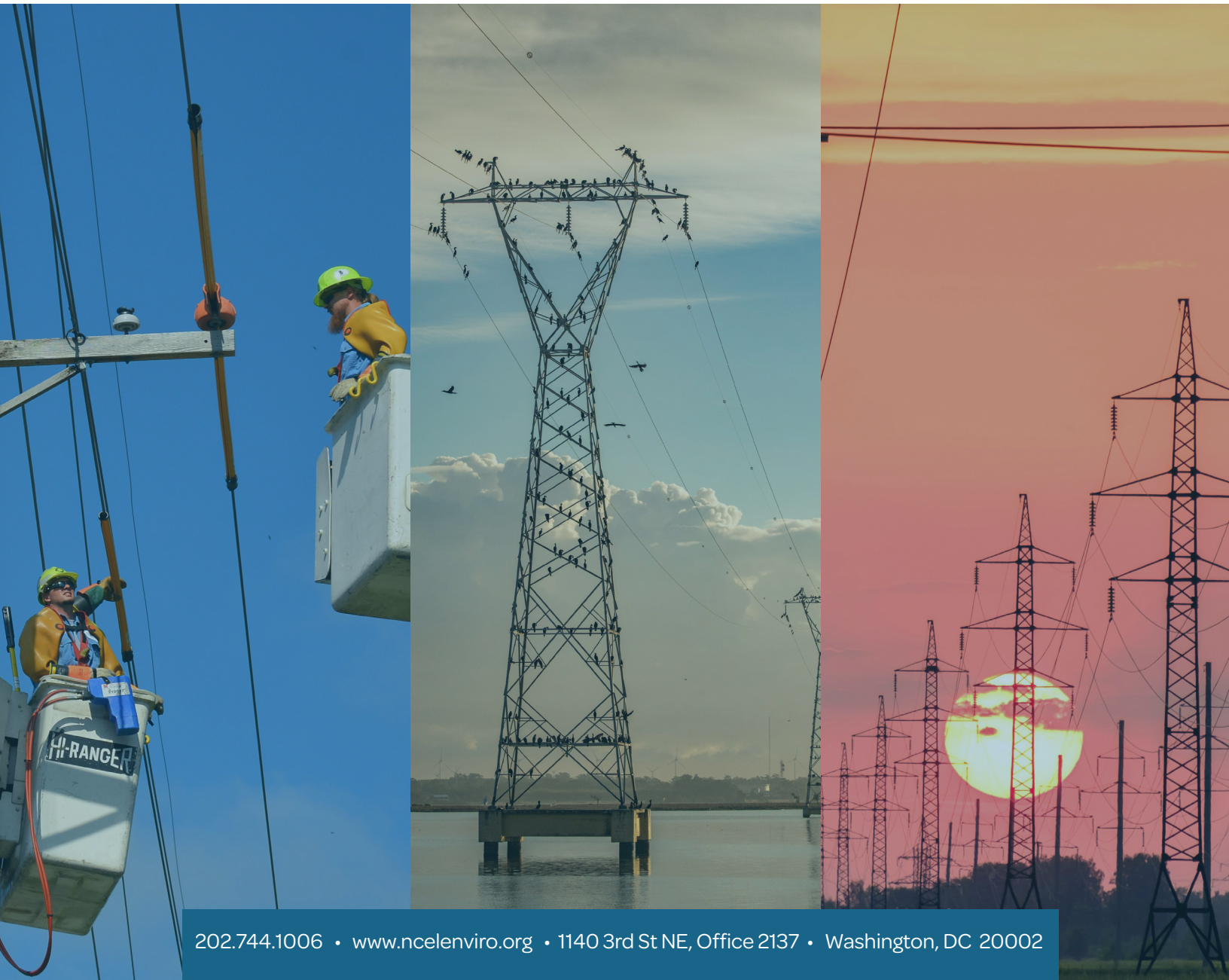
National Caucus of Environmental Legislators

Transmission Briefing Book

NCEL
National Caucus of
Environmental Legislators



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Briefing Book Overview

In addition to introductory information on transmission in the U.S., this briefing book is broken down into four sections. First, we will examine how to better understand transmission and the opportunities presented by the "Three P's of Transmission" (Planning, Permitting, and Paying). Second, we will examine how to maximize the capacity and ability of existing processes and infrastructure. Third, we will highlight ways to create new entities and authorities to better coordinate and streamline transmission development. Lastly, we will demonstrate how best to incorporate public interests into transmission policy to ensure that all communities benefit equally from this work.

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COMMUNITY NOTE: It is critical to note that every state has a different regulatory framework for transmission planning and authority. Legislation that has been successful in one context might not be successful in another. NCEL can connect you with in-state and regional advocates and experts who can help you design the transmission policy that best fits the context of your state and grid. All legislation in this briefing book marked with **two asterisks "**" indicates bipartisan sponsorship**.

NCEL is grateful for the support and expert knowledge of the following organizations during the creation of this briefing book: Grid Strategies, Regulatory Assistance Project (RAP), David Gardiner & Associates, Clean Grid Initiative, and Jasmine Jennings, Senior Legislative Counsel at Earthjustice.

Introduction: The State of Transmission in the U.S.

The power grid is in desperate need of increased transmission development to ensure the reliability, resiliency, and security of the electrical system. According to the Department of Energy's National Transmission Needs study, the U.S. will need 47,000 gigawatt (GW) miles of new high-voltage transmission capacity by 2035, but as of 2021, only 386 miles of new lines have been built. With this need for replacements and upgrades, there is also significant opportunity for economic development. A recent report determined that with an Investment Tax Credit for transmission, there would be the creation of 650,000 good-paying jobs, $15 billion in private capital investment, and $2.3 billion in energy cost savings for the lower 80% of income brackets.

Currently, the U.S. has immense congestion along transmission lines and lacks capacity, especially for the increasing integration of clean energy resources. This limits the delivery of electricity from current and projected clean energy resources. Also, the regions with vast clean energy resources are often far from cities and the existing grid, meaning there needs to be thousands of miles of new high-voltage transmission lines built to connect these regions to the grid. Despite all of this, there is no single entity for organizing the grid, and transmission lines often require extensive permitting and approval of multiple regional, state, and local authorities.

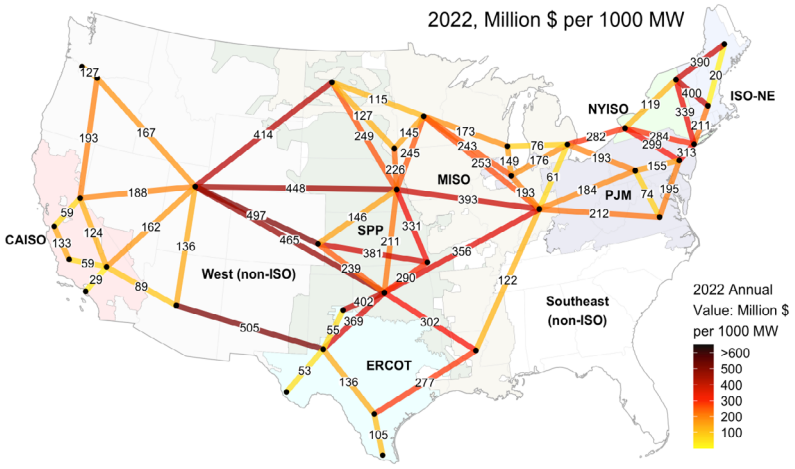

Figure 1: *The annual cumulative value of a hypothetical 1000 MW transmission link is shown. These values are marginal and based only on hourly energy price arbitrage. Source: Energy Technologies Area, Berkeley Lab*

State legislators can play a crucial role in long-term transmission planning, strengthening ties between regions, and proposing new legislation to increase transmission development.

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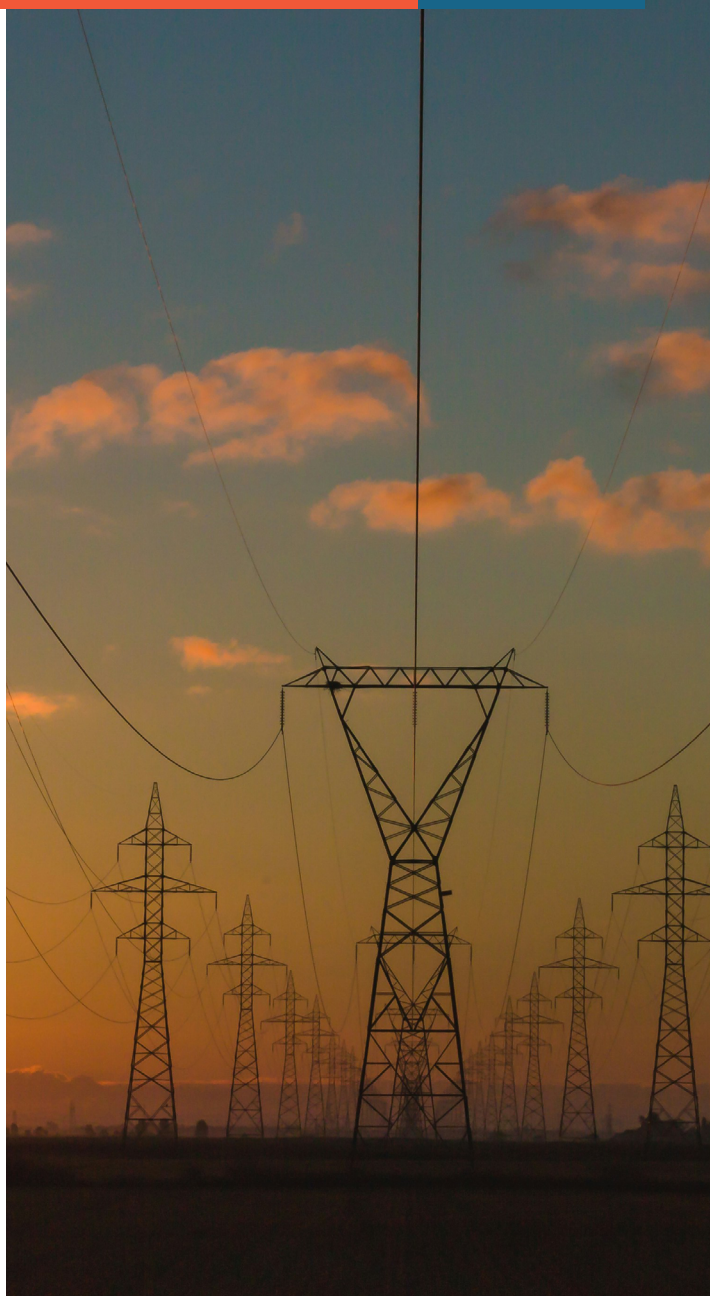
Section 1
Understanding Transmission



Section Overview

Transmission serves as the vital infrastructure for our electrical system, working to bring energy from where it's produced to where it's used. Electricity generated is transmitted on transmission lines, forming the network known as the power grid, which connects different parts of the country and facilitates the movement of electricity.

According to the American Society of Civil Engineers, much of the nation's transmission and distribution lines were constructed in the 1950s and 1960s, meaning they have reached or exceeded the expected lifespan of 50 years. Transmission lines reaching or exceeding their lifespans pose multiple issues such as reliability, resiliency, and higher costs for consumers. Extreme weather events highlight concerns about a weakening grid as brownouts (a drop in voltage in the power system) and blackouts become more common. In 2023, experts warned that two-thirds of North America could experience an energy shortfall during summer heat waves — a combination that poses serious threats to public health. With expanded transmission, regions can broaden the pool of available resources, making the grid more reliable, affordable, and efficient, particularly during extreme weather events. Also, in areas where there is a significant need for more transmission, energy prices might be higher, leading consumers to pay more for a basic need.

The **Three P's of Transmission** provide the foundation for understanding where there are additional needs for policy and regulation: Planning, Paying, and Permitting.

Planning

The U.S. is divided into nearly a dozen transmission planning regions and planning occurs at various levels. The Federal Energy Regulatory Commission (FERC) has broad oversight over transmission planning and regulates public utility transmission providers to ensure rates are "just and reasonable" and practices, including access to transmission services, and do not discriminate or give preference to certain actors. Other agencies like the Department of Energy (DOE) conduct analysis and research on long-term transmission planning. Along with agencies, utilities that own transmission lines, Regional Transmission Organizations (RTOs), and Independent System Operators (ISOs), play a critical role in planning.

The structure and authorities of these entities vary considerably across the U.S., impacting how a region approaches transmission development. For more information about your specific region, see the regional breakdown. In regions without an RTO, utilities are the main planning entities and work in tandem with regional planning entities. Regional planning entities are shown in Figure 3 (Source: FERC).

Learn more about RTOs: See What are Regional Transmission Organizations and How do They Interact with State Climate Goals and NCEL's Utility Briefing Book pages 12 and 13. RTOs vary across the United States, impacting how a region approaches transmission development. For more information about your specific region, see the regional breakdown: PJM, MISO, ISO-NE, SPP, Southeast, West.

Effective transmission planning is crucial for delivering affordable and reliable power to customers. The 2023 report by Americans for a Clean Energy Grid Transmission Planning and Development Regional Report Card, assesses the performance and practices of transmission planning across different regions.

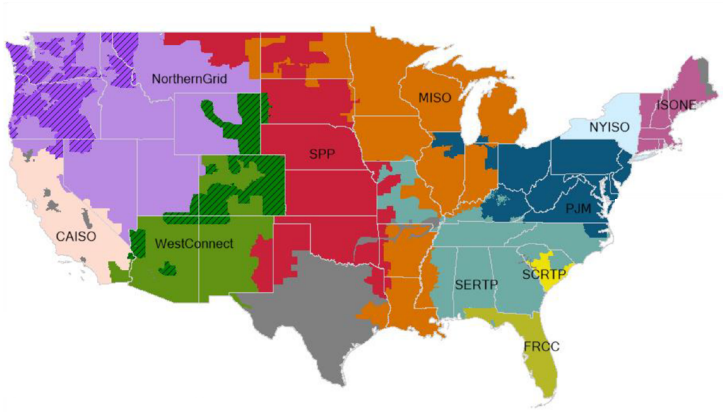


Figure 2: *FERC Order No. 1000 Transmission Planning Regions. Regions and areas with diagonal lines indicate non-enrolled members. Source: FERC.*

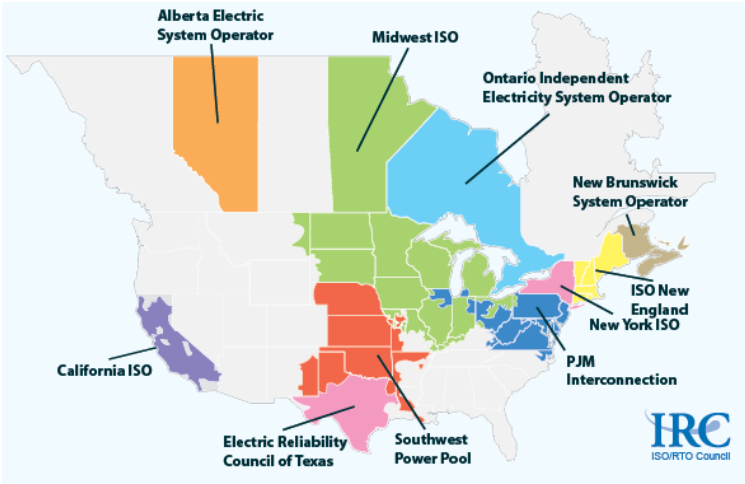


Figure 3: *Map of RTOs nationwide. Areas in gray do not contain RTOs or ISOs. Source: EIA*

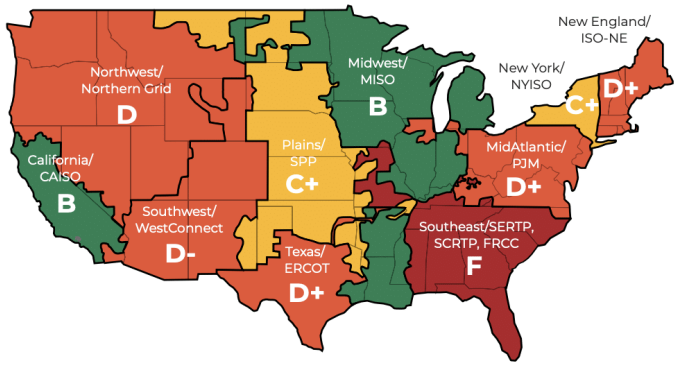


Figure 4: *Grid Operator Transmission Planning & Development Regional Report Card. Source: Americans for a Clean Energy Grid.*

Paying

Paying for transmission has two components, cost allocation, which is how to equitably distribute costs, and cost recovery, which is how utilities will recoup costs. Cost allocation has been the major point of contention around transmission development with disagreement over who benefits and who should pay for those benefits particularly when a line covers a broad geographical region including states with different energy priorities. FERC sets the cost allocation rate at the federal level and has recently updated this rule with Order No. 1920, requiring transmission planners to consider seven holistic criteria. Learn more about Order No. 1920 here.

The costs for high voltage direct lines currently can cost between $1.17 million to $8.62 million per mile, meaning an individual new transmission line can cost billions of dollars, so it is critical for states to work together with FERC and their regional planning entities to ensure that costs are distributed equitably.

Permitting

Much of the permitting and siting for transmission projects is within the jurisdiction of state and local governments who are often basing their determination on whether the line is in the public interest. FERC has limited authority on transmission projects under certain circumstances. The permitting process plays an important role in building transmission with the permitting of new transmission alone taking on average 4.3 years to complete. If lines cross federal lands, are interstate, affect waterways, or impact endangered species, multiple federal permits will be needed which often causes the transmission permitting process to take well over a decade.

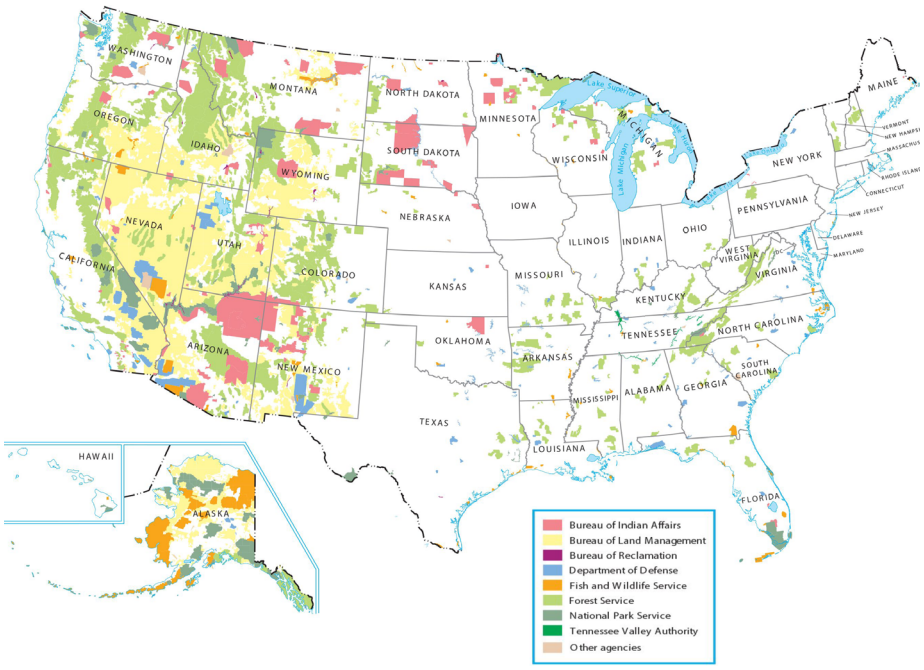


***Figure 5:** Map of Federal Lands in the United States. Source: GISGeography*

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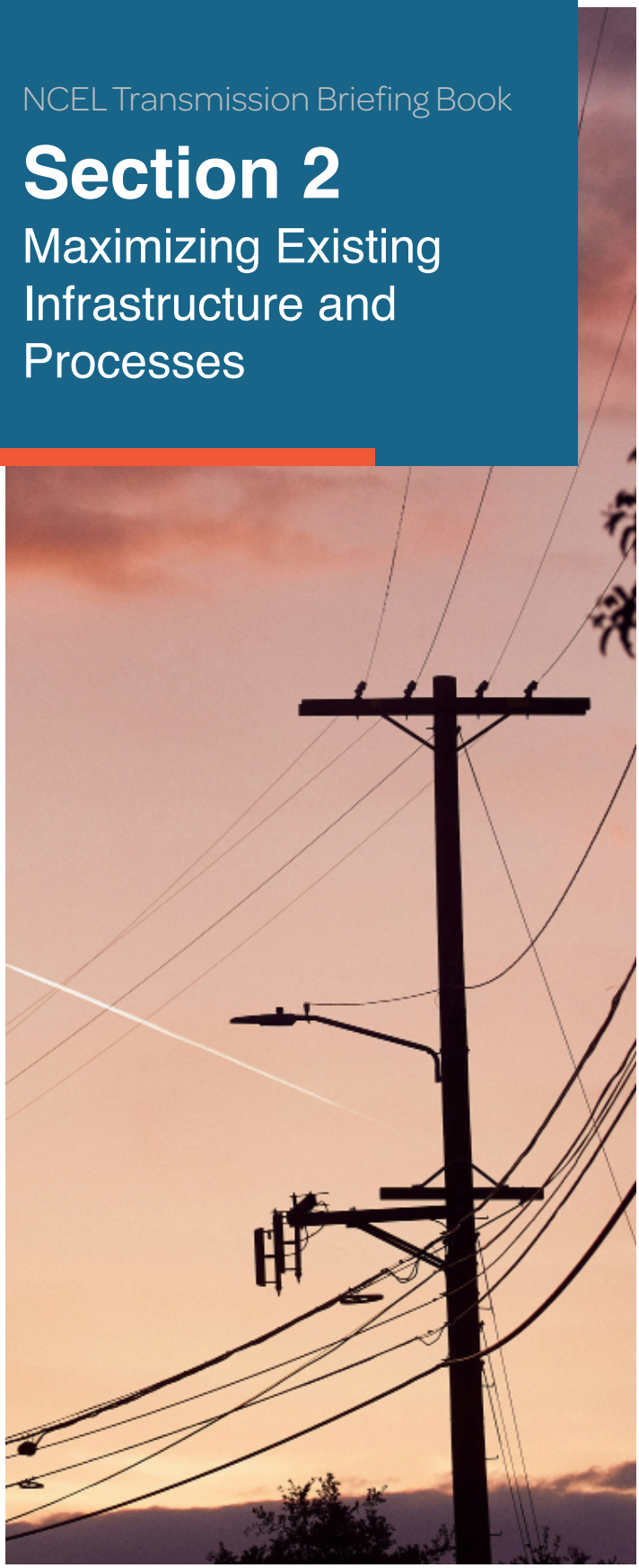
Section 2

Maximizing Existing Infrastructure and Processes



Section Overview

New development always comes with costs and benefits, and sometimes, the best way to increase transmission capacity is to maximize the resources already in place or utilize existing transmission corridors. Grid-enhancing technologies (GETs) can reduce congestion by 40% or more on existing lines; and based on 2021 transmission congestion costs, that is worth over $5 billion per year to U.S. ratepayers.

By prioritizing transmission development through reconductoring or in existing rights of way including existing electric or gas transmission routes, or alongside highways, railroads, or drainage ditch setbacks, states can minimize ecosystem disruption, further exacerbation of environmental injustices, landowner disputes, and speed up construction timelines and costs.

There are also existing methods and venues for states to engage with entities like FERC and RTOs on transmission planning. While states have primary authority over permitting and other decisions to make around costs and benefits, FERC/RTOs have generally overseen the transmission planning process. It behooves both parties to work in closer partnership on transmission work. For example, states in four RTO regions have regional state committees that regularly work with their RTOs on transmission planning. In addition, with the issue of transmission growing in importance, other types of state collaborations are beginning to appear.

How can state legislators maximize existing infrastructure and processes to advance transmission planning and development in the here and now while complementing the need for new transmission build?

Topics covered in this section: *(1) Enhancing Existing Transmission Lines, (2) Co-Locating With Existing Rights of Way, and (3) Regional State Committees.*

Overview

Grid-enhancing technologies (GETs) and advanced reconductoring, the energy efficiency tools of the power grid, can help increase the capacity of the grid faster and without building new lines. By increasing the capacity of existing lines, the grid can transmit more electricity without the lengthy planning and permitting process required for new transmission build. While construction of new transmission will still be needed to support the U.S. energy transition, these alternative approaches serve an important need, especially in the near-term.

A regional study on the impact of GETs showed nationwide benefits such as doubling the amount of renewables that can be integrated into the grid prior to building new large-scale transmission lines. Also, GET integration creates jobs – 330,000 local construction jobs, and 20,000 high-paying operations jobs. A recent study showed that reconductoring transmission lines could add about 64 Terawatt (TW) miles of new interzonal transmission capacity by 2035 compared to about 16 TW miles from only building new transmission lines and would allow the United States to get 90% of its electricity from emissions-free power sources by 2035.

Types of Technologies

- **Dynamic Line Ratings** - Measure the true conditions and temperature of a line to determine its capacity. The capacity of lines can increase by 50% in cold temperatures.
- **Advanced Power Flow Control** - Hardware and software balance overloaded or underutilized corridors of transmission, avoiding overflows of electricity in some areas and underutilization in others.
- **Topology Optimization** - Software is used to track the best route and combination of lines for transferring power. The software can then turn off/change power lines that are in use to optimize the existing grid network.
- **Advanced Reconductoring** - Replacing old conductors on existing transmission lines with new ones that have higher capacity for electrical current.

Example: PPL Electric Utilities

In 2022, PPL Electric Utilities, a utility in Pennsylvania, was the first U.S. utility to integrate dynamic line rating technologies into real-time and market operations. PPL spent less than $300,000 installing dynamic line rating sensors on two 230-kV lines instead of rebuilding or reconductoring. This decision saved the utility about $50 million in costs and immediately provided about $20 million savings in annual congestion costs. Average “normal” capacity ratings on one line increased about 18% and on the other line increased about 19%.

Legislation

- **Colorado S.B.16 (Enacted 2023):** Requires the Colorado Electric Transmission Authority to study the need for expanded transmission in the state including by co-locating multiple transmission lines, reconductoring transmission lines; and strategically siting new transmission corridors.

- ****Indiana S.B.422 (Enacted 2025):** Requires utilities to consider the use of GETs and advanced reconductors in their Integrated Resource Plan (IRP). Directs the Indiana Utility Regulatory Commission to study the deployment of GETs. Clarifies that utilities can receive a rate of return for investments in GETs and advanced reconductors.

- **Minnesota S.F.4942 (Enacted 2024):** Requires transmission owners to identify areas of congestion over the past 3 years and the next 5 years, the increased cost to ratepayers as a result of that congestion, the technical feasibility and cost of installing GETs to address congestion, and propose an implementation plan to install GETs at such points. Allows the Commission to approve cost recovery mechanisms for GET investments.

- **Montana H.B.729 (Enacted 2023):** Enables the State's Public Utility Commission to approve cost-effectiveness criteria for Advanced Conductor projects that may be placed into a utility's ROI (Return on Investment) Rate Base.

- **Utah H.B. 212 (Enaced 2025):** Requires that during transmission expansion or improvement, distribution companies must conduct cost-effectiveness and timetable analyses of GETs integration, and report to the Public Service Commission.

Additional Resources

- ***Increasing Transmission and Grid-Enhancing Technologies (GETs)*** **I NCEL**
- ***GET a GRIP: A Path to More Renewable Energy on the Grid*** **I RMI**
- ***What are GETs?*** **&** ***Federal Funding for GETs*** **I WATT Coalition**
- ***The 2035 Report: Reconductoring With Advanced Conductors Can Accelerate The Rapid Transmission Expansion Required For A Clean Grid*** **I Energy Innovation & GridLab**

Overview

According to the Department of Energy's National Transmission Needs study, the U.S. will need 47,000 gigawatt (GW) miles of new high-voltage transmission capacity by 2035, but as of 2021, only 386 miles of new lines have been built. Co-locating new transmission with existing rights-of-way (ROWs), such as existing electric or gas transmission routes, highways, railroads, or drainage ditch setbacks is a helpful way to minimize and expedite siting transmission projects. In addition, co-locating transmission in existing ROWs can help to alleviate impacts on private landowners and communities. Private land use, environmental impacts, aesthetic concerns, and other factors can present a multitude of challenges.

State Highlight: Wisconsin

In 2003, Wisconsin enacted Act 89, which established standards for prioritizing the development of new transmission infrastructure. This legislation emphasized utilizing existing utility, highway, and railroad corridors, as well as recreational trails, to minimize environmental impact and ensure reliability, while also considering economic and engineering factors. The legislation also noted that new corridors may be used only if necessary as a last resort. Since this legislation was enacted, Wisconsin has been able to site 26 transmission projects in highway rights-of-way, including eight projects in interstate rights-of-way.

Legislation

- **Colorado H.B.1292 (Enacted 2025):** Allows transmission lines to be built along state highway rights-of-way, based on rules created by the Department of Transportation.
- **Minnesota H.F.7 (Enacted 2023):** Encourages existing transmission lines to primarily utilize existing rights-of-way and assess potential routes that would utilize or run parallel to existing railroad and highway rights-of-way.
- **Minnesota S.F.4942 (Enacted 2024):** Requires the Public Utilities Commission to consider locating a route for a high-voltage transmission line on an existing high-voltage transmission route and using parallel existing highway right-of-way.
- **New Jersey S.B. 3926 (Enacted 2020):** Grants authority for qualified offshore wind projects to obtain easements, rights-of-way, or other real property interests on, over, or through existing public streets, thoroughfares, or rights-of-way.

Additional Resources

- ***The Societal Value of Co-Locating Electric Transmission Infrastructure in Highway Rights-of-Way*** **| NextGen Highways**
- ***Recommended Siting Practices for Electric Transmission Developers*** **| Americans for a Clean Energy Grid**

Overview

Regional state committees (RSCs) were formed by states to coordinate and provide policy input to the RTOs on transmission and wholesale market design and operational issues. Representatives to each RTO's RSC include members of the state PUC; in ISO-NE, members also include non-PUC state officials appointed by the state's governor. Of the four RTOs that have regional state committees, each has a different level of authority and structure. See the table below:

Table 1. Comparison of Regional State Committees

RTO	Regional State Committee	Acronym	Annual Budget Provided by RTO ($M)	Resource Adequacy Decision Power
SPP	SPP Regional State Committee	RSC	~$0.3-0.499[a]	Provide collective approval through state committee vote for the approach to resource adequacy
MISO	Organization of MISO States	OMS	~$1.5[b]	Individual state can set own target different from regional target reserve margin
ISO-NE	New England States Committee on Electricity	NESCOE	~$2.3[c]	Has single, collective vote to approve target reserve margin
PJM	Organization of PJM States, Inc	OPSI	$0.425-$0.696[d]	Provide collective comments on proposals

Figure 6: *Comparison of Regional State Committees. Source: Duke Nicholas Institute*

When SPP and MISO were in the process of becoming RTOs, the states asked FERC to be active participants in RTO policies unlike in PJM and ISO-NE's development process. As a result, the Regional State Committees in SPP and MISO developed positions on transmission plans, cost allocation, and resource adequacy that continue to have significant influence over RTO policies.

As legislators have clear authority over the mandate of their state's public utility commission (the members of the RSCs), they can indicate what priorities they'd like to see the PUCs advocate for at the RTO, including expanded transmission planning and other energy concerns. This authority has been used for other energy priorities for states in the past like the example below in Maine for energy storage, but would be a newer tool for transmission expansion.

Legislation

- ****Maine L.D. 1614 (enacted 2019):** Created the Commission To Study the Economic, Environmental and Energy Benefits of Energy Storage to the Maine Electricity Industry.
  - » Corresponding report recommended that the PUC, Governor's Energy Office (GEO) and other state agencies seek opportunities to advocate for consideration of energy storage opportunities by ISO-New England in regional market planning and design through the New England States Council on Energy (NESCOE).

Additional Resources

- ***Engagement between States and Regional Transmission Organizations*** **| National Council on Electricity Policy (NCEP) & National Association of Regulatory Utility Commissioners (NARUC)**
- ***A New State-Federal Cooperation Agenda for Regional and Interregional Transmission*** **| NARUC**
- ***State Participation in Resource Adequacy Decisions in Multistate Regional Transmission Organizations*** **| Duke Nicholas Institute**

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Section 3

Creating New Entities and Mandates

Section Overview

Given that the electric grid was largely established in the late 1800s, it is evident that new processes and entities would need to be developed over time. With new types of generation resources and electricity demand, new catastrophes (e.g., extreme weather), and new technologies, big and small changes are continuously needed to maintain a safe, reliable, and cost-effective grid.

As the grid transitions to incorporate more intermittent energy sources and flexible energy demand – like smart grids and energy storage – and is forced to face dramatic increases in electricity demand and resilience, more robust changes will be necessary. State legislatures have the authority to set new mandates for their utility commissions who in turn largely have control over transmission owners. Legislatures also have authority to create new entities and combine existing agencies to most efficiently permit and site transmission.

However, newer is not always better, and it is important for states to first evaluate their current structures in conjunction with relevant state and federal agencies to identify where the gaps are and what the most strategic changes are. Are the current permitting agencies well-funded and organized? Do they have staff with the expertise to analyze complex transmission applications? Are there legal barriers to existing agencies acting more quickly? Is there legislative authorization recommended by Commissioners to help the process?

Topics covered in this section: *(1) Transmission Authorities, (2) Streamlining Permitting and Siting Reform, and (3) Regulator Mandates.*

Overview

State transmission authorities are entities responsible for facilitating transmission infrastructure planning and development. Particularly in states without a regional transmission organization (RTO), transmission authorities can play a crucial role in ensuring the reliable and efficient delivery of electricity from power generators to distribution networks and ultimately to consumers. Some of the specific roles that a transmission authority plays are engaging in transmission planning, identifying transmission corridors, negotiating interstate transmission, assisting in permitting and siting, facilitating processes to help fund transmission projects, and entering into partnerships with public or private entities to develop projects.

State Highlight: Colorado

Colorado provides a unique case study for the creation of a transmission authority, particularly as a state that is currently not a participant in an RTO. In 2021, Colorado legislatively created the Colorado Electric Transmission Authority (CETA), which is an independent, political subdivision of the state tasked with the development of transmission infrastructure. Prior to CETA, Colorado did not have an entity dedicated to this task and with the absence of an RTO, it was a challenge for the state to plan and implement both intra and interstate transmission development. The transmission authority is currently working on a transmission expansion study for Colorado as directed by the legislature in 2023 by S.B.016.

Legislation

- ****Colorado S.B.072 (Enacted 2021):** Created the Colorado Electric Transmission Authority (CETA) along with requiring transmission utilities to join an organized wholesale market by 2030 and modernize the state's electricity grid system.
- **New Mexico H.B.0188 (Enacted 2007)**: Established the New Mexico Renewable Energy Transmission Authority to plan, finance, develop and acquire high voltage transmission lines and storage projects in order to promote economic development in New Mexico.
- **Montana H.B.314 (Reported Favorably from Committee, 2025):** Establishes a State Energy Authority to enhance energy development and transmission.

Additional Resources

- ***Transmission Time: The Role of State Transmission Authorities*** **| Americans for a Clean Grid**
- ***Colorado Transmission Authority*** **| CETA**
- ***New Mexico Renewable Energy Transmission Authority*** **| NM RETA**

Overview

Siting and permitting of interstate and inter-regional transmission lines often requires coordination and action by different entities including federal, state, local, Tribal, and private. When multiple authorities have jurisdiction over a project, siting and permitting processes can significantly slow development. If a project is unable to take advantage of an existing rights-of-way, the time required to meet potential permitting requirements can be reduced by streamlining permitting and enacting siting reform.

A majority of state legislatures have the authority to mandate how a regulatory entity oversees and supports transmission projects. These regulatory authorities differ by state but might include the Public Utility Commission (PUC), siting boards, local entities, or other existing state agencies. Permitting and siting can be expedited by consolidating state and local siting and permitting efforts into a single process, establishing a state agency dedicated to improving transmission deployment, or encouraging agencies to engage in transmission planning efforts.

However, it is imperative that by streamlining the permitting process, public interest concerns including environmental justice, tribal sovereignty, and environmental impacts are not overlooked. Reference page 18 to identify complementary policies to protect communities and ecosystems.

Legislation

- **Colorado S.B.16 (Enacted 2023):** Requires the Public Utilities Commission to consider the need for the expansion of transmission capacity in the state and for local governments to expedite reviews of land use applications regarding transmission lines when practicable.
- ****Oregon H.B.3681 (Enacted 2025):** Requires the Energy Facility Siting Council (EFSC) to limit the timeline for contested cases to one year, and for appeals to go to the State Supreme Court; removes the requirement that developers attain all land use approvals before filing a Certificate for Public Convenience and Necessity.
- **New York A.8808C (Enacted 2024):** Transfers jurisdiction of siting of electric transmission facilities from the Public Service Commission to the Office of Renewable Energy Siting (ORES); require ORES to adopt uniform permit terms for electric transmission facilities; exempts lines in existing ROWs from siting application.
- ****Washington H.B.1216/S.B.5380 (Enacted 2023):** Streamlines permitting by establishing the Interagency Clean Energy Siting Coordinating Council, expediting environmental reviews by amending the State Environmental Policy Act (SEPA), and establishing a new program for the designation of Clean Energy Projects of Statewide Significance (CEPSS).

Additional Resources

- ***WARP SPEED CLEAN ENERGY: Expediting Permitting and Equitable Grid Deployment Without Congress* | Evergreen Action**
- ***Electric Transmission Planning: A Primer for State Legislatures* | NCSL**
- ***Washington State Lawmakers Pass Bill to Make Clean Energy Transition More Efficient* | NCEL**

Overview

State legislatures have clear authority over their respective public utility/service commissions, which in turn have authority over the utilities in the state. States with an integrated resource planning (IRP) process have the ability to require their utilities to create a roadmap to meet forecasted energy demand using both supply and demand side resources to ensure reliable service to customers in the most cost-effective way. Transmission planning is not typically a key part of that process, however, many are pushing for more holistic IRP processes that include state and regional transmission infrastructure and needs. This is even more important in a state that isn't within the footprint of a RTO, which plans transmission for the region. Other legislatures have directed their Commissions to undertake studies and open up dockets on transmission and grid related topics to better inform state and utility needs and decision-making.

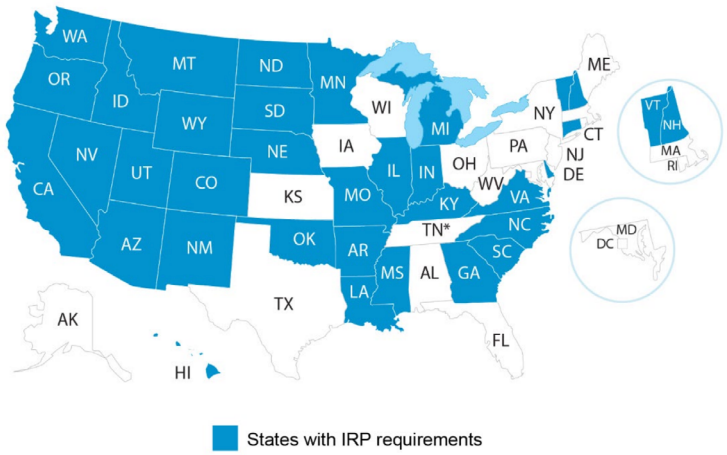

Figure 7: *States with Integrated Resource Planning (IRP) requirements. Source: U.S. Environmental Protection Agency (EPA).*

State Highlight: North Carolina

In 2021 North Carolina passed H.B.951, requiring Duke Energy (the state's main utility) to cut carbon dioxide emissions by 70% by 2030 from 2005 levels and to be carbon neutral by 2050. In response to the law, the North Carolina Utilities Commission ordered Duke to adopt a more proactive local transmission planning process that is combined with its integrated resource plan. For years the North Carolina Transmission Planning Collaborative had run a transparent stakeholder process, which has since been expanded to the Carolina Transmission Planning Collaborative due to Duke Energy's jurisdiction over North and South Carolina. This new process is unique in that it utilizes proactive, multi-value scenario planning with increased stakeholder engagement and considers reliability, economics, and public policy together instead of in silos.

Legislation

- **California S.B.319 (Enacted 2023):** Requires the Energy Commission, PUC, and Independent System Operator to jointly develop an electrical transmission infrastructure development guidebook that describes the state's planning and permitting processes.
- **New York S.7508B (Enacted 2020):** Requires the Department of Public Service (DPS) to identify cost-effective bulk electric system upgrades to reach the goals of the CLCPA; directs the establishment of a distribution and local transmission system capital program based on the results of the study for each utility service territory to be sent to NY- ISO.

- **Nevada S.B.448 (Enacted 2021):** Requires an electric utility to amend its most recently filed resource plan to include a plan for certain high-voltage transmission infrastructure construction projects that will be placed into service before 2029.
- ****Ohio S.B.3 (Enacted 1999):** Requires the PUC to hold joint hearings and enter into agreements with agencies of other states to cooperate on regulatory efforts and the enforcement of state laws for transmission entities.
- **South Carolina H.3309 (Enacted 2025):** Requires utilities to include a detailed transmission planning report when filing an Integrated Resource Plan.

Additional Resources

- ***Integrated Resource Planning, Transmission Planning and Advanced Grid Management* | Great Lakes Wind Collaborative**
- ***State Energy and Environment Guide to Action: Electricity Resource Planning and Procurement* | EPA**

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Section 4

Integrating Public Interests into Transmission Planning and Development

Section Overview

State legislators are constantly balancing several different policy priorities at once, and it is imperative not to consider transmission policy in a vacuum. Rapid transmission build out is critical; however, there are ways to incorporate public interests in planning and development to create a grid that works for everyone and does not replicate the mistakes of prior build out of large-scale infrastructure.

In working on any of the above transmission policies, it is important to ask:

- How does this policy affect disadvantaged communities in my state?
- How does this project advance environmental justice and a just transition?
- How can I honor Tribal sovereignty in this work?
- How can I marry my interests in protecting the natural landscape with expanding clean energy?
- Who does this policy bring to the table as a decisionmaker?

Consulting with justice, Tribal, and conservation experts and advocates in your state is critical for striking the right balance in the policy you are looking to pursue.

Topics covered in this section: *(1) Environmental Justice and Just Transition, (2) Conservation and Transmission, and (3) Tribal Consultation and Engagement.*

Overview

The expansion of transmission infrastructure demands crucial consideration for environmental justice and ensuring a just transition. Historical infrastructure developments, such as the federal highway system, have been marred by a history of environmental racism and injustices. For example, transmission lines may utilize right-of-ways (ROWs), similar to the federal highway system. Intentional planning and the centering of environmental justice and equity must be deployed to avoid repeating past harms and disproportionately impacting communities.

The build out of transmission infrastructure may also positively impact communities. More transmission allows older, dirtier generating units to be replaced by remote, clean resources. The development of transmission infrastructure may also present economic benefits for local communities, such as job opportunities and economic growth. To avoid potential harms and realize potential benefits, comprehensive stakeholder and community engagement must be prioritized throughout each step of the planning and permitting process and extend throughout the lifecycle of the transmission line.

Legislation

- **Colorado S.B. 21-272 (Enacted 2021):** Requires the Public Utilities Commission to adopt rules to "consider how best to provide equity, minimize impacts, and prioritize benefits to disproportionately impacted communities and address historical inequalities."
- **Colorado S.B. 21-103 (Enacted 2021):** Gives the Colorado Office of the Utility Consumer Advocate expanded authority to intervene before the commission on environmental justice, just transition and decarbonization issues.
- **Maryland S.B.0516 (Enacted 2019):** Establishes the Clean Energy Workforce Account to provide grants for apprenticeships and training to establish career paths in sectors of the clean energy industry, particularly offshore wind projects including the associated transmission–related interconnection.
- **Maine L.D. 1682 (Enacted 2021):** Requires the Governor's Office of Policy Innovation and the Future to incorporate equity considerations at the Department of Environmental Protection, the Public Utilities Commission and other state agencies.
- **New Jersey S.B. 232 (Enacted 2020):** Requires a specific stakeholder engagement process when decisions about permitting a new facility or siting of a transmission line are contemplated in environmental justice communities; requires the relevant state agency to explicitly consider community support, or lack thereof, when making a decision.

Additional Resources

- ***Transmission Principles*** | **Coalition of Environmental and Environmental Justice Organizations**
- ***Building Transmission to Secure a Clean and Equitable Electricity Grid*** | **Coalition of Environmental and Environmental Justice Organizations**
- ***Advancing Equity and Public Access to Decision-Making*** | **RAP**
- ***Climate Justice Policy Options*** | **NCEL**

Overview

The expansion of transmission infrastructure necessitates careful consideration of its impact on land, water, and wildlife. Transmission infrastructure itself has a small environmental footprint and no emissions but it has the potential to increase human access into natural areas, displace or otherwise impact wildlife, act as barriers to wildlife movement, and affect migration routes. The expansion of transmission infrastructure requires swift action, involving the addition of new lines and the upgrading of existing ones. It is important to ensure the prioritization of siting locations with optimal potential for clean energy production, while simultaneously mitigating any adverse environmental impacts Conservation organizations have recognized that well-sited transmission is necessary to help them achieve their conservation goals.

Legislation

- **Colorado S.B.212 (Enacted 2024):** Provides resources to local governments to assess, site and permit utility-scale renewable energy projects, including transmission facilities, while setting best management practices to avoid, minimize, and mitigate wildlife and land impacts
- ****Oregon H.B.3181 (Introduced 2023):** Directs State Department of Energy and Department of Land Conservation and Development to convene a work group to examine barriers and opportunities related to renewable energy and transmission project siting in Oregon, including considerations for wildlife corridors.
- ****Maine L.D.1881 (Enacted 2023):** Requires a person engaging in a solar energy development to pay a compensation fee, as specified; creates a compensation fund to spend on projects that restore, enhance, or preserve habitats affected by the development or transmission lines.
- **Virginia H.B.206 (Enacted 2022):** Requires applicants for small energy projects to submit a mitigation plan with a 45-day public comment period if the Department of Environmental Quality determines that there will be a significant adverse impact on wildlife, historic resources, prime agricultural soils, or forest lands.
- **Washington H.B.1216 / S.B.5196 (Enacted 2023):** Requires the Department of Ecology to prepare environmental impact statements that disclose adverse environmental impacts and related mitigation measures for clean energy projects, with consideration for cumulative impacts including habitat connectivity and corridors.

Additional Resources

- ***Birds and Transmission: Building the Grid Birds Need*** | **Audubon Society**
- ***Power of Place National Study*** | **The Nature Conservancy**
- ***A Clean Energy Transmission Policy Platform: For Thriving Communities and Wildlife*** | **National Wildlife Federation**

Overview

Strong State-Tribal relationships can advance state transmission policy and collaboration can offer mutual benefits by reducing legal conflict, utilizing shared knowledge, identifying redundancies, and increasing federal funding. While states have no authority over Tribal Nations unless granted by Congress, **all states have treaty obligations** to Tribal Nations, whose Tribal sovereignty exceeds state sovereignty. Also, states and Tribes have adjacent jurisdictions along with Tribal citizens being state citizens, making them constituents of state legislators. The relationship between Tribal Nations, states, and the federal government is complicated, but by recognizing Tribal sovereignty and advocating for Tribal needs, states can avoid costly mistakes.

Tribes cannot be ignored during the clean energy transition. Historically, when thinking about the expansion of transmission infrastructure, there has been poor (in quality and quantity) consultation and collaboration with Tribes, and the majority of maps outlining ideal transmission and energy corridors do not include identification of Tribal land. Not only will infrastructure potentially cross Tribal land, but there is also a concern of disturbing potentially unmarked sacred and cultural Tribal sites both on land and in the ocean. It is important to include Tribes within the planning process and to consult with Tribes for all transmission and energy projects to avoid potential points of unnecessary conflict and to create a more collaborative clean energy future.

Legislation

- **Minnesota Executive Order 19-24 (Enacted 2019):** Recognizes the importance of the relationship between the State of Minnesota and Tribal Nations in Minnesota by expanding the purpose for the Minnesota Public Utilities Commission to require meaningful engagement of Tribal Nations in regulatory processes and procedures.
- **Minnesota H.F. 2310 (Enacted 2023):** Established and funded the Minnesota's Tribal Advisory Council on Energy (TACE) which is a Tribally led effort to assess and evaluate common Tribal issues in regard to energy along with creating awareness and education on energy issues.
- ****Washington H.B.1216/S.B.5380 (Enacted 2023):** Requires timely and meaningful engagement, as defined by a variety of requirements, with federally recognized Tribes potentially impacted by clean energy projects.
- **Washington H.B.1753 (Enacted 2022):** Requires agencies that administer grant programs from the climate investment fund, created by Washington's Climate Commitment Act, must offer early, meaningful, and individual consultation with affected federally recognized Tribes on all funding decisions that may impact Tribal resources.

Additional Resources

- ***State and Tribal Relationships Fact Sheet*** | **NCEL**
- ***Transmission and Tribal Lands*** | **Americans for a Clean Energy Grid (ACORE)**
- ***Decision Support for Tribes*** | **National Renewable Energy Laboratory (NREL)**
- ***National Transmission Planning Study Tribal Engagement*** | **Department of Energy**
- ***Alliance for Tribal Clean Energy*** | **ATCE**

Transmission Briefing Book

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