



ITP Evaluation Process Plan SWIP-North

June 8, 2020

The Interregional Transmission Project (ITP) joint evaluation process provides for planning assumptions and ITP technical data coordination for the individual regional evaluations of an ITP. This evaluation process plan was developed through coordination among the relevant planning regions. Its purpose is to document the outcome of the Western Planning Region’s coordination of the basic descriptions, key assumptions, milestones, and key participants in the ITP evaluation process that will be followed in the regional evaluations of the ITP.

The information that follows is specific to the ITP listed in the ITP Submittal Summary below. An ITP Evaluation Process Plan is developed for each ITP that has been properly submitted and accepted into the regional process of the Planning Regions to which it was submitted. ITP project sponsors will be provided an opportunity to review this evaluation process plan before it is finalized by the relevant planning regions who developed this evaluation process plan. Once finalized, the Western Planning Regions will post this evaluation process plan on their public websites.

ITP SUBMITTAL SUMMARY

Project Submitted To:	California Independent System Operator (“California ISO”), Northern Tier Transmission Group which was transferred to NorthernGrid, and WestConnect
Relevant Planning Regions¹:	California ISO ² , NorthernGrid and WestConnect
Cost Allocation Requested From:	California ISO ² , NorthernGrid and WestConnect

The Relevant Planning Regions identified above developed and have agreed to the ITP Evaluation Process Plan.

ITP SUMMARY

Great Basin Transmission, LLC (“GBT”), an affiliate of LS Power, submitted the 275-mile northern portion of the Southwest Intertie Project (SWIP) to the California ISO and NorthernGrid. SWIP-North was also

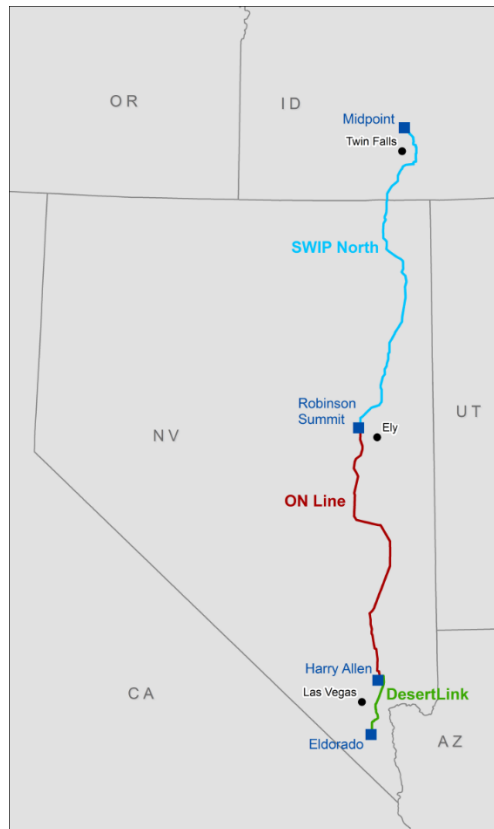
¹ With respect to an ITP, a Relevant Planning Region is a Planning Region that would directly interconnect electrically with the ITP, unless and until a Relevant Planning Region determines that the ITP will not meet any of its regional transmission needs, at which time it will no longer be considered a Relevant Planning Region.

² The California ISO has voluntarily agreed to study the SWIP-N line and accept cost allocation if the project is found to be needed by the California ISO and is ultimately constructed.

submitted into WestConnect’s planning process by the Western Energy Connection (WEC), LLC, a subsidiary of LS Power. The SWIP-North Project connects the Midpoint 500 kV substation (in NorthernGrid) to the Robinson Summit 500 kV substation (in WestConnect) with a 500-kV single circuit AC transmission line. The SWIP is expected to have a bi-directional WECC-approved path rating of approximately 2000 MW. SWIP-North would require a new physical connection at Robinson Summit, but upon completion of SWIP-N a capacity sharing arrangement would be triggered between GBT and NV Energy across the already in-service ON-Line Project and SWIP-N that would provide GBT with control of ~1,000 MW capacity in both directions and include a contract path to California ISO at Harry Allen.

A federally approved route for SWIP-North has been secured by GBT through a right-of-way grant issued by the Department of the Interior’s Bureau of Land Management (“BLM”) along with an approved Construction, Operation & Maintenance Plan and conditional Notice to Proceed. All NEPA studies and decisions have been completed. Remaining key development activities include completing the WECC path rating process, securing a few remaining private easements, obtaining one local approval, and obtaining a permit to construct from the Public Utilities Commission of Nevada. If LS Power were selected to construct SWIP-North via cost allocation approved through the Interregional Transmission Process, development, final design and construction activities could be completed to support energization of the project within an estimated 36 months.

**Figure 1: SWIP-N Map of Preliminary Route
Subject to change at discretion of proponent**
(Source: SWIP-N ITP Submittal Attachment)



It is noted that in the event the Energy Gateway West project is built out by PacifiCorp, the northern terminus of SWIP-North could be either the existing Midpoint substation in Jerome County, Idaho, or the proposed new Cedar Hill substation approximately 34 miles south of Midpoint in Twin Falls County, Idaho.

ITP EVALUATION BY RELEVANT PLANNING REGIONS

NorthernGrid is the Planning Region that will lead the coordination among the relevant planning regions involved in this evaluation process. In this capacity, NorthernGrid will organize and facilitate interregional coordination meetings and document meeting action items and outcomes. For information regarding each Relevant Planning Region's ITP evaluation process, please contact that Planning Region directly.

The following is a summary of each Relevant Planning Region's evaluation process that will be followed to assess the ITP in its regional planning process. Please refer to each Planning Region's current study plan and/or Business Practice Manual for more details regarding its regional transmission planning process.

NorthernGrid

The NorthernGrid Regional Transmission Plan evaluates whether transmission needs within the NorthernGrid may be satisfied by regional and/or interregional transmission projects. The NorthernGrid Regional Transmission Plan provides valuable regional insight and information for all stakeholders, including developers, to consider and use in their respective decision-making processes.

The first step in developing NorthernGrid's 2020-21 Regional Transmission Plan is to identify the Baseline Projects of Enrolled Parties. Baseline Projects are the transmission projects included in the Enrolled Parties' Local Transmission Plans plus those projects included in the prior Regional Transmission Plan that will be reevaluated (there will be no reevaluation for this first Regional Transmission Plan). NorthernGrid then evaluates combinations of the Enrolled Parties Baseline Projects and Alternative Projects to identify whether there may be a combination that effectively satisfies all Enrolled Party Needs ("Regional Combination"). Power flow and dynamic analysis techniques are used to determine if the modeled transmission system topology meets the system reliability performance requirements and transmission needs. The Regional Combination that effectively satisfies all Enrolled Party Needs will be selected into NorthernGrid's Regional Transmission Plan. A more detailed discussion of NorthernGrid's study process can be found in NorthernGrid's Study Scope posted on NorthernGrid's [website](#).

WestConnect

WestConnect's 2020-21 Regional Study Plan was approved by its Planning Management Committee (PMC) in March of 2020.³ The study plan describes the system assessments WestConnect will use to determine if there are any regional reliability, economic, or public policy-driven transmission needs. The models for these assessments are built and vetted during Q2 and Q3 of 2020. If regional needs are identified during Q4 of 2020, WestConnect will solicit alternatives (transmission or non-transmission alternatives (NTAs)) from WestConnect members and stakeholders to determine if they have the potential to meet the identified regional needs. If an ITP proponent desires to have their project evaluated as a solution to any identified regional need, they must re-submit their project during this

³ <https://doc.westconnect.com/Documents.aspx?NID=18668&dl=1>

solicitation period (Q5) and complete any outstanding submittal requirements. In late-Q5 and Q6 of the 2020-21 planning cycle, WestConnect will evaluate all properly submitted alternatives to determine whether any meet the identified regional needs, and will determine which alternatives provide the more efficient or cost-effective solution. The more efficient or cost-effective regional projects will be selected and identified in the WestConnect Regional Transmission Plan. Any regional or interregional alternatives that were submitted for the purposes of cost allocation and selected into the Regional Transmission Plan as the more efficient or cost-effective alternative to an identified regional need will then be evaluated for eligibility for regional cost allocation, and subsequently, for interregional cost allocation.⁴

WestConnect regional needs assessments are performed using Base Cases as identified in the regional study plan. Base Cases are intended to represent “business as usual,” “current trends,” or the “expected future”. WestConnect may also conduct information-only scenario studies that look at alternate but plausible futures. In the event regional transmission issues are observed in the assessments of the scenario studies, these issues do not constitute a “regional need”, will not result in changes to the WestConnect Regional Transmission Plan and will not result in Order 1000 regional cost allocation. The WestConnect PMC has ultimate authority to determine how to treat regional transmission issues that are identified in the information-only scenario studies. They will determine whether an issue identified in a scenario —whether it be reliability, economic, or public-policy based—constitutes additional investigation by the Planning Subcommittee.

SWIP-North representatives and other stakeholders are encouraged to participate in the development of the Base Cases to be studied in WestConnect’s 2020-21 Planning Cycle. These studies, as outlined in Figure 2, will form the basis for any regional needs that ultimately may lead to ITP project evaluations in 2021. Stakeholders are also encouraged to participate in the development of the scenarios identified in WestConnect’s 2020-21 Study Plan. These studies are also outlined in Figure 2.

Figure 2: WestConnect 2020-21 Transmission Assessment Summary

10-Year Base Cases (2030)	10-Year Scenarios (2030)
Heavy Summer Power Flow (reliability) Light Spring Power Flow (reliability) Production Cost Model Base Case (economic)	Committed Uses Study (economic) New Mexico Export Stress Study (reliability)
May result in the identification of regional needs, requires solicitation for alternatives to satisfy identified needs	Informational studies that will not result in the identification of regional needs. Alternative collection and evaluation is optional and is not subject to regional cost allocation

⁴ Please see the [WestConnect Business Practice Manual](#) for more information on cost allocation eligibility.

California ISO

The SWIP-North Project was submitted into the 2018-2019 interregional coordination cycle where the California ISO considered the proposed project in the context of California’s GHG emission goal where accessing out-of-state renewable resources for California was considered in the proposed project’s assessment at a “high” or “ cursory” level. The effort to perform an “informational” assessment of California procurement of out-of-state resources was concluded and documented in the 2018-2019 Transmission Plan⁵.

California renewable procurement portfolios provided by the California Public Utilities Commission for reliability and policy analysis for the 2020-2021 transmission planning cycle provide direction that all renewable procurement to achieve the state GHG emission goal to be considered by the California ISO’s planning process be obtained from within California. As such, the 2020-2021 planning process will consider the SWIP-North Project in the context of congestion relief and economic benefit. If the production cost analysis produces adequate economic benefits to proceed further with the analysis, then powerflow and stability analysis will be performed as well to consider possible benefits to contingency constraints on the bulk system in northern California.

CAISO’s power flow and PCM datasets are available on the CAISO’s Market Participant portal. That information will be shared with WestConnect and NorthernGrid subject to NDA requirements being met.

DATA AND STUDY METHODOLOGIES

The coordinated ITP evaluation process strives for consistent planning assumptions and technical data among the Planning Regions evaluating the ITP. Below, the Relevant Planning Regions have summarized the types of studies that will be conducted that are relevant to the SWIP-N evaluation in each Planning Region. Methodologies for coordinating planning assumptions across the Relevant Planning Region processes are also described.

Figure 2: Relevant Planning Region Study Summary Matrix

Planning Study	NorthernGrid	WestConnect	California ISO
Economic - Production Cost Model	Regional Economic Assessment will be performed with the WECC 2030 Anchor Data Set (ADS)	A Regional Economic Needs Assessment will be performed on the WestConnect 2030 Production Cost Model (PCM) Base Case (based on the WestConnect 2028 PCM Base Case and information from the	Using the California ISO PCM Base Case, based on the WECC 2030 Anchor Data Set (ADS), GridView will be used to perform production cost simulation. All model information will be shared with WestConnect and NorthernGrid.

⁵ http://www.caiso.com/Documents/BoardApproved-2017-2018_Transmission_Plan.pdf

		WECC 2028 and 2030 Anchor Datasets ⁶	
Reliability/Power Flow Assessment	The Regional Transmission Plan Study Scope is in development with an expected approval date of mid-July – the following WECC power flow base cases are under consideration: 2029-30 Heavy Winter 1 2030 Light Spring 1 2030 Heavy Summer 1 2030 Heavy Spring WECC ADS PCM export 2030 Heavy Fall WECC ADS PCM export	A Regional Reliability Needs Assessment will be performed on WestConnect 2030 Heavy Summer and Light Spring cases ⁷	Depending on the results of the production cost modeling, the GE PSLF may be used to perform steady state and as needed, transient analysis. The WECC 2030 ADS and 2030 LSP1 will be modified as needed to accurately model the California network and resources that reflects the ISO’s finalized 2019-2020 transmission plan. The SWIP-North Project will be added to that model. All model information will be shared with NorthernGrid and WestConnect.

Note that the SWIP-N evaluation will be conducted by each Relevant Planning Region in accordance with its approved Order 1000 Regional Planning Process. This includes study methodologies and benefits identified in planning studies.

Data Coordination

The Relevant Planning Regions will strive to coordinate key planning assumptions through the following procedures.

Economic/Production Cost Model

The Planning Regions intend to use the WECC2030 Anchor Data Set (ADS) as an input into their regional economic planning studies conducted in 2020 and 2021 (as applicable). The Planning Regions will strive to coordinate major updates made to the 2030 ADS as part of their regional model development efforts.

⁶ WestConnect ITP Project evaluation is subject to a number of factors, the first and most critical being the identification of regional needs as a part of the 2020-21 Base Case transmission needs assessments.

⁷ Id

As an example, the California ISO will update the 2030 ADS to reflect their recently completed 2019-2020 Transmission Plan.⁸ NorthernGrid members are working on the 2030 ADS model with WECC staff to incorporate the 2028 ADS topology and 2020 L&R submittals in the 2030 power flow case. WestConnect members will submit to WECC their local transmission plans for 2030⁹ for inclusion in the WECC 2030 Heavy Summer power flow base case, and subsequently the 2030 ADS. These local plans are consistent with WestConnect’s 2020-21 base transmission plan.¹⁰

Through this coordination of planning data and assumptions, the Relevant Regions will strive to build a consistent platform of planning assumptions for Economic/Production Cost Model evaluations of the ITP.

Reliability/Power Flow Assessment

Since each Planning Region is unique, key assumptions in load, resource generation dispatch and topology may differ. As such, each Planning Region will develop its models and data that accurately reflect their Planning Region but will seek to coordinate this information with the other Relevant Planning Regions subject to applicable confidentiality agreements. The identification of the starting WECC power flow base cases (“base cases”) and significant assumptions or changes a Planning Region may make to a base case are examples of information that will be considered by each Planning Region and coordinated with the other Planning Regions. As such, the inclusion or removal of major regional transmission projects will be coordinated through existing data coordination processes, but the season or hour of study and particular system operating conditions may vary by Planning Region based on its individual regional planning scope and study plan. Project sponsor WECC Path Rating studies may be accessed from the WECC website and used to augment the assessment.

Cost Assumptions

For each Relevant Planning Region to evaluate whether the SWIP-N Project is a more efficient or cost-effective alternative within their regional planning process, it is necessary to coordinate ITP cost assumptions among the Relevant Planning Regions. For planning purposes, each Relevant Planning Region’s cost share of the SWIP-N Project will be calculated based on its share of the calculated benefits provided to the Region by the SWIP-N (as quantified per that Region’s planning process).

The project cost data in the SWIP-N submittal form was marked as “Privileged information not to be released” and therefore has been redacted from this document.

Figure 3: Project Sponsor Cost Information¹¹

Project Configuration	Planning Level Cost (\$)
Project cost data	Redacted

⁸ <http://www.caiso.com/Documents/ISOBoardApproved-2019-2020TransmissionPlan.pdf>

⁹ WestConnect 2020-2021 Base Transmission Plan

¹⁰ <https://doc.westconnect.com/Documents.aspx?NID=18668&dl=1>

¹¹ This information is contingent upon verification by the Planning Regions and may be subject to change during the ITP evaluation process

After each Relevant Planning Region identifies their transmission needs and (as applicable) the benefits of the ITP, each Region’s project costs for use in the determination of the more efficient or cost-effective alternatives for the region will be determined as follows:

Assumptions
Total Benefits (\$) = NorthernGrid Benefits (\$) + WestConnect Benefits (\$) +California ISO Benefits (\$)
Project Cost (\$) = Total capital cost of project, as agreed upon by Regions
Cost Calculations (for Planning Purposes)
NorthernGrid Cost for Planning Purposes = [NorthernGrid Benefits/Total Benefits] * Project Cost
WestConnect Cost for Planning Purposes = [WestConnect Benefits/Total Benefits] * Project Cost
California ISO Cost for Planning Purposes = [California ISO Benefits/Total Benefits] *Project Cost

Note that this information on cost assumptions applies to costs that will be used for *planning evaluation purposes*. These costs may be different than what is assumed for any relevant cost allocation procedures.

COST ALLOCATION

Interregional Cost Allocation may apply for the SWIP-N Project for the 2020-2021 cycle.

GBT requested cost allocation from NorthernGrid and the California ISO. WEC requested cost allocation from WestConnect. The project sponsor met the necessary requirements within the NorthernGrid and WestConnect’s respective Planning Region’s regional processes to be considered eligible to request costs allocation if selected in either region’s plan. The California ISO has voluntarily agreed to accept cost allocation if the project is found to be needed by the California ISO and ultimately constructed.

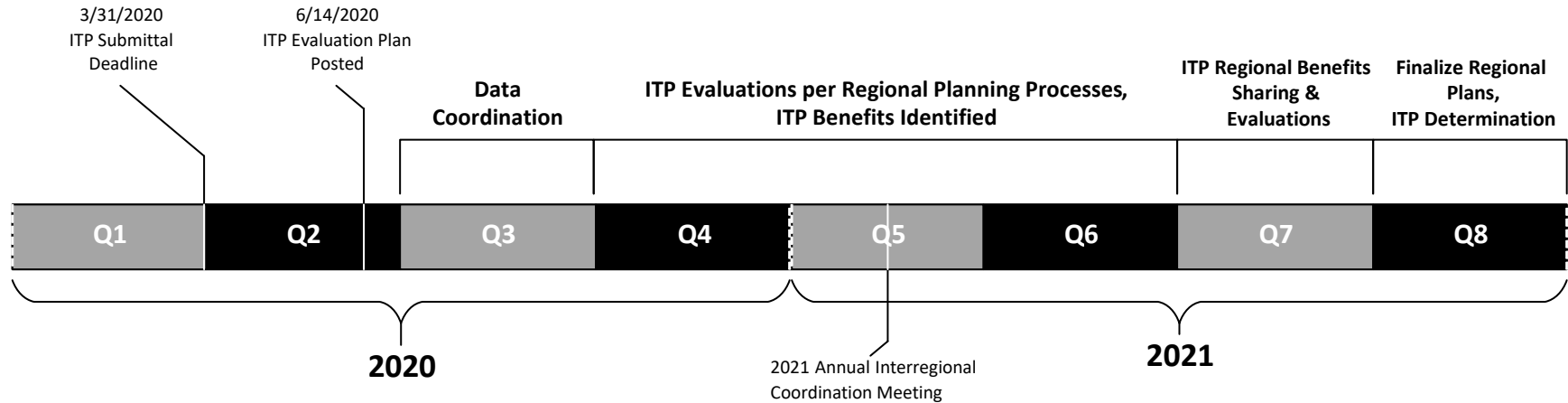
If at least two regions subsequently select the SWIP-North project in their respective regional transmission plans for purposes of Interregional Cost Allocation, each region will individually apply their regional cost allocation methodology to the projected costs of the SWIP-N Project assigned to each region in accordance with each region’s regional cost allocation methodology. If only one of the Relevant Planning Regions for the SWIP-N Project select the project in its regional transmission plan for purposes of Interregional Cost Allocation, and the number of Relevant Planning Regions for the SWIP-N Project is reduced to one, the project will no longer be eligible for interregional cost allocation.

SCHEDULE AND EVALUATION MILESTONES

The ITP will be evaluated in accordance with each Relevant Planning Region’s regional transmission planning process during 2020 and (as applicable) 2020. The ITP Evaluation Timeline was created to identify and coordinate key milestones within each Relevant Planning Region’s process. Note that in some instances, an individual Planning Region may achieve a milestone earlier than other Regions evaluating the ITP.

Meetings among the Relevant Planning Regions will be coordinated and organized by the lead Planning Region per this schedule at key milestones such as during the initial phases of the ITP evaluations and during the sharing of ITP benefits.

Figure 4: ITP Evaluation Timeline



CONTACT INFORMATION

For information regarding the ITP evaluation within each Relevant Planning Region's planning process, please contact that Planning Region directly.

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