

# POWERING CHANGE

The Role States Can Play  
in Transmission Reform

January 21<sup>st</sup> 2PM ET

# Introduction

Kristen Soares



State Climate Policy  
Network Manager

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# State Climate Policy Network



Network of **15,000+**

- State and local elected officials
- NGO advocates
- Researchers
- State agency staffers
- Organizers and activists
- Business leaders

... working on state climate policy

[www.climate-xchange.org/network](http://www.climate-xchange.org/network)

# Pro Bono Policy Assistance

We specialize in state climate policy design and analysis.  
Reach out to [kristen@climate-xchange.org](mailto:kristen@climate-xchange.org) with your requests on:

- **Example states** and **model rules** for a given policy
- **Gap analysis** of your state's climate policy landscape
- **Connections** to other actors working on similar issues

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The future of federal climate policy may be uncertain, but the **critical role of state governments** is more clear than ever.

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# Powering Change: The Role States Can Play in Transmission Reform



**Anjali Patel**  
*VP for Clean Energy,*  
David Gardner and Associates  
*Consultant, Americans for a*  
Clean Energy Grid



**Miles Farmer**  
*Clean Energy Policy Consultant*

## Agenda

1. State Policies to Advance Transmission
2. The Role of States in Regional Transmission Planning
3. Q&A

# Speaker

Anjali Patel



**VP for Clean Energy,**  
David Gardner and Associates  
**Consultant,**  
Americans for a Clean Energy Grid

# State Policies to Support Transmission Modernization and Expansion

*Presentation to the State Climate Policy Network*

*January 21, 2025*

*Anjali Patel*

*Vice President for Clean Energy, David Gardiner and Associates*

*Consultant to Americans for a Clean Energy Grid*

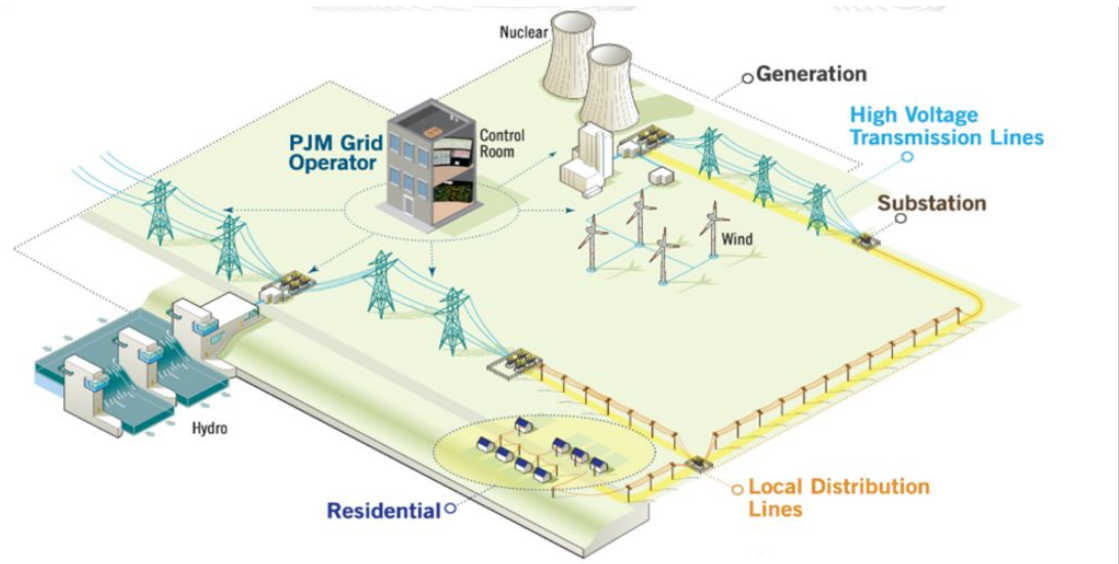
[anjali@dgardiner.com](mailto:anjali@dgardiner.com)





# Transmission is the Backbone of the Electric Grid Supporting Affordable, Reliable, and Resilient Electric Service for a Strong American Economy

- *Economies of Scale*: Enables access to large power sources
- *Resource Sharing*: Mitigates resource adequacy requirements and allows for exports/imports during extreme weather conditions
- *Access to Clean Energy*: Connects load centers to areas with greater resource potential
- *Resource Agnostic*: Facilitates movement of all generation preferences

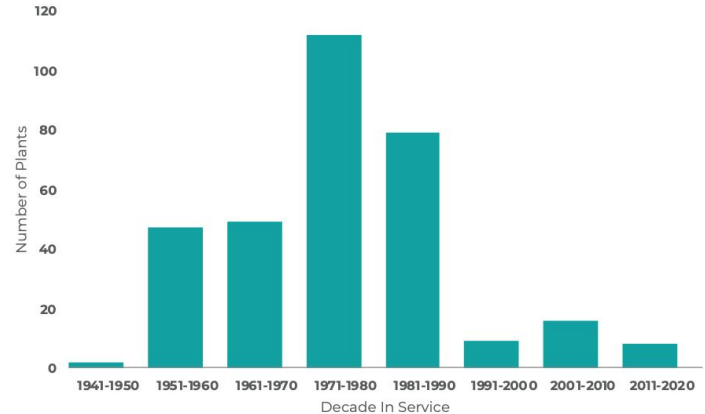


Credit: DiCicco, Frank & Mark Saiget, "[PJM Interconnection Dispatch Interactive Map Application \(DIMA\)](#)," PJM Interconnection LLC, slide 5, 2016

# The Importance of Transmission Expansion & Modernization

- Electricity is an essential service; it must be reliable and affordable
- Aging network
  - Most transmission infrastructure built in 1950-60s with 50-year lifespan
  - Traditional fossil generation also aging; need to add new generation sources
- Unprecedented load growth
- Increasing extreme weather and wildfire events
- Insufficient investment in high-capacity transmission
- Full capacity of existing grid has not yet been unlocked

**FIGURE 1.** In-Service Date of Conventional Steam Coal Electric Generation Plants Operating in the United States

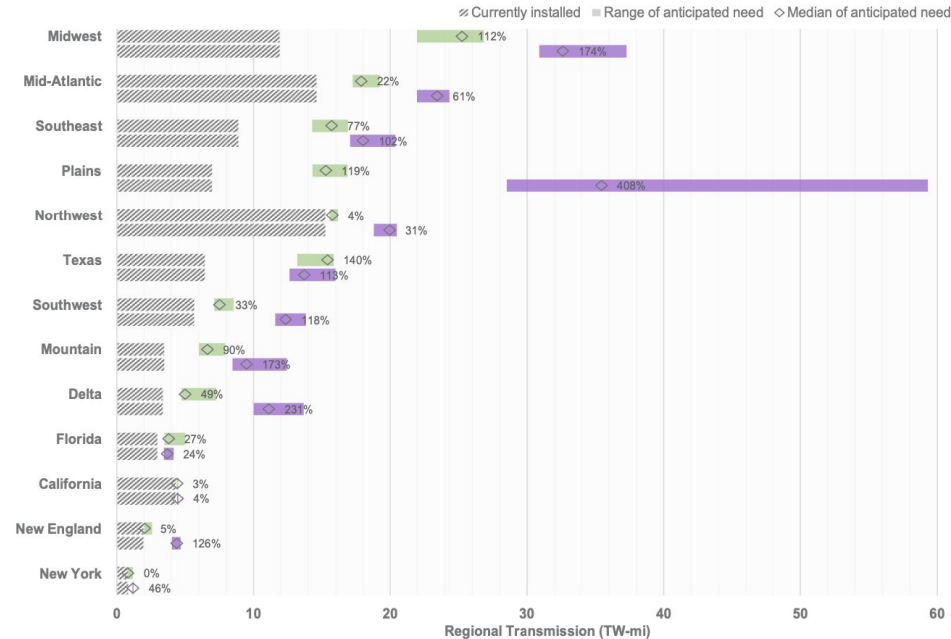


Source: [EIA Form 860 Monthly Update](#)

# Transmission Needs

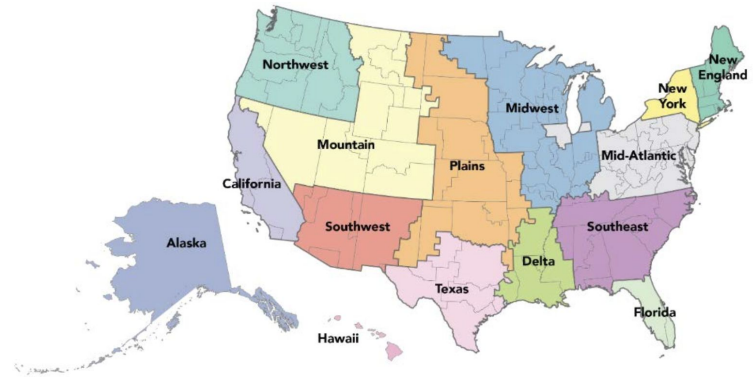
**FIGURE 3. Anticipated Regional Transmission Need in 2035**

Range of new transmission need for future scenarios with moderate load and high clean energy growth (green, top for each region) and high load and high clean energy growth (purple, bottom). Median % growth compared to 2020 system shown.

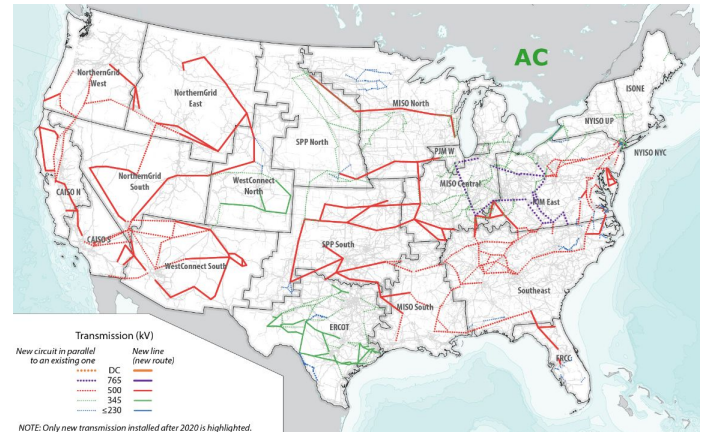


Source: U.S. Department of Energy, "National Transmission Needs Study," at ix, 2023.

**FIGURE 2. Geographic Regions Used in DOE's National Transmission Study**

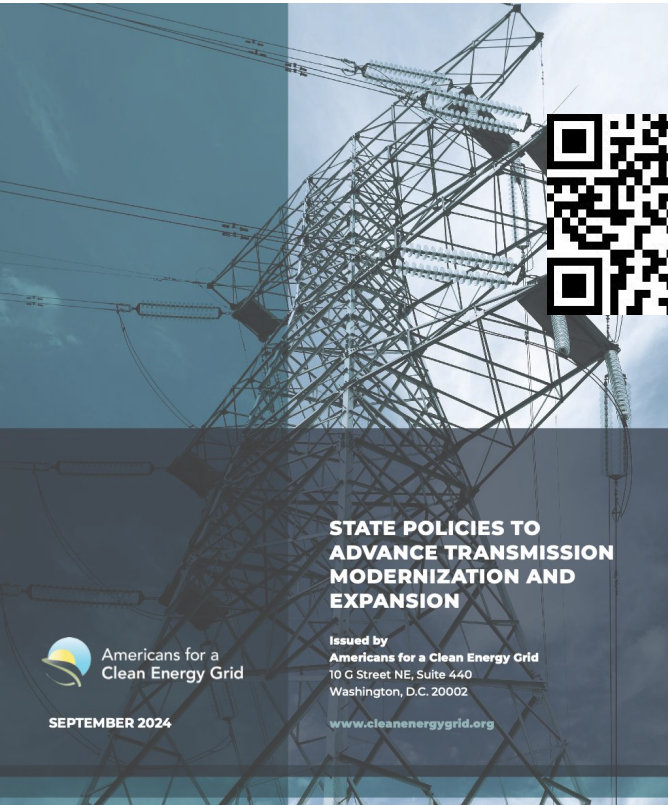


Source: U.S. Department of Energy, "National Transmission Needs Study," at iii, 2023.



Source: U.S. Department of Energy, "National Transmission Planning Study," 2024.

# State Roles and Responsibilities



## STATE POLICIES TO ADVANCE TRANSMISSION MODERNIZATION AND EXPANSION

Issued by  
**Americans for a Clean Energy Grid**  
10 G Street NE, Suite 440  
Washington, D.C. 20002

[www.cleanelectricitygrid.org](http://www.cleanelectricitygrid.org)

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- **Federal Power Act (16 USC § 824)**—cooperative federalism
- **The most impactful state policies seek to:**
  - Support principles of reliability, resilience, and affordability and find cost effective solutions for customers;
  - Encourage in-state and inter-state collaboration and coordination with regional planners, utilities, & stakeholders;
  - Promote comprehensive and coordinated regional and interregional planning;
  - Acknowledge all transmission benefits and fairly distribute costs among those who benefit;
  - Streamline permitting processes and include early and meaningful engagement with impacted communities and landowners; and
  - Provide state agencies with robust resources to execute their roles and responsibilities effectively.

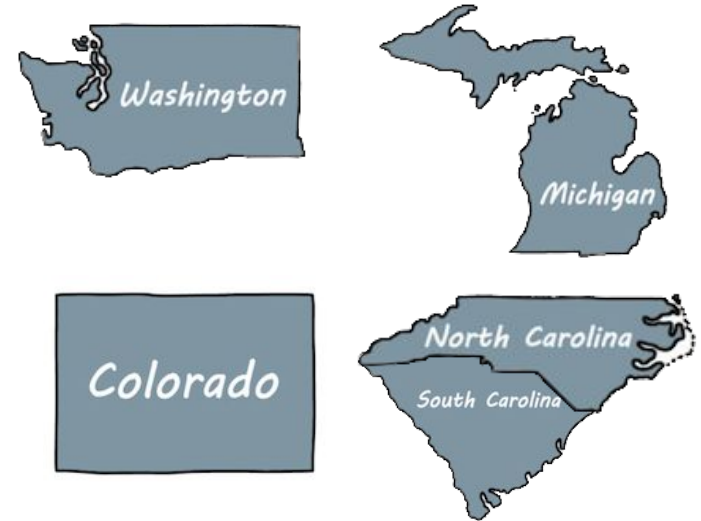
# Barriers to Transmission Expansion and Modernization

Policy Area	Issue
Planning	In much of the country, current planning processes are not resulting in the development of transmission needed to meet current and future electricity needs
Siting and Permitting	Siting, permitting, and constructing projects can take multiple years, and in some cases have taken more than a decade.
Costs and Financing	Transmission projects are capital intensive projects, the costs of which ultimately fall on end use customers.
Effectiveness of State Agencies	State engagement in transmission planning and development can be both bureaucratic and inadequate, raising barriers to participate in regional planning processes and causing delays in processing transmission proposals.
Transmission Modernization	The capacity of the current grid is often not optimized.
Creating a Supportive Environment	There are regulatory, economic, and other conditions—such as workforce adequacy and governance and transparency principles— that can indirectly impact transmission development.

# Planning Policy Examples

Issue: In much of the country, current planning processes are not resulting in the development of transmission needed to meet current and future electricity needs

- Support states in participating meaningfully in regional transmission planning processes
- Promote the development of actionable, long-term transmission plans that can inform regional and interregional planning processes
  - Integrated resource plans
  - Statewide transmission studies
  - Pair transmission planning with the identification of energy resource zones
- Encourage use of best planning practices and greater coordination between state agencies and between neighboring and other electrically interconnected states

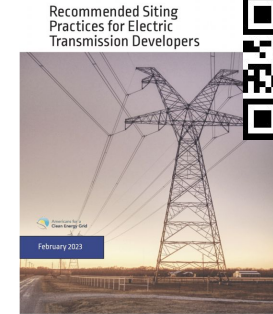


Images Credit: <https://www.vecteezy.com/>

# Siting & Permitting Policy Examples

Issue: Siting, permitting, and constructing projects can take multiple years, and in some cases have taken more than a decade.

- Reduce duplication between permitting processes
  - Federal-State
  - Interstate
  - Intrastate and Local Authority
- Coordinate regional planning and state permitting processes
- Maximize use of existing rights-of-way (e.g. along highways or railroad tracks)
- Require early and collaborative engagement with communities and offer direct benefits for the communities that are hosting projects
- Recognize and attach value to the full suite of benefits that the state can receive from a strong regional and interregional transmission network



# Costs and Financing Policy Examples

Issue: Transmission projects are capital intensive projects, the costs of which ultimately fall on end use customers.

- Engage proactively and productively in regional and interregional cost allocation discussions to develop methodologies that consider the full suite of benefits so costs are shared equitably
- Provide public funding and leverage public-private financing opportunities to reduce the total project costs and, accordingly, the costs passed onto ratepayers





# Effectiveness of State Agencies Policy Examples

Issue: State engagement in transmission planning and development can be both bureaucratic and inadequate.

- Enhance staffing and technical resources available to state agencies
- Coordinate transmission-related education and engagement between state agencies and with other interested parties
- Consolidate transmission support and decision-making in a new or existing single state agency



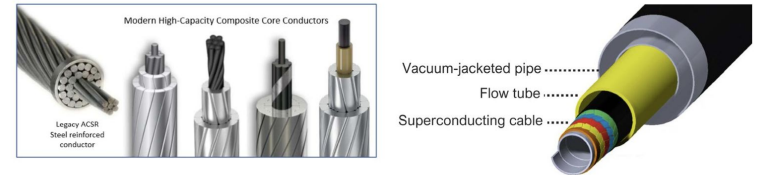
# Transmission Modernization (ATTs and GETs) Policy Examples

Issue: The capacity of the current grid is often not optimized.

- Direct studies of grid enhancing technologies and high-performance conductors in state-level planning or permitting processes
- Where legally sustainable, provide financial incentives for investments in transmission modernization
- Facilitate the implementation of advanced transmission technologies

**NOTE:** Because not all ATTs are created equal, policies should include performance criteria

**FIGURE 7.** Examples of Traditional Conductor (Box, Left), Advanced Composite Core Conductor (Box, Right), and Superconductor (Right)



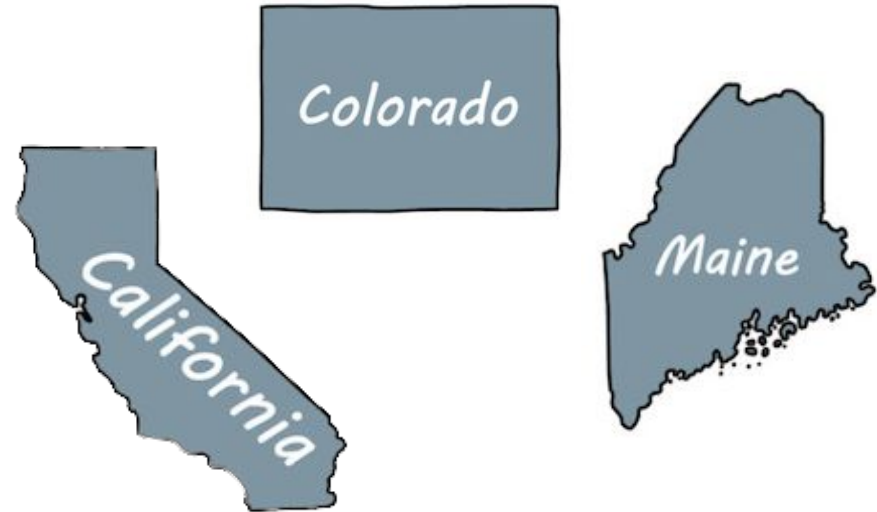
Source: CTC Global (traditional conductor and advanced composite core conductor) and VEIR (superconductor)



# Creating a Supportive Environment Policy Examples

Issue: Regulatory, economic, and other conditions can indirectly impact transmission development

- Incorporating cost-effective transmission solutions into other state policies, e.g., economic development and clean energy policies
- Reform state regulatory and regional planning processes
- Enhance workforce capacity



*Questions?*

# Speaker

Miles Farmer



**Clean Energy Policy Consultant**

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# THE ROLE OF STATES IN REGIONAL TRANSMISSION PLANNING UNDER ORDER NOS. 1920/1920-A

*STATE CLIMATE POLICY NETWORK PRESENTATION*

**MILES FARMER PLLC**  
**JANUARY 21, 2025**

# ORDER NO. 1920 PROVIDES FOR LONG-TERM SCENARIO-BASED REGIONAL TRANSMISSION PLANNING

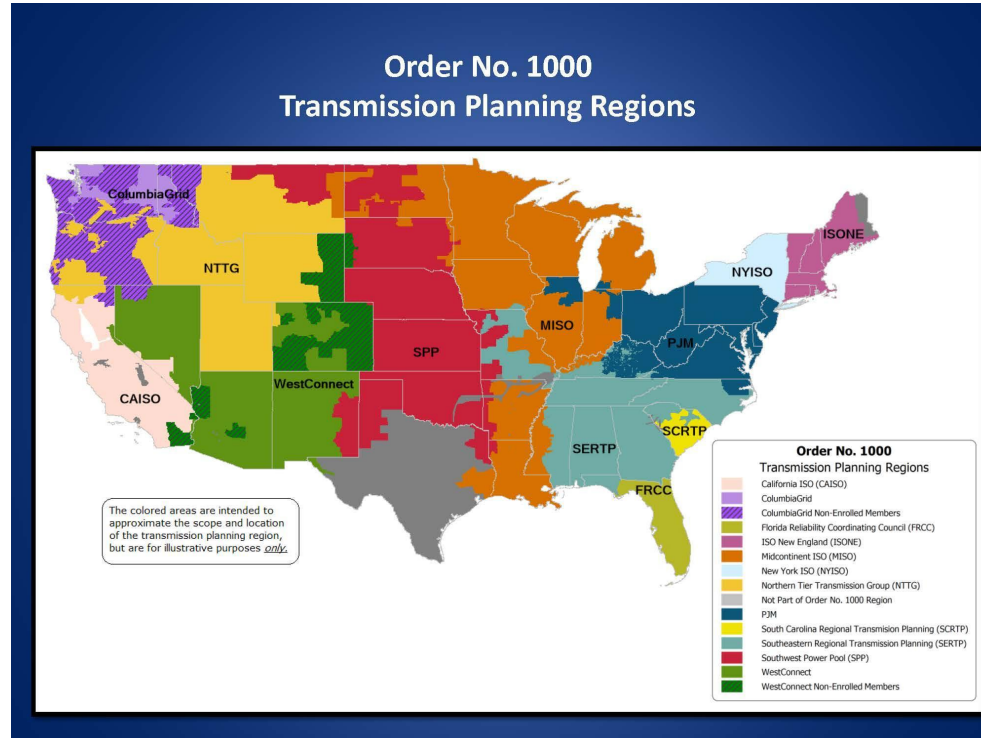


Image source: Federal Energy Regulatory Commission (FERC)

# ORDER NO. 1920 AND 1920-A – CORE REQUIREMENTS

- Forward-looking scenario planning based on a range of factors expected to influence future transmission needs;
- Evaluation of a minimum set of benefits over a 20-year time horizon;
- Evaluation criteria that “seek to maximize benefits accounting for costs over time without over-building”; and
- Transmission Providers (TPs) must file an *ex ante* cost allocation method(s) and may provide for a State Agreement Process, by which states may agree to a cost allocation method that overrides the default *ex ante* method for an individual project or portfolio of projects, if Relevant State Entities agree to such a Process. TPs must provide Relevant State Entities a meaningful opportunity to agree on an *ex ante* method(s) and/or a State Agreement Process. States have an important role. If Relevant State Entities agree, TPs must include their agreed to method(s) and/or process(es) in the compliance filing to FERC.



# ORDER NO. 1920 AND 1920-A – ADDITIONAL REQUIREMENTS

- **Enhanced transparency in local transmission planning processes** (O 1920 at PP 1625-48), as well as a **“right-sizing” provision** that allows transmission providers to examine facilities that the transmission owner anticipates replacing in-kind, identify and where appropriate execute opportunities to enhance or increase the size of those facilities so as to more efficiently or cost effectively address a long-term regional transmission need together with that transmission provider’s infrastructure replacement need. (O 1920 at PP 1677-92, 1702-09, 1716-22; O 1920-A at PP 804-98)
- **Mandatory evaluation of certain Grid Enhancing Technologies (GETs)** in both the O 1920 long-term regional transmission planning process, as well as existing O 1000 regional transmission planning processes. (O 1920 at P 1198-1216; O 1920-A at PP 598-600)
- **Coordination between interconnection and regional transmission planning processes** to require certain infrastructure repeatedly identified but not built in the interconnection process to be evaluated for selection in the regional transmission planning process. (O 1920 at PP 1076-1162; O 1920-A at PP 511-93)

## ORDER NO. 1920 / 1920-A BASICS

- Order No. 1920 was adopted by the Federal Energy Regulatory Commission (FERC) in May, 2024, via a 2-1 vote, with then-Commissioner (now Chair) Christie dissenting.
- Order No. 1920 was modified through Order No. 1920-A, which was issued **unanimously 4-0 in November 2024, with then-Commissioner Christie joining the majority.**
- Requests for rehearing of Order No. 1920-A remain pending. This means that the parts of Order No. 1920 that were modified through Order No. 1920-A could be subject to further modification by the Commission. But the portions of Order No. 1920 that were not changed in Order No. 1920-A are now final.
- The compliance process with Order No. 1920 is ongoing. The order is effective and applies while FERC evaluates further requests for rehearing and while litigation of Order No. 1920 plays out in court.



# STATE ENGAGEMENT PERIOD TRACKER

State Engagement Period timelines (which are subject to modification to the extent extensions are requested under the parameters of Order No. 1920-A (table provided by Americans for a Clean Energy Grid):



- State Engagement Period timelines are subject to change to the extent that Relevant State Entities in these regions request extensions (pending requests from PJM and ISO-NE)

# STATES' ROLE IN ORDER NO. 1920

- Long-term scenarios
  - All stakeholders must be given “meaningful opportunity to provide timely input” on the scenarios used for evaluation and selection. (O 1920, P 529). States have a special role. TPs must consult with them, and “should rely on the [relevant] state in determining how to account for such a state-related factor when determining Long-Term Scenarios” (O 1920-A at P 345; see also PP 241, 344)
  - Order No. 1920 requires transmission providers to include in their scenarios many different factors, including legally binding state laws, regulations, and approved integrated resource plans. The stakeholder process, as informed by states and others, is a mechanism to identify these factors. (O 1920 PP 507, 508)
  - TPs may also run scenarios for informational or cost allocation purposes (as distinct from purposes of identifying transmission needs, or evaluating and selecting projects), which need not meet O 1920's scenario requirements. (O 1920A PP 364-67). TPs must run a “reasonable number of additional scenarios” at the Relevant State Entities’ request.
- Evaluation and selection
  - Transmission providers must “consult with and seek support from Relevant State Entities regarding the evaluation process, including selection criteria.” (P 994)
- Voluntary funding
  - Transmission providers must “provide Relevant State Entities and interconnection customers with the opportunity to voluntarily fund the cost of, or a portion of the cost of, a Long-Term Regional Transmission Facility that otherwise would not meet the transmission providers’ selection criteria. (P 1012) Transmission providers must “consult and seek support from” states on this mechanism. (note that this is distinct from the State Agreement Process)
- **Cost allocation (described further in this presentation)**

# EX ANTE COST ALLOCATION METHODS AND STATE AGREEMENT PROCESS

- Order No. 1920 requires “transmission providers in each transmission planning region to file one or more *ex ante* cost allocation methods.” (O 1920 P 1291) An *ex ante* method is a formula for allocating costs that is written down at the time of compliance. It does not require that the “actual costs” be known at the time of selection. (O 1920-A P 790)
- Where Relevant State Entities indicate that they have agreed to any *ex ante* method(s) and/or a State Agreement Process, TPs must include such method(s) or process in their compliance filings. (O 1920-A P 651). A State Agreement Process is NOT a formula. It’s a procedure through which states may in the future reach agreement on a formula for a facility or set of facilities. FERC need not accept the cost allocation method(s) proposed by the TPs as the replacement rate, even if it meets O 1920’s requirements. “Instead, the Commission may adopt any cost allocation method proposed by the Relevant State Entities and submitted on compliance so long as it complies with Order No. 1920.” (O 1920-A P 659)
- A State Agreement Process, that “cannot be the sole method filed for cost allocation.” (O 1920 P 1292) TPs must also have a default *ex ante* method. (O 1920-A P 626)
- If a cost allocation method that results from a State Agreement Process is found to be unjust and unreasonable, then the *ex ante* method applies as a backstop. (O 1920 P 1292; O 1920-A P 627)

## RELEVANT STATE ENTITIES

- A “Relevant State Entity” is “any state entity responsible for electric utility regulation or siting electric transmission facilities within the state or portion of a state located in the transmission planning region, including any state entity as may be designated for that purpose by the law of such state.” (O 1920 P 1355)
- A “Relevant State Entity” is distinct from a “state commission” as defined under the Federal Power Act. (O 1920-A P 704).

# COST ALLOCATION - STATE ENGAGEMENT PERIOD

- TPS “must . . . provide a **forum for negotiation** of [one or more *ex ante* cost allocation methods] and/or a State Agreement Process **that enables meaningful participation by Relevant State Entities.**” (O 1920 P 1354; O 1920A P 657; *see also* O 1920 P 1357)
- “**Relevant State Entities can choose to use existing mechanisms for state involvement** in regional transmission planning and cost allocation processes, such as the SPP Regional State Committee and the Organization of MISO States.” (O 1920 P 1357; O 1920A P 641)
- Order No. 1920 “decline[s] to define **what constitutes agreement** among Relevant State Entities, **how such agreement is reached**, and **which Relevant State Entities must reach such agreement** during the Engagement Period. Instead, **[it] leave[s] such matters . . . to the Relevant State Entities** participating in the Engagement Period to determine.” (O 1920 P 1360; O 1920A P 641)
- The State Engagement Period is only for participation by the Relevant State Entities, not a broader range of stakeholders. However, Relevant State Entities may permit other entities to participate in a State Agreement Process. (O 1920 PP 1363, 1402; O 1920A P 685)



# EX ANTE COST ALLOCATION METHODS AND STATE AGREEMENT PROCESS (CONT.)

- Any method, including both an *ex ante* method and one resulting from a State Agreement Process, must allocate costs in a manner that is “at least roughly commensurate with estimated benefits.” (O 1920 P 1294).
- “[T]ransmission providers must make available . . . a breakdown of how . . . estimated costs will be allocated, by zone (i.e., by transmission provider retail distribution service territory/footprint or RTO/ISO transmission pricing zone), and a quantification of those estimated benefits as imputed to each zone, as such benefits can be reasonably estimated.” (O 1920-A PP 450, 773, 937)
- Any method must not “allocate costs based solely on one type of benefit, such as reliability, economic, and public policy transmission facility types.” (O 1920-A P 792)
- “However . . . Relevant State Entities may consider different types of benefits provided by Long-Term Regional Transmission Facilities and allocate costs in proportion to those benefits.” (O 1920-A P 792)

# CONSIDERATIONS FOR STATE REGULATORS AND ADVOCATES REGARDING ORDER NO. 1920 / 1920-A

- States carry a special, unprecedented role in O 1920 and 1920-A. They face a series of questions regarding cost allocation in the State Engagement Period, as well as in determining whether and how to engage with their relevant transmission providers on aspects of their compliance plans going beyond cost allocation.
  - As then-Commissioner Christie said to States at the Open Meeting in which O 1920-A was promulgated: “this is giving you a much bigger toolbox with a much better set of tools, but you have to use them.”
- Other transmission planning processes, including those that may be overseen at the state level, may feed in as inputs into the O 1920 process, and there will be interactions between a transmission providers’ local planning processes and the long-term regional planning process set forth in O 1920.
- States are the primary siting regulators for transmission infrastructure, and in general will ultimately make siting decisions on any infrastructure developed through O 1920 that falls within their boundaries.

# SUMMARY OF KEY QUESTIONS FOR STATES IN O 1920

- How will the State Engagement Period be designed?
  - Will the Relevant State Entities use an existing multi-state body, or create a new one?
  - What will the decisionmaking process be? Will it differ for simple business decisions and more significant decisions (such as agreeing to a cost allocation method)?
  - Will the process be transparent (e.g. listen-only access) for other stakeholders?
- What should the *ex ante* cost allocation method(s) be?
  - Will cost allocation (and planning) be conducted on a portfolio basis, or for particular facilities?
  - Will a single cost allocation method be used for all facilities, or will different methods apply to different types of facilities?
- How should the voluntary funding contribution process be designed?
  - When does it take place?
  - How does the transmission provider(s) determine how much funding is needed?
  - What should the agreements look like? (New Jersey PJM approach provides a potential example)

## SUMMARY OF KEY QUESTIONS FOR STATES (CONT.)

- Should a State Agreement Process be layered on top of these methods? If so:
  - For all facilities or only a subset?
  - When does the process take place? Before or after selection?
  - Will the State Agreement Process involve the Relevant State Entities participating in the State Engagement Period, or include other entities?
  - Will the State Agreement Process be divided into separate sub-regional structures, or be applied according to a unified regional structure for all projects?
  - What constitutes “agreement” (e.g. majority, super-majority)?
  - Does the transmission provider commit to file a cost allocation method resulting from the State Agreement Process even if it doesn’t support that method, and if so, what opportunity do the Relevant State Entities have to justify that method in the transmittal to FERC?

## STATE UTILITY REGULATION RELATING TO O 1920/1920-A

- States should consider how processes they already supervise (such as Integrated Resource Planning, where applicable) relate to O 1920.
- Are states setting a goal for long-term regional plans to integrate seamlessly with local transmission plans, such that transmission needs are addressed in an optimal manner (i.e. local infrastructure is chosen when that is the most efficient pathway to addressing a need, whereas regional infrastructure is used for needs can't be addressed at the local level, for projects that can more efficiently address many local needs at once, or where a regional and local need can most efficiently be addressed simultaneously)?
- If so, are additional state processes necessary to ensure that goal? E.g. Should states adopt a local transmission planning framework (or enhance one that already exists) so as to holistically address local needs, with an eye toward the potential for infrastructure stemming from the long-term regional process?
- What can be done within the scope of state authority to produce the best outcomes for consumers?

# QUESTIONS?

- Please reach out with any follow up questions: [miles@milesfarmerpllc.com](mailto:miles@milesfarmerpllc.com)

## APPENDIX - EXAMPLES OF COST ALLOCATION APPROACHES



- **Zonal** (also known as license plate): Recover costs from customers within specific geographic zones. These can be based on individual load serving entities or larger areas. (Used by various regions for “local” transmission projects). May involve power-flow modeling to assess use by zone (e.g. SPP, PJM)



- **Usage rate:** Recover costs uniformly from a wider geographic area based on the customer’s share of load. This can be measured in MWh or MW. (Used by MISO under Order No. 1000 for multi-value projects)



- **Quantification of benefits:** Base cost allocation on a specific quantification of the estimated benefits that will be accrued by specific customers or groups of customers (which may be load or interconnection customers).



- **Voluntary** contributions: Pay for a facility via voluntary funding contributions, which may be from individual load serving entities, interconnection customers, or state entities. This approach is by definition not an *ex ante* cost allocation method.



- **Hybrid:** cost allocation methods may be a mix of these approaches (e.g. SPP byway method, where the cost of “byway” facilities is recovered 1/3 via a regional usage rate and 2/3 by zone).

## APPENDIX - SUMMARY OF RESOURCES

- FERC, [Presentation: Order No. 1920-A](#)
- FERC, [Explainer on the Transmission Planning and Cost Allocation Final Rule](#)
- Johannes Pfeifenberger, Brattle Group, [FERC Order 1920 – Taking Action on Transmission Planning and Cost Allocation: Educational Session for State Energy Offices and PUCs](#)
- Lauren Azar, [Regulators’ Role in Orders 1920/1920A Cost Allocation](#)
- GridWorks, [State Roles Pursuant to FERC Order No. 1920](#)
- Caitlin Liotiris et al., Energy Strategies – Cost Allocation Materials:
  - [Overview of Transmission Cost Allocation: Terms and Terminology](#)
  - [State Exploration of Western Transmission Cost Allocation Frameworks](#)



## APPENDIX - SUMMARY OF RESOURCES

- Jennifer Danis et al., Institute for Policy Integrity, [Guide to State Participation in PJM Long-Term Scenario Development Under FERC Order No. 1920](#)
- Americans for a Clean Energy Grid, [FERC Order No. 1920 Resources](#) (including a summary of Order No. 1920-A and a tracker of State Engagement Periods)
- Abraham Silverman, [FERC Order No. 1920 Flowchart](#)
- Frank Felder, Independent Electricity Consultants, on behalf of NASEO, [The Importance and Implications of FERC Order 1920 for State Energy Offices](#)
- Americans for a Clean Energy Grid, Regional Compliance with Order No. 1920: Issues to Consider

# Q&A

**Thank you for joining!**

**Reach out to  
kristen@climate-xchange.org with any  
additional questions!**

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