Southeastern Regional
TRANSMISSION PLANNING

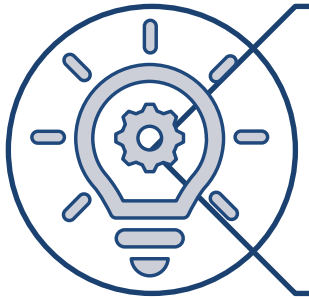
DECEMBER 6, 2024

SERTP Stakeholder Webinar:

Order 1920 Long-term Regional Transmission Planning Requirements

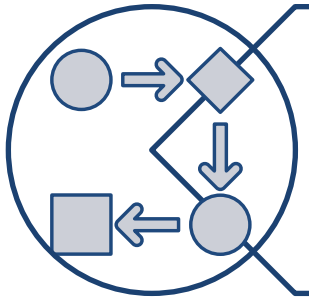
Southeastern Regional TRANSMISSION PLANNING

Opening Remarks and Objectives



FERC Order 1920 Foundational Knowledge

Stakeholder Input



Next Steps

Southeastern Regional TRANSMISSION PLANNING

Agenda

FERC Order 1920 Requirements

- Background
- FERC Order 1920 Requirements with a focus on:
  - Long-Term Regional Transmission Planning Requirements
  - Evaluation and Selection Requirements

Next Steps

- Upcoming Stakeholder Engagement Sessions

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Background:
Introduction to SERTP, SCRTP, and Order 1920

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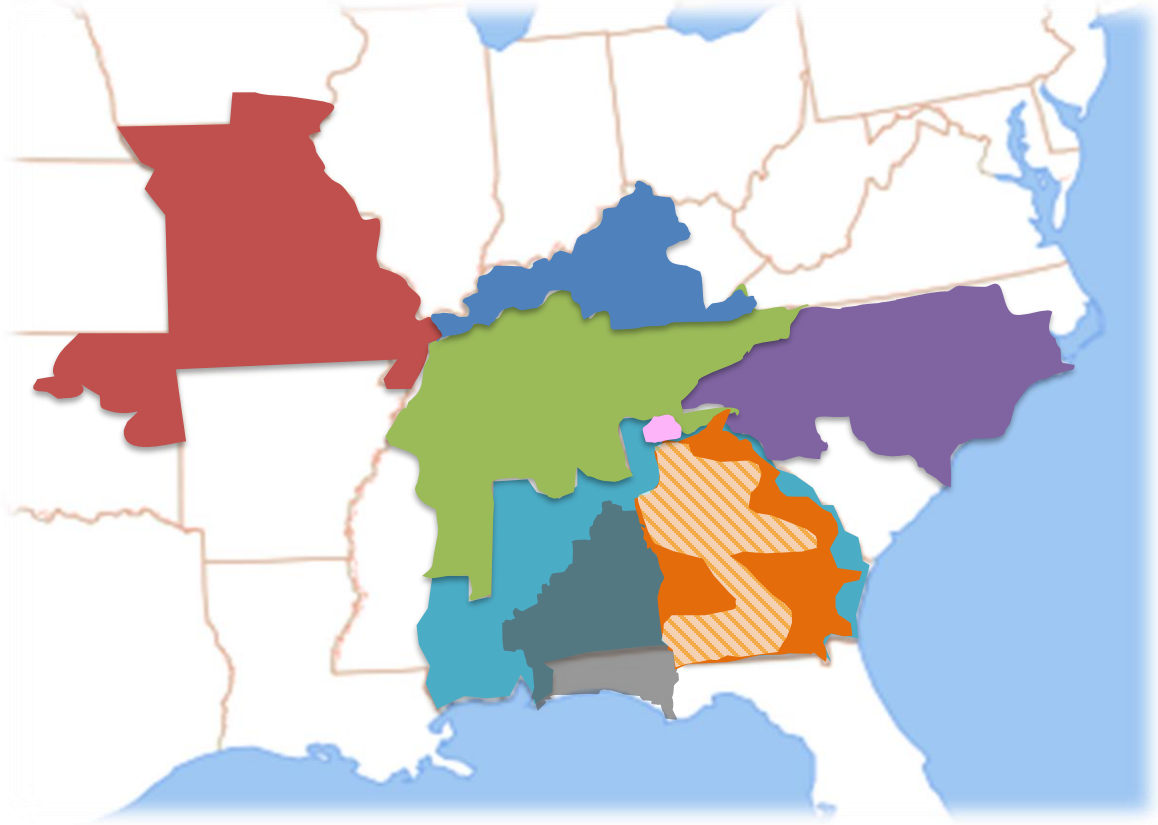
Southeastern Regional Transmission Planning (SERTP) Process



SERTP

- Associated Electric Cooperative Inc.
- Dalton Utilities
- Duke Energy
- Georgia Transmission
- LG&E KU
- MEAG Power
- PowerSouth Energy Cooperative
- Southern Company
- TVA

Spans over 600 miles north to south

Spans over 1,000 miles east to west

Serves a combined peak load of 124,450 MWs

83,110 linear miles of transmission lines

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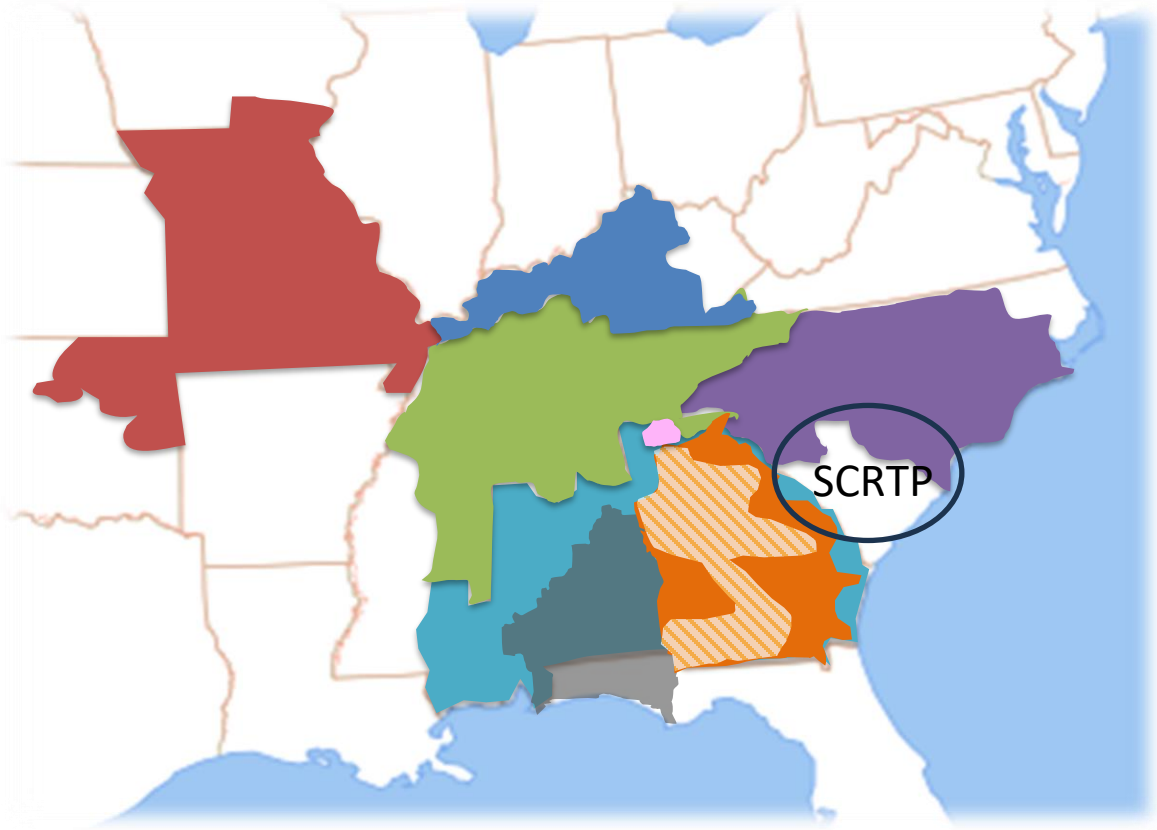
SCRTP to Join SERTP



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SCRTP

- Santee Cooper
- Dominion Energy

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History of Applicable FERC Orders

	1996	2007	2011	2024
Pre- 1996: *No open access or planning req'ts*	**FERC Order 888** Open Access Transmission Services	**FERC Order 890** Focuses on Open & Transparent Transmission Planning	**FERC Order 1000** Adds Focus on Regional Transmission Planning & Non-Incumbent Opportunities	**FERC Order 1920** Adds Long-Term Focus to Regional Transmission Planning
	Open access for non-transmission owners	*Transparent, open and coordinated*	*Development of a regional transmission plan* *Cost allocation methodology* *Nonincumbent Transmission Owners* *Interregional Transmission Planning Coordination*	*Over a 20-year timeframe* *Three diverse and plausible scenarios* *Filing Ex Ante cost allocation, seek state engagement and agreement*

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FERC Order 1920:
Overview of Requirements

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Order 1920 Requirements

Transmission Planning

- Planning Overview
- Scenario Development
- Measuring Benefits
- Evaluating and Selecting Facilities

Cost Allocation

- Ex Ante Cost Allocation
- State Agreement Process
- Order 1000 Principles

Other

- Interconnection and Regional Planning
- Alternative Transmission Technologies
- Local Transmission Transparency
- Right-Sizing
- Interregional Coordination

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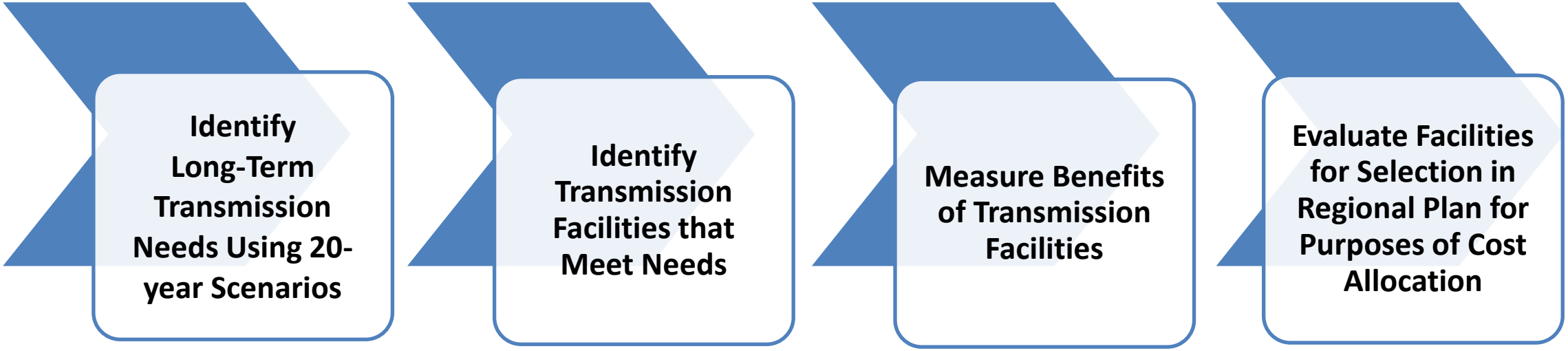
FERC Order 1920 Transmission Planning Overview

Transmission providers in each planning region must participate in a LTRTP process.

- Requires a detailed and comprehensive process, and does not dictate outcomes or specific facilities
- Requires transmission planning on a sufficiently long-term, forward-looking and comprehensive basis



Update at least every 5 years, complete each cycle within 3 years

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Order 1920 Requirements

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Long-Term Planning: Scenario Development (General)

- Transmission providers must use at least a **20-year planning horizon**
  - Transmission Providers must develop Long-Term Scenarios as part of the required Long-Term Regional Transmission Planning.
  - Long-Term Scenarios must identify Long-Term Transmission Needs that materialize in the 20 years or more following the start of the Long-Term Regional Transmission Planning cycle.

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Long-Term Planning: Scenario Development (Timing)

- Transmission providers must develop scenarios at least every 5 years and each cycle must be completed within 3 years.
  - Scenarios must be **reassessed at least once every five years**
    - Reassessment includes whether the data inputs and factors previously incorporated in Scenarios need to be updated.
    - In each planning cycle, transmission providers may develop new Scenarios by crafting entirely new Scenarios, or by updating the data inputs and factors of previously developed ones.
  - All steps of the transmission planning cycle must be completed and selection determinations must be made **within three years** of the commencement of the Long-Term Regional Transmission Planning cycle.

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Long-Term Planning: Scenario Development (Factors)

- Transmission providers must incorporate seven specific categories of factors in the Scenarios and select specific factors from these categories.
  1. **Federal, federally recognized Tribal, state, and local laws and regulations affecting the resource mix and demand;**
  2. **Federal, federally-recognized Tribal, state, and local laws and regulations on decarbonization and electrification;**
  3. **State-approved integrated resource plans and expected supply obligations for load-serving entities;**
  4. Trends in fuel costs and in the cost, performance, and availability of generation, electric storage resources, and building and transportation electrification technologies;
  5. Resource retirements;
  6. Generator interconnection requests and withdrawals; and
  7. Utility commitments and federal, federally-recognized Tribal, state, and local policy goals that affect Long-Term Transmission Needs.

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Long-Term Planning: Scenario Development (Other Requirements)

- Transmission providers must develop at least three Long-Term Scenarios that are **plausible and diverse**
  - Plausible: each scenario must be reasonably probable; collectively capture probable future outcomes
  - Diverse: represent a reasonable range of probable future outcomes
- Each Long-Term Scenario must have at least one extreme weather **sensitivity**
  - Sensitivity obtained by changing load, generation, generation outages, and/or transmission outages
- Transmission providers must use "**best available data inputs**"
  - Timely, developed using best practices and diverse and expert perspectives
  - FERC declined to standardize inputs or establish accuracy standards
- Transmission providers must outline an open and transparent process to provide **stakeholders** the opportunity to propose factors and give feedback on how to account for factors in scenarios; propose data input sources
  - Transmission providers ultimately decide what factors are likely to affect Long-Term Transmission Needs

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Long-Term Planning: Benefits Evaluation (General)

- Transmission providers must measure seven specified benefits in each Long-Term Scenario and use those benefits to evaluate Long-Term Regional Transmission Facilities.

1. Avoided or deferred reliability transmission facilities and aging infrastructure replacement;
2. A benefit that can be characterized and measured as either reduced loss of load probability or reduced planning reserve margin;
3. Production cost savings;
4. Reduced transmission energy losses;
5. Reduced congestion due to transmission outages;
6. Mitigation of extreme weather events and unexpected system conditions; and
7. Capacity cost benefits from reduced peak energy losses.

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Long-Term Planning: Evaluating Benefits (Other Req'ts/Options)

- Transmission providers may propose on compliance to measure **additional benefits**.
- Transmission providers must include in their OATT a **general description** of how they will measure benefits.
- Transmission providers must calculate the benefits of Long-Term Regional Transmission Facilities over a time horizon that covers, at a minimum, **20 years**, from the estimated in-service date of the transmission facilities.
- Transmission providers may use a **portfolio approach** when evaluating the benefits of Long-Term Regional Transmission Facilities.

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Long-Term Planning: Evaluating and Selecting Facilities

- Core Requirements:
  - Identify one or more Long Term Regional Transmission Facilities (LTRTF) that address Long Term Transmission Needs (LTTN)
  - Consider benefits and costs, in addition to other qualitative and quantitative criteria
  - Designate a point at which selection is made (within 3 years of the start of the planning cycle)
  - Provide sufficiently detailed determination for selection or non-selection of project for cost allocation purposes
  - Good faith efforts to consult with and seek support from Relevant State Entities regarding evaluation process, selection criteria

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Long-Term Planning: Evaluating and Selecting Facilities (Cont'd)

- Must maximize benefits without over-building
  - If using benefit-to-cost ratio, the threshold cannot be greater than 1.25 to 1
  - Can include other qualitative considerations
- May not adopt an approach that selects only projects that meet selection criteria in every scenario
- No requirement to select any projects, even if they meet selection criteria
  - Must include a process that provides opportunity for states to voluntarily fund facilities that do not meet the selection criteria

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Long-Term Planning: Evaluating and Selecting Facilities (Reevaluation)

- Required reevaluation of previously selected LTRTF in certain circumstances:

  1. Delays in the development of the facility that would jeopardize a transmission provider's ability to meet its reliability needs or reliability related service obligations
  2. Actual or projected costs of a previously selected facility significantly exceed cost estimates used in the selection of the facility
  3. Significant changes in laws or regulations that cause reasonable concern that the previously selected facility many no longer meet the selection criteria.

- Transmission provider must designate a point after which re-evaluation will not longer be done.

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Cost Allocation: *Ex Ante* and State Agreement Process

- Transmission providers must file one or more *ex ante* cost allocation methodology for LTRTFs selected for cost allocation
- Transmission providers may include in their OATTs a State Agreement Process if Relevant State Entities have agreed to such a process.
  - State Agreement Process cannot be the sole method filed; an *ex ante* methodology is always required as a backstop methodology
- Cost allocation must comply with five of the six existing Order No. 1000 regional cost allocation principles.
  - Principle 6 does not apply (*i.e.,* cannot have different cost allocation methods for different project types)
  - No need to comply with any of the Order 1000 principles if the cost allocation was result of state agreement
  - Final order does not require use of specific benefits for cost allocation purposes

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Cost Allocation: State Engagement

- FERC Order 1920 establishes a six-month engagement period to attempt state agreement on *ex ante* cost allocation method and/or State Agreement Process
- Transmission Providers must:
  1. Provide notice of the starting and end dates for the six-month period
  2. Post contact information for Relevant State Entities to use to communicate with transmission providers, and deadline for communicating state agreement
  3. Provide forum for negotiation for Relevant State Entities.

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Other: Interconnection; Alternative Transmission Technologies

	Regional Planning and Interconnection	Alternative Transmission Technologies
What	Revise Order No. 1000 processes to take into account certain interconnection-related transmission needs	Consider in Order 1920 Long-Term planning and Order 1000 processes alternative technologies
How	Must evaluation for selection regional Transmission Facilities that: 1. Address interconnection-related needs in at least two interconnection queue cycles in the preceding five years 2. Has a voltage of at least 200kV and estimated cost of at least $30 million 3. The interconnection request driving the need has been withdrawn 4. Upgrade is not in an existing interconnection agreement	Transmission providers must consider: 1. Dynamic line ratings 2. Advanced power flow control devices 3. Advanced conductors 4. Transmission switching for each identified transmission need

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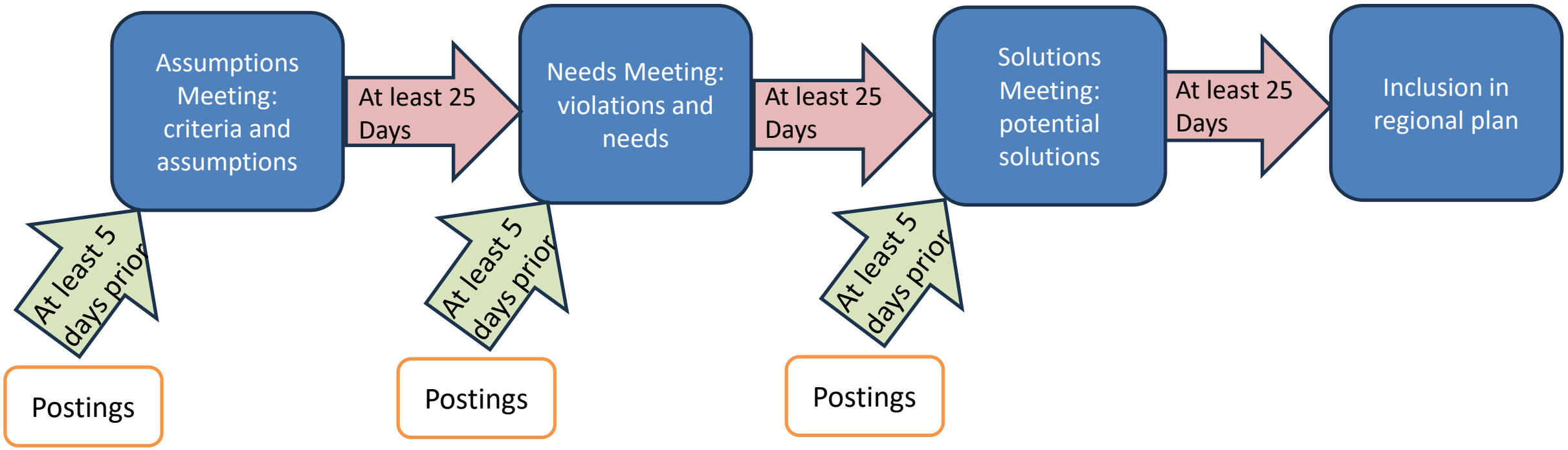
Other: Local Transmission Transparency

- To enhance the transparency of local transmission planning processes, transmission providers must conduct specified publicly-noticed stakeholder meetings.



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Other: Right-Sizing; Interregional Coordination

	Right-Sizing	Interregional Coordination
What	Evaluate whether in-kind replacement facilities can be "right-sized" to address Long Term Transmission Needs	Reflect Order 1920 Long-Term Regional Transmission reforms in existing interregional transmission coordination procedures
How	Transmission Providers must submit in-kind replacement list (facilities at or above 200kV to be replaced within 10 years) sufficiently early in the five-year planning cycle	Neighboring transmission planning regions must revise their procedures to provide for: 1. Sharing of information regarding their respective LTTNS and LTRTFs 2. Identification and joint evaluation of interregional transmission facilities that may be more efficient or cost-effective to address LTTNs Specified information must be posted on the transmission provider's website to increase transparency

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Next Steps

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Next Steps

NOTE: Subject to Change	**2024**			**2025**					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Stakeholder Engagement: *Educational Session*			Phase 1 *complete*						
Stakeholder Engagement: *Opportunity for Stakeholder Input*				Phase 2 (Target)					
Stakeholder Engagement: *Sponsor Presentations & Stakeholder Feedback*					Phase 3 (Target)				
File Compliance Plan									June 12

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Next Steps – Upcoming Stakeholder Engagement Session

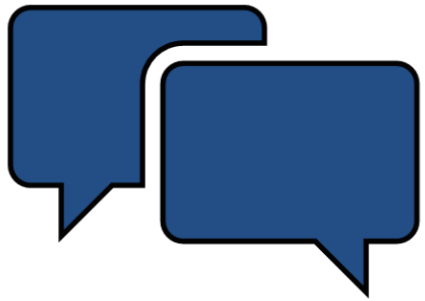
Stakeholder Engagement Session

To be held January 29, 2025

Stakeholders must register no later than January 10, 2025 to present using the registration form posted on SERTP website

Stakeholders will receive a thirty (30) minute time slot time to present; requests for additional time must be made concurrent with the submission of the registration form and will be accommodated if possible

Material must be specific and limited to Order 1920 compliance and provided to SERTP no later than January 15, 2025



Questions & Comments