

WestConnect 2020 Annual Interregional Information

Annual Interregional Coordination Meeting February 27, 2020



Topics

- WestConnect Regional Planning Overview
- ➤ 2018-19 Regional Planning Cycle
 - Summary of Regional Plan Report
- ➤ 2020-21 Regional Planning Cycle
 - Study Plan Status
 - Scenario Submittals
- ➤ Interregional Transmission Project Submittals
- Upcoming Meetings



WestConnect Regional Planning Overview

Heidi Pacini, WestConnect Project Manager

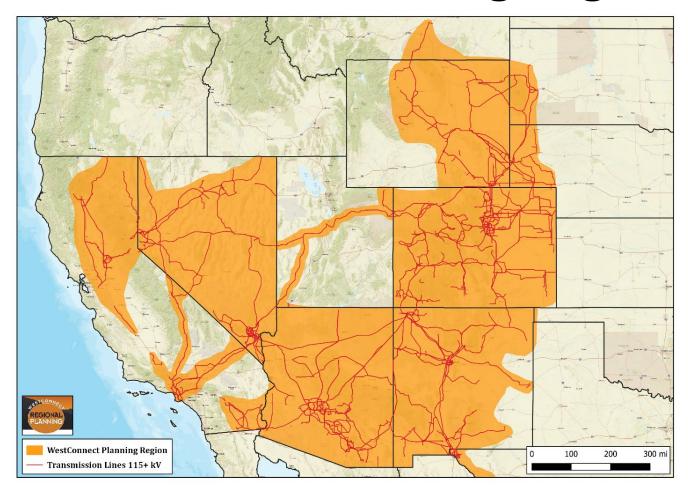


Regulatory Update

- > Tariff Filings
 - ➤ WestConnect Transmission Owners (TOLSO) are developing tariff and Planning Participation Agreement language to define the role of the non-jurisdictional utilities in cost allocation pursuant to a settlement acknowledged by the 5th Circuit Court of Appeals
 - ➤ WestConnect TOs will be updating the list of enrolled TOLSOs identified within their tariffs as FERC accepts the individual filings of its newly Enrolled TOLSOs (Deseret G&T, Basin Electric, Tri-State G&T)

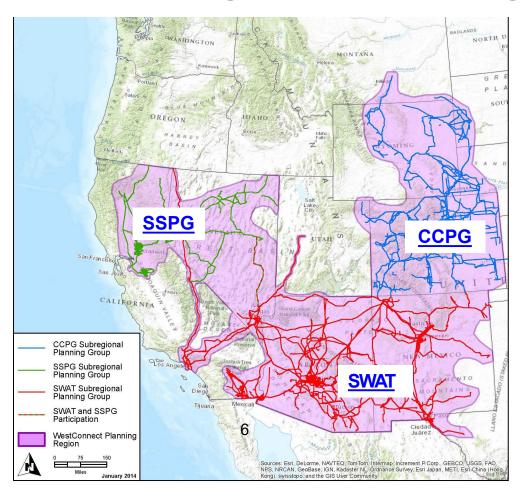


WestConnect Planning Region



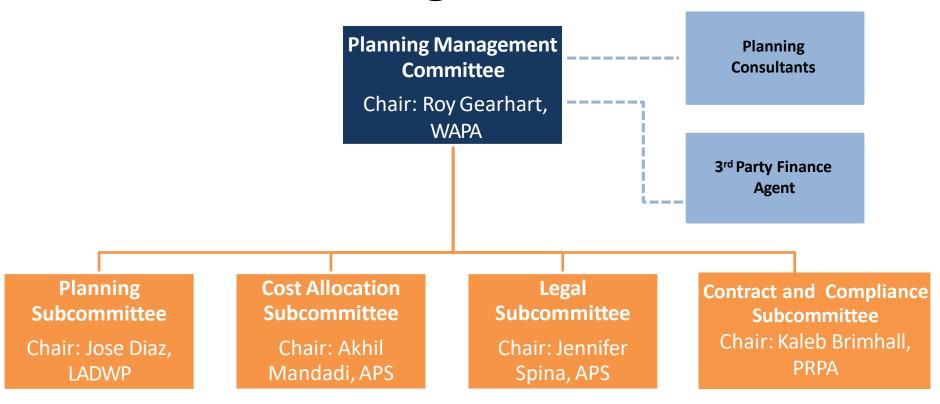


WestConnect Subregional Planning Groups





PMC Organization





PMC Membership as of 1/1/2020

Transmission Owner w/Load Serving Obligation (19)

Enrolled TO

- Arizona Public Service
- •Basin Electric* (effective date depends on FERC filing)
- •Black Hills*
- Deseret Power
- •El Paso Electric
- NV Energy*
- Public Service of New Mexico
- •Tri-State G&T (effective date depends on FERC filing)
- •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 Indepen
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ransmission eveloper (6)

> American Transmission Company

Black Forest Partners

Southwestern Power Group

TransCanyon*

Western Energy Connection*

Xcel – Western Transmission Company* State Regulatory Commission

Vacant

Key Interest

Natural Resources Defense Council

*2019 Eligible Transmission Developer



PMC Activities

- Monthly in-person meetings held at rotating member facilities
 - > 2020 Meeting Schedule is available on the WestConnect Calendar
- Manages the Regional Transmission Planning Process
- Currently developing the Study Plan for the 2020-21 regional planning cycle
- PMC will approve the Final 2020-21 Regional Study Plan by March 31, 2020

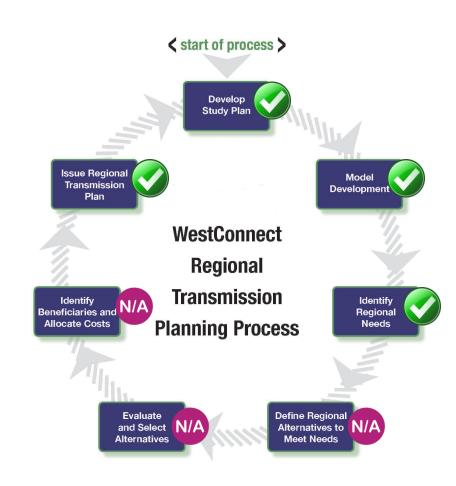


2018-2019 Regional Transmission Plan

Roy Gearhart, Planning Management Committee Chair, WAPA

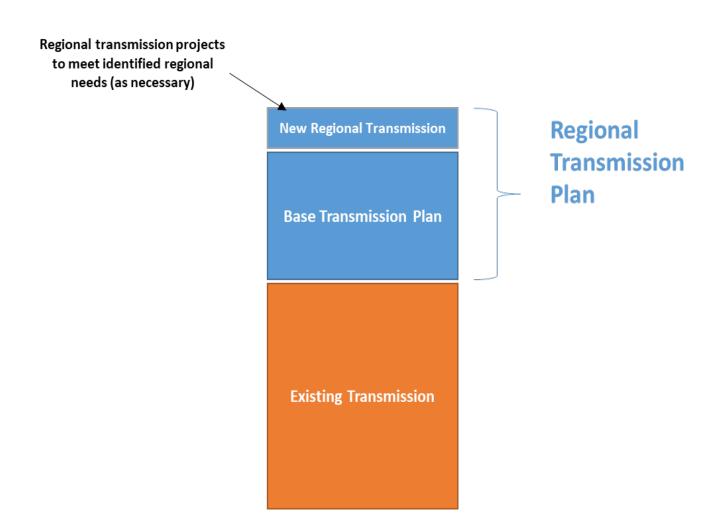
2018-19 Regional Process Overview

- ➤ Second biennial Order 1000 regional planning process for WestConnect
 - The 2016-17 planning process did not result in the identification of any regional transmission needs
- ➤ Key outcomes from 2018-19 Regional Transmission Planning Process
 - Based on the reliability, economic, and public-policy base case analyses conducted, the PMC did not identify any regional transmission needs
 - ❖ Because there were no regional needs, there was not an evaluation of alternatives, cost allocation, and developer selection
 - Information-only reliability scenario studies were performed investigating a Load Stress Scenario and CAISO Export Scenario

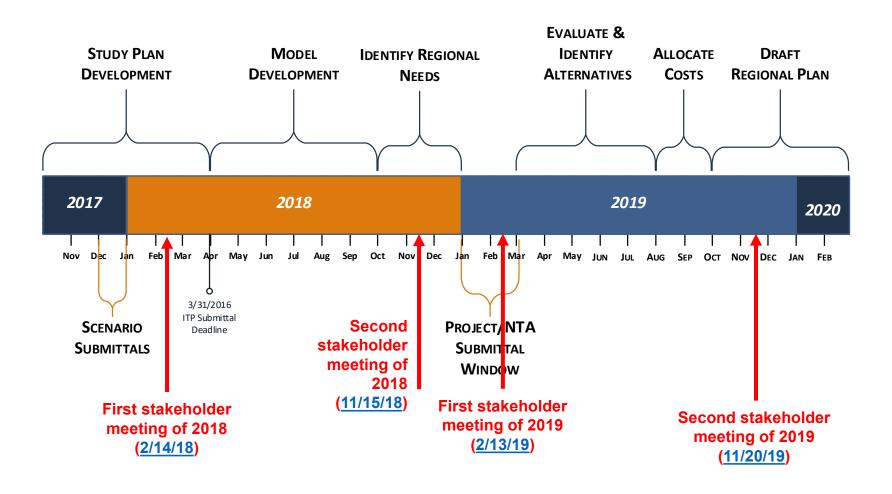


Regional Transmission Plan Background

- ➤ Regional Transmission Plan reflects the planned transmission that is necessary to meet the region's needs
- ➤ Regional Transmission Plan consists of the Base Transmission Plan along with any regional transmission projects selected as the more efficient or cost effective alternative to a regional need identified during WestConnect's regional assessments
- ➤ Base Transmission Plan is created at the beginning of each planning cycle to establish the assumed transmission network reflected in planning models for the 10-year timeframe.



2018-19 Planning Cycle Recap





WestConnect

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Study Models Prepared for 2018-19 Regional Transmission Needs Assessment

Case Name	Model Type	Case Description and Scope
2020 Hoover Cummor	Reliability	Expected peak load for June - August during 1500 to
2028 Heavy Summer Base Case		1700 hours MDT, with typical flows throughout the
Dase Case		Western Interconnection
2028 Light Spring Base Case		Light-load conditions in spring months during 1000 to
		1400 hours MDT with solar and wind serving a
Dase Case		significant, but realistic portion of the WECC total load
	Economic	Business-as-usual, expected-future case with median
2028 Base Case		load and hydro conditions and representation of
		resources consistent with enacted public policies
2028 50% Wheeling		Created from the 2028 Base Case by reducing the
Charge Sensitivity		regular, inter-area wheeling charges to 50% of what
Case PCM		was assumed in the 2028 Base Case



Reliability Assessment

- Assessment for regional needs was based on reliability standards adopted by the North American Electric Reliability Corporation (NERC) TPL-001-4 Table 1 (P0 and P1) and TPL-001-WECC-CRT-3.1 (Transmission System Planning Performance WECC Regional Criterion)
- Steady state contingency analysis:
 - ➤ Limited to N-1 contingencies for elements 230-kV and above, generator step-up transformers for generation with at least 200 MW capacity, and member-requested N-2 contingencies.
 - ➤ All bulk electric system (BES) branches and buses in the WECC model were monitored with violation reports filtered to exclude branch flows that increased less than 1% and voltage decline less than 0.5%
- Transient stability analysis:
 - ➤ Limited to contingencies that could have a regional impact 8 major contingencies across system



Economic Assessment

- Objective was to arrive at a set of congested elements that warranted testing for the economic potential for a regional project solution, recognizing that the presence of congestion does not always equate to a regional need for congestion relief
- The congestion analysis was limited to:
 - Transmission elements (or paths/interfaces) between multiple WestConnect member TOs;
 - Transmission elements (or paths/interfaces) owned by multiple WestConnect member TOs; and
 - Congestion occurring within the footprints of multiple TOs that has potential to be addressed by a regional transmission project or non-transmission alternative.
- Primary metrics: # of congested hours and congestion cost (\$)
 - Also reviewed shadow prices and other economic study results such as curtailment and production cost
- Congestion within a single TO's footprint (and not reasonably related or tied to other TO footprints) is out of scope of the regional planning effort and is alternatively subject to Order 890 economic planning requirements.



Public Policy Assessment

- WestConnect begins policy evaluation by identifying a list of enacted public policies that impact local TO (see study plan)
- Enacted public policies were incorporated into the base models through the roll-up of local TO plans and their associated load, resource, and transmission assumptions.
- Regional public policy needs can be identified one of two ways:
 - > New regional economic or reliability needs driven by enacted Public Policy Requirements; or
 - > Stakeholder review of local TO Public Policy Requirements-driven transmission projects and associated suggestions as to whether one or more TO projects may constitute a public policy-driven regional transmission need.
- No regional public policy needs were identified in the 2018-19 planning cycle



Regional Assessment Results

- PMC concluded that there were no regional transmission needs in the WestConnect footprint
- Conclusion was based on:
 - ➤ Reliability analyses: Neither the Heavy Summer or Light Spring assessments identified regionally significant reliability issues that were between two or more WestConnect member or impacted two or more WestConnect members
 - The results include 14 voltage issues within multi-TO systems and 7 branch overloads and 105 voltage issues within single-TO systems which the Planning Subcommittee determined to be local issues and not regional.
 - **Economic analysis:** There was no regionally significant congestion identified in the base case, and thus, there were no identified regional economic needs.
 - The results include 9 congested elements in multi-TO systems and 21 congested elements in single-TO systems which the Planning Subcommittee determined to be local issues and not regional.
- Study results supporting these findings are documented in the Regional Transmission Plan Report



Results from scenario studies



Scenario Case Summary

- Information-only reliability scenario studies that considered alternate, but plausible futures
- Focused on evaluating robustness of Base Transmission Plan

Case Name	Case Description and Scope	
2028 Load Stress Scenario Case	WestConnect-wide load larger than the expected peak in the 2028 Heavy Summer Base Case	
2028 CAISO Export Stress Scenario Case	Hour 15 of June 18 th in the 2028 Base Case simulation, in which both (1) exports from the CAISO to WestConnect are high and (2) flows west-to-east across Path 49 and Path 46 are high	





Load Stress Scenario Scope and Assumptions

- Developed by scaling load conditions modeled in the 2028 Heavy Summer Base Case to higher load levels as specified by members during the case development phase.
- The generation-load gap created by the load increase was filled with existing generator capacity not already dispatched in the Base Case, with one expectation:
 - In the PNM area renewable capacity was added and dispatched to meet the load increase.

WestConnect Metric	2028 Heavy Summer Base Case	2028 Load Stress Scenario	Change
WestConnect Coincident Summer Peak Load (MW)	65,274	69,348	Increased 6.24%
WestConnect Import/Export (MW)	Export: 2,438	Export: 1,853	Decreased 24.0%
WestConnect Generation Dispatch (MW)	Thermal: 53,179 Hydro: 6,902 Wind/Solar: 5,637 Other: 1,994 Total: 67,712	Thermal: 55,596 Hydro: 7,022 Wind/Solar: 6,350 Other: 2,233 Total: 71,200	Increased 5.15%
WestConnect Transmission	2018-19 Base Transmission Plan No change		No change

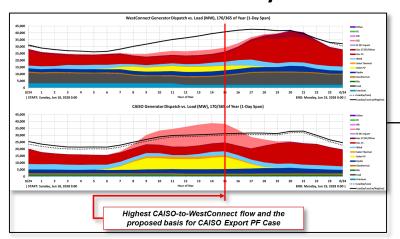




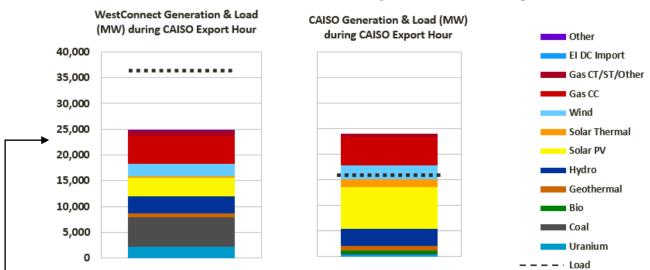
CAISO Export Stress Scenario Scope and Assumptions

- Based on conditions observed in the WestConnect 2028 Base Case economic model
 - Modeling results were filtered for hours in which there were power flows from the CAISO into WestConnect.
 - In total, the export condition was observed in 13% of the hours in the study 2028 year.
- The PS focused on a review of hours in which both
 - 1) exports from the CAISO to WestConnect are high, and
 - 2) flows west-to-east across Path 49 and Path 46 are high.
- The PS selected Hour 15 of June 18th

Economic Model Study Results



WestConnect & the CAISO Load & Generation During Selected CAISO Export on June 18th Hour 15



June 18th Hour 15 Flows from the CAISO to WestConnect

			Flow	(MW)
Date	Hour	P46	P49	CAISO Export to
		[E->W]	[E->W]	WC (Approx.)
6/18/2028	15	-4,231	-5,463	6,284





Study Method Consistent with Regional Assessment Approach

- Steady-state contingency analysis: Comprehensive N-1 contingencies at bulk electric system ("BES") level, plus TOLSO additions, in order to identify a regional need, as determined by the PS
 - Contingencies: 230 kV and above, generator step-up ("GSU") transformers for generation with at least 200 MW capacity, and member-requested N-2 contingencies
 - Monitoring: All BES branches and buses in the WECC model were monitored and violations reported.
- Transient Stability: Select TOLSO Members provided transient stability outages were performed.
- **Scope of analyzing results**: System performance issues impacting or between more than one TO Member system were identified for further review by the PS.
 - Local issues were reported and provided to members for informational purposes. The local issues were not the focus
 of this assessment.



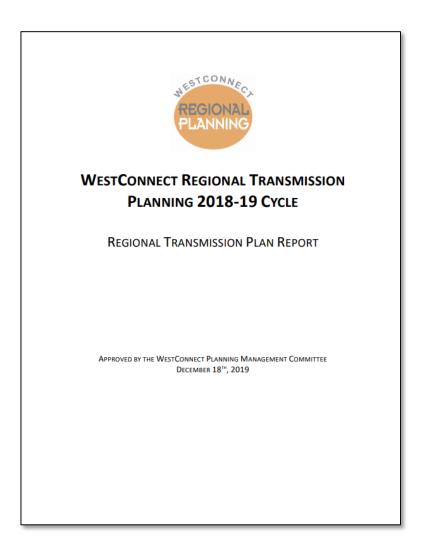
Summary of Scenario Results

- Load Stress Scenario: study results indicate that the Base Transmission Plan is sufficiently robust under higher than expected load conditions.
 - The Load Stress scenario did not materially impact regional-level flows. Average branch loading increased by roughly 1% when compared to the 2028 Heavy Summer Base Case.
 - The identified multi-TO issues were geographically isolated. None of the multi-TO issues indicate deficiencies in the Base Transmission Plan.
 - There were single-TO system issues, all of which the PS determined to be local issues and not regional in nature.
- CAISO Export Stress Scenario: scenario does not significantly stress the regional transmission system beyond levels identified in the Base Cases and the regional system is robust during CAISO export conditions.
 - The case development was successful in that a CAISO export condition was identified in the 2028 Base Case, and this condition was replicated in reliability models in terms of load, generation dispatch, and system flows.
 - The analysis identified:
 - Several multi-TO voltage issues that can be easily addressed through system adjustments.
 - A few thermal overloads in the Colorado area, but these issues were remote from the CAISO-WestConnect interface(s) and caused by flows occurring in entirely new directions than what has been observed historically.



2018-19 Regional Transmission Plan Report

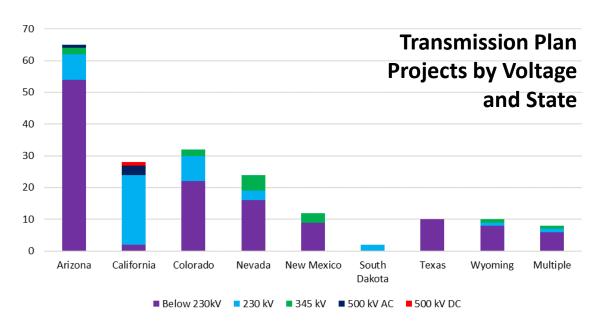
- Document summarizes entire planning process and is available <u>here</u>
- Valuable information in Appendices include:
 - Projects included in 2018-19
 Regional Transmission Plan
 - Results of Reliability Assessment
 - Results of Economic Assessment

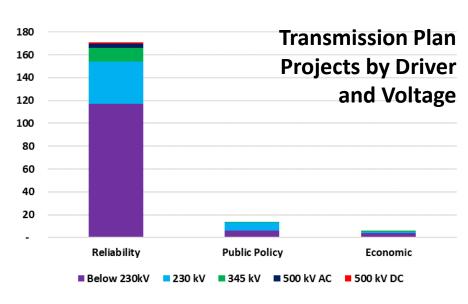




Overview of 2018-19 Regional Transmission Plan Projects

- Includes 191 planned transmission projects, spanning 843 miles with a total estimated capital investment of \$933.2 Million
 - 66% of these projects involve facilities below 230 kV
- Since the 2016-17 WestConnect Regional Transmission Plan, the WestConnect region has 95 new planned projects, 36 previously planned projects go into service, 9 previously planned projects begin construction, and 13 previously planned projects which are no longer planned









2020-2021 Regional Planning Cycle Overview and Draft Study Plan

Jose Diaz, Planning Subcommittee Chair, LADWP



2019-20 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 <u>BPM</u> should be consulted for details not provided (especially when referenced)



2020-2021 Study Plan Outline

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- Study plan organization consistent with 2020-2021 cycle
- Organized by assessment type
- Entire document refers to Regional Needs assessment but for the final section, which covers scenarios
- Currently out for stakeholder comment and will be approved by PMC in March

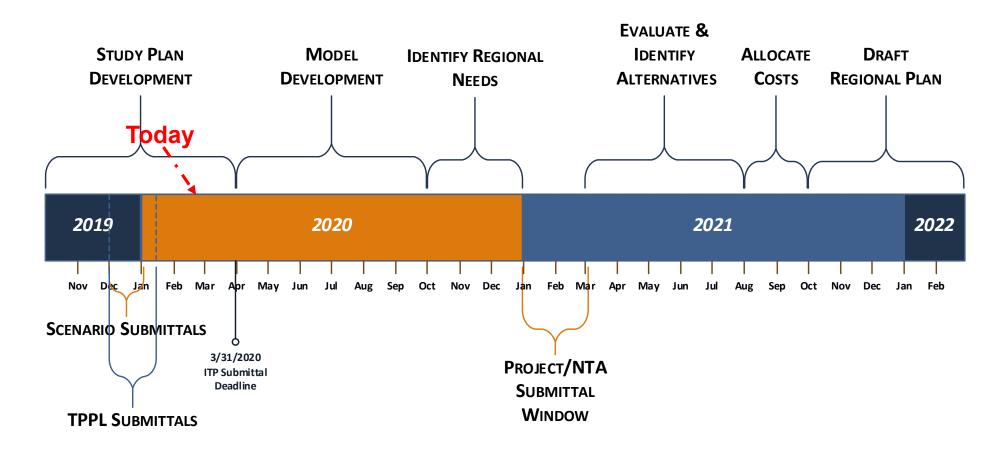


2020-21 Schedule

Due Date	Quarter	2020–2021 Activity
February 13, 2020	Q1	Draft Regional Study Plan posted to WestConnect website
February 12, 2020	Q1	WestConnect Stakeholder Meeting to present draft Regional Study Plan
February 27, 2020	Q1	Interregional Coordination Meeting
March 18, 2020	Q1	Final Regional Study Plan approved by PMC
March 31, 2020	Q1	Interregional Transmission Project ("ITP") submittal deadline
September 2020	Q3	Regional models finalized
December 2020	Q4	Regional transmission needs posted to WestConnect website
December 2020	Q4	Stakeholder meeting to discuss identified regional needs
January 2021	Q5	Submittal window opens for projects to meet the posted regional needs.
January 2021		Submittal window lasts for no less than 30 days
Sontombor 2021	07	WestConnect posts listing of projects meeting an identified regional need
September 2021	Q7	selected for the purposes of cost allocation
November 2021	Q8	Draft Regional Plan Report posted to WestConnect website
November 2021	Q8	Stakeholder meeting to discuss the draft Regional Plan Report
Three weeks prior to	Q8	Stakeholder comments on draft Pegianal Plan Penert due to
PMC December 2021		Stakeholder comments on draft Regional Plan Report due to
meeting		WestConnect
December 2021	Q8	Final 2020-21 Regional Plan Report posted to WestConnect website



2020-21 Process Timeline





2018-19 Base Transmission Plan



Base Transmission Plan Refresher

- 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 for 2020-21 cycle
- Will document Base Transmission Plan in 2020-21 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. As defined by WestConnect for the 2020-21 cycle, planned facilities are expected to be in-service during the approaching 10-years and meets the below criteria within that timeframe:

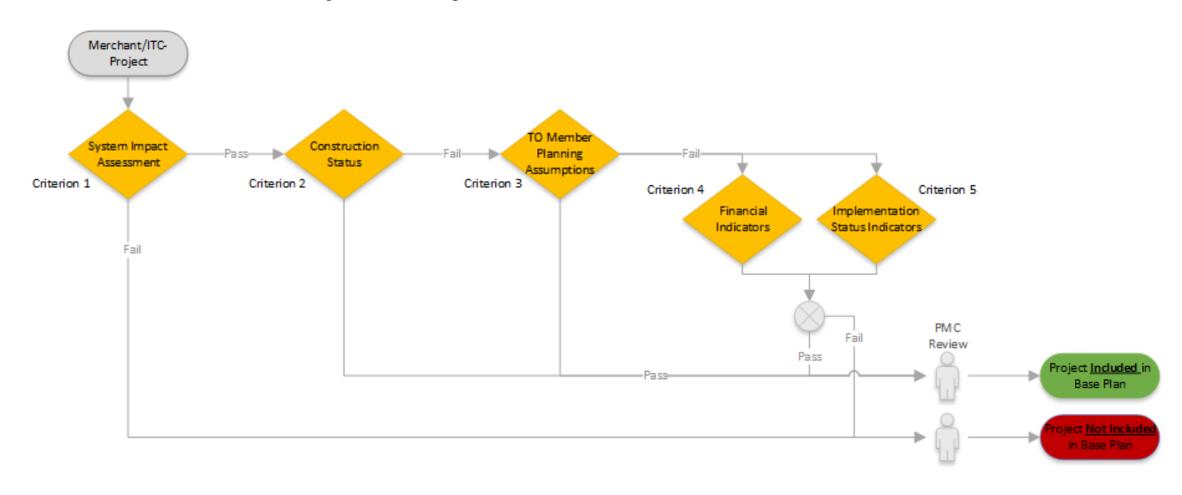
- Project is required to meet public policy requirements; <u>OR</u>
- Project has a sponsor and is incorporated in an entity's regulatory filings or capital budget; <u>OR</u>
- Project has an agreement committing entities to participate and construct.

"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



Process for Including Independent Transmission Developer Projects in Base Transmission Plan



Current Status of reviewing projects to include in Base Transmission Plan

- Current draft of 2020-21 Study Plan contains a **draft Base Transmission Plan** available for member and stakeholder review
- Subregional Planning Groups met in February to review member-submitted projects to confirm their "planned" development status
 - Changes to the Base Transmission Plan that occur based on this review will be discussed at the PMC meeting in March
- Planning Subcommittee reviewed projects on the verge of meeting the Base Transmission Plan ITD inclusion criteria during its 2/11/2020 meeting
 - The **Western Spirit Project** will be included in the Base Transmission Plan based on its inclusion in PNM's 10-year Local Plan and firm commitment to construct
 - The **SunZia** and **Southline** projects were reviewed and the PS is preparing several follow-up questions to discuss with the Project sponsors to help inform the application of the WestConnect BPM criteria
 - PS webinar discussion on February 26th regarding the SunZia transmission project and its associated generation projects identified a need to coordinate with the California ISO.



SunZia Project Current Financial Stability & Status



SunZia Southwest Transmission Project Summary and Financial & Status Indicators as of February 11, 2020

Project Summary: Up to two (2) 500 kV transmission lines with combined rating up to 3,000 MW going from SunZia East 500kV Substation near Corona, New Mexico through Willow 500kV Substation (AZ) to Pinal Central 500kV Substation near Coolidge, Arizona. All permits allow for one of the lines to be constructed as an 500kV HVDC line. Up to 3000MW rating. Current plan is for commercial service starting in 2023. Purpose is to provide transmission capacity for delivery of primarily renewable energy resources, including wind and solar energy.

Criterion 4 Evaluation	
Commitment for financing?	NO
Multi-sponsor executed participation agreements?	NO
Executed transmission service agreement?	NO
Included in an Integrated Resource Plan (IRP)?	NO
Regulatory approval for cost recovery?	YES
Generation Associated? If so, has the project been identified in an LSE and/or have generation contracts signed?	YES
Project participation contracts that commit the parties to construct the project?	NO

Criterion 5 Evaluation	
Identified by Rapid Response Team for permitting review?	
Federal/State EIS or environmental process required?	YES
Federal/State EIS or environmental process status	ROD Received
Federal/State environmental permits issued?	YES
If no Federal/State EIS or environmental process required, does project require county/town level environmental process?	
County/Town environmental process status	
Have public meetings been completed?	
County/Town environmental permits issued?	



Follow-Up Questions were sent to SunZia on February 12, 2020

Responses (green) were received February 25, 2020

<u>For coordination with California ISO</u>: WestConnect Planning Subcommittee discussed the below information and identified a need to coordinate with the California ISO regarding how California ISO's planning process is incorporating the below mentioned 400 MW of PPA's for Pattern Development wind generation in New Mexico for delivery to entities within the California ISO's footprint and what associated transmission is being assumed.

- In general, provide as many details as possible to support the project's certainty in regards to financial stability and progress toward commercial service in the next 10 years.
 - Why is project not in recent WECC base cases (e.g., 2030 Heavy Summer Base Case)?
 - Would need to be included by Balancing Authority in a WECC case.
 - What generation is associated with Project? What type and size?
 - Primarily Wind Energy (NM) of up to 3,000 MW (Pattern Development is generator)
 - What LSE and/or generation contracts are signed?
 - (Pattern Development:) mid 2018 15-year PPAs (Silicon Valley Clean Energy for 110 MW; Monterey Bay Community Power for 90 MW); late 2018, 20-year PPA for 200 MW with a municipal utility in Northern CA.
 - What contracts/agreement support the Project's financing?
 - FERC order ER17-388-000 (Sept 2017); ACC Decision No. 75464 Feb 2016; NMPRC 18-00049-UT (July 2018)
 ROW Width Approval (Location Control Permit Pending Filing)
 - What IRP is the project included in?
 - o None.



Regional Assessments



Regional Needs Assessment Background

- The PMC will conduct assessments using models developed for year 2030
- Cases from WECC will be used as seed cases and they will include the systems of all WECC TOs.
 - 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
- Local vs. regional transmission issues
- After the regional transmission assessments, the Planning Subcommittee will identify a list of transmission issues resulting from the studies and make a recommendation to the PMC as to which, if any, regional issues should constitute economic, reliability, or public policy transmission needs.
 - Includes development of a Regional Transmission Needs Assessment Report (which will allow for stakeholder comment and input)
- This report will be delivered to the PMC for review and approval, and it will contain the PS's recommendation on regional transmission needs for the study cycle. The regional transmission needs will be finalized pending the PMC's approval of the report.



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 2030 planning horizon.
- Assessment will include steady state contingency analysis and transient stability analysis.
- Transmission elements of 100 kV and above will be monitored for performance along with any Member specified lower voltage Bulk Electric System (BES) elements.

WestConnect Base Case Name	Case Description	Seed Case
2030 Heavy Summer	Summer peak load conditions during 1500 to 1700 MDT, with typical flows throughout the Western Interconnection.	WECC 2030 Heavy Summer 1 ADS Planning Base Case (30HS1)
2030 Light Spring	Light load conditions during 1000 to 1400 MDT in spring months of March, April, and May with solar and wind serving a significant but realistic portion of the Western Interconnection total load. Case includes renewable resource <i>capacity</i> consistent with any applicable and enacted public policy requirements.	WECC 2030 Light Spring 1-S Base Case (30LSP1S)



Economic Assessment

- To create the 2030 Base Case model, the PS will initiate and coordinate a review of the data and assumptions contained within the WestConnect 2028 PCM by the WestConnect members, participants, and stakeholders. The WECC 2030 ADS PCM will be used to inform the WestConnect 2030 PCM if/when available during WestConnect's model development.
- Assessment will include review of metrics such as congested hours and congestion cost for regional transmission elements greater than 100 kV and WECC transfer paths (or other defined interfaces in the WestConnect footprint) along with any Member specified lower voltage BES elements
- Regional transmission with significant congestion will be identified and verified through Planning Subcommittee review, historical benchmarking, and follow-up study
- WestConnect will also conduct sensitivity studies on the 2030 Base Case, as necessary

WestConnect Base Case Name	Case Description	Seed Cases
2030 Base Case	l madian load and hydro conditions and	WECC 2030 Heavy Summer 1 ADS Planning Base Case (30HS1) and WestConnect 2028 PCM from 2018-19 planning cycle



Public Policy Assessment

- WestConnect begins the evaluation by identifying a list of enacted public policies that impact local TO (see Study Plan will be distributed after Stakeholder meeting)
- The regional base models will reflect the enacted public policies
- 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 policy-driven project may constitute a public policy-driven regional transmission need
 - Stakeholders are invited to make a recommendation to the Planning Subcommittee



Enacted Public Policies Represented in 2020-2021 Planning Models

Arizona Renewable Energy Standard
California SB100
California SB350
California AB398/SB32
Colorado SB 07-100
Colorado HB10-1001
Colorado SB13-252
Colorado HB10-1365
Colorado SB 18-009 ("Energy Storage
Rights Bill")
Colorado HB 19-1261 and SB 1261 ("GHG
Reduction Bills")
Colorado SB 19-23 ("PUC Sunset Bill")

Colorado SB 19-077 ("Electric Vehicles Bill") Colorado HB 18-1270 ("Energy Storage" Procurement Act") Nevada SB123 Nevada SB374 Nevada Renewable Portfolio Standard Nevada SB146 (2017) Nevada SB254 (2019) Nevada SB299 (2019) New Mexico Efficient Use of Energy Act New Mexico Energy Transition Act (SB 489) PNM Commitment to Carbon Free by 2040 SRP 2020 20% Sustainable Energy Goal Texas RPS



2020-21 Scenarios





Scenario Requests

- **Scenario requests** were collected in early 2020
 - 4 scenario requests involving 10 individual scenario cases from 4 companies. These were reviewed and discussed by the PS
 - Discussion led to several thematic scenario concepts:
 - 1 Committed uses
 - 2 High New Mexico export
 - 3 Resource adequacy in Northwest and CAISO
 - 4 High growth of peak load-shifting technologies & storage
 - 5 Assessing years other than 2030
 - Members were asked to prioritize their top scenario concepts
 - Scenarios displaying interregional themes were sent to neighboring planning regions for review
 - Ultimately the PMC decided to include two scenario cases motivated by these concepts in the draft Study Plan



Scenario Requests with Interregional Themes

- WestConnect received three scenario requests with strong interregional themes
 - They were shared with neighboring planning regions to get their feedback and input
- TANC submitted a "Low CAISO and Low PNW Resources" scenario request recognizing developing capacity shortages in these markets.
 - The requests suggests that these capacity shortfalls may be partially addressed by resources in the WestConnect footprint, and this could have implications for the WestConnect transmission system.
 - Planning Subcommittee discussions did not lead to a well defined study scope so the scenario was not included in the current version of the study plan.
 - CAISO indicated interest in coordinating on the study should WestConnect pursue the analysis.
 - WestConnect believes this issue needs to be further scoped out and defined before meaningful regional planning transmission analysis can be performed.



Scenario Requests with Interregional Themes (pt. 2)

- SunZia requested a "NM Heavy Wind Delivery" study that would consider adding up to 4,000 MW of incremental wind in New Mexico, and exporting the wind over WestConnect transmission to delivery in Arizona and California.
 - The Planning Subcommittee was not in favor of considering a scenario that adds resources to the Base Models unless those resources were needed/required for loads in or outside of the WestConnect footprint. During the discussion the PS considered the benefit in coordinating such assumptions with the CAISO. Ultimately, the scenario was not included in the draft study plan.
 - WestConnect asked the CAISO if they were considering similar scenarios and the CAISO provided high-level assumptions for its 2019-2020 TPP portfolios, two of which include significant New Mexico wind resources.
 - The WestConnect Planning Subcommittee has not yet had the opportunity to review the CAISO's response.
- The CAISO indicated it was interested in coordinating on the **Committed Uses** (formerly "Contract Modeling") scenario, especially as it pertains to the deliverability of resources outside the CAISO and how that might be reflected in future modeling. This scenario is currently in the study plan.



Scenario Cases in Draft Study Plan

- Committed Uses Study economic study
 - Update economic model with enhanced representation of contracted or otherwise committed transmission capacity
 - Seed Case: 2030 Base Case (economic model)
 - No changes to Base Transmission Plan or Base Case resource portfolio
- New Mexico Export Stress Study reliability study
 - Review economic modeling results for condition with heavy New Mexico exports (east-to-west)
 - Use methods from Regional Assessment to evaluate reliability of condition
 - Seed Case: 2030 Base Case (economic model)
 - No changes to Base Transmission Plan or Base Case resource portfolio



Next Steps

- ➤ Stakeholder/WPR comment period for the draft 2020-21 Study Plan continues through February 28, 2020
 - Comment window announced via email on February 13th, 2020
- > 2020-21 Study Plan will be finalized and approved by the PMC by the end of March
 - A summary matrix of stakeholder comments will be posted to the WestConnect website, along with a final approved version of the Study Plan.
- > The PS will then proceed with developing the regional planning models
 - More detail on this process will be provided in later agenda items





Interregional Transmission Project (ITP) Submittals

Heidi Pacini, WestConnect Project Manager



2018 Interregional Transmission Project Submittals

Project Name	Company	Project Submitted To	Lead Planning Region	Seeking Cost Allocation from WestConnect
Cross-Tie Project	TransCanyon, LLC	WestConnect CAISO NTTG	WestConnect	Yes
HVDC Conversion Project	San Diego Gas & Electric	WestConnect CAISO	CAISO	No
North Gila - Imperial Valley#2	ITC Grid Development, LLC.	WestConnect CAISO	WestConnect	Yes
SWIP North	Western Energy Connection, LLC	WestConnect CAISO NTTG	NTTG	Yes
TransWest Express DC	TransWest Express, LLC	WestConnect CAISO NTTG	CAISO	Yes
TransWest Express AC/DC	TransWest Express, LLC	WestConnect CAISO NTTG	CAISO	Yes

ITP Evaluation Process Plans from the 2018-19 planning cycle can be reviewed here

WestConnect did not identify any regional transmission needs in the 2018-19 regional planning cycle, and as such, did not evaluate any ITPs in 2018-19.



2020-21 ITP Submittals

- ➤ Proponents of an ITP for which WestConnect is a Relevant Planning Region must submit the project to WestConnect by March 31, 2020
- ➤ Link to project submittal form
 - > \$25k study deposit is not required at this stage
- ➤ The project will need to be resubmitted following the needs identification stage of the 2020-21 planning cycle, at which time the study deposit is required
- > WestConnect has received no ITP submittals to-date



Upcoming Meetings

- > WestConnect PS & PMC Meetings:
 - March 17-18, Energy Strategies' Offices, Salt Lake City, UT
 - No CAS meetings currently scheduled
- > 2020 WestConnect Stakeholder Meetings:
 - November 2020, Tempe, AZ



Additional Information Regarding the Regional Planning Process can be Accessed at:

www.WestConnect.com



Questions?

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