WestConnect
Regional Transmission Planning

Annual Interregional Coordination Meeting
March 26, 2024
WPP Offices
Portland, OR
WestConnect Regional Planning
Overview

Heidi Pacini, WestConnect Project Manager
WestConnect Planning Region
Subregional Planning Groups

- SSPG
- CCPG
- SWAT
WestConnect Regional Transmission Planning Process
PMC Organization

Planning Management Committee
Chair: Gilbert Flores, Xcel

Planning Subcommittee
Chair: Jonathan Fidrych, TSGT

Cost Allocation Subcommittee
Chair: Vacant

Legal Subcommittee
Chair: Jennifer Spina, APS

Contract and Compliance Subcommittee
Chair: Mike Kraft, Basin

3rd Party Finance Agent

Planning Consultants
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*
- Western Energy Connection*
- Xcel – Western Transmission Company*

State Regulatory Commission
- Vacant

Key Interest Group (0)
- Vacant

*2023 Eligible Transmission Developer

Updated 1/1/2024
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
• Recently approved the 2024-25 Regional Study Plan and preparing for the upcoming model development activities
Stakeholder Input & Opportunities

• WestConnect holds at least two stakeholder meetings each year

• PMC & Subcommittee meetings are open with opportunity for stakeholder input

• Future WestConnect Stakeholder Meetings at key points of planning cycle – for example:
  • Draft Regional Needs Assessment
  • Fall meeting tentatively scheduled for November 13, 2024 in Tucson, AZ
  • All as determined by the PMC
2024-25 Regional Planning Cycle Update

Tom Green, WestConnect Planning Consultant, Energy Strategies
2024-25 Study Plan Overview

- Study Plan identifies the scope and schedule of the study work to be performed during the planning cycle

- The subsequent slides review:
  - Study Plan outline
  - Summary of key planning activities and schedule
  - Base Transmission Plan
  - Regional Need Assessments (including key models)
  - Scenario Studies
  - Opportunities for participation and next steps

- Note that the Study Plan does not explain every aspect of the process and the BPM should be consulted for details not provided (especially when referenced)
2024-25 Study Plan

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1. Introduction
2. Overview of 2024-25 Activities
3. Base Transmission Plan
4. Regional Reliability Assessment
5. Regional Economic Assessment
6. Public Policy Assessment
7. Solutions to Regional Needs
8. Scenario Studies
9. Appendices

WestConnect Regional Transmission Planning
2024-25 Planning Cycle
Final Regional Study Plan

Approved by WestConnect PMC on March XX, 2024
2024-25 Schedule

<table>
<thead>
<tr>
<th>Due Date</th>
<th>Quarter</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 21, 2024</td>
<td>Q1</td>
<td>Stakeholder Meeting to present draft Regional Study Plan</td>
</tr>
<tr>
<td>February 26, 2024</td>
<td>Q1</td>
<td>Draft Regional Study Plan posted to WestConnect website</td>
</tr>
<tr>
<td>March 20, 2024</td>
<td>Q1</td>
<td>Final Regional Study Plan approved by PMC</td>
</tr>
<tr>
<td>March 26, 2024</td>
<td>Q1</td>
<td>Interregional Coordination Meeting</td>
</tr>
<tr>
<td>March 31, 2024</td>
<td>Q1</td>
<td>Interregional Transmission Project (&quot;ITP&quot;) submittal deadline²</td>
</tr>
<tr>
<td>September 2024</td>
<td>Q3</td>
<td>Regional models finalized</td>
</tr>
<tr>
<td>November 13, 2024</td>
<td>Q4</td>
<td>Stakeholder meeting to discuss identified regional needs</td>
</tr>
<tr>
<td>December 2024</td>
<td>Q4</td>
<td>Regional transmission needs posted to WestConnect website</td>
</tr>
<tr>
<td>January 2025</td>
<td>Q5</td>
<td>Submittal window opens for projects to meet the posted regional needs. Submittal window lasts for no less than 30 days</td>
</tr>
<tr>
<td>September 2025</td>
<td>Q7</td>
<td>WestConnect posts listing of projects meeting an identified regional need selected for the purposes of cost allocation</td>
</tr>
<tr>
<td>November 2025</td>
<td>Q8</td>
<td>Draft Regional Plan Report posted to WestConnect website</td>
</tr>
<tr>
<td>November 2025</td>
<td>Q8</td>
<td>Stakeholder meeting to discuss the draft Regional Plan Report</td>
</tr>
<tr>
<td>November 30, 2025</td>
<td>Q8</td>
<td>Stakeholder comments on draft Regional Plan Report due</td>
</tr>
<tr>
<td>December 2025</td>
<td>Q8</td>
<td>Final 2024-25 Regional Plan Report posted</td>
</tr>
</tbody>
</table>

*Western Planning Regions' coordination activities require, no later than March 31st, an identification of ITPs submitted into the regional processes of all relevant planning regions. For the WestConnect region, the PMC will not begin evaluating whether an ITP may satisfy an identified regional transmission need in the WestConnect region until after the PMC identifies regional transmission needs at year-end 2024.
# 2024-25 Study Plan Schedule

<table>
<thead>
<tr>
<th>Study Plan</th>
<th>Study Plan Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>December 12-13: PS &amp; PMC Meetings</strong></td>
<td>• Discuss Study Plan Schedule</td>
</tr>
<tr>
<td><strong>January 2: Release Draft 1 to PS (Released on Dec. 29)</strong></td>
<td>• Comments due January 10</td>
</tr>
</tbody>
</table>
| **January 10:** | • Scenario Submittals Due  
  • D1 Study Plan comments due |
| **January 16: PS Meeting** | • Review TPPL Status, Review scenario submittals, Discuss D1 |
| **January 29: Release Draft 2 to PS (was Jan 26)** | • Include draft language for scenarios  
  • comments due February 2 (was Feb 9) |
| **February 2: TPPL changes due, D2 comments due** | |
| **February 2-7: compile TPPL and D2 comments** | |
| **February 8: Interim PS Meeting** | • Discuss scenarios  
  • Review D2 comments  
  • Review TPPL |
| **February 9-12:** | • Draft D3 with revised scenario language and TPPL table for review at February 20-21 WC meetings |
| **February 13: Release D3 to PS & PMC** | • Comments back Feb 19  
  • Include language for scenarios  
  • Include TPPL table  
  • comments due February 2 (was Feb 9) |
| **February 20: PS Meeting** | • Page turn of Study Plan  
  • Final comments  
  • Recommendation to PMC |
| **February 21: PMC Meeting** | • Approve D4 Study Plan  
  • Recommendation: approve release to stakeholders |
| **February 21: Stakeholder Meeting** | • Announce Study Plan comment window  
  • Feb 26 – March 8 |
| **March 19-20: PS & PMC Meetings** | • Approve 2024-25 Study Plan |
2024-25 BASE TRANSMISSION PLAN
Base Transmission Plan

- See 2024-25 Study Plan (page 11) or BPM (page 18)
- Base Transmission Plan: transmission network topology that is to be reflected in each of the regional planning models
  - Base Transmission Plan = Planned TO Projects + High probability ITD Projects
- Based on project information gathered in TPPL for 2024-25 cycle
- Will document Base Transmission Plan in 2024-25 Study Plan (which will be approved by PMC), and ensure this transmission is included in base models

### Planned TO Projects

All TO projects designated with a “planned” project status are included in the base transmission plan:
- Expected to be in-service during the approaching 10-years and meets the below criteria within that timeframe:
  - Project is required to meet public policy requirements; OR
  - Project has a sponsor and is incorporated in an entity’s regulatory filings or capital budget; OR
  - Project has an agreement committing entities to participate and construct.

### “High Probability” Merchant/ITD Projects

- BPM lays out set of criteria to identify “high probability” ITD projects for inclusion in base transmission plan
  - Criteria uses information gathered in TPPL
- PS compiles initial list and includes it in Study Plan for review and approval by PMC
- Inclusion means that WestConnect has high certainty that the project will be built
  - Would remove project from any evaluation against a regional need since it would be included in Base Transmission Plan
## Changes from 2022-23 Regional Plan

### Projects in Each Plan, and New Projects

**2022-23 Regional Transmission Plan (RTP)**

<table>
<thead>
<tr>
<th>Development Status</th>
<th>SWAT</th>
<th>CCPG</th>
<th>SSPG</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned</td>
<td>145</td>
<td>62</td>
<td>2</td>
<td>209</td>
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<tr>
<td>Conceptual</td>
<td>58</td>
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<td>0</td>
<td>77</td>
</tr>
<tr>
<td>Under Construction</td>
<td>32</td>
<td>17</td>
<td>0</td>
<td>49</td>
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<tr>
<td><strong>Total</strong></td>
<td>235</td>
<td>98</td>
<td>2</td>
<td>335</td>
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</table>

**Updated 2024-25 TPPL Project Data (as of 2/12/24)**

<table>
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<tr>
<th>Development Status</th>
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<th>CCPG</th>
<th>SSPG</th>
<th>Total</th>
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</thead>
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<tr>
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<td>5</td>
<td>263</td>
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<tr>
<td>Conceptual</td>
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<td>Under Construction</td>
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<td>15</td>
<td>0</td>
<td>54</td>
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<tr>
<td>In-Service</td>
<td>37</td>
<td>28</td>
<td>1</td>
<td>66</td>
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<tr>
<td>Withdrawn</td>
<td>16</td>
<td>8</td>
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<td>24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>343</td>
<td>133</td>
<td>6</td>
<td>482</td>
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**New projects in 2/12/24 TPPL Project Data**

<table>
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<th>Total</th>
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<tr>
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<td>25</td>
<td>4</td>
<td>115</td>
</tr>
<tr>
<td>Conceptual</td>
<td>12</td>
<td>3</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Under Construction</td>
<td>10</td>
<td>6</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>108</td>
<td>34</td>
<td>4</td>
<td>146</td>
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### New Status of Previous Plan Projects

**2022-23 RTP "Planned" now in Draft 2024-25 BTP as...**

<table>
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<tr>
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<tr>
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<td>115</td>
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<tr>
<td>Conceptual</td>
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<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Under Construction</td>
<td>20</td>
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<td>0</td>
<td>26</td>
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<tr>
<td><strong>Total</strong></td>
<td>131</td>
<td>62</td>
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**2022-23 RTP "Under Construction" now in Draft 2024-25 BTP as...**

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<th>SSPG</th>
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<tr>
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<td>19</td>
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<td>Under Construction</td>
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<td>55</td>
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**2022-23 RTP "Conceptual" now in Draft 2024-25 BTP as...**

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<th>CCPG</th>
<th>SSPG</th>
<th>Total</th>
</tr>
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<td>50</td>
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<td>0</td>
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<td><strong>Total</strong></td>
<td>53</td>
<td>14</td>
<td>0</td>
<td>67</td>
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## 2024-25 Base Transmission Plan - SWAT

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Below 115 kV</th>
<th>115 kV</th>
<th>138 kV</th>
<th>161 kV</th>
<th>230 kV</th>
<th>345 kV</th>
<th>500 kV</th>
<th>Total</th>
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<tr>
<td>Arizona Electric Power Cooperative</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
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<tr>
<td>Arizona Public Service</td>
<td></td>
<td></td>
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<td></td>
<td>13</td>
<td>2</td>
<td>5</td>
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<tr>
<td>El Paso Electric Company</td>
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<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>4</td>
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<tr>
<td>Los Angeles Department of Water and Power</td>
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<td>14</td>
<td>1</td>
<td>7</td>
<td></td>
<td>25</td>
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<td>2</td>
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<tr>
<td>Salt River Project</td>
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<td></td>
<td></td>
<td></td>
<td>8</td>
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<td>18</td>
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<tr>
<td>Tri-State Generation and Transmission Association</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
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<tr>
<td>Tucson Electric Power</td>
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<td>7</td>
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<td>1</td>
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<td>Western Area Power Administration - DSW</td>
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<td>2</td>
<td></td>
<td>2</td>
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<td></td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td><strong>52</strong></td>
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<td><strong>48</strong></td>
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<td><strong>21</strong></td>
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# 2024-25 Base Transmission Plan – CCPG & SSPG

## CCPG

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<tr>
<th>Sponsor</th>
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<th>138 kV</th>
<th>230 kV</th>
<th>345 kV</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Black Hills Energy</td>
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<td></td>
<td>5</td>
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<tr>
<td>Black Hills Power</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Cheyenne Light Fuel and Power</td>
<td>10</td>
<td>6</td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Colorado Springs Utility</td>
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<td>3</td>
<td></td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Platte River Power Authority</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td>3</td>
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<tr>
<td>Public Service Company of Colorado/ Xcel Energy</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td></td>
<td>9</td>
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<tr>
<td>Tri-State Generation and Transmission Association</td>
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<td>4</td>
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<td>Western Area Power Administration - RMR</td>
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<tr>
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## SSPG

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<th>230 kV</th>
<th>345 kV</th>
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<tr>
<td>Sacramento Municipal Utility District</td>
<td>1</td>
<td>4</td>
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<td>5</td>
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</tbody>
</table>
ITD Project Evaluation

1. Merchant/ITD Transmission Project
   - System Impact Assessment
     - Transmission Criterion 1
   - Construction Status
     - Transmission Criterion 2
   - TO Member Planning Assumptions
     - Transmission Criterion 3
   - Financial and Implementation Status Indicators
     - Transmission Criterion 4

2. Failure to meet any criterion leads to:
   - PMC Review
     - Transmission Project Included in Base Transmission Plan
     - Transmission Project Not Included in Base Transmission Plan

3. Associated Generator Projects
   - Yes
     - Any Associated Generation Projects?
       - Yes: PMC Review
         - All Generator Project(s) Included in Regional Planning Models
       - No: PMC Review
         - All Generator Project(s) Not Included in Regional Planning Models
   - No: No further action needed

WestConnect
## ITD Project Evaluation Summary

### Projects Received for 2024-25 Cycle TPPL

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Primary Project Voltage</th>
<th>Include in 2024-25 BTP?</th>
<th>ITD Transmission Criterion</th>
<th>Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>SunZia Transmission Project</td>
<td>500 kV DC</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes SRP Yes</td>
</tr>
<tr>
<td>Rio Sol Transmission Project</td>
<td>500 kV AC</td>
<td>No</td>
<td>No</td>
<td>No No No No</td>
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<tr>
<td>North Gila – Imperial Valley #2</td>
<td>500 kV AC</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes IID No</td>
</tr>
<tr>
<td>Southline Afton-Apache</td>
<td>345 kV</td>
<td>No</td>
<td>Yes</td>
<td>No No No No</td>
</tr>
<tr>
<td>Southline Apache-Vail</td>
<td>230 kV</td>
<td>No</td>
<td>No</td>
<td>No No No No</td>
</tr>
</tbody>
</table>
Status of Evaluating ITD projects

1. In February 20, the Planning Consultant, the Planning Subcommittee and the Planning Management Committee reviewed the submitted ITD projects against the inclusion criteria (stated in the BPM)

2. The final recommendation was for two ITD projects to be included in the 2024-25 Base Transmission Plan:
   a. SunZia Transmission Project
   b. North Gila – Imperial Valley #2

3. The ITD sponsors that did not submit updates were removed from consideration.
Coordination with Other Regions

• Study Plan:
  • As stated in the BPM, WestConnect will coordinate planning data and information with the two other Planning Regions in the Western Interconnection, the California ISO, and NorthernGrid. This includes the coordination of planning data to the extent practical. WestConnect will seek the regional planning data and information from the other Western Planning Regions during the times within its regional planning cycle that such data can be usefully incorporated together with its own regional planning information in order to conduct its regional planning activities.

• What Planning Data / Projects should WestConnect consider?
  • Approved projects
  • Other Regional Projects
REGIONAL ASSESSMENTS
Regional Needs Assessment Background

• Model Development:
  • The PMC will conduct assessments using models developed for year 2034
  • Cases from WECC will be used as seed cases and they will include the systems of all transmission facilities in the Western Interconnection.
    • Members will update the WECC models to ensure the WestConnect footprint is properly represented.
  • The PMC will not evaluate regional transmission needs for systems outside of the WestConnect planning region

• Public discussions will help determine whether identified Issues are regional

• Based on the assessments, the Planning Subcommittee (PS) will identify a list of transmission issues and make a recommendation to the PMC as to which, if any, issues should constitute regional economic, reliability, or public policy needs.

• A Regional Transmission Needs Assessment Report is developed and includes stakeholder feedback
Reliability Assessment

- Conducted to ensure the WestConnect planning region as a whole is in compliance with applicable North American Electric Reliability Corporation (NERC) standards and WECC regional criteria for the 2034 planning horizon.
- Assessment will include steady state contingency analysis and transient stability analysis.
- Monitoring and violation reporting will be performed for transmission elements above 90-kV outside of the WestConnect footprint and member-identified elements within or bordering the WestConnect footprint.

<table>
<thead>
<tr>
<th>WestConnect Base Case Name</th>
<th>Case Description</th>
<th>Seed Case</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2034 Heavy Summer</strong></td>
<td>General 10-Year WECC Planning Case</td>
<td>2034 Heavy Summer (34HS1)</td>
</tr>
<tr>
<td><strong>2034 Light Spring</strong></td>
<td>Specialized 10-Year, light load with “significant, but reasonable” renewable resources</td>
<td>2034 Light Spring (34LSP1S)</td>
</tr>
</tbody>
</table>
Economic Assessment

- To create the 2034 Base Case production cost model (PCM), the PS will initiate and coordinate a review of the data and assumptions contained within the WestConnect 2032 PCM by the WestConnect members, participants, and stakeholders. The WECC 2034 ADS PCM will be used to inform the 2034 Base Case PCM if/when available during WestConnect’s model development.
- Assessment will include review metrics such as congested hours and congestion cost for regional transmission elements greater than 90-kV and WECC transfer paths (or other defined interfaces in the WestConnect footprint) along with any TOLSO member-specified lower voltage BES elements.
- Regional transmission with significant congestion will be identified and verified through PS review, historical benchmarking, and follow-up study:
  - Transmission (or paths/interfaces) between multiple TOLSO member systems;
  - Transmission (or paths/interfaces) owned by multiple TOLSO members; and
  - Congestion occurring within the footprint of multiple TOLSO members (congestion in one TOLSO Member footprint reasonably related or tied to congestion in another TOLSO Member footprint).
- WestConnect will also conduct sensitivity studies on the 2034 Base Case, as necessary.

<table>
<thead>
<tr>
<th>WestConnect Base Case Name</th>
<th>Case Description</th>
<th>Seed Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2034 PCM</td>
<td>10-Year Anchor Data Set Case with updated WestConnect data</td>
<td>2034 ADS PCM</td>
</tr>
</tbody>
</table>
Public Policy Assessment

Public Policy Requirements: requirements enacted by state or federal laws or regulations, including those enacted by local governmental entities, such as a municipality or county.

Regional needs driven by Public Policy Requirements can be proposed in two ways:

1. New regional economic or reliability needs identified during the regional economic and reliability needs assessments are further evaluated to determine if they were driven by Public Policy Requirements; and
   • Regional base models will reflect the Public Policy Requirements, to the extent a plan for compliance with the Public Policy Requirements has been completed by the TOLSO member.

2. Stakeholders are given an opportunity to review a list of Public Policy Requirements impacting the WestConnect region and a map representation of the local projects driven by those Public Policy Requirements. Stakeholder can then suggest to WestConnect which Public Policy Requirements may result in possible regional public policy-driven transmission needs.
   • WestConnect will provide stakeholders with (1) the list of Public Policy Requirements impacting the WestConnect region and (2) a list of local public policy-driven transmission projects and a map representation of the projects. Stakeholders review the information and make suggestions.
Public Policy Assessment

If any regional needs driven by Public Policy Requirements are proposed, then...

The PMC will select which, if any, of the proposed regional needs driven by Public Policy Requirements will be evaluated in the 2024-2025 planning cycle by considering factors, including, but not limited to:

1. whether the Public Policy Requirement is driving a regional transmission need that can be reasonably identified in the current planning cycle;
2. the feasibility of addressing the regional transmission need driven by the Public Policy Requirement in the current planning cycle;
3. the factual basis supporting the regional transmission need driven by the Public Policy Requirement; and
4. whether a Public Policy Requirement has been identified for which a regional transmission need has not yet materialized, or for which there may exist a regional transmission need but the development of a solution to that need is premature.
2024-25 SCENARIO STUDIES
2024-25 Cycle Scenario Submissions

- WestConnect received 3 scenarios submissions during the open window:

<table>
<thead>
<tr>
<th>Requestor</th>
<th>Description/Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>TransCanyon, LLC</td>
<td>Decreased line ratings from increased ambient temperatures</td>
</tr>
<tr>
<td>Xcel Energy</td>
<td>Extreme Cold Weather</td>
</tr>
<tr>
<td>Ron Belval, Rob Kondziolka</td>
<td>Renewable Resource Adequacy Feasibility/Gap Analysis</td>
</tr>
</tbody>
</table>

- These were reviewed and discussed by the PS.
  - Based on conversations, a fourth scenario was developed: A 20-Year High Renewable Scenario
  - That scenario ultimately replaced the Renewable Resource Adequacy Scenario

- The PMC decided to include three scenarios in the 2024-25 Study Plan

<table>
<thead>
<tr>
<th>Description/Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreased Facility Rating Scenario</td>
</tr>
<tr>
<td>Extreme Cold Weather Scenario</td>
</tr>
<tr>
<td>20-Year High Renewable Scenario</td>
</tr>
</tbody>
</table>
## Decreased Facility Ratings

<table>
<thead>
<tr>
<th>Study Type</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling</td>
<td>34 Heavy Summer Base Model</td>
</tr>
</tbody>
</table>

### Methodology
Reduce facility ratings and/or modify facility monitoring consistent with the agreed upon methodology defined in the “Follow Up” section below. Then run contingency analysis consistent with the base regional assessment with no modifications to loads and resources.

### Follow up in January 2025
Once the WestConnect Regional assessment is complete (Q4 of 2024), the PS should agree on the following:

1. **Specific methodology for the study.** Options include:
   - Region-wide reduction in the level of loading monitored for facilities (e.g. 95% instead of 100%).
   - Region-wide or subregional reduction by an agreed-to percentage for facilities (e.g. 5% reduction)
   - Members provide specific ratings reductions for their facilities, based on agreed-to temperature increases.

2. **Documentation – format and content**

### Reporting
Document any impacts to the WestConnect regional reliability attributed to the reduced ratings, similar to the base reliability assessment reporting.
# Extreme Cold Weather

<table>
<thead>
<tr>
<th>Study Type</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling</td>
<td>Reliability</td>
</tr>
<tr>
<td>34 Heavy Winter Base Model</td>
<td>10-year heavy winter WECC model</td>
</tr>
</tbody>
</table>

## Methodology

From an agreed upon 10-year WECC model, modify the case to increase loads by a given percentage and reduce or remove certain resources based on extreme cold weather performance. Perform a reliability assessment consistent with the base regional reliability assessment.

## Follow up in January 2025

Once the WestConnect Regional assessment is complete (Q4 of 2024), the PS should agree on the following:

1. Base case for the seed case
2. How the case should be modified including
   a. Load levels
   b. Resources to remove and/or reduce.
   c. Any other modifications
3. Reporting – format and content

## Reporting

Document any impacts to the WestConnect regional reliability attributed to an extreme cold weather event, similar to the base reliability assessment reporting.
# 20-Year Increased Renewable

<table>
<thead>
<tr>
<th>Study Type</th>
<th>Economic, Reliability</th>
</tr>
</thead>
</table>
| Modeling            | Economic: modify the 2034 WestConnect Base PCM  
Reliability: export an hour from the scenario PCM, or modify the 2034 WestConnect base reliability heavy summer model. |

## Economic Study Methodology

**Loads:** 20-year loads based on member load forecasts, projected to a 20-year timeframe.

**Resources:** 20-year resource additions based on members’ understanding or assumptions regarding potential long-term resource development. This may include plans from internal long-term studies and generator interconnection queues.

Options for identifying resource additions include (details may be determined later):

- TO’s provide specific resource placement information.
- Resources spread evenly throughout individual TO service territories.
- Utilize publicly available sources to locate resources, including the Nature Conservancy Power of Place West report that was released in 2019: [https://www.nature.org/content/dam/tnc/nature/en/documents/TNC_Power-of-Place-WEST-Executive_Summary_WEB_LR.pdf](https://www.nature.org/content/dam/tnc/nature/en/documents/TNC_Power-of-Place-WEST-Executive_Summary_WEB_LR.pdf).
- Planning Consultant works with TOs to develop resource assumptions.

Renewable resources should be sufficient to meet current known, as well as potential future public policy initiatives and goals that are intended to reduce carbon emissions significantly. It would be beneficial for members to make aggressive assumptions for retirement of fossil fuel generation, especially coal-fired generation, and replaced by a mix of renewable resources.

From the scenario PCM, perform an economic assessment consistent with the base regional economic assessment.
### Reliability Study Methodology

The reliability model(s) may be developed from exporting the Scenario PCM by selecting and exporting one or more hours of interest. As an alternative, utilize the WestConnect Base 10-year heavy summer model and modify the loads and resources based on the assumptions listed in the economic methodology section above. Multiple reliability models may be developed at the discretion of members, to represent various stress conditions due to resource location assumptions, dispatch patterns, or other conditions. Perform a reliability assessment consistent with the base regional reliability assessment.

### Follow up in January 2025

Once the WestConnect Regional assessment is complete (Q4 of 2024), the PS will develop specific study methodology, including:

1. How to modify the Base PCM model including
   a. Load levels
   b. Fossil fuel resources to remove and/or reduce.
   c. Renewable (wind, solar, storage) to add, including specific locations and capacities.
   d. Any other modifications
2. Methodology for creating the reliability model(s). Options are exporting from the scenario PCM, or modifying the Base Reliability model.
3. Reporting, including format and content.

### Reporting

Document any impacts to the WestConnect system for the 20-year scenario. This could include a description of how the impacts differ from the base assessment, including changes in the economic congestion results, and a quantification of reliability issues, by region and by subregion.
Interregional Transmission Project Submittals

Heidi Pacini, WestConnect Project Manager
Interregional Transmission Project Submittals

• Window is open now through March 31st for Interregional Transmission Project (ITP) Submittals
  • Submittal form
• Relevant Planning Regions will confer regarding any received submittals and will coordinate to develop an ITP Evaluation Process Plan for each ITP
• Interregional Coordination webpage
Opportunities for Stakeholder Engagement

1. Stakeholders may participate in PS and PMC meetings
   • All meetings are posted to the WestConnect calendar
     (http://regplanning.westconnect.com/calendar.htm)

2. To join email distribution lists, contact Heidi Pacini
   (heidi@pacenergies.com)

3. The next Stakeholder Meeting will be in November 2024
Upcoming Meetings

Heidi Pacini, WestConnect Project Manager
Next Meetings

- **April 2024 WestConnect Meetings:** all meetings are scheduled as webinars
  - **PS meeting:** Tuesday, April 16th
    - 9:00 a.m. - 12:00 p.m. MDT
  - **PMC meeting:** Wednesday, April 17th
    - 9:00 a.m. - 12:00 p.m. MDT
- 2024 PMC meetings are posted to the [WestConnect calendar](#)
ADJOURNMENT

Presenter Contact Information:
Heidi Pacini, heidi@pacenergies.com
Tom Green, tgreen@energystrat.com