WestConnect
Regional Transmission Planning Stakeholder Meeting

November 13, 2024
TEP Headquarters
Tucson, AZ

Welcome & Introductions

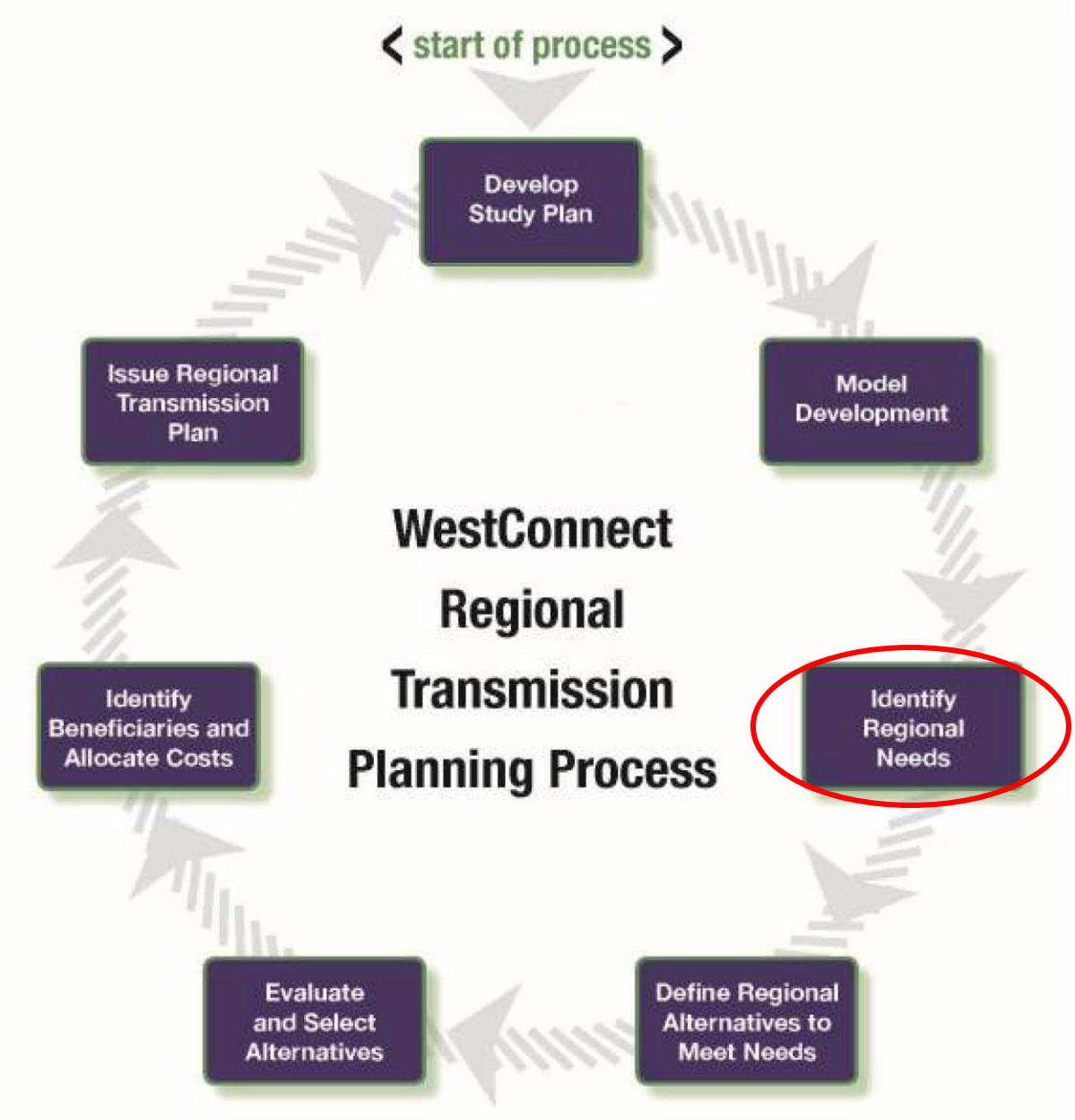
Heidi Pacini, WestConnect

Agenda for Today

- WestConnect Regional Planning Overview
- 2024-2025 Regional Planning Cycle Update
  - Review Regional Study Plan
  - Model Development Overview
  - Draft Regional Assessment Results
  - 2025 Planning Activities
- Stakeholder Comments
- Interregional Planning Updates
- Stakeholder Comments
- Upcoming Meetings

WestConnect Regional Planning Status

Heidi Pacini, WestConnect


start of process
Develop Study Plan
Model Development
Identify Regional Needs
Define Regional Alternatives to Meet Needs
Evaluate and Select Alternatives
Identify Beneficiaries and Allocate Costs
Issue Regional Transmission Plan
WestConnect Regional Transmission Planning Process

PMC Organization and Activities

- Chaired by Gilbert Flores, Xcel Energy
  - Vice Chair: Josh Kitterman, TEP
- Comprised of 24 members :
  - 18 Transmission Owner with Load Service Obligation (TOLSO) Members
  - 6 Independent Transmission Developer Members
- Transmission Customer, Key Interest Group, and State Regulatory Commission sectors are vacant

PMC Membership as of 1/1/2024

Transmission Owner w/Load Serving Obligation (18)

Enrolled TO

- Arizona Public Service*
- Basin Electric*
- Black Hills
- Deseret Power
- El Paso Electric
- Public Service of New Mexico
- Tri-State G&T
- Tucson Electric
- Xcel – PSCo*

Coordinating TO

- Arizona Electric Power Cooperative
- Colorado Springs Utilities
- Imperial Irrigation District
- Los Angeles Department of Water and Power
- Platte River Power Authority
- Sacramento Municipal Utility District
- Salt River Project
- Transmission Agency of Northern California
- Western Area Power Administration

Transmission Customer

Vacant

Independent Transmission Developer (6)

- Black Forest Partners
- GridLiance Southwest LLC
- Southwestern Power Group
- TransCanyon*
- LS Power Grid West, LLC*
- Xcel – Western Transmission Company*

State Regulatory Commission

Vacant

Key Interest Group (0)

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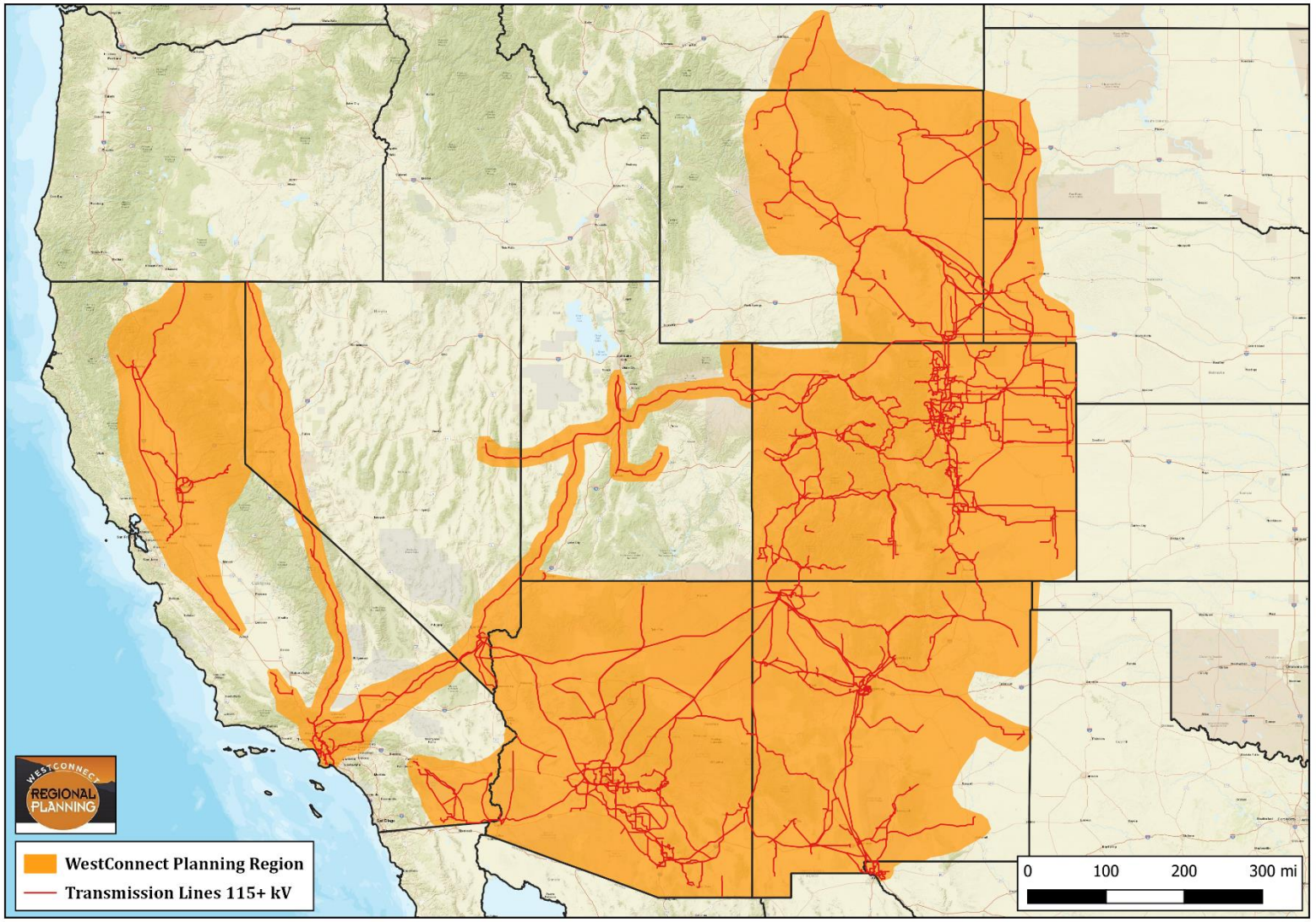
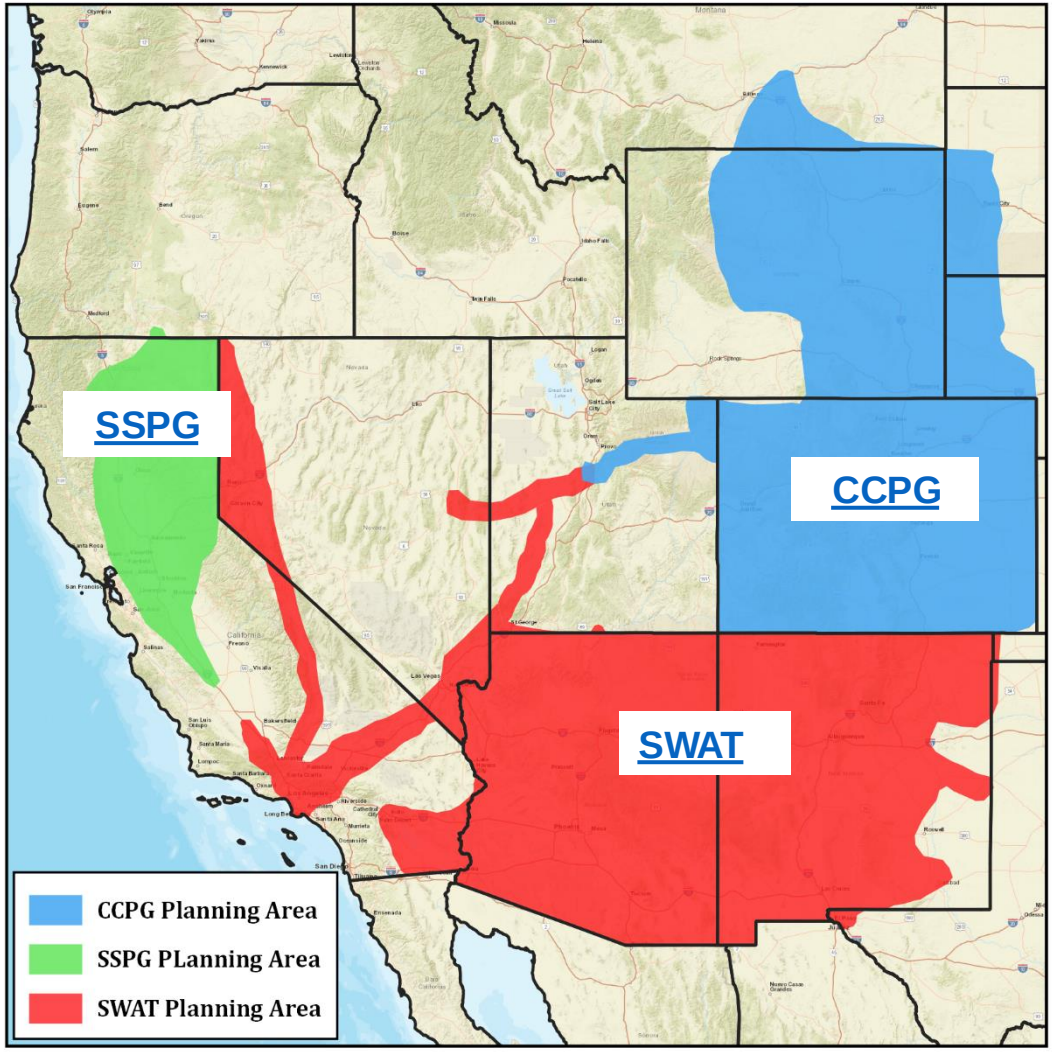
*2024 Eligible Transmission Developer

Updated 10/16/2024

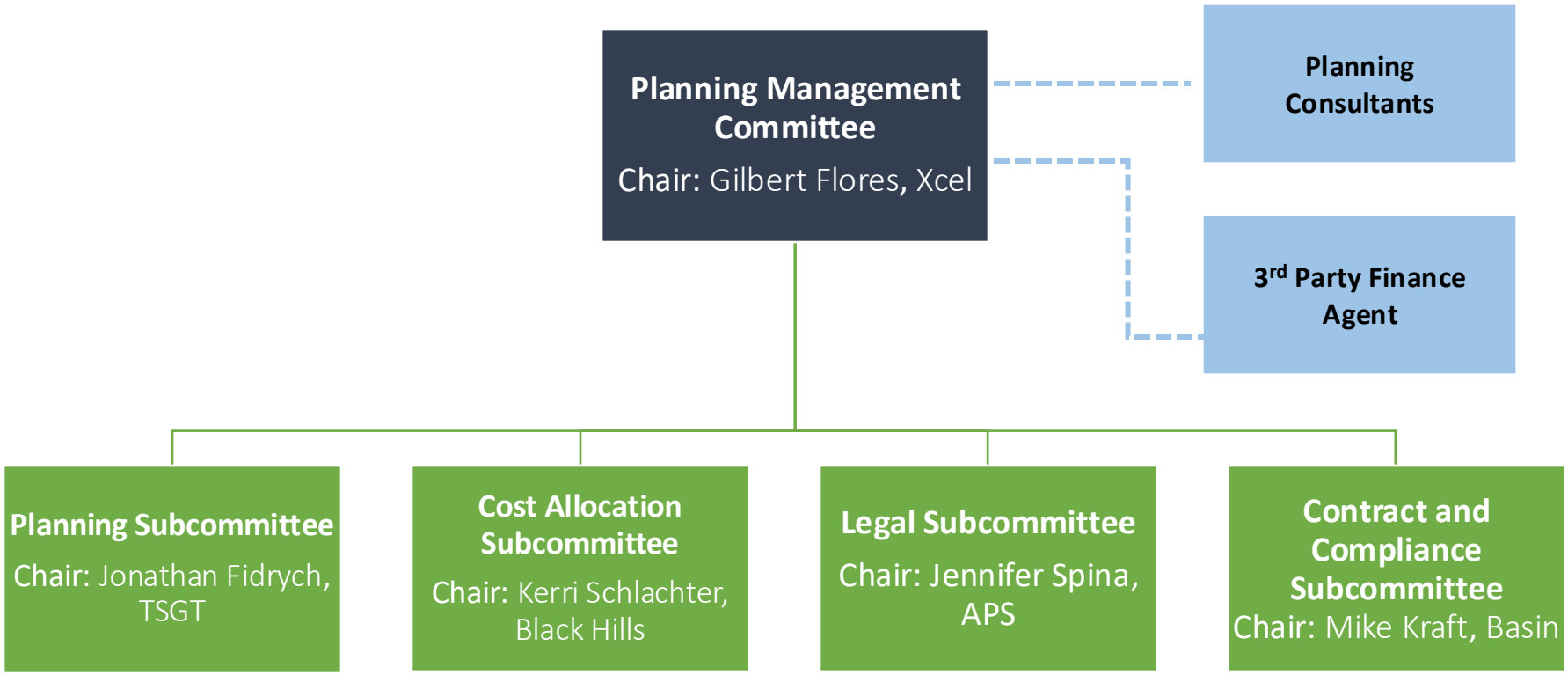
WestConnect Planning Region



Subregional Planning Groups



PMC Organization



PMC Activities

- Monthly meetings held via webinar or at rotating member facilities
- Meetings are posted to the WestConnect Calendar
- Manages the Regional Transmission Planning Process
- Currently reviewing potential regional issues from the regional assessments

Stakeholder Input & Opportunities

- WestConnect holds at least two stakeholder meetings each year
- PMC & Subcommittee meetings are open with opportunity for stakeholder input
- Annual Interregional Coordination Meeting scheduled for March 2025 (hosted by CAISO)
- Future WestConnect Stakeholder Meetings at key points of planning cycle – for example:
  - Project submittal window
  - Selection of projects to meet Regional Needs
  - Draft Regional Transmission Plan Report
  - All as determined by the PMC
  - Spring 2025 Stakeholder Meeting scheduled for Tuesday, February 11th in Tempe, AZ

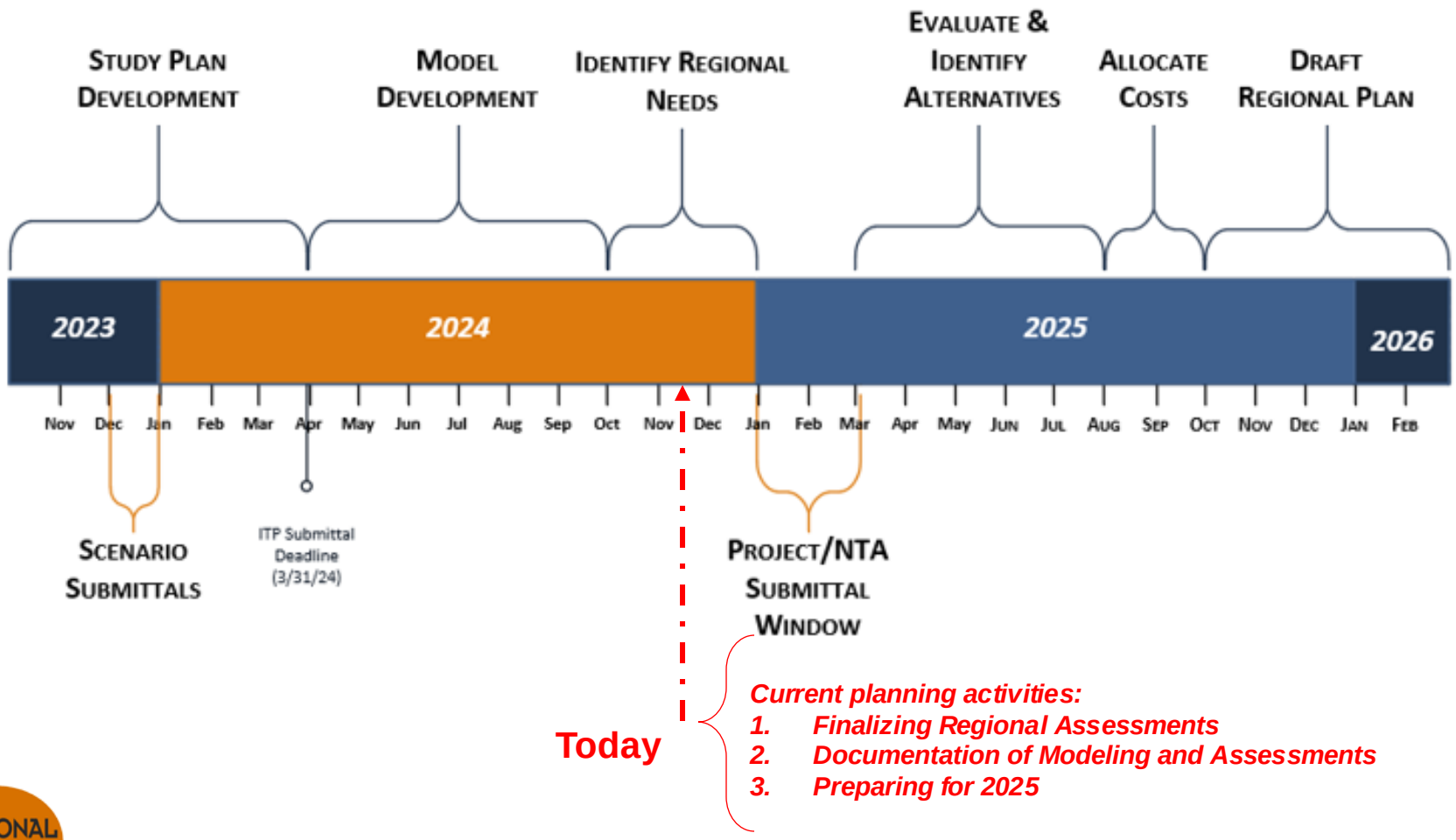
2024-25 Regional Planning Cycle Update

Tom Green, WestConnect Planning Consultant,
Energy Strategies

Overview

- Review of 2024-25 Study Plan
- Model Development Overview
- Draft Regional Assessment Results
- Next steps and schedule for remainder of planning cycle, including 2025
- Opportunities for stakeholder engagement

2024-25 Process Timeline



2024-25 REGIONAL STUDY PLAN

2024-25 Study Plan Review

- Study Plan identifies the scope and schedule of the study work to be performed during the planning cycle
- 2024-25 Study Plan was approved by PMC on **March 20, 2024**
  - Numerous drafts made available to stakeholders for comment
  - Final version is available on WestConnect website
- Study Plan identifies the Base Transmission Plan, the Model Development Process, and the scope of the Regional Assessments
  - It also identified three scenario studies that will take place – scenario studies are for information-only and do not result in the identification of regional needs
- The Study Plan also provides guidance on identification of Regional Needs, local vs. regional transmission issues, and explains why regional issues are the focus of the Order 1000 planning process

Base Transmission Plan

- Base Transmission Plan is the transmission network topology that is reflected in the regional planning models.
  - Base Transmission Plan = ***Planned*** **TO Projects** + ***High probability*** **ITD Projects**
- Inclusion is based on project information gathered in the WestConnect Transmission Plan Project List (TPPL) for the 2024-25 cycle, which was collected in early 2024 and updated during Model Development process.
- The Model Development Report will provide details about what the 2024-25 Base Transmission Plan represents

Project Type	Number of Projects
Substation	114
Transmission Line	116
Other	30
Total Projects	**260**

Base Transmission Plan: TO Breakdown

TOLSO	Below 230 kV	230 kV	345 kV	500 kV	Total
Arizona Electric Power Cooperative	1	1	1	-	**3**
Arizona Public Service	-	13	2	5	**20**
Black Hills Energy	5	-	-	-	**5**
Black Hills Power	-	-	-	-	**0**
Cheyenne Light Fuel and Power	10	6	-	-	**16**
Colorado Springs Utility	8	3	-	-	**11**
Deseret Power	-	-	-	-	**0**
El Paso Electric Company	56	-	14	-	**70**
Imperial Irrigation District	2	2	-	-	**4**
Los Angeles Department of Water and Power	3	14	1	5	**23**
Platte River Power Authority	1	2	-	-	**3**
Public Service Company of Colorado/ Xcel Energy	3	4	2	-	**9**
Public Service Company of New Mexico	-	-	2	-	**2**
Sacramento Municipal Utility District	1	4	-	-	**5**
Salt River Project	1	9	-	9	**19**
Transmission Agency of Northern California	-	-	-	-	**0**
Tri-State Generation and Transmission Association	8	4	1	-	**13**
Tucson Electric Power	31	7	2	1	**41**
Western Area Power Administration - DSW	3	2	-	-	**5**
Western Area Power Administration - RMR	7	4	-	-	**11**
Western Area Power Administration - SNR	-	-	-	-	**0**
Total Projects	**140**	**75**	**25**	**20**	**260**

Changes from Last Cycle

Projects placed in-service between the 2022-23 & 2024-25 Cycle

Project Type	Number of Projects
Substation	8
Transmission Line	10
Transmission Line and Substation	9
Transformer	3
Other	2
Total Projects	**32**

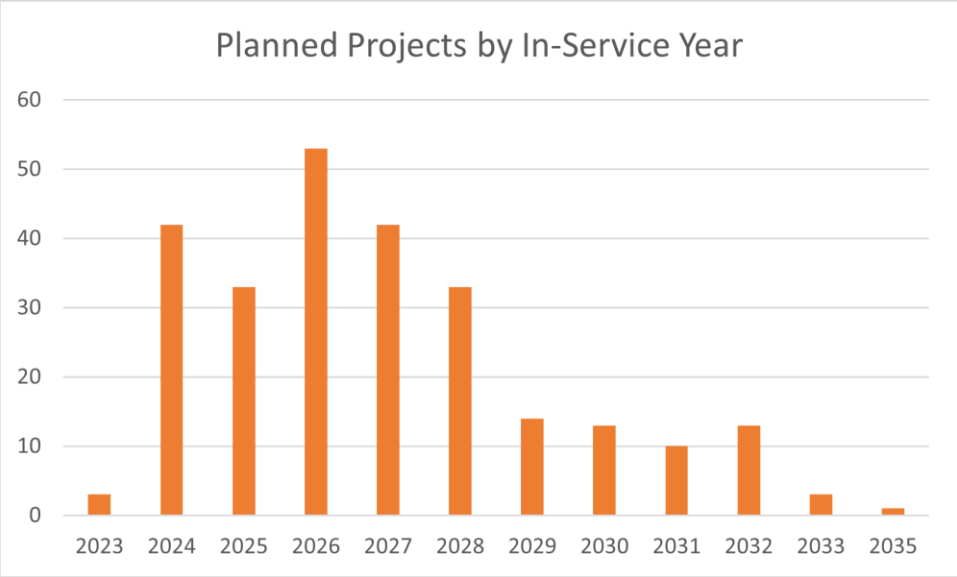
Projects starting construction between the 2022-23 & 2024-25 Cycle

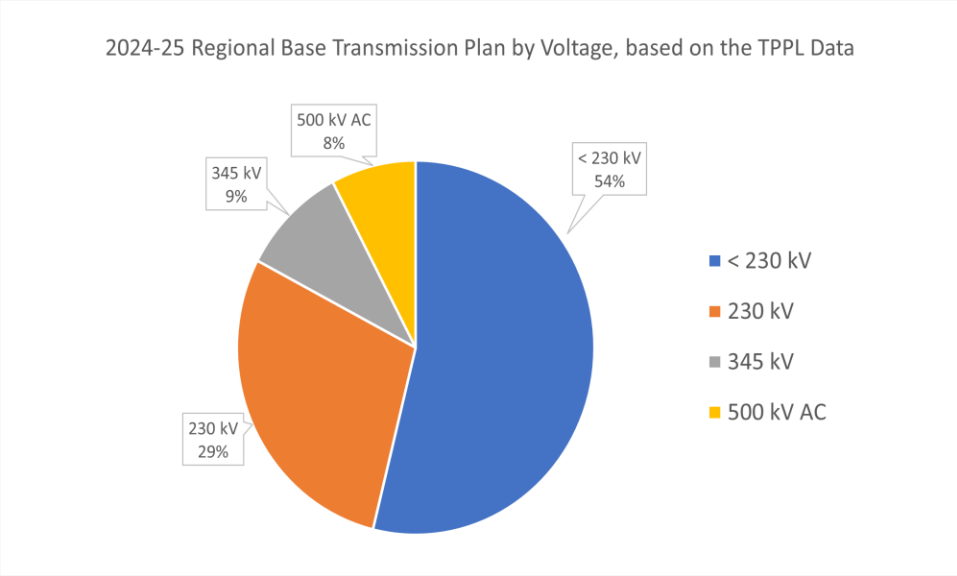
Project Type	Number of Projects
Substation	7
Transmission Line	5
Transmission Line and Substation	7
Transformer	4
Other	2
Total Projects	**25**

Projects withdrawn between the 2022-23 & 2024-25 Cycle

Project Type	Number of Projects
Substation	5
Transmission Line	3
Transmission Line and Substation	2
Transformer	-
Other	-
Total Projects	**10**

Base Plan: Timing of Projects



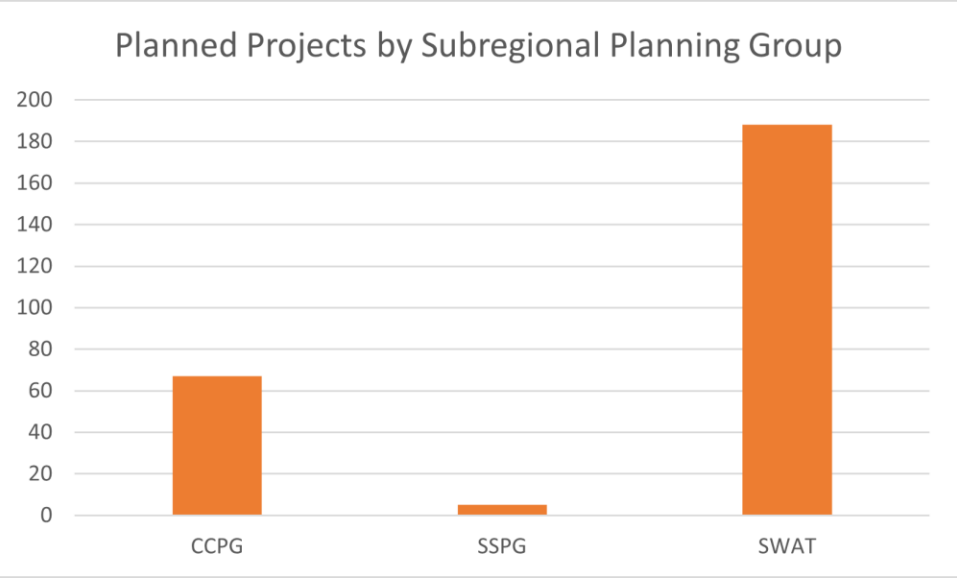


REGIONAL PLANNING

Base Plan: Geography and Drivers

State	Number of Projects
Arizona	87
California	29
Colorado	47
Nebraska	2
Nevada	1
New Mexico	22
South Dakota	-
Texas	47
Wyoming	18
Multiple	7
Total Projects	**260**

Driver	Number of Projects
Reliability	201
Reliability/Public Policy	17
Public Policy	6
Public Policy/Reliability	2
Other	28
Economic	4
Economic/Reliability	1
Reliability/Economic	1
Total Projects	**260**



REGIONAL PLANNING

Base Models Defined in Study Plan

Reliability Base Cases

WestConnect Base Case Name	Case Description
2034 Heavy Summer	Summer peak load conditions with typical flows throughout the Western Interconnection.
2034 Light Spring	Light load conditions in spring months of March, April, and May with renewables serving a significant but realistic portion of the Western Interconnection total load.

Economic Base Cases

WestConnect Base Case Name	Case Description
2034 Base Case	Business-as-usual, expected-future case with median load, median hydro conditions and representation of resources consistent with TOLSO-approved resource plans as of March 2024.

Public Policy Requirements

- TO members identify public policy requirements
- Public Policy Projects are reported in the Base Models
- Policies and requirements are listed in the Study Plan
- If a Regional Need is identified and is determined to be caused by public policy implementation, then the need is defined as a Public Policy-driven Regional Transmission Need.
- Stakeholders encouraged to review public policy requirements and suggest potential public policy needs.

Public Policy Requirements Considered

Public Policy Requirement	Description
Arizona Renewable Energy Standard	Requires IOUs and retail suppliers to supply 15% of electricity from renewable resources by 2025), with a minimum of 30% of the renewable resources provided by distributed generation
California AB398/SB32	Requires the California State Air Resources Board to approve a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions level in 1990 to be achieved by 2020 and to ensure that statewide greenhouse gas emissions are reduced to at least 40% below the 1990 level by 2030
California SB100	Requires Investor-owned utilities (IOUs) and municipal utilities to meet a 60% renewable portfolio standard ("RPS") by 2030
California SB350	Requires IOUs and municipal utilities to meet a 50% RPS by 2030 and requires the establishment of annual targets for energy efficiency savings
Colorado HB 18-1270 ("Energy Storage Procurement Act"	Directs the Commission to develop a framework to incorporate energy storage systems in utility procurement and planning processes. See C.R.S. § 40-2-201, et seq. The legislation broadly addresses resource acquisition and resource planning, and transmission and distribution system planning functions of electric utilities. Energy storage systems may be owned by an electric utility or any other person. Benefits include increased integration of energy into the grid; improved reliability of the grid; a reduction in the need for increased generation during periods of peak demand; and, the avoidance, reduction, or deferral of investment by the electric utility
Colorado HB 19-1261 and SB 1261 ("GHG Reduction Bills")	HB 19-1261 requires the Air Quality Control Commission ("AQCC") to promulgate rules and regulations for statewide greenhouse gas ("GHG") pollution abatement. Section 1 of SB 1261 states that Colorado shall have statewide goals to reduce 2025 greenhouse gas emissions by at least 26%, 2030 greenhouse gas emissions by at least 50%, and 2050 greenhouse gas emissions by at least 90% of the levels of statewide greenhouse gas emissions that existed in 2005. A clean energy plan filed by a utility is deemed approved if the plan demonstrates an 80% reduction by 2030.

Public Policy Requirements Considered

Public Policy Requirement	Description
Colorado HB10-1001	Established Colorado Renewable Energy Standard ("RES") to 30% by 2020 for IOUs (Xcel & Black Hills)
Colorado SB 07-100	Requires IOUs to identify Energy Resource Zones, plan transmission to alleviate constraints from those zones, and pursue projects according to the timing of resource development in those zones
Colorado SB 18-009 ("Energy Storage Rights Bill")	Protects the rights of Colorado electricity consumers to install, interconnect, and use energy storage systems on their property without the burden of unnecessary restrictions or regulations and without unfair or discriminatory rates or fees.
Colorado SB 19-077 ("Electric Vehicles Bill")	The bill enables a regulatory approval process for electric utilities to invest in charging facilities and provide incentive rebates; thus, the investments and rebates may earn a return at the utility's authorized weighted-average cost of capital. Where approved, the costs for the investments and rebates may be recovered from all customers of the electric utility similar to recovery of distribution system investments. Natural gas public utilities may provide fueling stations for alternative fuel vehicles as non-regulated services only.
Colorado SB 19-236 ("PUC Sunset Bill")	The primary purpose of this bill is to reauthorize the CPUC, by appropriations, for a seven-year period to September 1, 2026. Reauthorization is required by the sunset process. Additionally, the bill carries numerous requirements for utilities and the CPUC to achieve an affordable, reliable, clean electric system. Included in the bill are requirements to reduce the qualifying retail utility's carbon dioxide emissions associated with electricity sales to the qualifying retail utility's electricity customers by eighty percent from 2005 levels by 2030, and that seeks to achieve providing its customers with energy generated from one-hundred-percent clean energy resources by 2050. The bill also subjects co-ops to Colorado Public Utility Commission rulemaking.
Colorado SB13-252	Requires cooperative utilities to generate 20% of their electricity from renewables by 2020

Public Policy Requirements Considered

Public Policy Requirement	Description
Colorado SB21-072	This bill requires electric transmission utilities in Colorado to join an organized wholesale market ("OWM") by January 1, 2030, provided that the OWM meets certain criteria set forth in the statute. This bill also creates the Colorado Electric Transmission Authority, a governmental entity that is authorized to independently develop and finance transmission projects.
Colorado HB21-1266	This bill is a broad policy measure to promote environmental justice in disproportionately impacted communities through the creation of an Environmental Justice Task Force. The bill requires wholesale generation and transmission cooperatives to file with the Public Utilities Commission a Clean Energy Plan to achieve 80% emissions reductions by 2030.
Colorado SB 21-246	The primary purpose of this bill is to direct the approval of plans for the electrification of buildings that use fossil fuel-based systems through existing demand side management programs.
Colorado HB21-1238	The primary purpose of this bill is to update the PUC's rules and decision-making process with respect to natural gas demand-side management programs including the use of the Social Cost of Carbon and Social Cost of Methane.
Colorado SB21-272	The primary purpose of this bill is to update the PUC's rules and decision-making process to better incorporate the impacts and benefits to underserved or disproportionately impacted communities and groups including workforces impacted by generation acquisition and retirement. Other requirements include how utilities finance resources or investments, the retirement of renewable energy credits, and the inclusion of the Social Cost of Carbon in resource planning decisions.
Colorado SB23-016	This legislation updates the State of Colorado's statutory greenhouse gas emissions goals (HB19-1261) to add a 65% reduction goal for 2035, an 80% reduction goal for 2040, and a 90% reduction goal for 2045, as well as amending the state's 2050 goal from a 90% reduction goal to 100%.
Public Policy Requirement: California SB 1020	At least 90% of all retail sales of electricity in California must be supplied by eligible renewable and zero-carbon energy resources by December 31, 2035. By December 31, 2040, 95% of all retail electricity sales must be supplied by eligible renewable and zero-carbon energy resources. Additionally, all electricity resources by the end of 2035.

Public Policy Requirements Considered

Public Policy Requirement	Description
Executive Order 14057 (EO 14057), Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability (Dec. 8, 2021)	The President's executive order directs the federal government to use its scale and procurement power to achieve five ambitious goals: • 100 percent carbon pollution-free electricity ("CFE") by 2030, at least half of which will be locally supplied clean energy to meet 24/7 demand; • 100 percent zero-emission vehicle ("ZEV") acquisitions by 2035, including 100 percent zero-emission light-duty vehicle acquisitions by 2027; • Net-zero emissions from federal procurement no later than 2050, including a Buy Clean policy to promote use of construction materials with lower embodied emissions; • A net-zero emissions building portfolio by 2045, including a 50 percent emissions reduction by 2032; • Net-zero emissions from overall federal operations by 2050, including a 65 percent emissions reduction by 2030.
New Mexico Efficient Use of Energy Act	Require utilities to include cost-effective energy efficiency ("EE") and demand response ("DR") programs in their resource portfolios and establish cost-effectiveness as a mandatory criterion for all programs
New Mexico Energy Transition Act (2019 SB 489)	Subject to the Reasonable Cost Threshold ("RCT"), the Energy Transition Act defines renewable energy requirements that are a percentage of a utility's retail energy sales and the type of utility: • By 2020, 20% for public utilities and 10% for cooperatives • By 2025, 40% for public utilities and cooperatives • By 2030, 50% for public utilities and cooperatives • By 2040, 80% for public utilities with provisions associated with carbon free generation • 100% carbon-free by 2045 for public utilities and by 2050 for cooperatives
SRP Sustainable Energy Goal	Reduce the amount of CO_2 emitted per megawatt-hour (MWh) by 65% from 2005 levels by 2035 and by 90% by fiscal year 2050.
Texas RPS	Texas RPS requires a total renewable capacity of 5,880 MW (which has already been achieved) by 2025 be installed in the state which is in turn converted into a renewable energy requirement. The renewable energy requirements are allocated to load serving entities based on their amount of retail energy sales as a percent of the total Texas energy served
Texas Substantive Rule 25.181 (Energy Efficiency Rule)	Require utilities to meet certain energy efficiency targets

Public Policy Requirements Considered

Public Policy Requirement	Description
New Mexico Title 17- Public Utilities and Utility Services Part 574 Applications to Expand Transportation Electrification	"The purpose of this rule is to implement Section 62-8-12 NMSA 1978, applications to expand transportation electrification, and to bring to New Mexico the economic development and environmental benefits of expanded electrification of the State's transportation modalities and transportation infrastructure. Three-year plan with a planning outlook for two-years beyond the proposed three-year plan"
New Mexico Title 17- Public Utilities and Utility Services Part 588 Grid Modernization Grant Program	Grid modernization roadmap and grant program is focused on improvements to electric distribution or transmission infrastructure, including related data analytics equipment, that are designed to accommodate or facilitate the integration of renewable electric generation resources with the electric distribution grid or to otherwise enhance electric distribution or transmission grid reliability, grid security, demand response capability, customer service or energy efficiency or conservation and includes:(a) advanced metering infrastructure that facilitates metering and providing related price signals to users to incentivize shifting demand;(b) intelligent grid devices for real time system and asset information at key substations and large industrial customers;(c) automated control systems for electric distribution circuits and substations;(d) communications networks for service meters;(e) distribution system hardening projects for circuits and substations designed to reduce service outages or service restoration times;(f) physical security measures at key distribution substations; (g) cybersecurity measures;(h) energy storage systems and microgrids that support circuit-level grid stability, power quality, reliability or resiliency or provide temporary backup energy supply;(i) electrical facilities and infrastructure necessary to support electric vehicle charging systems;(j) new customer information platforms designed to provide improved customer access, greater service options and expanded access to energy usage information; and (k) other new technologies that may be developed regarding the electric grid.
New Mexico Advanced Clean Car Rule	Starting in calendar year 2026, 43% of all new passenger cars and light-duty trucks shipped to New Mexico auto dealerships by national auto manufacturers must be zero emission vehicles. Similarly, beginning in calendar year 2026, 15% of all new commercial heavy-duty trucks shipped to New Mexico auto dealerships by national auto manufacturers must be zero emission vehicles. These percentages gradually increase over time.

2024-25 REGIONAL MODEL DEVELOPMENT

Overview of 2024-25 Model Development

- WestConnect develops regional planning models for the 10-year timeframe that are then used to to perform the regional needs assessment,
- On October 15, 2024, the Planning Subcommittee notified the PMC that the Regional Base Models were complete and could be finalized. The PMC approved the recommendation on October 16, 2024, thereby initiating the Regional Needs Assessment phase.
- The Study Plan also identified four economic sensitivity cases:
    1. High Load
    2. Low Hydro
    3. System-wide Carbon Emission Cost
    4. High Gas Price
- The following materials summarize key assumptions made in developing the regional models

2034 Heavy Summer Reliability Model

- Designed to test regional system performance under heavy summer loading and flow conditions
  - Condition: Hours of 1500 to 1700 MDT during June – August
  - Dispatch: 43,177 MW of thermal and hydro resources, and 24,208 MW of wind and solar resources in WestConnect
  - Solar/wind dispatch increased 30% from last cycle and thermal/hydro dispatch decreased 11% from last cycle
  - Demand: Aggregate coincident peak for WestConnect was 65,928 MW a 6% increase from last cycle
- Seed Case: WECC 2034 Heavy Summer 1 Planning Base Case
  - Approved October 25, 2023 (34HS1a)
- Includes 2024-25 Base Transmission Plan

2034 Light Spring Reliability Model

- Designed to test regional system performance under light-load conditions with planned solar and wind serving significant portion of WestConnect load
  - Condition: Hours of 1200 to 1400 hours MDT during spring (March-May)
  - Dispatch: 24,418 MW of thermal and hydro resources, and 19,472 MW of wind and solar resources in WestConnect
  - Solar/wind dispatch increased 22% from last cycle and thermal/hydro dispatch decreased 13% from last cycle
  - Demand: Aggregate coincident demand for WestConnect was 39,357 MW, which is 55% of the peak conforming load in the Heavy Summer Base Case
- Seed Case: WestConnect 2034HS Model
- Includes 2024-25 Base Transmission Plan

2034 Base Economic Model

- Designed to represent a likely, median 2034 future appropriate for an evaluation of transmission congestion on WestConnect regional transmission system
  - Generation
  - Load
  - Other Assumptions
- Seed case: WECC 2034 ADS V1.0
  - Aligned with WestConnect 2032 Base PCM from 2022-23 Cycle
  - Updated by WestConnect members
- Included Base Transmission Plan topology
- Later aligned with WECC 2034 ADS V2.0

Highlights of Work Plan:

- Reasonable Inter-Area Wheeling Charges
- Emphasize the review of bus-area mapping assumptions along area borders with an eye towards wheeling charge “pancaking”
- No "Merchant" generator exemptions to wheeling charges unless there's an expressed good reason
- Scrutinize heat rate, fuel price, and VOM cost assumptions
- Avoid “must run” setting for dispatchable thermals unless expressed good reason
- Model “must take” thermals (bio/geo-fueled, QF, & select co-gens) with historical monthly shapes or, preferably, per contract terms
- Leverage historical data to inform nuclear capacity de-rates
- Implement realistic generator capabilities so as not to overestimate available supply, i.e., model "real world economic maximum capability“

Public Policy Verification

- Public Policy Requirements: state or federal laws or regulations, enacted statutes (i.e., passed by the legislature and signed by the executive) and regulations promulgated by a relevant jurisdiction, whether within a state or at the federal level.
  - Based on language from the final rule on FERC order 1000 published by FERC: "…and allow for consideration of transmission needs driven by public policy requirements established by state or federal laws or regulations (Public Policy Requirements). By "state or federal laws or regulations," we mean enacted statutes (i.e., passed by the legislature and signed by the executive) and regulations promulgated by a relevant jurisdiction, whether within a state or at the federal level."
- TOLSO Confirmation: have received responses from all members
  - As part of Section 6 of WestConnect's 2024-25 Study Plan, each TOLSO must verify they meet all enacted public policies that apply to them.
    - Enacted public policy … is considered in the regional planning process through its inclusion in regional planning models.
    - The regional base models, including both power flow and production cost, will reflect the enacted public policies…

Renewable Energy Check

There was interest in seeing whether the WestConnect economic models indicated a renewable energy penetration trajectory consistent with enacted public policies. To address this interest a high-level accounting and comparison of each PCM Area's energy sales and renewable energy was conducted via the process outlined below.

1. Annual generation of Bio, Geothermal, Solar PV, Solar Thermal, & Wind were summed for each PCM Load Area as "Renewable Energy" (RE). The RE for the SRP PCM Area also included specific hydro and a combined solar & battery generation in the SRP PCM Area was counted as RE based on SRP's plan to meet its public policy requirements, but hydro was otherwise not counted as RE. The Reserve Capacity Distribution settings in 2032 Base Case PCM were used to allocate resources to their appropriate remote load area.

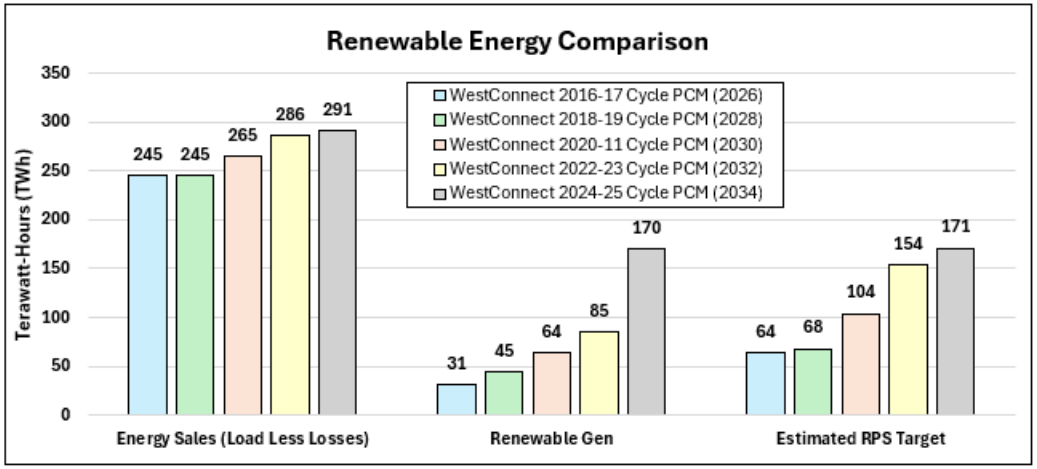
2. Each PCM Load Area's "Energy Sales" was determined by taking the "Served Load Includes Losses", subtracting losses, adding the magnitude of negative generation (e.g., pumping loads with hourly profiles), and subtracting behind-the-meter generation (e.g., distributed generator or DG-BTM, energy efficiency or EE, demand response or DR)

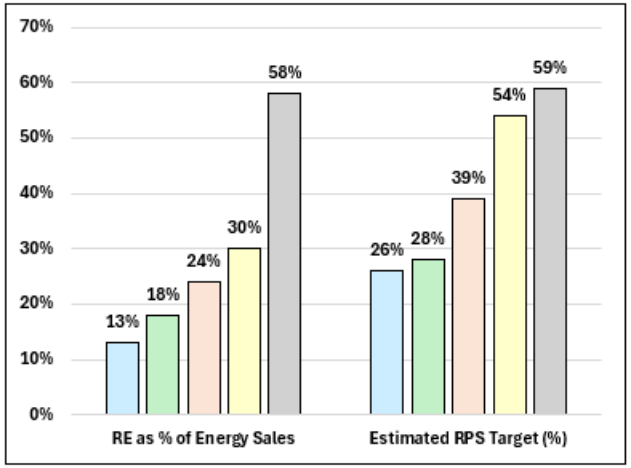
3. The "Renewable Energy" was divided by the "Energy Sales" as the "RE as % of Energy Sales" for the 2034 Base Case PCM and compared with these same values from the 2032 Base Case PCM and the 2028 and 2026 Base Case PCMs from the previous two cycles (to allow for comparison between cycles).

Only the single year results from each study year were used in the RE check and no banking of renewable energy from other years was assumed.

Draft Renewable Energy Check

- WestConnect renewable generation in 2034 PCM is a 100% increase from the 2032 PCM
- RPS-related generation in 2034 PCM represents more than half of the estimated 2034 RPS target for the WestConnect footprint





2024-25 REGIONAL NEEDS ASSESSMENTS

Regional Needs Assessment Background

- Needs Assessments uses base models developed for year 2034
  - Reliability (Heavy Summer & Light Spring powerflow models)
  - Economic (Production Cost Model)
- Assessment is only for WestConnect footprint
  - Local vs. regional transmission issues
- Planning Subcommittee (PS) identifies potential regional issues and makes recommendations to the PMC
- The PMC will make a final determination on regional needs in December 2024 based on the PS recommendations and stakeholder comments collected following this meeting.
- Regional needs will be posted to the WestConnect website no later than December 31, 2024.
- The Regional Transmission Needs Assessment Report will be finalized in early 2025.
  - Contains regional needs assessment results and the PMC determination regarding regional transmission needs for the study cycle.

Contingency Analysis Methodology

- Procedure for Developing the Contingency Definitions
  1. Started with 2022-23 planning cycle contingency definitions
  2. Auto-inserted N-1 contingencies >230kV and GSU's with >200 MW capacity
  3. Added in new member-submitted contingencies, protection systems, and operating procedures
- 1,418 Contingencies
  - 1,225 Auto-inserted N-1 contingencies
    - 957 Lines and 112 single- & 3-winding transformers
    - 156 generator step-up (GSU) transformers
  - 193 member-submitted contingencies
- Flagged branch loadings and bus voltages using member-submitted criteria
  - BES elements monitored (>90kV)
  - WECC Criteria defaults used for bus voltage unless superseded by member-submitted criteria

HS PF Contingency Results

2034HS Base Case

- No Contingency (P-0)
  - **5** branch flagged above Rating A
    - PNM 4, PSCo 1
  - **10** flagged bus voltage issues
    - PSCo 5, SRP 3, TSGT 2
- Contingencies (**61** flagged issues)
  - **0** failed solutions
  - **32** flagged loadings above Rating B
    - PNM 1, PSCo 21, SRP 2, TSGT 6, WAPA-DSW 2
  - **15** flagged low bus voltages
    - PSCo 11, TSGT 4
  - **0** flagged high bus voltages
  - **14** flagged voltage deviations (8+% Voltage Decrease)
    - APS 2, PSCo 9, TSGT 3

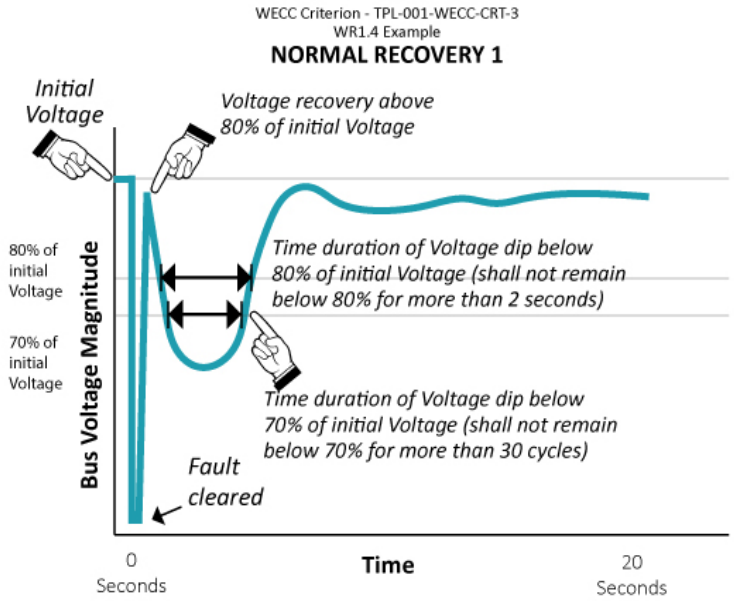
LSP PF Contingency Results

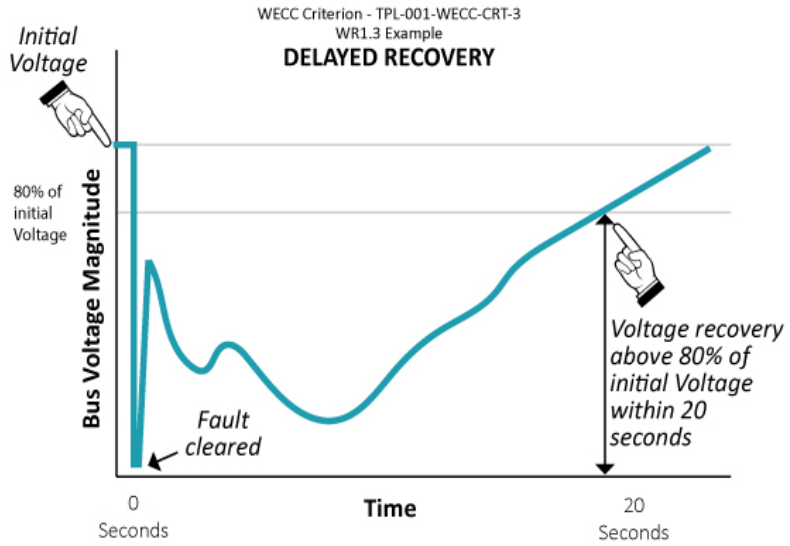
2034LSP Base Case

- No Contingency (P-0)
  - **2** branch flagged above Rating G
    - PNM 1, TSGT 1
  - **3** flagged bus voltage issues
    - PSCO 3
- Contingencies (**14** flagged issues)
  - **0** failed solutions
  - **1** flagged loadings above Rating H
    - WAPA-DSW 1
  - **4** flagged low bus voltages
    - LADWP 3, TSGT 1
  - **5** flagged high bus voltages
    - LADWP 4, PSCO 1
  - **4** flagged voltage deviations (8+% Voltage Decrease)
    - TSGT 4

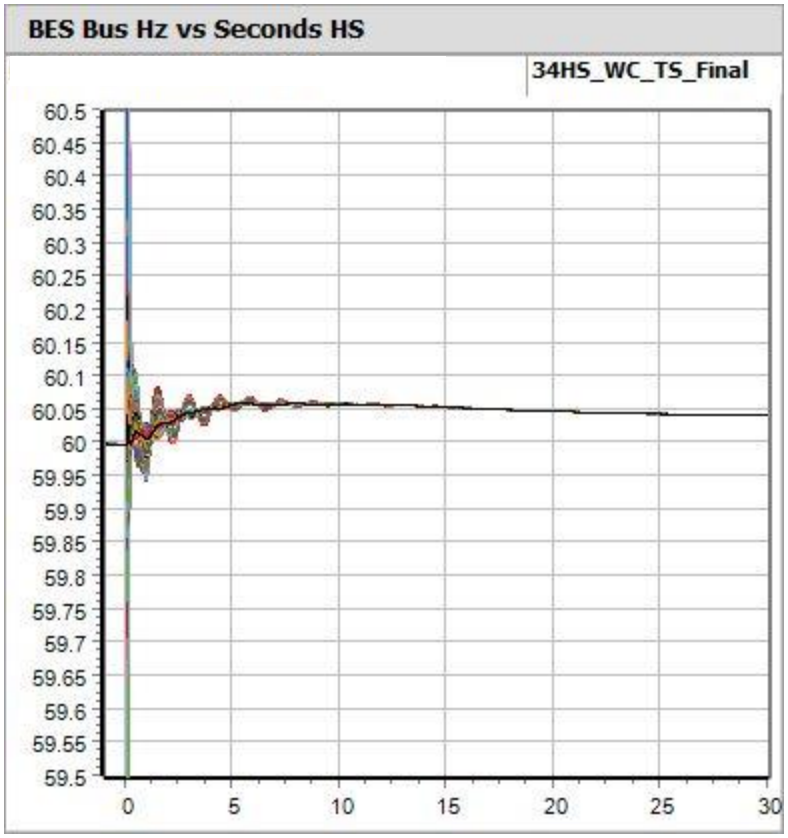
Transient Stability Results WECC Criteria

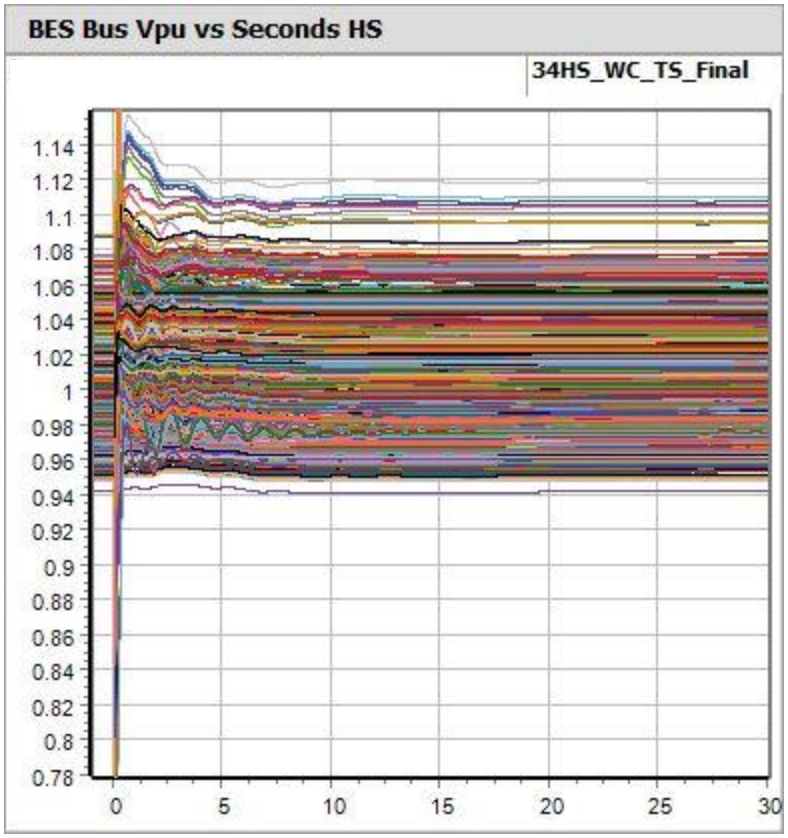
- Recovery should be stable (not volatile)
- Oscillations (if any) should be damped
- The below plots show acceptable recovery of BES bus serving load



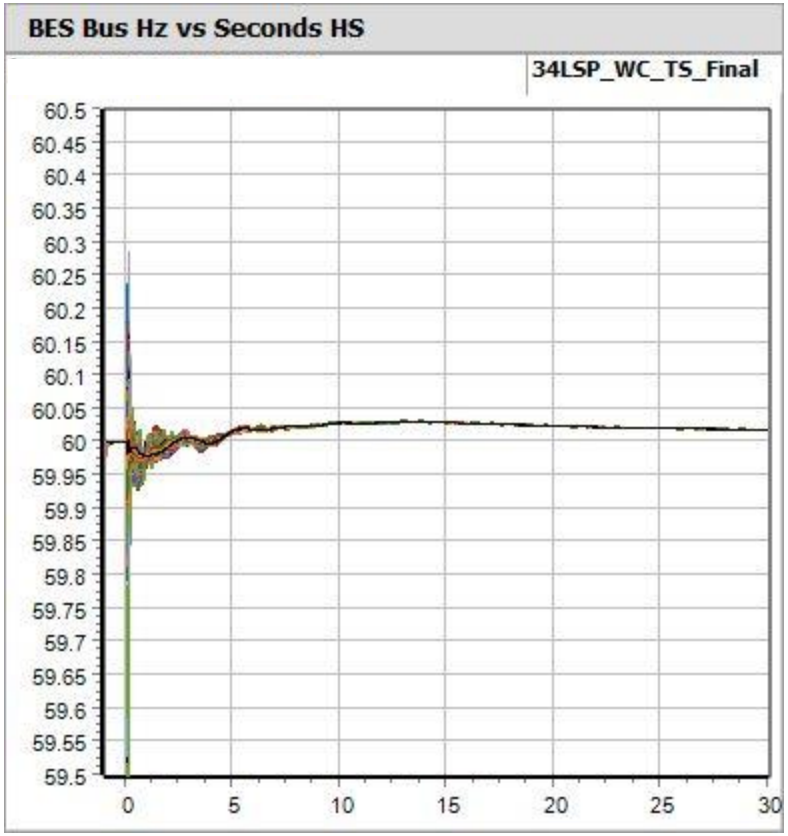


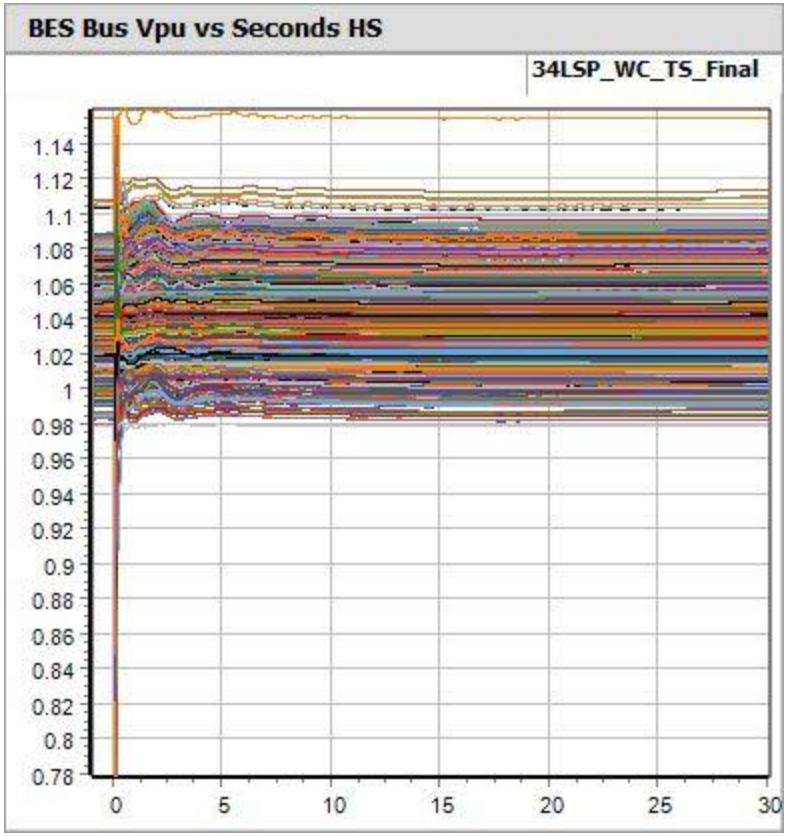
HS Sample Transient Stability Plot:





LSP Sample Transient Stability Plots





Potential Regional Needs Summary

- Unsolved Contingencies: 0
- Transient Stability Issues: 0
- Potential Regional Issues: 9
  - 4 single outage events caused multiple overloaded lines/transformers owned by different owners.
  - 4 overloads of a single-owner line or transformer with one or both terminal buses having a different single-owner.
  - 1 Multi-owner bus – Bus with voltage issue is owned by multiple owners

- Resolution:
  - Modeling: 8 issues resolved by various modeling updates
  - Remaining issue proposed to be Local vs. Regional
    - Member Response to PS:
      "This is a local issue related to load growth. These overloads are caused not by the contingency, but by local tripping of a transformer. This is a known local issue that will be addressed by the affected entity."

HS PF Regional Issues – Potential Need

- Reliability Issue:
  - A single outage event causes multiple overloaded lines/transformers owned by different owners.

Contingency	Contingency Owner	Overloaded Element	Overloaded Element Owner	Resolution
C1	PSCo	PSCo facility	PSCo	PSCo response to PS: This is a local issue. A conceptual project exists for this issue.
		TSGT Facility	TSGT	TSGT Response to PS: This is a local issue related to load growth. These overloads are caused not by the contingency, but by local transformer tripping. With enough load growth the operational tripping becomes inadequate. This is a known local issue that will be addressed by TSGT.
		TSGT Facility	TSGT	

Regional Reliability Assessment Summary

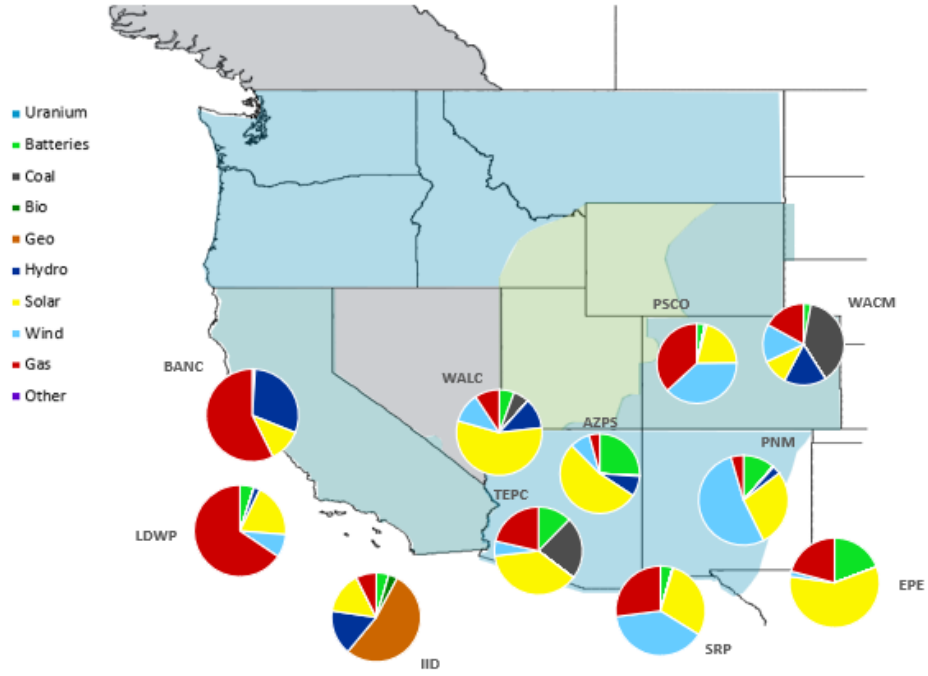
- Process
  - The regional assessment resulted in a single potential regional reliability need
    - A single outage event on one TOLSO's system caused an overload on a facility owned by different TOLSO
  - Affected entities documented the issue as "local" in nature
  - No dispute on that description in September or October PS meetings
- Planning Subcommittee Recommendation (11/12/24)
  - *The PS recommended that the single reliability issue from the Heavy Summer Reliability Assessment not be considered a regional reliability need.*
- PMC Motion:
  - *The PMC agreed that the draft 2024-25 Regional Needs Assessment results could be released to stakeholders for comments*

Base Economic Model Summary

- 2034 WC PCM D4-1:
  - 2034 ADS V2 Foundation
  - 2034 D1 & D2 WC PF Topology Updates & D1/D2 PCM Feedback Updates
  - WECC-wide battery unit modeling update (ID=3 >> ID =10)
    - Implement Battery Schedule WC-wide
  - WECC Path, Wheeling, Commitment vs Dispatch definitions, costs, and rating updates
  - Implement previous cycle penalty costs (previous cycle per ABB/Hitachi recommendation)
  - Add new PF generation and generic modeling unless specific PCM data was provided
  - Re-establish element monitoring; >230kV system, >90kV WC Areas
  - Implement updated NWPP RSG and AS definitions
  - Identified/turned off duplicate generation (SunZia modeled as 6 units @9,000 MW)
  - Implemented Committed Uses modeling and missing temporal element
  - ADS Hydro schedule corrections; min energy, operating ranges, and ramp rates
  - Anticline PSTs modified to encourage flow NW (+0 to +40 deg bounds)
  - "Status Off" ~25GW PacifiCorp Conceptual (Tier 3) Capacity (~5.6 GW Wyoming Wind)
  - Worked with WECC and Hitachi to address all known ADS Issues
    - All known issues have been corrected, WECC to release updated dataset in October
    - Potential update – WECC-Wide Tier 3 Resources – Test Run revealed major issues

2034 PCM Resource Mix

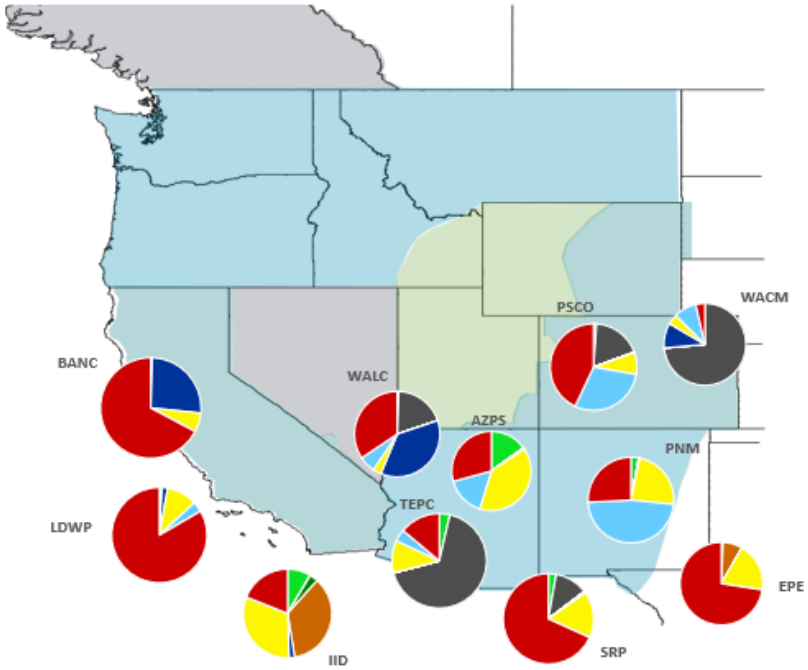
CASE: 2034 WC PCM D4-1



Category	GWh Change	% Change
Uranium	1,651	3%
Batteries	52,101	191%
Coal	(44,317)	-54%
Bio	(312)	-2%
Geo	3,267	15%
Hydro (RoR + PS)	29,968	155%
Solar	174,579	152%
Wind	86,071	66%
Gas	(157,381)	-40%
Other	1,933	108%

34 D4-1

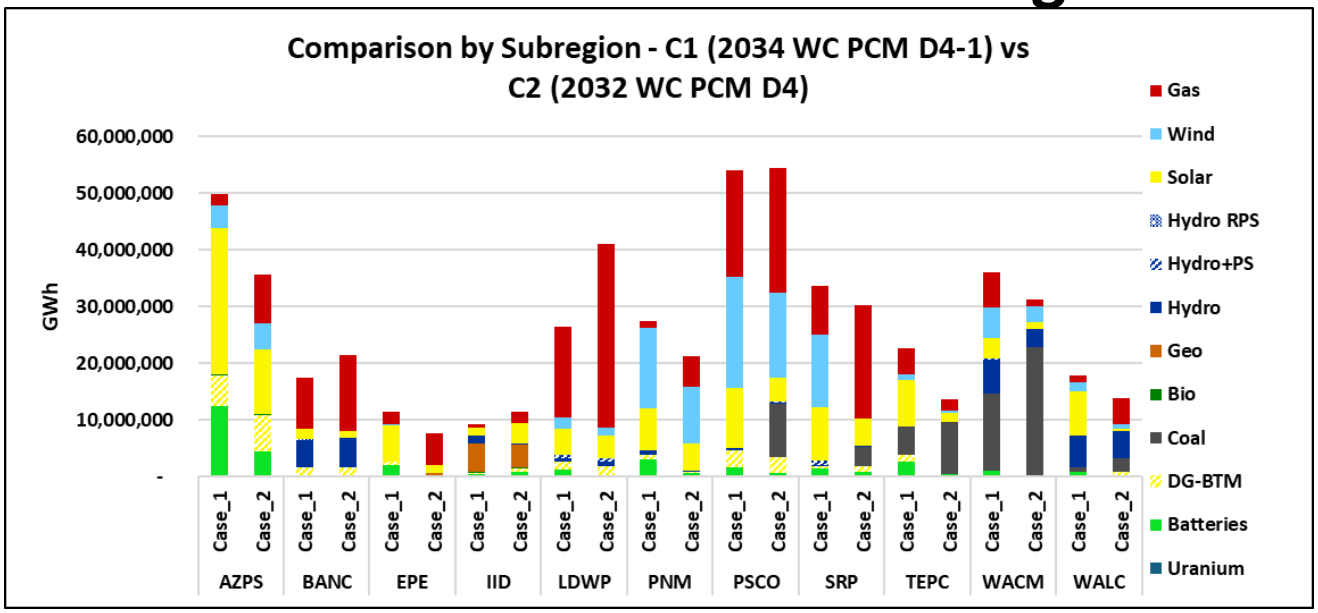
CASE: 2032 WC PCM D4

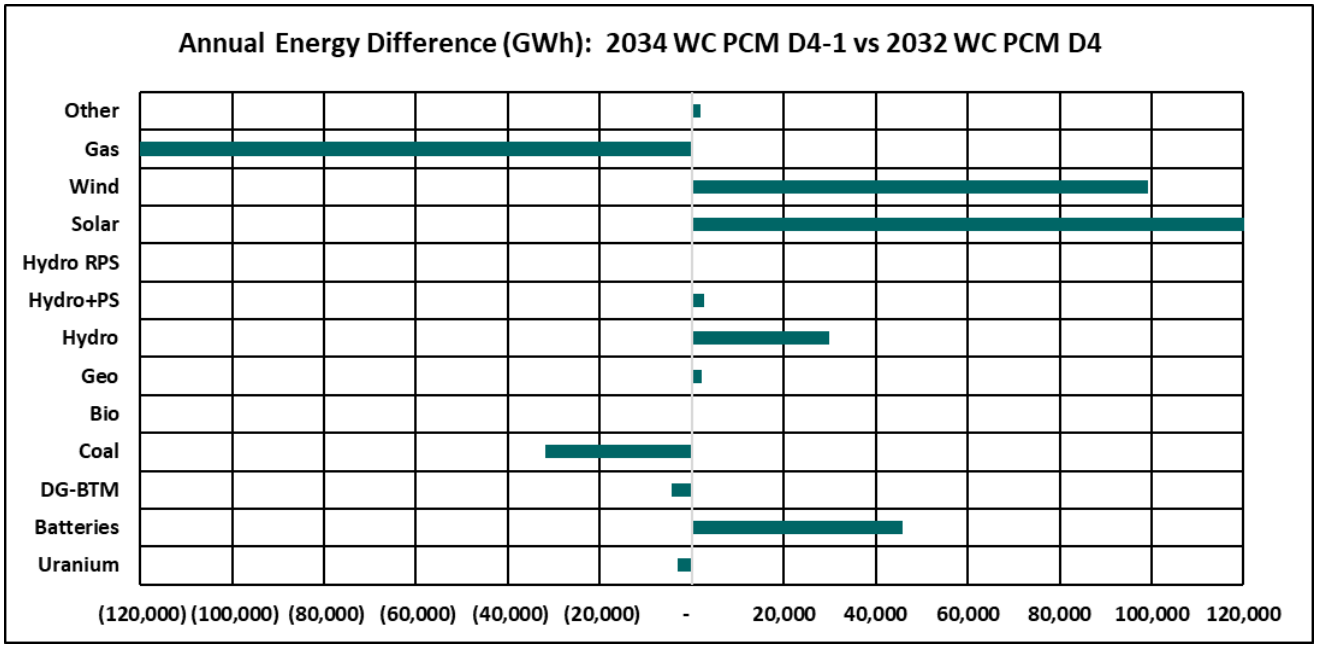


Category	GWh Change	% Change
Uranium	(3,077)	-6%
Batteries	45,765	168%
Coal	(31,909)	-39%
Bio	295	2%
Geo	2,235	10%
Hydro (RoR + PS)	32,425	144%
Solar	167,035	145%
Wind	99,268	76%
Gas	(129,227)	-33%
Other	1,894	106%

32 D4

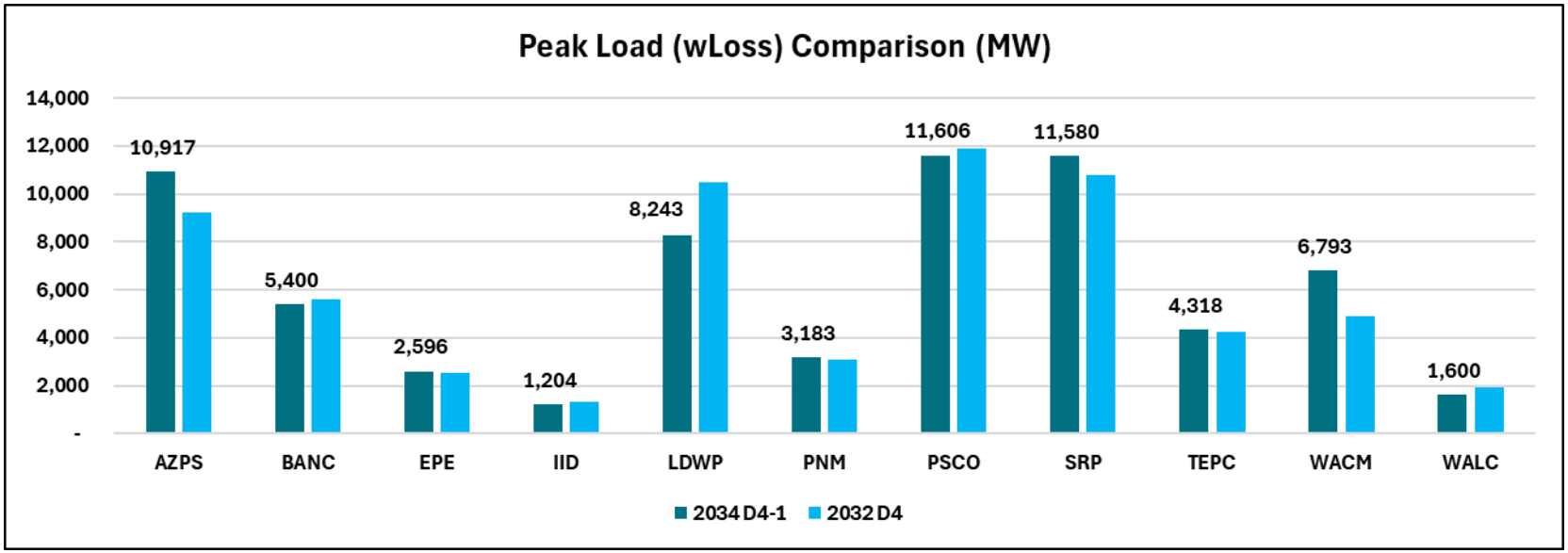
2034 PCM Generation Change

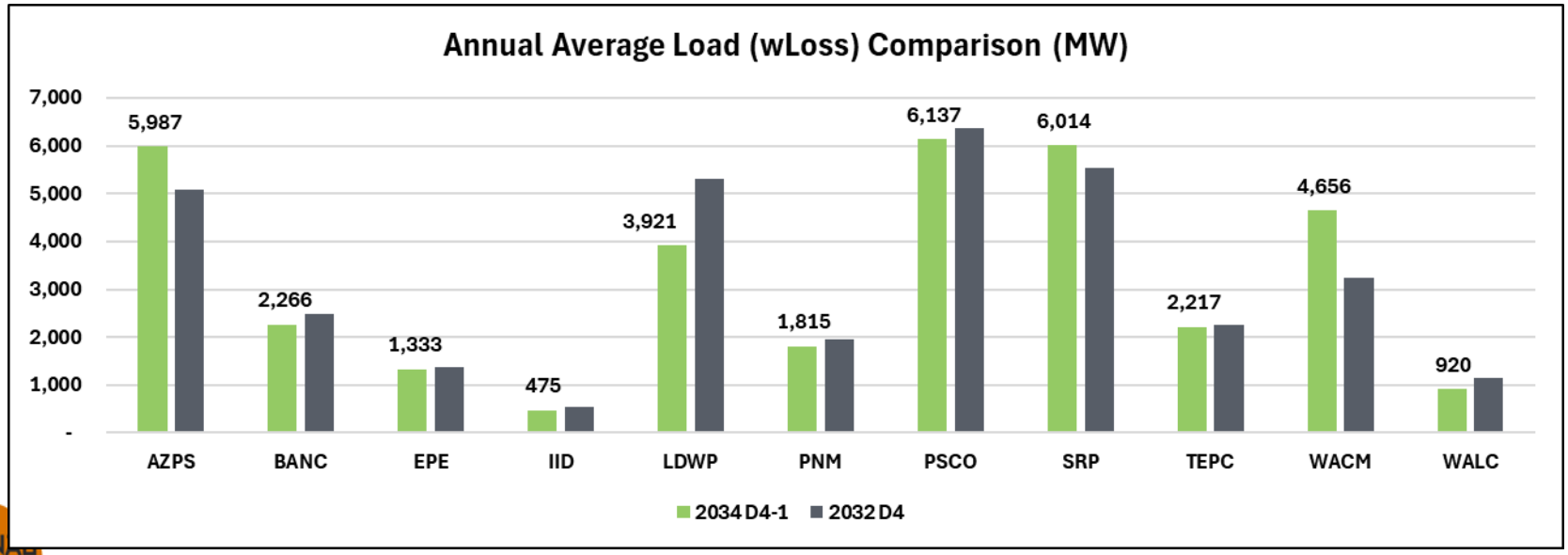




REGIONAL PLANNING

2034 PCM Load Comparison





2034 PCM Final Congestion Results

2034 WC PCM Final				
Assumed Grouping	**Entities Involved**	**Branch or Path Name**	**Avg Flow (MW)**	**Cong. Hours (% hrs)/Cost(K$)**
Multiple WC Entities	Tri-State G&T | WAPA L.M. | PSCo | BEPC	P36 TOT 3	919	138 (2%) / 10,032
	BEPC | TSGT | NorthernGrid	DAVEJOHN - LAR.RIVR 230 kV Line #1	116	311 (4%) / 7,720
	APS | WAPA-DSW	PPAPS W - PINPK 230 kV Line #1	256	396 (5%) / 1,760
	PSCO | TSGT	CRAIG_YV - CRAIG 230 kV Line #1	73	723 (8%) / 1,005
Single WC Entity, Multi-Regional	WAPA-SNR | CAISO	P15 Midway-LosBanos	3155	1658 (19%) / 80,760
	LADWP | NorthernGrid | IPA	INTERMT - MONA 345 kV Line #1&#2	298	2006 (23%) / 22,374
	LADWP | N3/N9 NV	P77 Crystal-Allen	689	1023 (12%) / 11,211
	LADWP | IPA	P27 IPP DC Line	305	2876 (33%) / 4,757
	LADWP | CAISO	P61 Lugo-Victorville 500 kV Line	722	639 (7%) / 3,229

2034 WC PCM Final	
Total Multi-TO Congestion ($)	19,799,835
Total Single-TO Congestion ($)	351,235,427
Total Non-WestConnect Congestion ($)	1,181,388,575

REGIONAL PLANNING

2034 PCM Final Congestion Results

	2034		2032	
Branch or Path Name	Avg Flow (MW)	Hours (% hrs)/Cost(K$)	Avg Flow (MW)	Hours (% hrs)/Cost(K$)
P36 TOT 3	919	138 (2%) / 10,032	464	1 (0.01%) / 16
DAVEJOHN - LAR.RIVR 230 kV Line #1	116	311 (4%) / 7,720	-125	2 (0.02%) / 0.57
PPAPS W - PINPK 230 kV Line #1	256	396 (5%) / 1,760	-63.49	0
CRAIG_YV - CRAIG 230 kV Line #1	73	723 (8%) / 1,005	-8.99	0
P15 Midway-LosBanos	3155	1658 (19%) / 80,760		
INTERMT - MONA 345 kV Line #1&#2	298	2006 (23%) / 22,374	-4	63 (0.72%) / 3,434
P77 Crystal-Allen	689	1023 (12%) / 11,211		
P27 IPP DC Line	305	2876 (33%) / 4,757	1,128	1,243 (14%) / 5,132
P61 Lugo-Victorville 500 kV Line	722	639 (7%) / 3,229		

2034 WC PCM Final	
Total Multi-TO Congestion ($)	19,799,835
Total Single-TO Congestion ($)	351,235,427
Total Non-WestConnect Congestion ($)	1,181,388,575

REGIONAL PLANNING

Responses to Economic Needs Assessment

Branch or Path Name	Entities Involved	Member Response
P36 TOT3	BEPC, PSCO, TSGT, WAPA-RMR	TOT3/Path 36 congestion is relatively low and there are many adjacent system changes presently occurring that are predicted to improve congestion. Although the amount has increased from previous cycle results this limited amount does not warrant a regional need at this time.
DAVEJOHN - LAR.RIVR 230 kV Line #1	BEPC, PSCO, TSGT, WAPA-RMR	Dave Johnston – Laramie River 230 kV congestion is relatively low but is attributed to increased neighboring Planning Region wind resources. This seams congestion is managed by inclusion of Phase Shifters at Anticline and buildout of the Gateway transmission project by PacifiCorp.
CRAIG_YV - CRAIG 230 kV Line #1	BEPC, PSCO, TSGT, WAPA-RMR	The observed congestion on this line does not warrant establishing this as a regional need as it is limited in duration, cost, and impact. The congestion is a direct result of serving local load and forecasted BTM generation. Additionally, the line and Craig YV terminal equipment are owned by PSCo. While the Craig substation equipment has mixed ownership, PSCo has full ownership of the terminal equipment for this line. This makes the congestion on this facility more similar to a single TO facility in nature.
PPAPS W - PINPK 230 kV Line #1	APS, WAPA-DSW	The observed congestion on this line does not justify designating it as a regional need. Both the congestion hours and cost of the congestion are minimal and do not warrant a capital investment. Historically, the line's flows have remained well below the capacity. Additionally, reliance on a single data point for one West Connect cycle results raises concerns about the analysis's reliability. WAPA recommends using multiple scenarios and years to provide a more robust reliable evaluation.
Path 15 Midway – Los Banos	WAPA-SNR|CAISO	Not a regional issue – Path 15 and related facilities are part of the CAISO Planning Region. Possible driver being a topology issue in the PCM which originated from the WECC ADS. Energy Strategies discovered the topology isn't 1:1, were unable to get a recommended correction from WECC/CAISO prior to finalizing our models. Topology appears fixed in 2035HS

Regional Economic Assessment Summary

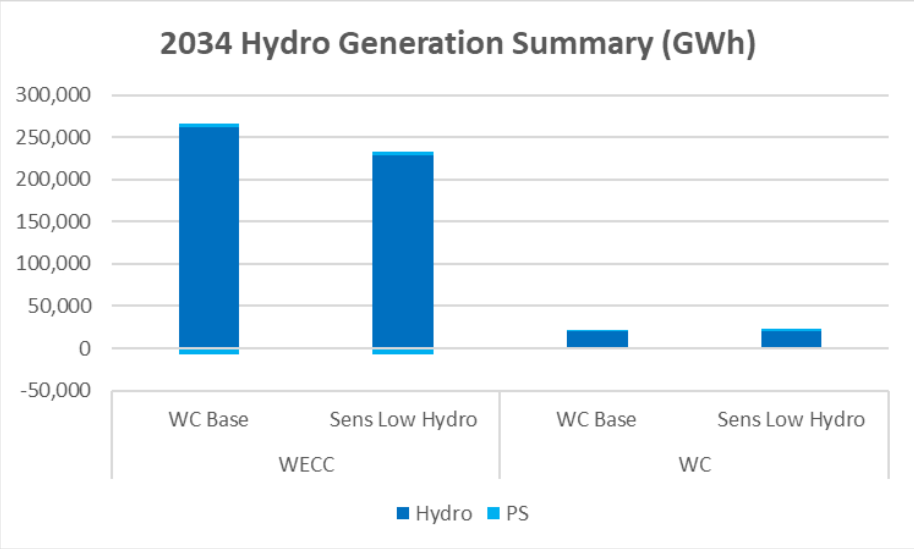
- Process
  - The regional economic assessment resulted in 4 occurrences of congestion involving multiple WestConnect entities
  - A response for each issue was provided by affected entities
  - No responses indicated a regional need
- Planning Subcommittee Recommendation (11/12/24)
  - *The PS recommended that the economic congestion issues not be considered regional economic needs*
- PMC Motion
  - *The PMC agreed that the draft 2024-25 Regional Needs Assessment results could be released to stakeholders for comments*

PCM Sensitivities

- Plan
  - Conduct sensitivity studies on the 2034 Base Case Economic model to better understand whether regional transmission congestion may be impacted by specific input uncertainty
  - Evaluate the four sensitivities that were performed in the previous cycle
- Sensitivities
  - Hydro Conditions
  - Natural Gas Prices
  - Load Forecast
  - Emissions Cost

Low Hydro

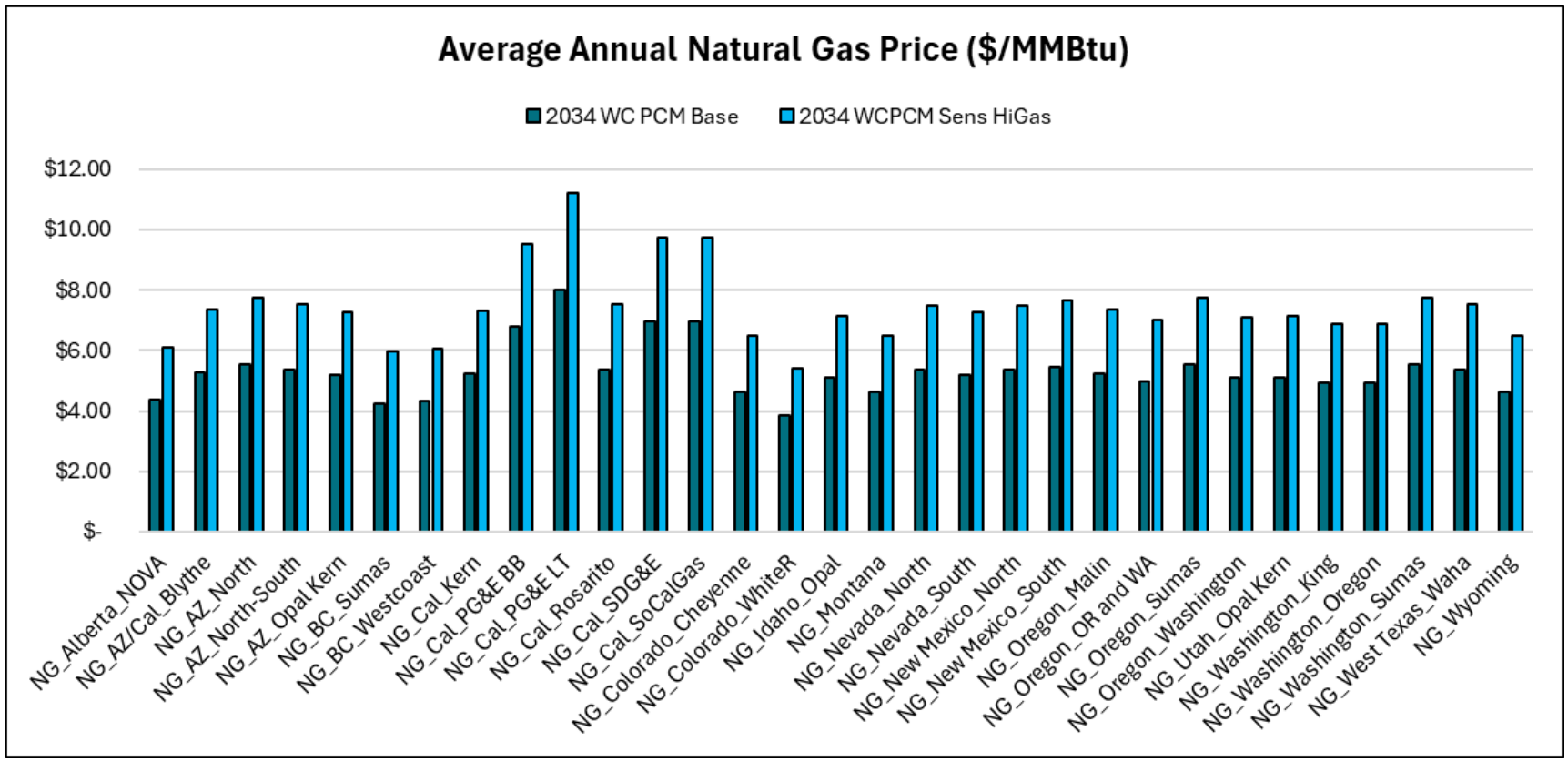
- The 2034 WCPCM Base Case uses a median year hydro condition. Hydro conditions from 2001 provide the best representation of hydro operations for a low water year. Low hydro shapes were derived from data developed by WECC for the 2024 TEPPC Common Case



Metric	Region	Fuel Type	Hydro	PS	PS Pump
Generation (GWh)	WECC	WC Base	261,892	4,524	-7,037
		Sens Low Hydro	228,314	4,825	-7,485
	WC	WC Base	19,944	1,630	-1,946
		Sens Low Hydro	20,900	1,742	-2,120
Capacity (MW)	WECC	WC Base	72,278	6,046	6,046
		Sens Low Hydro	72,278	6,046	6,046
	WC	WC Base	7,129	3,351	3,351
		Sens Low Hydro	7,129	3,351	3,351
Capacity Factor	WECC	WC Base	41.3%	8.5%	-13.3%
		Sens Low Hydro	36.0%	9.1%	-14.1%
	WC	WC Base	31.8%	5.5%	-6.6%
		Sens Low Hydro	33.4%	5.9%	-7.2%

High Gas Prices

- Assumed natural gas prices 40% higher than the base case
  - Base Case annual average gas price: $5.30/MMBtu
  - Sensitivity Case annual average gas price: $7.43/MMBtu



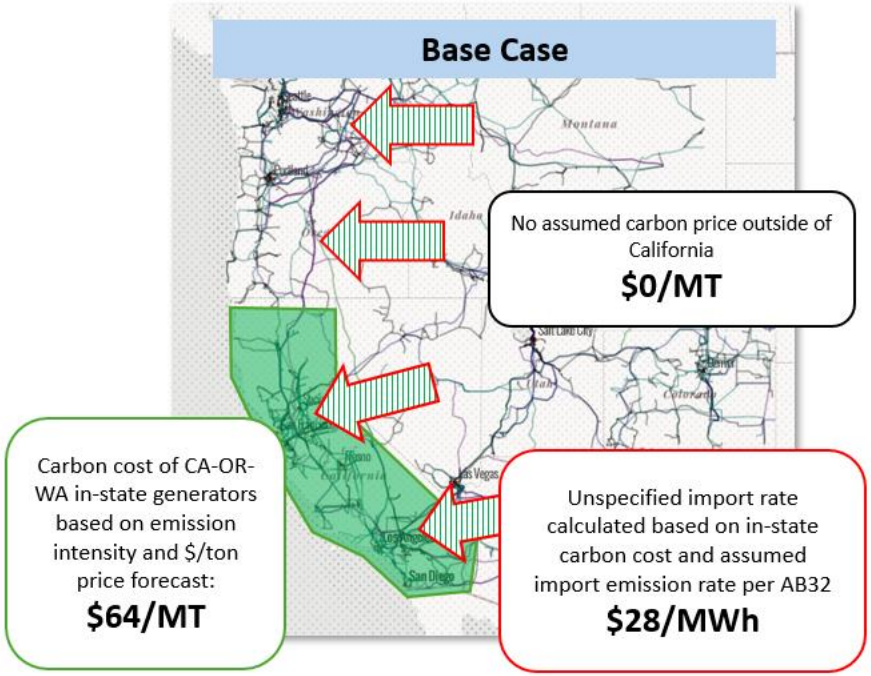
High Load Forecast

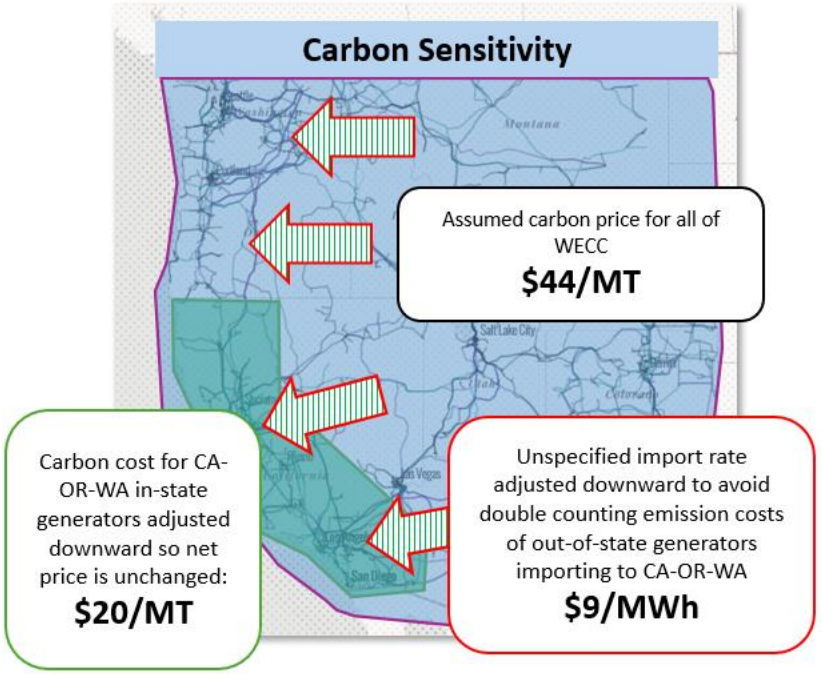
		2034 WCPCM Base		2034 WCPCM sens High Load			
Area	Region	Peak (MW)	Energy (GWh)	Peak Inc %	Energy Inc %	Peak (MW)	Energy (GWh)
AZPS	SW_AZPS	10,661	50,958	120%	120%	12,853	61,379
BANC	CA_BANC	5,252	18,967	120%	120%	6,325	22,858
EPE	SW_EPE	2,518	11,260	120%	120%	3,030	13,571
IID	CA_IID	1,183	4,035	120%	120%	1,422	4,861
LDWP	CA_LDWP	7,989	32,681	120%	120%	9,608	39,346
PNM	SW_PNM	3,092	15,376	120%	120%	3,721	18,550
PSCO	RM_PSCO	11,382	52,234	120%	120%	13,716	63,050
SRP	SW_SRP	11,322	51,221	120%	120%	13,624	61,692
TEPC	SW_TEPC	4,318	19,417	120%	120%	5,182	23,300
WACM	RM_WACM	6,700	40,181	120%	120%	8,059	48,323
WALC	SW_WALC	1,553	7,746	120%	120%	1,872	9,335

- Sensitivity case assumed peak loads and energy 20% higher than the Base Case

System Carbon Price

Carbon Sensitivity: Study Assumption





CA-OR-WA in-state/specified resources:	**$64/MT**	$20/MT + $44/MT = **$64/MT**
CA-OR-WA imports:	**$64/MT** ($28/MWh)	$20/MT ($9/MWh) + $44/MT = **$64/MT**
WECC system adder:	**$0/MT**	**$44/MT**

Economic Sensitivities - Congestion

		Congestion Hours (% hrs)/Cost(K$)				
Assumed Grouping	Branch or Path Name	Base	Low Hydro	High Gas	High Load	System Carbon Price
Multiple WC Entities	P36 TOT 3	138 (2%) / 10,032	82 (1%) / 1,542	128 (1%) / 3,423	600 (7%) / 557,608	131 (1%) / 3,620
	DAVEJOHN - LAR.RIVR 230 kV Line #1	311 (4%) / 7,720	196 (2%) / 4,193	422 (5%) / 13,389	915 (10%) / 148,314	369 (4%) / 12,304
	PPAPS W - PINPK 230 kV Line #1	396 (5%) / 1,760	409 (5%) / 1,435	418 (5%) / 2,485	873 (10%) / 6,216	361 (4%) / 1,626
	P46 West of Colorado River (WOR)	0	0	0	0	17 (%) / 0,163
Possibly Multiple WC Entities	CRAIG_YV - CRAIG 230 kV Line #1	723 (8%) / 1,005	735 (8%) / 0,969	742 (8%) / 1,128	637 (7%) / 1,184	715 (8%) / 1,162
	PONCHA_E - N.GUNNSN 115 kV Line #1	0	80 (1%) / 4,327	81 (1%) / 4,020	248 (3%) / 25,885	83 (1%) / 4,520
	LAMAR_SWYD - LAMAR_C2 230 kV Line #1	0	136 (2%) / 0,252	133 (2%) / 0,203	0	0
	MONTROSE - HESPERUS 345 kV Line #1	0	0	48 (1%) / 1,537	160 (2%) / 32,945	0
	BONANZA - CRAIG 345 kV Line #1	0	0	0	331 (4%) / 216,219	0
	HESPERUS - WATRFLW 345 kV Line #1	0	0	0	177 (2%) / 83,579	0
	DEERVALY - WESTWNGN 230 kV Line #1	0	0	0	323 (4%) / 4,266	0
Single WC Entity, Multi-Regional	P15 Midway-LosBanos	1658 (19%) / 80,760	1925 (22%) / 82,188	1549 (18%) / 90,163	1405 (16%) / 65,188	1229 (14%) / 60,300
	INTERMT - MONA 345 kV Line #1&#2	2006 (23%) / 22,374	2743 (31%) / 40,855	1987 (22%) / 26,867	1940 (22%) / 29,605	2061 (23%) / 30,632
	P77 Crystal-Allen	1023 (12%) / 11,211	1035 (12%) / 12,072	885 (10%) / 10,561	536 (6%) / 5,280	836 (10%) / 9,353
	P27 Intermountain Power Project DC Line	2876 (33%) / 4,757	2976 (34%) / 8,753	2682 (31%) / 5,350	2449 (28%) / 4,734	3674 (42%) / 8,441
	P61 Lugo-Victorville 500 kV Line	639 (7%) / 3,229	429 (5%) / 2,189	705 (8%) / 4,683	664 (8%) / 5,338	444 (5%) / 2,337
	BONANZA - MONA 345 kV Line #1	0	0	0	95 (1%) / 35,773	0
	MOEN-ELD SC3 - ELDORDO 500 kV Line #1	0	0	128 (1%) / 0,279	0	278 (3%) / 1,067
	Total Multi-TO Congestion ($)	**$19,799,835**	**$7,796,176**	**$19,530,215**	**$714,651,192**	**$16,381,009**
	Total Single-TO Congestion ($)	**$351,235,427**	**$2,199,721,200**	**$410,161,617**	**$524,517,270**	**$408,658,109**
	Total Non-WestConnect Congestion ($)	**$1,181,388,575**	**$1,173,742,503**	**$1,459,723,788**	**$1,414,828,709**	**$1,254,995,584**
	Total Multi-TO Congestion (% Change)		**-61%**	**-1%**	**3509%**	**-17%**
	Total Single-TO Congestion (% Change)		**526%**	**17%**	**49%**	**16%**
	Total Non-WestConnect Congestion (% Change)		**-1%**	**24%**	**20%**	**6%**

REGIONAL PLANNING

Economic Sensitivities - Congestion

		Avg Flow (MW)				
Assumed Grouping	Branch or Path Name	Base	Low Hydro	High Gas	High Load	System Carbon Price
Multiple WC Entities	P36 TOT 3	919	836	931	1120	900
	DAVEJOHN - LAR.RIVR 230 kV Line #1	116	94	124	208	112
	PPAPS W - PINPK 230 kV Line #1	256	257	252	312	251
	P46 West of Colorado River (WOR)	0	0	0	0	8705
Possibly Multiple WC Entities	CRAIG_YV - CRAIG 230 kV Line #1	73	73	73	69	73
	PONCHA_E - N.GUNNSN 115 kV Line #1	0	-38	-37	-44	-38
	LAMAR_SWYD - LAMAR_C2 230 kV Line #1	0	50	47	0	0
	MONTROSE - HESPERUS 345 kV Line #1	0	0	-287	-365	0
	BONANZA - CRAIG 345 kV Line #1	0	0	0	364	0
	HESPERUS - WATRFLW 345 kV Line #1	0	0	0	-400	0
	DEERVALY - WESTWNGN 230 kV Line #1	0	0	0	-386	0
Single WC Entity, Multi-Regional	P15 Midway-LosBanos	3155	3590	3121	2987	2917
	INTERMT - MONA 345 kV Line #1&#2	298	366	291	297	279
	P77 Crystal-Allen	689	702	664	536	677
	P27 Intermountain Power Project DC Line	305	219	319	489	22
	P61 Lugo-Victorville 500 kV Line	722	765	698	625	635
	BONANZA - MONA 345 kV Line #1	0	0	0	-197	0
	MOEN-ELD SC3 - ELDORDO 500 kV Line #1	0	0	728	0	767

REGIONAL PLANNING

Economic Sensitivities – Area Summary

Metric	Region	Base	Low Hydro	High Gas	High Load	System Carbon Price	% Change from Base Case: Low Hydro	High Gas	High Load	System Carbon Price
LMP ($/MWh)	AZPS	18.06	20.06	27.16	29.07	31.85	11%	50%	61%	76%
	BANC	67.21	79.86	80.94	82.70	65.53	19%	20%	23%	-2%
	EPE	15.64	17.95	24.50	24.91	28.54	15%	57%	59%	82%
	IID	38.64	40.56	47.10	46.41	34.71	5%	22%	20%	-10%
	LDWP	47.25	48.64	57.24	53.95	45.28	3%	21%	14%	-4%
	PNM	10.60	12.44	18.12	14.73	21.75	17%	71%	39%	105%
	PSCO	41.75	41.30	52.86	143.48	54.36	-1%	27%	244%	30%
	SRP	21.73	24.30	31.07	36.18	35.61	12%	43%	66%	64%
	TEPC	15.57	17.66	23.92	25.24	28.31	13%	54%	62%	82%
	WALC	11.84	13.35	19.97	20.06	24.27	13%	69%	69%	105%
	WACM	38.68	37.84	48.74	98.99	50.98	-2%	26%	156%	32%
MCC ($/MWh)	AZPS	-22.79	-23.19	-23.51	-21.38	-12.40	2%	3%	-6%	-46%
	BANC	20.64	31.04	23.51	24.77	15.33	50%	14%	20%	-26%
	EPE	-27.74	-28.33	-29.21	-30.78	-18.71	2%	5%	11%	-33%
	IID	-2.21	-2.77	-3.31	-5.24	-9.33	25%	50%	137%	322%
	LDWP	3.19	2.10	2.77	-1.30	-2.32	-34%	-13%	-141%	-173%
	PNM	-31.20	-32.09	-33.42	-39.91	-23.49	3%	7%	28%	-25%
	PSCO	-3.99	-7.59	-3.69	82.55	4.07	90%	-7%	-2171%	-202%
	SRP	-19.61	-19.48	-20.11	-14.88	-9.16	-1%	3%	-24%	-53%
	TEPC	-25.26	-25.71	-26.66	-25.55	-15.88	2%	6%	1%	-37%
	WALC	-30.56	-31.61	-32.02	-34.29	-20.79	3%	5%	12%	-32%
	WACM	-4.99	-8.90	-5.08	41.43	3.04	78%	2%	-931%	-161%

Total Unserved Load (MWh)					
Region	Base	Low Hydro	High Gas	High Load	System Carbon Price
AZPS	0	0	0	0	0
BANC	0	0	0	0	0
EPE	0	0	0	0	0
IID	0	0	0	0	0
LDWP	0	0	0	0	0
PNM	0	0	0	0	0
PSCO	0	0	0	92,982 (0.144%)	0
SRP	0	0	0	0	0
TEPC	0	0	0	0	0
WALC	0	0	0	0	0
WACM	0	0	0	15,704 (0.032%)	0

REGIONAL PLANNING

Economic Sensitivities –Gen Fleet

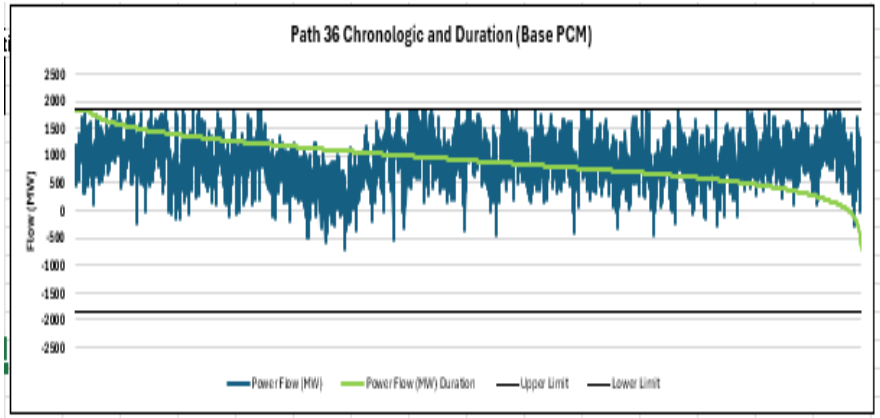
Metric	Case	Nuclear	Coal	Gas	Hydro	PS	Geothermal	Biomass	Other	BESS	Solar	Wind
Capacity (MW)	Base	3,500	3,080	30,587	7,129	3,351	602	0	4,167	24,749	34,404	15,039
	LowHydro	3,500	3,080	30,587	7,129	3,351	602	0	4,167	24,749	34,404	15,039
	HiGas	3,500	3,080	30,587	7,129	3,351	602	0	4,167	24,749	34,404	15,039
	HiLoad	3,500	3,080	30,587	7,129	3,351	602	0	4,167	24,749	34,404	15,039
	SysCarbPrice	3,500	3,080	30,587	7,129	3,351	602	0	4,167	24,749	34,404	15,039
Generation (GWh)	Base	28,950	17,884	70,830	19,944	1,630	3,634	0	4,316	26,638	84,414	47,067
	LowHydro	28,948	17,670	72,873	20,900	1,742	3,654	0	4,693	27,654	84,044	46,950
	HiGas	28,948	18,610	69,698	19,943	1,572	3,543	0	4,177	27,209	84,385	46,982
	HiLoad	28,948	19,607	104,960	19,945	1,406	3,859	0	7,474	25,887	86,197	47,655
	SysCarbPrice	28,948	18,119	67,426	19,941	1,592	3,356	0	4,520	26,805	85,253	47,274
Spillage (MWh)	Base	0	0	0	5,392	0	0	0	0	0	6,693,602	3,535,523
	LowHydro	0	0	0	5,722	0	0	0	0	0	7,064,115	3,651,816
	HiGas	0	0	0	5,865	0	0	0	0	0	6,723,158	3,620,396
	HiLoad	0	0	0	4,096	0	0	0	0	0	4,910,535	2,947,609
	SysCarbPrice	0	0	0	8,066	0	0	0	0	0	5,854,568	3,328,580
CO2e (Short Tons)	Base	0	5,725,547	23,437,480	0	0	489,421	0	1,697,372	0	0	0
	LowHydro	0	5,654,738	24,626,081	0	0	507,702	0	1,888,989	0	0	0
	HiGas	0	5,664,659	22,903,380	0	0	436,314	0	1,375,048	0	0	0
	HiLoad	0	6,260,835	39,645,865	0	0	571,338	0	4,231,195	0	0	0
	SysCarbPrice	0	5,771,760	22,096,575	0	0	396,044	0	1,535,054	0	0	0
CO2e Cost (M$)	Base	0	0	421	0	0	11	0	43	0	0	0
	LowHydro	0	0	463	0	0	12	0	49	0	0	0
	HiGas	0	0	401	0	0	9	0	36	0	0	0
	HiLoad	0	0	605	0	0	14	0	103	0	0	0
	SysCarbPrice	0	335	1,016	0	0	8	0	72	0	0	0
LMP ($/MWh)	Base	19.87	25.00	32.28	33.59	40.94	37.85		37.04	20.56	26.86	28.15
	LowHydro	22.03	24.41	34.57	29.88	42.25	39.63		39.00	22.44	28.80	29.18
	HiGas	28.97	32.89	42.13	43.29	51.36	46.36		47.50	29.48	36.21	37.24
	HiLoad	31.77	51.75	57.52	60.13	78.56	44.24		79.37	37.20	53.67	70.05
	SysCarbPrice	33.96	36.36	41.21	41.40	47.78	35.26		46.82	32.40	37.05	38.22
MCC ($/MWh)	Base	-21.69	-15.90	-11.21	-9.60	-3.94	-1.83		-7.16	-22.22	-16.26	-14.07
	LowHydro	-22.06	-19.85	-11.68	-16.12	-5.58	-2.48		-8.06	-23.03	-17.08	-15.90
	HiGas	-22.37	-17.39	-11.63	-9.98	-4.12	-2.63		-7.15	-23.34	-17.05	-14.83
	HiLoad	-20.38	-0.66	2.19	5.06	20.75	-5.43		22.37	-17.34	-1.67	14.97
	SysCarbPrice	-11.11	-8.55	-6.16	-5.55	-1.17	-7.85		-1.45	-14.10	-9.87	-7.80

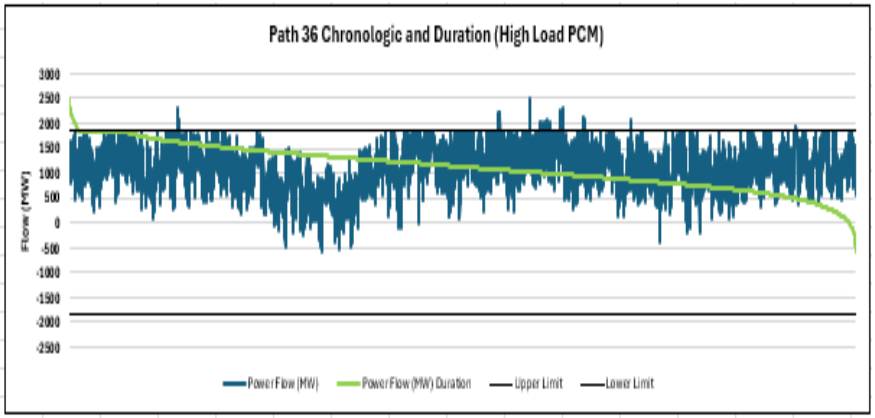
Economic Sensitivities – Generation (GWh)

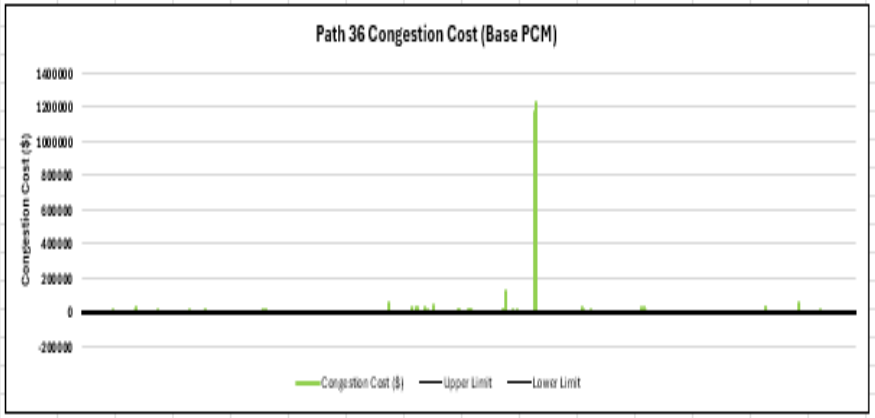
Region	Case	Nuclear	Coal	Gas	Hydro	PS	Geothermal	Biomass	Other	BESS	Solar	Wind
AZPS	Base	10,131	0	7,176	0	0	89	0	50	12,392	24,342	4,829
	LowHydro	10,131	0	7,067	0	0	89	0	59	12,871	24,211	4,831
	HiGas	10,131	0	6,860	0	0	89	0	69	12,577	24,384	4,810
	HiLoad	10,131	0	11,587	0	0	92	0	335	11,957	25,223	4,961
	SysCarbPrice	10,131	0	6,980	0	0	86	0	60	12,204	24,814	4,920
BANC	Base	0	0	8,305	5,023	0	0	0	189	49	1,740	1,843
	LowHydro	0	0	9,173	5,554	0	0	0	253	108	1,740	1,872
	HiGas	0	0	7,905	5,023	0	0	0	116	52	1,740	1,854
	HiLoad	0	0	10,162	5,023	0	0	0	373	64	1,740	1,849
	SysCarbPrice	0	0	7,897	5,022	0	0	0	122	53	1,740	1,853
EPE	Base	5,501	0	2,270	0	0	0	0	0	2,093	6,314	209
	LowHydro	5,501	0	2,241	0	0	0	0	0	2,119	6,362	217
	HiGas	5,501	0	1,950	0	0	0	0	0	2,148	6,313	211
	HiLoad	5,501	0	3,438	0	0	0	0	0	2,012	6,597	222
	SysCarbPrice	5,501	0	1,848	0	0	0	0	0	2,140	6,368	213
IID	Base	132	0	664	1,488	0	3,054	0	11	357	1,123	0
	LowHydro	132	0	713	1,488	0	3,065	0	17	367	1,123	0
	HiGas	132	0	672	1,488	0	2,966	0	15	364	1,123	0
	HiLoad	132	0	852	1,489	0	3,230	0	50	361	1,123	0
	SysCarbPrice	132	0	515	1,486	0	2,814	0	15	372	1,123	0
LDWP	Base	3,544	0	14,674	1,417	620	19	0	1,050	1,209	4,582	2,404
	LowHydro	3,544	0	15,493	2,249	693	28	0	1,155	1,411	4,582	2,405
	HiGas	3,544	0	14,058	1,416	622	14	0	781	1,340	4,582	2,404
	HiLoad	3,544	0	18,762	1,417	556	48	0	1,641	1,203	4,582	2,404
	SysCarbPrice	3,544	0	12,412	1,417	716	0	0	1,053	1,479	4,582	2,404
PNM	Base	3,551	0	1,205	800	0	77	0	0	3,042	7,423	9,792
	LowHydro	3,551	0	1,124	862	0	77	0	0	3,106	7,592	9,639
	HiGas	3,551	0	1,502	800	0	78	0	0	3,113	7,383	9,691
	HiLoad	3,551	0	2,010	800	0	83	0	0	3,118	7,517	9,993
	SysCarbPrice	3,551	0	1,517	800	0	79	0	0	3,132	7,429	9,824
PSCO	Base	0	0	18,798	380	159	0	0	15	1,715	11,381	19,998
	LowHydro	0	0	19,165	381	164	0	0	15	1,739	11,444	19,991
	HiGas	0	0	18,670	380	147	0	0	16	1,747	11,381	20,015
	HiLoad	0	0	27,272	381	169	0	0	73	1,770	11,530	20,183
	SysCarbPrice	0	0	18,674	381	139	0	0	15	1,692	11,385	20,029
SRP	Base	6,089	0	6,132	94	757	395	0	77	1,430	8,689	1,898
	LowHydro	6,089	0	6,020	94	782	395	0	82	1,478	8,698	1,907
	HiGas	6,089	0	5,989	94	714	396	0	60	1,625	8,693	1,905
	HiLoad	6,089	0	11,955	94	577	407	0	630	1,254	8,734	1,916
	SysCarbPrice	6,089	0	5,615	94	648	377	0	71	1,561	8,716	1,912
TEPC	Base	0	4,907	4,424	0	0	0	0	2,733	2,613	7,830	1,150
	LowHydro	0	4,778	4,329	0	0	0	0	2,879	2,668	7,817	1,149
	HiGas	0	5,220	4,898	0	0	0	0	425	2,455	7,837	1,149
	HiLoad	0	5,437	8,402	0	0	0	0	1,145	2,355	7,996	1,175
	SysCarbPrice	0	5,299	4,738	0	0	0	0	377	2,437	7,912	1,166
WACM	Base	0	12,146	5,916	4,770	94	0	0	165	1,072	2,941	3,370
	LowHydro	0	12,134	6,175	3,754	103	0	0	196	1,099	2,939	3,368
	HiGas	0	12,369	5,813	4,770	89	0	0	155	1,118	2,942	3,370
	HiLoad	0	13,172	8,569	4,770	104	0	0	435	1,164	2,945	3,370
	SysCarbPrice	0	12,566	5,877	4,770	89	0	0	140	1,074	2,942	3,370
WALC	Base	0	831	1,267	5,971	0	0	0	26	665	8,049	1,574
	LowHydro	0	758	1,375	6,517	0	0	0	37	688	7,534	1,572
	HiGas	0	1,021	1,381	5,971	0	0	0	66	670	8,006	1,574
	HiLoad	0	998	1,952	5,971	0	0	0	142	629	8,210	1,582
	SysCarbPrice	0	254	1,353	5,971	0	0	0	67	661	8,242	1,583

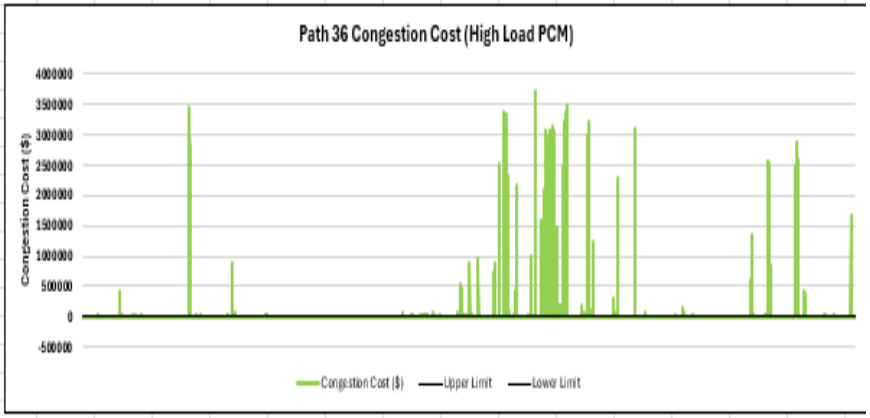
REGIONAL PLANNING

Path 36


Path 36 Chronologic and Duration (Base PCM)
Flow (MW)
Power Flow (MW)
Power Flow (MW) Duration
Upper Limit
Lower Limit


Path 36 Chronologic and Duration (High Load PCM)
Flow (MW)
Power Flow (MW)
Power Flow (MW) Duration
Upper Limit
Lower Limit


Path 36 Congestion Cost (Base PCM)
Congestion Cost ($)
Congestion Cost ($)
Upper Limit
Lower Limit


Path 36 Congestion Cost (High Load PCM)
Congestion Cost ($)
Congestion Cost ($)
Upper Limit
Lower Limit

Public Policy Assessment

- WestConnect begins evaluation by identifying a list of enacted public policies that impact the local TOs (see study plan)
- The regional base models reflect the enacted public policies driving local transmission needs
- If the assessments identify regional issues that are related to enacted public policy these may constitute a public policy-driven transmission need
- There is also an opportunity to make suggestions as to whether a TO's local policy-driven project may constitute a regional public policy-driven transmission need
  - Stakeholders are invited to make a recommendation to the Planning Subcommittee
  - ***Stakeholders are asked to review the local public policy-driven transmission projects outlined on the next two slides and submit any suggestions regarding potential regional public policy-driven transmission needs to the PMC via the Comment Form posted with the meeting slides. All comments must be received by the end-of-business Wednesday, December 4th.***

Local public policy-driven transmission projects

Sponsor	Project Name	Description	Primary/Secondary Driver	Voltage	In-Service Year
Clean Line Energy Partners	Centennial West Clean Line	High-Voltage (500 or 600kV) Direct Current Transmission Line	Economic/Public Policy	600 kV DC	2027
Colorado Springs Utility	South System Improvement - Midway to Kelker 230kV Line	New Midway to Kelker 230kV Line	Public Policy	230 kV	2027
Imperial Irrigation District	Conceptual Nelson SS-Dune 230kV ck	A new 230kV tie between IID's Nelson Switching Station and the jointly owned Dune substation	Economic/Public Policy	230 kV	2029
Imperial Irrigation District	230kV "SD" Ramon-Devers Circuit	New 230kV circuit that originates at Salton Sea heads north to Coachella Valley continues to Ramon and terminates at Devers.	Public Policy	230 kV	2027
Los Angeles Department of Water and Power	Add voltage support in the LA Basin	New Wilmington (RS-C) 138kV Shunt Capacitors Construction 66 MVAR (2x33 MVAR) for voltage support	Reliability/Public Policy	138 kV	2024
Los Angeles Department of Water and Power	Add voltage support in the LA Basin	New Hollywood (RS-H) 138kV Shunt Capacitors (52 MVAR) for voltage support	Reliability/Public Policy	138 kV	2025
Los Angeles Department of Water and Power	Adelanto-Rinaldi Line 1 Clearance Mitigation	Clearance Mitigation Upgrade Adelanto Rinaldi	Reliability/Public Policy	500 kV AC	2025
Los Angeles Department of Water and Power	Barren Ridge Voltage Support	Add SVC (-100/200 MVAR) at Barren Ridge station	Reliability/Public Policy	230 kV	2024
Los Angeles Department of Water and Power	Clearance Mitigation Upgrade for Adelanto-Toluca Line 1	Clearance Mitigation Upgrade for Adelanto-Toluca Line 1	Reliability/Public Policy	500 kV AC	2026
Los Angeles Department of Water and Power	Clearance Mitigation Upgrade for Victorville Rinaldi Line 1	Clearance Mitigation Upgrade for Victorville Rinaldi Line 1	Reliability/Public Policy	500 kV AC	2024
Los Angeles Department of Water and Power	Haskell Bank G	Convert PP1-Haskell L1 Bank G from 115kV to 230kV	Reliability/Public Policy	230 kV	2024
Los Angeles Department of Water and Power	McCullough-Victorville series cap upgrade	Upgrade to the McCullough-Victorville series capacitors	Reliability/Public Policy	500 kV AC	2025
Los Angeles Department of Water and Power	New Haskell Canyon-Sylmar 230 kV Line 2	Add a new 230 kV line between Haskell Canyon Station and Sylmar Station	Public Policy	230 kV	2024
Los Angeles Department of Water and Power	New IPP Synchronous Condensers (2 x 375 MVA and 1 spare 375 MVA)	New IPP Synchronous Condensers (2 x 375 MVA and 1 spare 375 MVA)	Public Policy	345 kV	2026
Los Angeles Department of Water and Power	New Rosamond Station	Build a new 230 kV Station in Kern County	Public Policy	230 kV	2025
Los Angeles Department of Water and Power	New Toluca - Atwater Line 2 and upgrade Toluca -Atwater Line 1	New Toluca - Atwater Line 2 and upgrade Toluca -Atwater Line 1	Reliability/Public Policy	230 kV	2029

Local public policy-driven transmission projects

Sponsor	Project Name	Description	Primary/Secondary Driver	Voltage	In-Service Year
Los Angeles Department of Water and Power	PP1-Haskell L1	Convert PP1-Haskell L1 Bank G from 115kV to 230kV	Reliability/Public Policy	230 kV	2024
Los Angeles Department of Water and Power	Reconductor Barren Ridge - Haskell Canyon 230 kV Line 1	Reconductor line 1 between Barren Ridge and Haskell Canyon Stations	Public Policy	230 kV	2025
Los Angeles Department of Water and Power	Reconductor Barren Ridge - Haskell Canyon 230 kV Line 1	Reconductor line 1 between Barren Ridge and Haskell Canyon Stations	Public Policy	230 kV	2025
Los Angeles Department of Water and Power	Tarzana-Olympic 1A & 1B 138 kV conversion to 230 kV	Convert existing Tarzana- Olympic 138 kV line to 230 kV (Note that the line is two sections labeled 1A and 1B, ratings for each section will be shown as 1st/2nd)	Public Policy/Reliability	230 kV	2026
Los Angeles Department of Water and Power	Upgrade Fairfax - Olympic 138kV Series Reactor	Upgrade Fairfax - Olympic 138kV Series Reactor	Reliability/Public Policy	138 kV	2030
Los Angeles Department of Water and Power	Upgrade Hollywood - Fairfax 138kV Series Reactor	Upgrade Hollywood - Fairfax 138kV Series Reactor	Reliability/Public Policy	138 kV	2027
Los Angeles Department of Water and Power	Upgrade McCullough – Victorville Transmission Line	Upgrade McCullough – Victorville Transmission Line	Reliability/Public Policy	500 kV AC	2028
Los Angeles Department of Water and Power	Upgrade Rinaldi - Airway Lines 1 and 2	Upgrade Rinaldi - Airway Lines 1 and 2	Reliability/Public Policy	230 kV	2029
Los Angeles Department of Water and Power	Upgrade Scattergood Auto and Phase Shifting Transformer	Upgrade Scattergood Auto and Phase Shifting Transformer	Reliability/Public Policy	230 kV	2026
Los Angeles Department of Water and Power	Upgrade Toluca-Hollywood Line 1 Underground Cable	Upgrade Toluca-Hollywood Line 1 Underground Cable	Public Policy/Reliability	230 kV	2027
Los Angeles Department of Water and Power	Victorville 500/287 kV auto-transformer installation	Installing new auto-transformer at Victorville 500/287kV Transformer Bank K	Reliability/Public Policy	500 kV AC	2025
Public Service Company of Colorado/ Xcel Energy	Colorado's Power Pathway	New double circuit 345kV transmission expansion in eastern Colorado will include four new substations along the route. Project will also include expansion at four existing substations.	Public Policy	345 kV	2027
Public Service Company of Colorado/ Xcel Energy	Sandstone Switching Station	345 kV switching station as part of the Colorado's Power Pathway. Substation will be constructed in place of much of the originally planned expansion of the Tundra Switching Station.	Public Policy	345 kV	2027
Public Service Company of Colorado/ Xcel Energy	Weld County Expansion Project	New high-voltage transmission, originating at the Ault Substation, interconnecting to the Greeley network, and terminating south of Greeley.	Reliability/Public Policy	230 kV	TBD

Local public policy-driven transmission projects

Sponsor	Project Name	Description	Primary/Secondary Driver	Voltage	In-Service Year
Public Service Company of New Mexico	Rio Puerco Switching Station update for Proxy RPS	Renewable Resource Addtions	Public Policy/Reliability	345 kV	TBD
Public Service Company of New Mexico	San Juan North 345 kV Station	New 345 kV Satellite to San Juan Switching Station	Public Policy	345 kV	2024
Public Service Company of New Mexico	Quail Ranch Switching Station	Transmission Switching Station for generation interconnection	Public Policy	345 kV	2023
Salt River Project	Pinal Central 500/230 kV Transformer #4	Install a fourth 500/230 kV transformer at Pinal Central	Reliability/Public Policy	500 kV AC	2024
Tri-State Generation and Transmission Association	Milk Creek Switchyard on Craig-Meeker 345kV line	Construct a new Milk Creek Switchyard sectionalizing Craig-Meeker 345kV to accommodate generator interconnection	Reliability/Public Policy	345 kV	2024
Tri-State Generation and Transmission Association	Breaker Addition at Cahone Substation	Add a new 115 kV bay at Cahone Substation to accommodate a generator interconnection	Reliability/Public Policy	115 kV	2024
Tri-State Generation and Transmission Association	Breaker Addition at Main Switch Substation	Add a new 115 kV at Main Switch to accommodate a generator interconnection	Reliability/Public Policy	115 kV	2025
Tri-State Generation and Transmission Association	Breaker Addition at Escalante Substation	Add a 230 kV breaker to the Escalante Substation ring bus to accommodate a generator interconnection	Reliability/Public Policy	230 kV	2024
Tri-State Generation and Transmission Association	Burlington - Lamar 230 kV	Construct a new Burlington - Lamar 230 kV line	Reliability/Public Policy	230 kV	2025
Tri-State Generation and Transmission Association	Boone - Huckleberry 230 kV	Sectionalize Comanche - Walsenburg near Comanche at new Huckleberry Substation. Construct Boone - Hucklberry 230 kV line.	Reliability/Public Policy	230 kV	2026
Tri-State Generation and Transmission Association	Badger Creek - Big Sandy 230 kV	Sectionalize Story - Henry Lake 230 kV at new Badger Creek Substation. Construct Badger Creek - Big Sandy 230 kV	Reliability/Public Policy	230 kV	2028
Tri-State Generation and Transmission Association	Big Sandy - Burlington 230 kV Uprate	Structure replacements along the existing Big Sandy -Windtalker - Landsman Ck - Burlington 230 kV line	Reliability/Public Policy	230 kV	2028
Tri-State Generation and Transmission Association	Valent Switchyard on Walsenburg - Gladstone 230 kV line	Construct a new Valent Switchyard on the Walsenburg - Gladstone 230 kV line to accommodate a generator interconnection	Reliability/Public Policy	230 kV	2024

Local public policy-driven transmission projects

Sponsor	Project Name	Description	Primary/Secondary Driver	Voltage	In-Service Year
Tri-State Generation and Transmission Association	Breaker Addition at Sidney Substation	Add a new 115 kV bay at Sidney Substation to accommodate a generator interconnection	Reliability/Public Policy	115 kV	2024
Tri-State Generation and Transmission Association	Breaker Addition at Garnet Mesa	Add a new 115 kV bay at Garnet Mesa Substation to accommodate a generator interconnection	Reliability/Public Policy	115 kV	2024
Tri-State Generation and Transmission Association	Breaker Addition at Hesperus Substation	Add a new 115 kV bay at Hesperus Substation to accommodate a generator interconnection	Reliability/Public Policy	115 kV	2024
Tucson Electric Power	Whetstone 138kV Substation	New Substation looped into the Vail to Ft. Huachuca 138kV line	Public Policy	138 kV	2025

Preliminary Regional Needs Determination

- Planning Subcommittee has determined there are no reliability or economic issues that are regional in nature based on a review of the below results and does not recommend that the PMC identify any regional needs.
  - Contingency and transient stability analysis results from the Base Cases
  - Congestion results from the base economic model

2024-25 PLANNING PROCESS NEXT STEPS AND SCHEDULE

Next Steps for Planning Process

1. **<u>Stakeholder comment period between now and December 4, 2024</u>**:
   - Comment on reliability and economic needs assessment results and PS recommendation for needs determination
   - Suggest possible regional public policy-driven transmission needs based on review of the enacted public policies driving local transmission needs and the associated list of local public policy-driven transmission projects
2. December PMC meeting: PMC approves regional need determinations and release/posting of regional needs (if any)
3. Tasks for 2024-2025:
   - Finalize and approval of Model Development Report & Regional Needs Assessment Report
   - Perform scenario studies
   - Compile 2024-25 Regional Transmission Plan

Stakeholder comment Period

- Comment period between now and December 4, 2024
- The PMC is inviting the following feedback based on stakeholder review of the preceding slides:
  - Comment on reliability and economic needs assessment results and PS recommendation for needs determination
  - Suggest possible regional public policy-driven transmission needs based on review of the enacted public policies driving local transmission needs and the associated list of local public policy-driven transmission projects
- A comment form has been posted on the WestConnect meeting calendar for today's meeting. Please use this form to submit comments to WestConnect, and please reference your comments to the associated slide number in this slide deck.

2024-25 SCENARIO ASSESSMENT

2024-25 Scenario Studies

- In addition to the regional needs assessment, WestConnect also conducts information-only scenario studies that look at alternate but plausible futures.
- Scenarios represent futures with resource, load, and public policy assumptions that are different in one or more ways than what is assumed in the Base Cases.

Decreased Facility Rating Scenario: The purpose of the Decreased Facility Rating Scenario is to evaluate the impacts of an overall decrease in facility ratings by a given percentage. The thought behind the proposal is that transmission facility ratings can be adversely impacted by several factors, including higher ambient temperatures. The purpose of this study is to provide a relative view of how decreased facility ratings might impact reliability. The development of these models and the analyses they will undergo are described in more detail below.

2024-25 Scenario Studies

Extreme Cold Weather Scenario: The purpose of the Extreme Cold Weather Scenario is to evaluate the reliability of the WestConnect footprint for a 10-year, heavy winter condition, with higher-than-expected loads and reduced resource availability that would be the result of extremely cold weather throughout the region. The thought behind the request is that an extreme cold weather event will result in higher loads than expected, combined with shortages of resources. For example, historical cold weather conditions have led to shortages in natural gas availability. Renewable resources could also be unavailable. As a result, such a scenario could have an impact on the reliability of the system. The scenario may provide valuable information into system import or export capabilities, and potential reliability issues, including how to serve load, that could result in the need for transmission or resource enhancements.

2024-25 Scenario Studies

20-Year Increased Renewable Scenario: The purpose of this scenario is to perform regional reliability and economic assessments using models that represent a 20-year timeframe with aggressive renewable energy penetration. A 20-year scenario can help WestConnect members understand transmission-related issues associated with a 20-year future that attempts to capture current policy requirements throughout the Planning Region, as well as public policy requirements that are likely to change in the 20-year planning horizon and are expected to trend towards more aggressive objectives for carbon reduction. The study can provide both quantitative and qualitative perspectives of how the WestConnect transmission system could be affected, and the magnitude of transmission buildout that might be required to mitigate reliability and economic issues.

Stakeholder Comments

Open Discussion

Interregional Coordination Updates

Heidi Pacini, WestConnect
Biju Gopi, CAISO
Chelsea Loomis, WPP

Interregional Coordination Activities

- Annual Interregional Coordination Meeting
  - March 2025, specific date TBD
  - Hosted by CAISO in Folsom, CA
- Interregional Transmission Project (ITP) Submittals
  - ITP Evaluation Process Plans have been posted to the websites of the Relevant Planning Regions
  - WestConnect Interregional Coordination webpage
  - In the absence of regional transmission needs, WestConnect will not study the ITPs submitted to WestConnect

CAISO Update

Biju Gopi, CAISO

NorthernGrid Update

Chelsea Loomis, WPP

Stakeholder Comments

Open Discussion

Upcoming Meetings

Heidi Pacini, WestConnect

Next Meetings

- **December 2024 Meetings**: *all meetings are scheduled as webinars*
  - **PS meeting:** Tuesday, December 17th, 9:00 a.m. - 12:00 p.m. MST
  - **PMC meeting:** Wednesday, December 18th, 9:00 a.m. - 12:00 p.m. MST
- 2025 WestConnect meeting schedule is currently being finalized and will be posted to the WestConnect calendar by the end of December 2024

ADJOURNMENT

Presenter Contact Information:

Heidi Pacini, heidi@pacenergies.com

Tom Green, tgreen@energystrat.com