



VOLUME V

Transmission Siting in the PJM Region

FEBRUARY 2024

**CONSUMER ADVOCATES OF THE PJM STATES'
TRANSMISSION HANDBOOK**



INTRODUCTION

The Consumer Advocates of the PJM States (CAPS) commissioned this guide to help consumers, their advocates, and others better understand how transmission is developed and paid for in the PJM region. Read the executive summary in Handbook Volume I to learn more about PJM and CAPS.

Handbook Volume V explores:

- local, state, and federal approval processes for siting transmission projects, including instances when a state certificate of public convenience and necessity (CPCN) might be necessary and situations that might require a federal permit; and
- opportunities for state advocates to intervene in siting and permitting proceedings.

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State and Local Approval

Transmission lines can stretch for hundreds of miles and may require regulatory approval from each jurisdiction that will host a portion of the line. Many states—33 in total, and all but four in PJM—assign transmission siting responsibilities to utility regulatory agencies commonly known as Public Utility Commissions (PUCs), Public Service Commissions (PSCs), or Boards of Public Utilities (BPUs).¹ Based on the scope of their statutory authorizations, the PUC/PSC must approve the siting of new transmission lines or the major upgrades to existing lines before the project can move forward. In all but one of the PJM states that authorize their Commissions to make siting decisions, the governor (or in the case of DC, the mayor) appoints members of the utility commissions, with terms that typically last four to six years. In Virginia, the legislature appoints members of the State Corporation Commission.

A smaller number of states, however, including Ohio and Kentucky, have established “siting boards” which can include seats for multiple parties, such as state PUC members and public officials like directors of environmental or economic development agencies.² In an even smaller number of states, the siting process is more fragmented. In Indiana, for example, individual local government bodies must approve transmission lines, and in Tennessee, the publicly owned utilities make siting decisions.³

In addition to siting approval, transmission projects may require local zoning approval and/or environmental reviews from state executive agencies such as the state Bureau of Land Management or Department of Environmental Quality. In some cases, the PUC will not approve a project’s certificate of public convenience and necessity (CPCN) until it has received permits from these other agencies. While the exact agencies responsible for issuing project approvals vary by state, the purpose is to evaluate potential impacts on air, water, or wildlife. Both the utility regulators and other agencies’ review processes often involve a public comment period.

¹ Smith, William H. Jr., “Mini Guide on Transmission Siting: State Agency Decision Making,” National Council on Electricity Policy, at 3, December 2021 (NCEP Mini Guide).

² NCEP Mini Guide at 3; [Ohio Power Siting Board](#); [Kentucky Electric Generation and Transmission Siting Board](#).

³ NCEP Mini Guide at 4.

A. What entities must approve the siting and permitting of transmission lines?

Transmission siting and permitting processes are complex and can involve a mix of federal, state, and local authorities, community groups, and private entities. Project developers (like a utility or an independent merchant company) typically need to obtain siting permits and environmental reviews from multiple government agencies. They also need to secure easements, either voluntarily or via eminent domain, from any private landowners along a transmission line's proposed route. Siting and permitting requirements are somewhat different in every state within PJM, so the following section provides a high-level overview of the process.

B. When is a CPCN required?

In most PJM states, new transmission projects will require a **certificate of public convenience and necessity (CPCN)** from the utility commission, with regulations governing the CPCN varying by state.⁴ For example, Pennsylvania requires a certificate for all transmission lines greater than 100 kV, whereas Kentucky requires the CPCN for projects longer than five miles with a voltage greater than 345 kV (for smaller lines, a CPCN is optional but will trump local siting and zoning if developers choose to seek one).⁵

Indiana and New Jersey do not require a CPCN for transmission projects. Instead, project developers must get approval from local governments along a proposed route.⁶ New Jersey, however, passed a law that allows the Board of Public Utilities to supersede local authority and grant approvals for transmission lines needed to connect offshore wind resources.⁷ Below we focus on the CPCN process, but local governments will be interested in reviewing similar information when assessing a project.

C. How does the CPCN process work?

In their formal application to the utility commission, developers must provide detailed project information, including costs and benefits, proposed route, and expected environmental impacts. Usually, applicants must also demonstrate why their specific proposal is better than potential alternatives. They must show that their proposal is environmentally sound, and back up their claims with studies analyzing topics such as the line's potential impact soil or plant life, its proximity to important cultural or historic sites, and its effect on customer electric rates.

To evaluate a transmission proposal, utility commissions (or siting boards) will hold a combination of evidentiary and public hearings.⁸

- **Evidentiary or formal hearings** are limited to testimony from formal parties to the proceeding, though the public may access any non-confidential portions of the filings and the hearing. Formal parties include the applicant, and any stakeholders that the PUC finds necessary to meet the statutory standard of becoming an intervenor⁹ in the case (e.g. other state agencies, consumer advocates, local governments, and

⁴ Continuum Associates, "Expert Consultation on PJM Supplemental Transmission Projects: Standards and Oversight," Appendix D: Summary of Certificate of Public Convenience and Necessity Requirements for PJM States, CAPS, 2019 (Continuum Report).

⁵ Continuum Report at Appendix D.

⁶ Continuum Report at Appendix D.

⁷ NJ Pub. Law 2021, c. 178; see also Parry, Wayne, "NJ uses new law to bypass local OK for offshore wind project," Associated Press, February 17, 2023.

⁸ See e.g. Maryland Public Service Commission, "CPCN Process," slides 6-13, 2019.

⁹ Note that in regulatory proceedings, the non-applicant parties are referred to as "intervenors" with an "o," and not the more common spelling of the phrase "intervener" with an "e."

interested organizations such as environmental community groups). Intervenors are entitled to receive detailed information about the project and participate fully in the proceedings. Depending on the state, these hearings may be conducted before a panel of commissioners or an administrative law judge; they may be conducted through paper filings or a combination of paper filings and a live evidentiary hearing. The decision-makers will issue an order on the proceeding based on the evidence in the record and law. As such, parties must present an evidentiary basis for their position. Generally, as part of these proceedings, all parties are entitled to present their own witnesses, probe the strength of the case through discovery requests and interrogatories, cross-examine witnesses during hearings, register objections, and appeal orders.

- **Public hearings** are informal proceedings that give the public an opportunity to offer testimony on a proposed project. Some jurisdictions include an automatic public hearing during a formal proceeding process. In others, a government entity or a group of residents must request that a public hearing be held. In rendering a final decision on a CPCN, regulators may “consider” the information presented in public hearings, but the final decision must still be based on the evidentiary record from the formal proceeding.

D. What is the standard for approving a CPCN?

Both the timeline for issuing a decision and the standards for approving a CPCN vary from state to state. Below is a sampling of requirements governing approval of CPCNs:

- **Virginia.** The State Corporation Commission will grant a CPCN if the project:
 - (i) will have no material adverse effect upon the rates paid by customers of any regulated public utility in the Commonwealth, (ii) will have no material adverse effect upon reliability of electric service provided by any such regulated public utility; and (iii) are not otherwise contrary to the public interest. In review of its petition for a certificate to construct and operate a generating facility described in this subsection, the Commission shall give consideration to the effect of the facility and associated facilities, including transmission lines and equipment, on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact.¹⁰
- **Illinois.** Among its criteria the state PSC must determine:
 - that the proposed construction is necessary to provide adequate, reliable, and efficient service to its customers and is the least-cost means of satisfying the service needs of its customers or that the proposed construction will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the least cost means of satisfying those objectives.¹¹
- **Kentucky.** The PSC must determine a project is needed to ensure adequate, reliable, and safe electric service, and based on court interpretation of the statute, does not “lead to wasteful duplication.”¹²

E. Do transmission owners own the land the transmission infrastructure is placed on?

It depends. Transmission developers may first start with projects on land they already own. However, it is unlikely that developers will own all the land they need to site a long-distance transmission line. If a proposed line crosses government or private land, developers must obtain an easement or right-of-way to locate the transmission line on that property. Easements and rights of way give the transmission owner permission to place the infrastructure on that property but do not transfer full ownership of the land.¹³

¹⁰ V. Code Ann. § 56-265.2.B.

¹¹ 220 Ill. Comp. Stat. 5/8-406.1.

¹² Kentucky Public Service Commission, “Certificate of Public Convenience and Necessity (CPCN): the PSC Process,” July 2018.

¹³ See e.g. Virginia Department of Historic Resources, “Easements,” last accessed December 22, 2023.



Transmission on Private and Federal Lands

A. How do transmission owners get permission to cross privately owned land?

There are two main methods to acquire rights over private land: via contractual agreement or eminent domain. Most developers will try to negotiate voluntary easements from landowners. These easements grant the developers permission to build and maintain structures on the land in exchange for agreed-upon compensation.

When parties cannot reach a deal, or when the title to the land is not clear, developers might seek to exercise eminent domain authority under state regulations. To exercise eminent domain, the use of the land must be for a public purpose or needed for a public necessity, and the developer must provide just compensation to the landowner.¹⁴ Utilities typically have a right to eminent domain via statute, though depending on the state, they must get approval to exercise that power from state agencies or local governments. In recent years, some lawmakers and citizens have tried to enact stricter limits on the use of eminent domain.¹⁵

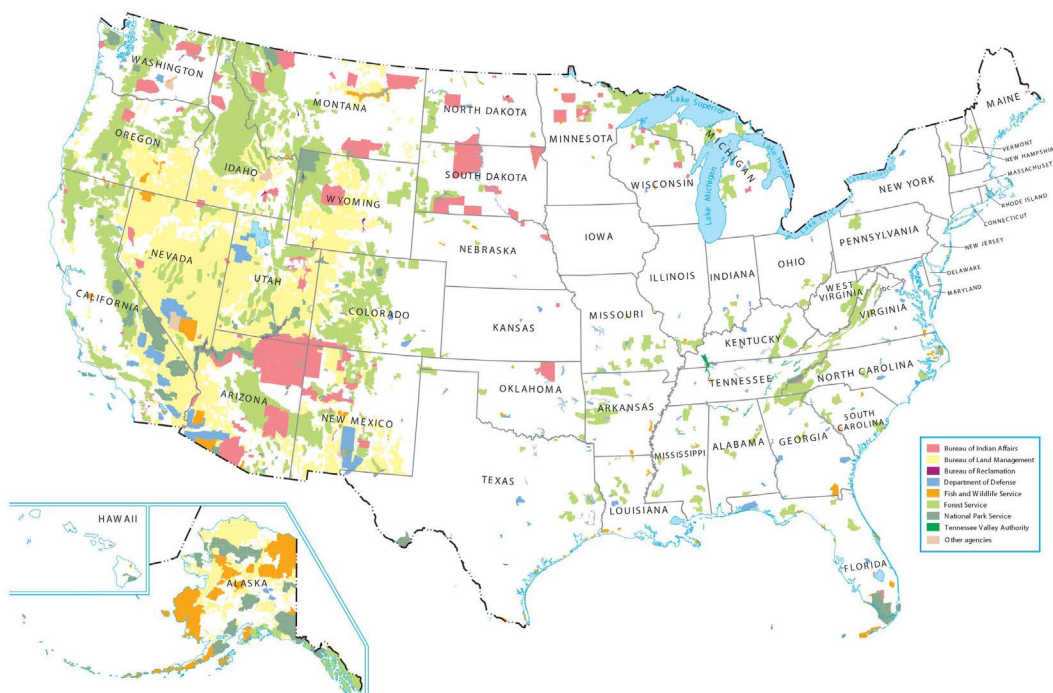
B. When are federal permits required for a transmission project?

If a line will cross federal land, the developer must obtain permits from the relevant government agency or agencies. That said, transmission lines within PJM are less likely to cross federal land than transmission lines in the Western U.S.

¹⁴ U.S. Constitution, Amendment V (“nor shall private property be taken for public use, without just compensation.”)

¹⁵ See, e.g., Farah, Nina, “Landowners ask Supreme Court to curb pipeline eminent domain,” E&E News, September 26, 2022.

FIGURE 1. Federal Lands Map



(Credit: GIS Geography, "Federal Lands of the United States Map," last updated Oct. 5, 2023).

The federal permitting process triggers environmental review under the National Environmental Policy Act (NEPA) and may also trigger other statutes such as the Clean Water Act.

C. How does the environmental review process work under NEPA?

Passed in 1969, NEPA is the bedrock law requiring federal agencies to assess the environmental impacts of a proposed "major federal action."¹⁶ Numerous agencies, including the Environmental Protection Agency, the Department of the Interior, and the Fish and Wildlife Service may be involved in conducting these reviews and preparing NEPA reports known as Environmental Assessments and Environmental Impact Statements for a project.

As a first step, agencies will prepare Environmental Assessments (EAs) to determine whether a proposed action has the potential to cause significant environmental impacts. Agencies may determine the project *does not*, but if reviewers determine it is likely to "significantly affect the quality of the human environment," it triggers the more rigorous Environmental Impact Statement (EIS) process.¹⁷

An EIS includes several components, among them a "purpose and need" statement and a thorough discussion of a project's environmental consequences.¹⁸ The EIS must be published for public review and comment before an agency decides whether to issue a Notice to Proceed.¹⁹ Project approvals/denials may be appealed through the federal courts.

¹⁶ National Environmental Policy Act, 42 USC §§ 4321 et seq.

¹⁷ *Ibid.*

¹⁸ U.S. Environmental Protection Agency, "National Environmental Policy Act Review Process," last accessed December 22, 2023.

¹⁹ *Ibid.*

Timelines differ by project and on average, can take at minimum five to 10 years to plan, permit, and construct.²⁰ In some cases, transmission projects have taken over 15 years to receive permits and begin construction.²¹

D. Does FERC have a role in siting transmission?

The Federal Energy Regulatory Commission (FERC) has very limited “backstop” transmission siting authority for certain electric transmission facilities located in a Department of Energy-designated “national interest corridor.”²² FERC’s legal authority is triggered when:

- (1) (A) a State in which the transmission facilities are to be constructed or modified does not have authority to—either (i) approve the siting of the facilities; or (ii) consider the interstate benefits or interregional benefits expected to be achieved by the proposed construction or modification of transmission facilities in the State,
 - (B) the applicant for a permit is a transmitting utility under the Federal Power Act but does not qualify to apply for a permit or siting approval for the proposed project in a State because the applicant does not serve end-use customers in the State, or
 - (C) a State commission or other entity that has authority to approve the siting of the facilities—(i) has not made a determination on an application seeking approval pursuant to applicable law by the date that is 1 year after the later of—the date on which the application was filed; and the date on which DOE designated the relevant national interest electric transmission corridor; (ii) has conditioned its approval in such a manner that the proposed construction or modification will not significantly reduce transmission capacity constraints or congestion in interstate commerce or is not economically feasible; or (iii) has denied an application seeking approval pursuant to applicable law.
- (2) the project will be used for the transmission of electric energy in interstate commerce;
 - (3) the proposed project is consistent with the public interest;
 - (4) the proposed project will significantly reduce transmission congestion in interstate commerce and protects or benefits consumers;
 - (5) the proposed project is consistent with sound national energy policy and will enhance energy independence; and
 - (6) the proposed project will maximize, to the extent reasonable and economical, the transmission capabilities of existing towers or structures.²³

Although FERC has not yet exercised its backstop siting authority, the Commission’s Notice of Proposed Rulemaking in Docket No. RM22-7²⁴ signals an interest in using this option in the future.

²⁰ Pfeifenberger, Johannes and John Tsoukalis, “Transmission Investment Needs and Challenges,” at 13, 2021.

²¹ Zimmerman, Zachary, Michael Goggin, and Rob Gramlich, “Ready to Go Transmission Projects 2023,” Americans for a Clean Energy Grid, 2023.

²² 16 USC § 824p(b). On December 19, 2023, the DOE issued final guidance on NIETC designations and opened the first public submission window.

²³ 16 U.S. Code § 824p(b)

²⁴ *Applications for Permits to Site Interstate Electric Transmission Facilities*, 88 Fed. Reg. 2770 (Jan. 17, 2023).



Advocacy Opportunities Specific to Siting and Permitting

Intervene in CPCN proceedings. Often the CPCN process is the only avenue for regulatory oversight over the planning and development of supplemental transmission projects in PJM (See Handbook Volume IV for more information on project types). Advocates who are authorized to intervene in these cases can request project information, cross-examine witnesses, and appeal decisions. Advocates may also consider filing public comments with state environmental or land management agencies that must issue permits for a transmission project to proceed.

While some state statutes allow only advocates of that state to intervene, if there is a potential for your state consumers to be impacted by a project in another state, you may want to intervene in that state's proceedings, too. Advocacy Tip: Utilities may not be required to inform advocates outside the states where the project is located when they initiate a CPCN process, so advocates should subscribe to the docket notices in neighboring states.

Advocate for legislative changes to ease review of transmission projects. Transmission lines can span hundreds of miles and often require permits from multiple state or local boards. Some advocates have proposed consolidating the authority for transmission siting under a single regional authority. Rather than seek a CPCN from each state (or in some cases, each municipality) along a route, project leaders could make their case to one regional transmission board. This would provide a single forum for consumer advocates and other interested parties to engage in a project review, as opposed to spreading their efforts, and often very limited resources, across CPCN proceedings in multiple states. Consolidating the review process would also be a resource-saver for states, allowing regulators to collaborate in evaluating projects, which would reduce each one's regulatory expenses and promote equity among the states.

Legislators in all (or some) PJM states could decide to establish this type of regional transmission authority and designate a seat at the table for a representative of each impacted state. The body could also help support transmission planning activities, identify important corridors for new transmission, and improve coordination with neighboring regions to build lines that connect systems to one other.

Act as a bridge between developers and communities. Public opposition to well-planned lines can result in large litigation costs which often get passed onto ratepayers. Advocates who have authorization to support community and landowner outreach can help get the process right from the start by facilitating conversations between developers and potentially impacted landowner communities to ensure siting concerns are reviewed and addressed.²⁵

²⁵ For examples on strong community and landowner engagement, see, e.g., Blaug, Elisabeth and Nils Nichols, "[Recommended Siting Practices for Electric Transmission Developers](#)," Americans for a Clean Energy Grid, 2023.

ABOUT CAPS

Established in 2013, Consumer Advocates of the PJM States, Inc. (CAPS) is a non-profit organization whose members represent over 65 million consumers in the 13 PJM States and the District of Columbia. Regulatory rules vary greatly across jurisdictions, but in each the electricity costs paid by consumers is at least partly determined by the tariff and rules under which PJM operates. PJM and its stakeholders set those rules and CAPS' engagement is necessary to ensure that consumers' voices are heard. CAPS' mission is to actively engage in the PJM stakeholder process and at the Federal Energy Regulatory Commission to ensure that the prices consumers pay for reliable, wholesale electric service are reasonable.

ABOUT DGA

David Gardiner and Associates (DGA) was founded in 2001 to serve as a strategic advisor to organizations and businesses seeking a sustainable future. Our firm combines expertise developing research and analysis with deep understanding of clean energy markets and policy. DGA has worked for foundations, businesses, and non-profit advocacy groups to develop strategies to identify and promote policies that will advance clean energy and a low-carbon economy.

ACKNOWLEDGMENTS

DGA thanks the PJM Staff, and especially Michael Herman, for helping the report team better understand PJM's processes.

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Suggested Citation: David Gardiner and Associates, "Consumer Advocates of the PJM States' Transmission Handbook," CAPS, February 2024.