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Western Transmission Expansion Coalition "WestTEC"

Public Webinar

July 23, 2024

Agenda Overview

- WestTEC Updates & Announcements
- Study Plan Review
- Public Comment Opportunity on Study Plan
- Study Plan Execution & Next Steps

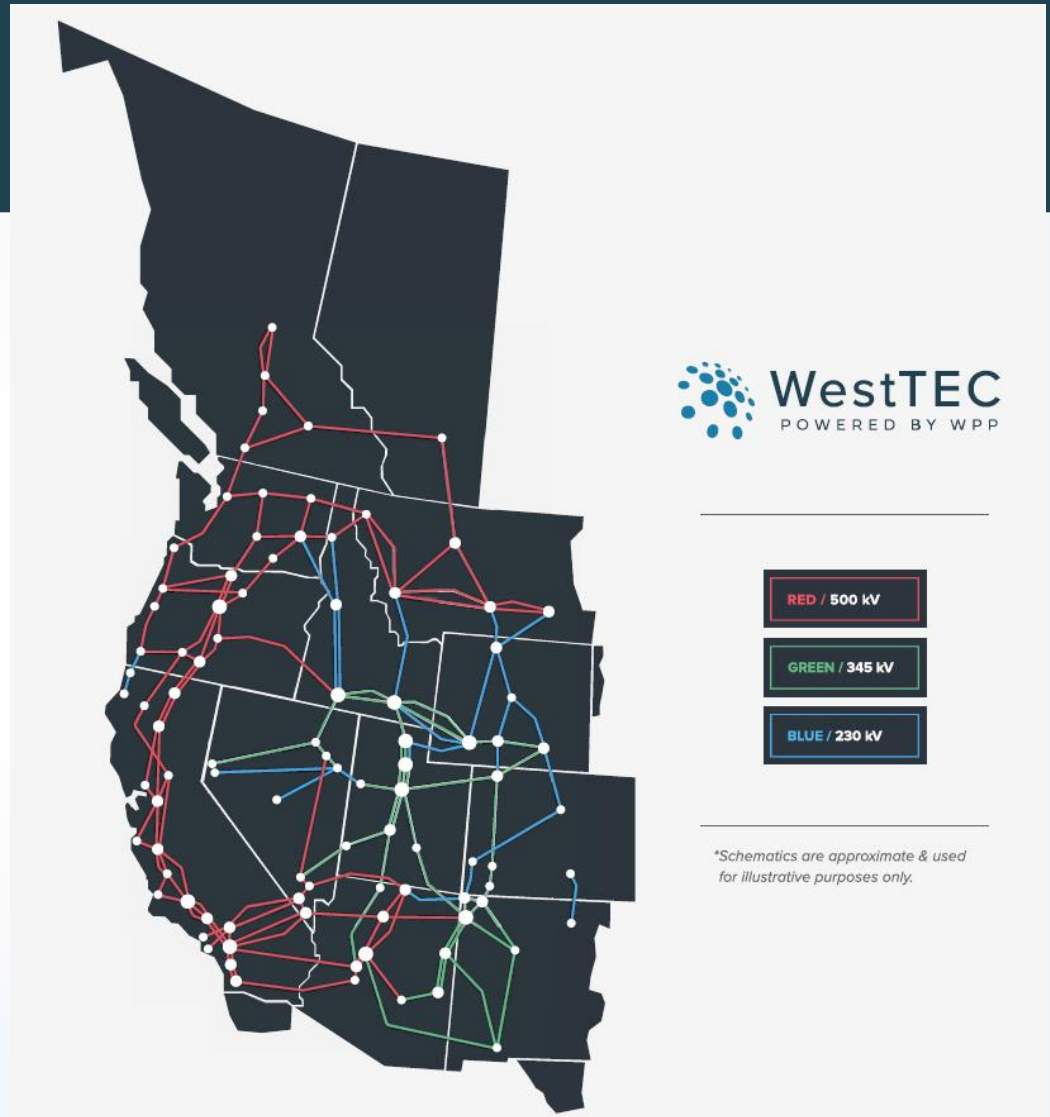
The Presentation Team

- **Western Power Pool:** Sarah Edmonds and Chelsea Loomis
- **Consultants:**
- **Energy Strategies:** Keegan Moyer
- **GDS Associates:** Lea Fisher and Rachel Risley
- **WATT Co-Chairs:** Jennifer Galaway, Portland General Electric, Jeff Billinton, CAISO
- **Regional Engagement Committee (REC) Co-Chairs:** Vijay Satyal, Western Resource Advocates, Robb Davis, GridLiance
- **Steering Committee Co-Chairs:** Kelsey Martinez, PNM, John Martinsen, Snohomish PUD
- **Communications Sub-Committee:** Crystal Ball, PNUCC, Lauren Tenney-Denison, PPC, Danielle Mills, CAISO
- **Tribes:** Donald Williams, From the Light Consulting
- **CREPC TC:** Robin Arnold, Western Interstate Energy Board

WestTEC Goals, Timeline & Funding

What is the Western Transmission Expansion Coalition?

- *"WestTEC"*
- *Not a FERC process*
- *West-wide 20-year transmission study (10-year look)*
- *Industry-led with unprecedented stakeholder inclusion*
- *Goal is to produce an actionable transmission study*



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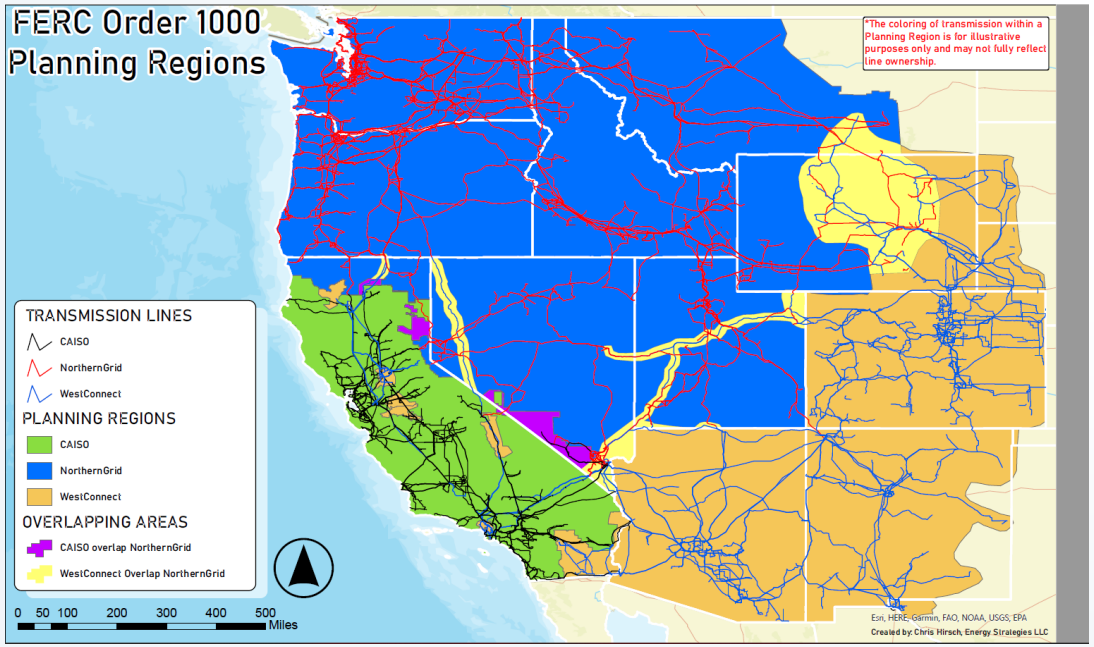
Regional Transmission Planning in the West

Growing Recognition more Transmission is Needed



Current Approach to Planning *Insufficient*

- » No Regional Transmission Projects have been built
- » Forward looking planning limited
- » Interregional Planning has been virtually nonexistent

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WestTEC is a Response

WestTEC Themes

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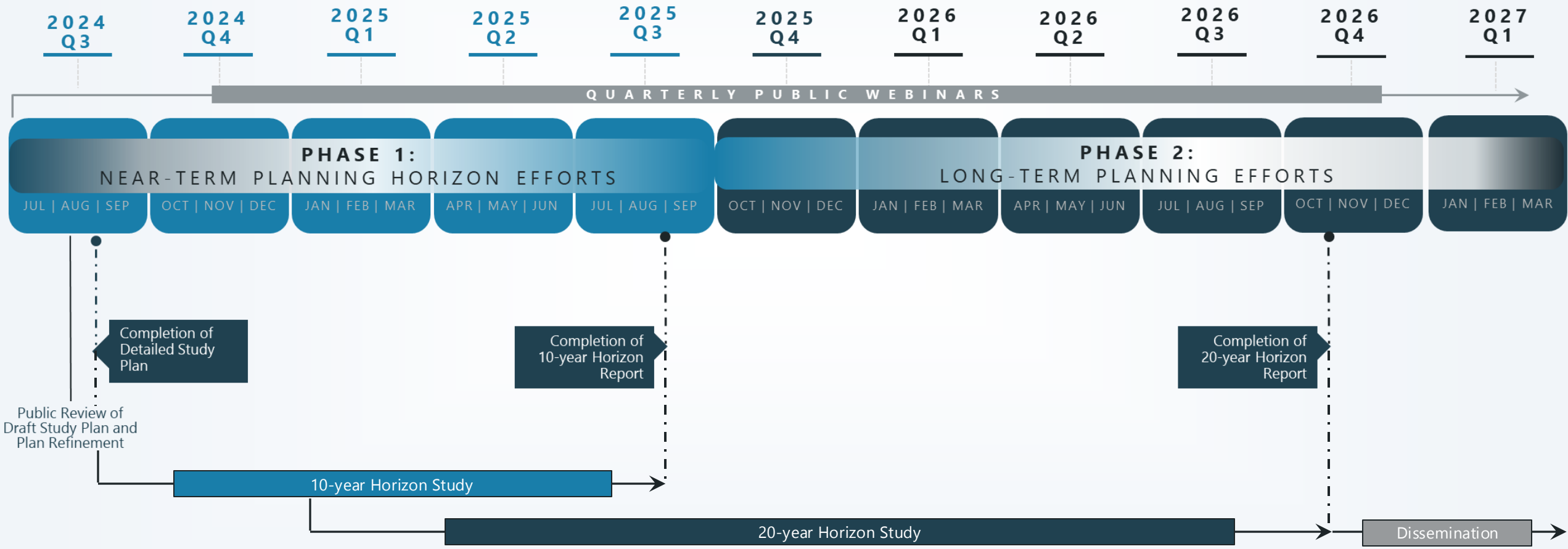
WestTEC Project Timeline



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WestTEC Funding

Funding Efforts

The Plan

- Participant-Funded Effort

Possible Other Sources

- DOE
- WECC
- Public Interest

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Detailed Review of Study Plan

What are the study's goals?

» The primary goal is to produce an **actionable transmission study** that is useful to planners, developers, regulators and the study's regional partners

Study Goals

Develop Actionable Portfolios: Create transmission portfolios addressing 10-year and 20-year needs, useful for planners, developers, and regulators.

Ensure Reliability: Meet NERC compliance, provide operational flexibility, and identify necessary transmission capacity for reliable operations.

Improve Efficiency: Reduce congestion and meet future energy needs, considering planning reserve margins for reliability.

Increase Affordability: Enable investment savings through coordinated transmission portfolios and better infrastructure utilization.

Enhance Visibility and Coordination: Provide a clear view of combined capabilities and requirements to support informed planning and solutions.

Support Cost Allocation: Offer regional-level information to assist in cost allocation discussions for future projects.

Ensure Fairness: Develop an unbiased plan that aligns with regulations and benefits all resource types and stakeholders.

What will make this study actionable?

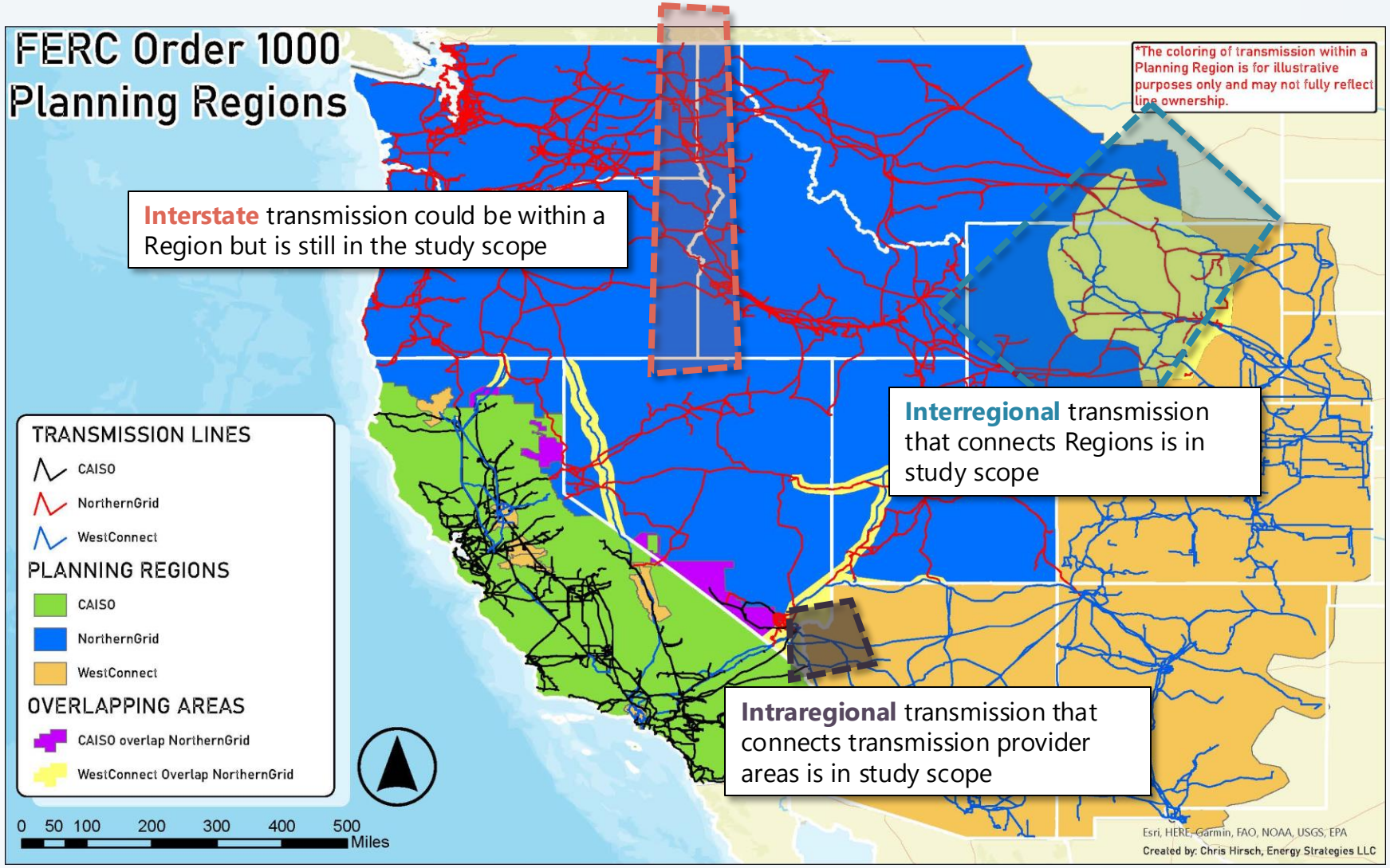
How will it be used…

- **Inform Planning:** Serve as inputs for local and regional planning, enabling coordinated transmission solutions.
- **Facilitate Development:** Support transmission developers and utilities in initiating and refining projects.
- **Engage Stakeholders:** Promote engagement with communities, tribal nations, and regulators.
- **Evaluate Benefits:** Provide data for assessing benefits and their distribution.
- **Guide Decisions:** Offer context for planning and investment decisions.
- **Optimize Siting:** Help identify optimal transmission paths for resource siting.
- **Support Regulation:** Assist regulators in evaluating utility transmission projects for approval and cost recovery.

What it will include…

- Assessment based on **credible and transparent methodologies**, reflecting regional partners' input.
- **Detailed descriptions** of required infrastructure, including locations, technologies, and upgrades.
- Clearly articulated **drivers and dependencies** justifying each transmission solution or portfolio.
- Comprehensive **cost estimates** and qualitative and quantitative assessments of **benefits** for the broader Western region.
- **Preliminary routing options** to support permitting, siting, and construction feasibility studies.
- **Transmission alternative review**, highlighting trade-offs and reasons for selecting preferred options.

What transmission will the study address?



Source: WestConnect

Map highlights transmission associated with each Order 1000 Planning Region ("**Region**" in the Study Plan)

How will the study identify transmission portfolios?

- WATT has developed a robust 10-step study methodology:
  1) Area-to-area transfer constraints and upgrade tranches
  2) Develop resource plan
  3) Busbar mapping
  4) Hypothesis map development
  5) Powerflow assessment
  6) Transmission portfolio refinement and iteration
  7) Congestion assessment
  8) Transmission solutioning
  9) Value Proposition (cost & benefits)
  10) Synthesis of transmission portfolios
- The technical goal is to develop a transmission portfolio that **reliably** and **efficiently** moves power from where it is generated to where it is consumed
- Transmission portfolios will be developed for the Reference Case as well as Planning Scenarios (see next slide)

What scenarios and benefits will be considered?

- **Planning Scenarios** will be used to help address planning uncertainties, providing a platform to assess how different futures could affect grid reliability and the need for transmission expansion
  - **Regional partners will be essential to scenario development and engagement will be facilitated via workshops to help identify key drivers impacting energy landscape**
  - **Scenarios will enable a synthesis of transmission needs across varying futures**
- **Benefit assessment** will consider seven unique benefit categories, quantified for each transmission portfolio
  - **Operational efficiency, capacity savings, improved resource adequacy, resiliency benefits, increased resource access, consistency with state policy goals, avoided/deferred reliability upgrades**

How will extreme events and sensitivities be considered?

- **Extreme event assessment** will be constructed to test the performance of transmission portfolios under extreme weather events

- **Powerflow assessment sensitivities** will explore how transmission portfolios respond to alternative dispatch and load conditions (e.g., winter cold, calm, and dark event)

Regional Partner Perspectives

Public Comment Opportunity on Draft Study Plan

- Draft Study Plan available on Western Power Pool website as of July 19th
- Comments from the public will be accepted through August 9th
  - An email will be sent with instructions for commenting following the webinar
- All comments will be posted publicly
- Following the comment period, a comment matrix summarizing comments and WestTEC responses will be shared publicly

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Study Execution Planning

WestTEC Study Plan Execution

- Reference Case Development
  - WATT
- Planning Scenarios
  - Scenario sub team-REC and WATT members

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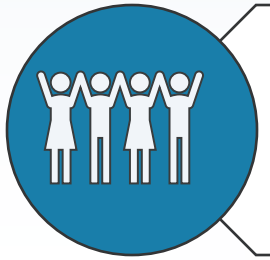
Action Items & Next Steps

Secure Funding for Future Phases of Work



Public Comment August 9

Complete Study Plan by September 1

Study Execution Planning and Process Development

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Discussion/Q&A