardino, CA (the 48.2 mile segment referred to as “West of Devers”). Approximately 4.4 miles of the 48.2 mile segment would cross tribal lands owned by the Morongo Band of Mission Indians, for which SCE leases the ROWs. The leases were to expire in 2010 and 2019, and at the time of the application SCE was negotiating with the Morongo Band for renewal in order to accommodate the proposed West of Devers upgrade.

As proposed, the project would cross BLM land in both California and Arizona, and a small portion would cross Forest Service land in California. On December 7, 2005, the BLM, acting as lead federal agency, issued a NOI to jointly prepare an EIS/EIR with the CPUC. The May 2006 DEIS/EIR eliminated the West of Devers segment because SCE and the Morongo Band had not reached a ROW agreement. Instead, the review analyzed a new alternative upgrade, which involved a second 41.6-mile, 500-kV line next to the existing Devers-Valley 500-kV #1 line. The BLM and CPUC completed the FEIR/EIS in late October 2006. The BLM delayed issuing its ROD pending approval of the Arizona portion by the ACC.

On January 25, 2007, the CPUC approved the DPV2 Project. On June 7, 2007, the ACC denied approval for the Arizona portion of the line. The ACC’s primary rationale was that Arizona would bear many project impacts with minimal (if any) benefits. On May 14, 2008, as twice supplemented in September 2008, SCE filed with the CPUC a Petition for Modification (PFM) to permit SCE to commence construction of only the California portion of DPV2 as reviewed in the FEIS/EIR, in light of the renewable resource potential in the vicinity of the terminus of the project near Blythe, California. If Arizona did not approve the section of the project in Arizona, SCE stated, DPV2 could be used to deliver renewable resources from anticipated projects in Blythe to California load centers. In February 2009, the CPUC prepared an addendum to the 2006 final 456. Devers-Palo Verde CPUC Application, https://ia.cpuc.ca.gov/environment/info/aspen/dpv2/pea/application.pdf; DPV2 BLM and CPUC DEIS/DEIR at B-1 to B-2, B-21 (May 2006), available at https://ia.cpuc.ca.gov/environment/info/aspen/dpv2/deir/b_project_description.pdf.
457. DPV2 BLM and CPUC DEIS/DEIR at B-21.
458. Id.
467. Id. at 6-8.
468. DPV2 CPUC Addendum to FEIR at 2-3.
469. Id.
EIR to analyze the impacts of the modifications, and on November 20, 2009, the CPUC authorized the PFM.\footnote{470}

In July 2011, the BLM and the Forest Service issued a joint ROD approving a combination of the proposed project and alternatives analyzed in the final EIR/EIS, including a transmission line on an alignment which begins at the Colorado River Station located near Blythe, California, and extends to the Devers Substation in Palm Springs, spanning 115 miles, a portion of which continues from the Devers Substation to the Valley Substation in Riverside County, spanning 41.6 miles.\footnote{471}

Project construction was completed by September 2013.\footnote{472}

**Timeline**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 11, 2005</td>
<td>SCE applies to CPUC</td>
</tr>
<tr>
<td>December 2005</td>
<td>BLM NOI to prepare EIS/EIR jointly with CPUC</td>
</tr>
<tr>
<td>May 2006</td>
<td>BLM DEIS/EIR issued</td>
</tr>
<tr>
<td>October 2006</td>
<td>BLM FEIS/EIR issued</td>
</tr>
<tr>
<td>January 25, 2007</td>
<td>CPUC approves DPV2</td>
</tr>
<tr>
<td>June 7, 2007</td>
<td>ACC denies approval</td>
</tr>
<tr>
<td>May 2008-September 2008</td>
<td>SCE files Petition for Modification to build only in CA</td>
</tr>
<tr>
<td>February 2009</td>
<td>CPUC prepares addendum to 2006 final EIR</td>
</tr>
<tr>
<td>November 9, 2009</td>
<td>CPUC authorizes Petition for Modification</td>
</tr>
<tr>
<td>July 2011</td>
<td>BLM and Forest Service ROD</td>
</tr>
<tr>
<td>September 2013</td>
<td>Project construction completed</td>
</tr>
</tbody>
</table>

### 34. Northern Pass Transmission Line Project

#### Main Takeaway

- A state can kill a project even after the project has received key federal permits and has a power supply agreement.

#### Summary

As approved, the Northern Pass Transmission Line Project, proposed by Northern Pass Transmission LLC, is a 192-mile transmission line to transmit electricity from Canada across the U.S.-Canada border through northern New Hampshire.\footnote{473} The line, portions of which would be underground, would include a 300-kV HVDC line from the U.S.-Canada border to a converter station to be constructed in Franklin, New Hampshire, and from Franklin, a 345-kV line extending to an existing substation in Deerfield, NH.\footnote{474}

\footnote{470} DPV2 CPUC/BLM CEQA Addendum to FEIS/FEA at 3-4 (Oct. 2012), available at https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M036/K346/36346286.pdf.
On October 14, 2010, Northern Pass applied to the DOE for a Presidential Permit to construct the line across the U.S.-Canada border. Northern Pass amended its application in July 2013 and August 2015. The DOE served as the lead agency and the Forest Service, Corps of Engineers, and the New Hampshire Office of Energy and Planning as cooperating agencies. On February 11, 2011 the DOE released an initial NOI to prepare EIS. They published the DEIS in July 2015. On September 30, 2015, following an amended application from Northern Pass to address comments on the draft to increase the amount of the transmission line that would be buried, the DOE determined a supplemental EIS would be needed. They issued the supplemental EIS in November 2015 and the FEIS in August 2017. On November 16, 2017, the DOE concurrently issued a ROD and a Presidential Permit. The Forest Service issued its draft ROD in September 2017.

In January 2018, Massachusetts, through its Clean Energy Request for Proposals, selected Northern Pass to deliver hydropower to the state through the line.

In 2015, Northern Pass filed an application for a Certificate of Site and Facility with the New Hampshire Site Evaluation Committee. On March 30, 2018, the New Hampshire Site Evaluation Committee rejected the project, and on July 18, 2019, the New Hampshire Supreme Court affirmed the decision. The project was canceled in July 2019.

Timeline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 14, 2010</td>
<td>Northern Pass applies for Presidential Permit</td>
</tr>
<tr>
<td>February 11, 2011</td>
<td>DOE NOI to prepare EIS</td>
</tr>
<tr>
<td>July 2013</td>
<td>Northern Pass amends Presidential Permit application</td>
</tr>
<tr>
<td>July 2015</td>
<td>DOE DEIS</td>
</tr>
<tr>
<td>August 2015</td>
<td>Northern Pass amends Presidential Permit application</td>
</tr>
</tbody>
</table>

475. Northern Pass DOE ROD for Issuing a Presidential Permit at 55595.
476. Id. at 55595-55596.
477. Id. at 55597.
483. Northern Pass DOE ROD for Issuing a Presidential Permit.
484. Northern Pass DOE Presidential Permit.
September 30, 2015  NOI to prepare supplemental EIS
October 2015  Application to NH Site Evaluation Committee
November 2015  DOE supplemental EIS
August 2017  DOE FEIS
September 2017  Forest Service draft ROD
November 2017  DOE ROD and Presidential Permit
January 2018  Massachusetts selects project to supply electricity
March 30, 2018  NH Site Evaluation Committee rejects project
July 18, 2019  NH Supreme Court upholds rejection
July 24, 2019  Project canceled

35. Potomac-Appalachian Transmission Highline

Main Takeaways

- Delay can result in project cancellation. Four years after PJM identified the need for the project, changes in the economy precluded the need for the project.
- The three state permitting agencies rejected applications before the NEPA process started.

Summary

PJM proposed the 765-kV transmission Potomac-Appalachian Transmission Highline (PATH) project to alleviate numerous projected reliability criteria violations identified in its Regional Transmission Expansion Plan. It would require approvals from the three states it crossed: West Virginia, Virginia and Maryland.

In May 2009, the developers submitted ROW applications for those portions of the project that would cross the NPS and Forest Service lands. On June 17, 2010, the NPS issued a NOI to prepare an EIS.

In 2009, the Maryland Public Service Commission (PSC) rejected PATH’s application for regulatory approval as improperly filed. It appears that the Virginia State Corporation Commission (SCC) and the West Virginia PSC also dismissed the applications they received, but available sources are inconclusive about the state approval proceedings due to the elapsed time since then and the unavailability of internet sources at that time.

492. Id. at 34477-334478.
493. Id.
494. Id.
On February 28, 2011, PJM requested that FirstEnergy and the AEP suspend the project, stating that “recent dramatic swings in economic forecasts and evolving public policies (particularly with respect to renewable energy) are adding greater uncertainty to our planning studies.”497 Thereafter, AEP and FirstEnergy drew the three applications in Virginia, Maryland and West Virginia.498 In 2012, PJM removed the project from future plans.499

**Timeline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>May 2009</td>
<td>Applicants file for NPS ROW</td>
</tr>
<tr>
<td>c. 2009</td>
<td>Applicants file for approvals in WV, VA, and MD</td>
</tr>
<tr>
<td>c. September 2009</td>
<td>MD PSC rejects application as improperly filed</td>
</tr>
<tr>
<td>c. October 2009</td>
<td>VA SCC files to dismiss application as inadequate</td>
</tr>
<tr>
<td>c. October 2009</td>
<td>WV PSC files to dismiss application</td>
</tr>
<tr>
<td>June 17, 2010</td>
<td>NPS NOI to prepare EIS</td>
</tr>
<tr>
<td>February 28, 2011</td>
<td>PJM requests applicants suspend project</td>
</tr>
<tr>
<td>2012</td>
<td>PJM removed project from future plans</td>
</tr>
</tbody>
</table>

### 36. San Luis Transmission Project

**Main Takeaways**

- Early screening, planning, and scoping processes can facilitate shorter review timelines. The NEPA process took only two and a half years, and was facilitated by WAPA screening potential alternatives through a vigorous planning and scoping process.

- Project was ultimately canceled because it was unable to get financing

**Summary**

WAPA is statutorily required to facilitate delivery of power to federally authorized projects including a set of facilities owned by Reclamation called the San Luis Unit (SLU), a part of the Central Valley Project.500 In response to Reclamation’s transmission request to WAPA to interconnect several key SLU facilities to WAPA’s Central Valley transmission system, WAPA, in partnership with Duke-American Transmission Company (DATC), considered several transmission options, including, as ultimately selected, the San Luis Project comprising 95 miles of new transmission lines, a 65-mile, 500-kV line; a 20-mile, 230-kV line; a 3-mile, 230-kV line; and a seven-mile, 70-kV line.501 WAPA would construct, own, maintain and operate the lines, which would be located mostly adjacent (whenever practicable) to existing transmission lines in Alameda,

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498. Id.
San Joaquin, Stanislaus, and Merced Counties in California.\textsuperscript{502}

WAPA issued a NOI to prepare an EIS, which noted a joint EIS/EIR would be prepared, on November 22, 2013.\textsuperscript{503} WAPA served as the lead federal agency and the San Luis and Delta-Mendota Water Authority as the lead California agency.\textsuperscript{504} Reclamation served as a cooperating agency.\textsuperscript{505} In February 2015, WAPA prepared an updated Alternatives Screening Report, which presented all potential alternatives identified during the planning and scoping process and the reason the agency retained or eliminated each potential alternative from further consideration.\textsuperscript{506}

The agencies issued the DEIS/EIR in July 2015\textsuperscript{507} and the FEIS/EIR in March 2016.\textsuperscript{508} The ROD was published on May 9, 2016.\textsuperscript{509} On January 31, 2018, WAPA, San Luis & Delta-Mendota Water Authority, Reclamation, and DATC agreed to parameters for negotiating and developing a contract to construct the project.\textsuperscript{510}

In October 2022, WAPA announced that it “will not be moving forward with executing the agreements necessary to implement the [SLTP]. The SLTP Proponent(s) were not able to achieve financing, and therefore, WAPA has cancelled work on the SLTP. The SLTP has been removed from WAPA’s OASIS queue.”\textsuperscript{511}

**Timeline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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</thead>
<tbody>
<tr>
<td>November 22, 2013</td>
<td>WAPA NOI to prepare an EIS</td>
</tr>
<tr>
<td>February 2015</td>
<td>WAPA Updated Alternatives Screening Report</td>
</tr>
<tr>
<td>July 2015</td>
<td>WAPA DEIS/EIR</td>
</tr>
<tr>
<td>March 2016</td>
<td>WAPA FEIS/EIR</td>
</tr>
<tr>
<td>May 9, 2016</td>
<td>WAPA ROD</td>
</tr>
<tr>
<td>January 31, 2018</td>
<td>Agreement to negotiate construction terms and conditions</td>
</tr>
<tr>
<td>October 7, 2022</td>
<td>WAPA cancels project</td>
</tr>
</tbody>
</table>

37. Plains and Eastern Clean Line

**Main Takeaway**
- Political and public opposition, rather than regulatory process, can kill a project.

\textsuperscript{502} SLTP WAPA NOI to prepare EIS.
\textsuperscript{503} Id. at 70035.
\textsuperscript{504} Id.
\textsuperscript{505} Id.
\textsuperscript{506} SLTP WAPA Alternatives Screening Report (updated Feb. 2015), available at https://www.energy.gov/sites/prod/files/2016/03/130/EIS-0496_SLTP_Final_EIS-EIR_3_Appendices_A-B_0.pdf.
\textsuperscript{508} SLTP WAPA & San Luis Delta-Mendota Water Authority FEIS (Mar. 2016), available at https://www.energy.gov/sites/default/files/2016/03/130/EIS-0496_SLTP_Final_EIS-EIR_1_Cover-Chapter3_0.pdf.
\textsuperscript{509} SLTP WAPA ROD.
\textsuperscript{510} See SLTP WAPA website, available at https://www.wapa.gov/about-wapa/regions/sn/san-luis-transmission-project/.
\textsuperscript{511} Id.
Summary

In May 2010, Clean Line Energy filed an application with the Arkansas PSC for a certificate to operate the Plains and Eastern Clean Line as a public utility.512 The proposed project, as modified in 2015, included a ± 600-kV direct current electric transmission system with the capacity to deliver up to 4,000 MW primarily from renewable energy generation facilities in Oklahoma to load-serving entities in the Mid-South and Southeast.513 The line would traverse Oklahoma, Arkansas, and Tennessee, approximately 705 miles.514

In June 2010, the DOE issued a Request for Proposals for New or Upgraded Transmission Line Projects Under Section 1222 of the Energy Policy Act of 2005.515 Section 1222 authorizes the DOE to partner with private entities to develop transmission facilities, which circumvents state-level regulatory requirements and provides for Federal eminent domain authority.516 In July 2010, as modified in August 2011, Clean Line submitted a proposal to DOE for Plains and Eastern, and at DOE’s request, submitted an updated application in January 2015.517

In January 2011, Arkansas PSC rejected Clean Line’s application to operate as a public utility “based on information about its current business plan and present lack of plans to serve customers in Arkansas.”518 Accordingly, as a merchant transmission developer, Clean Line could neither own nor operate transmission facilities within Arkansas nor exercise eminent domain.519

In October 2011, the Oklahoma Corporation Commission approved public utility status for the Plains and Eastern Clean Line.520 Also in October 2011, the Tennessee Valley Authority (TVA) signed a Memorandum of Understanding with Clean Line Energy to consider purchasing Plain Line transmission capacity and wind to serve its load.521 In January 2015, the Tennessee Regulatory Authority granted Plains and Eastern a certificate and the authority to operate as a wholesale transmission-only public utility in Tennessee.522

On December 21, 2012, the DOE, as lead agency, issued a NOI to prepare an EIS.523 DOE and cooperating agencies including the BIA, Natural Resources Conservation Service, TVA, Corps of Engineers, EPA, and

514. Id. at 18602.
516. See Downwind LLC et al v. US DOE et al, 3:16-cv-207-DPM (E.D. Ark. 2017), available at https://info.bracewell.com/37/753/uploads/2017-12-21-downwind-v-doe-order.pdf. On December 21, 2017, the District Court for the Eastern District of Arkansas dismissed a challenge by landowners, finding that states do not have veto power over whether a transmission line approved by DOE pursuant to its Section 1222 authority could be built; thus Arkansas PSC authorization was not required for the Project to go forward.
517. Plains and Eastern Clean Line DOE ROD at 18603.
518. Arkansas PSC Order No. 9 at 11.
519. Id.
FWS issued the DEIS on December 17, 2014. In October 2015, the DOE issued a FEIS. In March 2016, the DOE issued an ROD and concluded it would participate in the development of the project. On March 25, 2016, Clean Line Energy and DOE signed a participation agreement for the development of the project.

Shortly after the change in federal administration in January 2017, members of the Arkansas congressional delegation wrote to the Secretary of Energy requesting a review of the section 1222 permit. In addition, despite previous support from TVA, members of the Tennessee congressional delegation opposed the project; in June 2017, Tennessee Senator Lamar Alexander publicly called on TVA not to purchase power from Clean Line. In December 2017, TVA backed out of the MOU with Clean Line.

On December 22, 2017, Clean Line sold the Oklahoma portion of the project to NextEra Energy. In March 2018, the DOE and Clean Line terminated the Participation Agreement.

### Timeline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>May 2010</td>
<td>Clean Line applies to Arkansas PSC</td>
</tr>
<tr>
<td>June 2010</td>
<td>DOE Request for Proposals under EPAct section 1222</td>
</tr>
<tr>
<td>July 2010</td>
<td>Clean Line submits proposal to DOE</td>
</tr>
<tr>
<td>January 2011</td>
<td>Arkansas PSC rejects application</td>
</tr>
<tr>
<td>August 2011</td>
<td>Clean Line provides additional information to DOE</td>
</tr>
<tr>
<td>October 2011</td>
<td>Oklahoma approves public utility status</td>
</tr>
<tr>
<td>October 2011</td>
<td>TVA and Clean Line MOU</td>
</tr>
<tr>
<td>December 2012</td>
<td>DOE NOI to prepare EIS</td>
</tr>
<tr>
<td>December 2014</td>
<td>DOE DEIS issued</td>
</tr>
<tr>
<td>January 2015</td>
<td>TN approves application</td>
</tr>
<tr>
<td>January 2015</td>
<td>Plains and Eastern files updated application with DOE</td>
</tr>
<tr>
<td>October 2015</td>
<td>DOE FEIS</td>
</tr>
<tr>
<td>March 25, 2016</td>
<td>DOE signs Participation Agreement with Clean Line</td>
</tr>
<tr>
<td>December 2017</td>
<td>TVA backs out of 2011 MOA</td>
</tr>
<tr>
<td>December 2017</td>
<td>NextEra acquires Oklahoma assets</td>
</tr>
<tr>
<td>March 2018</td>
<td>DOE and Clean Line announce termination of PA</td>
</tr>
</tbody>
</table>

526. Plains and Eastern Clean Line DOE ROD at 18602.
531. “Controversial $2.5 billion Clean Line project stalled; will evaluate options, officials say,”