

STATE OF COLORADO

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Dept. of Regulatory Agencies

July 9, 2015

Dear Western Regional Planning Group Members,

The Colorado Public Utilities Commission (CO-PUC) and the Colorado Energy Office (CEO) appreciate the opportunity to comment on the consultation draft of the Western Regional Planning Group's (WRPG) Interregional Transmission Planning Coordination (ITPC) Procedures

The State of Colorado and its utilities have a long history of coordinated transmission planning. The presence of many jointly owned transmission lines, planning forums such as the Colorado Coordinated Planning Group and regulated rules and legislation pertaining to transmission are representative. Additionally, the Western Electric Coordinating Council (WECC) has played an important and ongoing role in the integration of the Colorado transmission system into the Western Interconnection.

The CO-PUC and CEO both support the comments of the Western Interconnection Regional Advisory Board (WIRAB). WIRAB's comments recommend improvements to the proposed ITPC Procedures and provide their specific recommendations regarding the future role of WECC in developing interconnection-wide transmission plans.

Sincerely,

A handwritten signature in blue ink that reads "Pam Patton".

Pamela J. Patton, Commissioner
Colorado Public Utilities Commission

Interregional Transmission Planning Coordination Procedures (ITCP)

DATC Comments on the Draft Decision Points – June 25, 2015 Stakeholder Conference Call

Duke – American Transmission Company (DATC) appreciates the opportunity to comment on the presentation of the Western Planning Regions (WPR) interregional transmission planning coordination procedures draft from the June 25, 2015 stakeholder conference call and provides the following comments:

On the June 25 stakeholder conference call, DATC asked the WPR to address how a project like Zephyr-CAES could be considered in the ITCP. It is apparent that the WPR have drafted an interregional process designed to meet the minimum requirements of FERC Order 1000 to plan and coordinate interregional transmission additions based on the avoided cost principle of only considering and incorporating interregional transmission projects that are “...*more efficient or cost effective...*” (*Section 2.2 Procedures for ITP Identification*) than regional projects identified in the four separate regional planning processes. Since the concept is to only examine transmission projects without considering resource alternatives, a variety of alternate, potentially more economic, transmission/resource projects are not considered.

If this process is adopted as presently drafted, it will exclude from consideration independent transmission project proposals that provide western region-wide benefits far beyond simply displacing/replacing more narrowly focused regional reliability type projects.

The DATC-Burbank Zephyr-CAES (compressed air energy storage) project is one such example which could provide benefits to the entire western interconnection in the form of:

- Large (3000 MW) renewable source of high capacity factor southeastern Wyoming wind time-displaced from west coast renewable resources and demand
- Utility scale (1200 MW x 48 Hrs.) compressed air energy storage resource
- Fast ramping capability to address daily variable energy resource production characteristics and load shape
- Flexible storage capacity and firming renewable capacity by combining wind generation with storage for resource adequacy
- Replacement of coal-fired facilities and repurposing of the associated STS (IPP HVDC transmission) which is dispatchable, bi-directional transmission capacity
- Storage capacity for excess seasonal hydro generation
- Flexible storage capacity to facilitate increasing state renewable energy targets

We request that the WPR process be designed more inclusively, similar to most other ISO/RTO interregional processes which do provide for comprehensive transmission solutions which incorporate reliability, economic, and public policy benefit considerations. Alternately, the ITCP document should make it abundantly clear that independent, transformational projects with alternate resources are not given consideration in this process. Left unchanged, the ITCP process is incomplete and highlights the continuing need for a WECC interregional process which does consider the many beneficial aspects of transformational interregional projects such as Zephyr-CAES and others.

With the imminent expansion of the CAISO and the Energy Imbalance Market, the WPR interregional coordination procedures should be designed to meet the developing needs and integration of abundant and increasing renewable resource supply with customer demand for the benefit of western interconnection ratepayers, and not focus on just one aspect (reliability – avoided cost) of interregional planning.



**Interregional Transmission Planning Coordination Procedures
Stakeholder Conference Call, June 25, 2015
Stakeholder Comments**

Commenter Contact Information

Date	July 9, 2015
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These comments address the Draft Decision Points developed by the Western Planning Regions (WPR) and discussed during the June 25, 2015, stakeholder meeting on Interregional Transmission Planning Coordination Procedures (ITCP). ITC Grid Development, LLC (ITC) thanks the Planning Regions for soliciting comments to be considered during development of the final draft ITCP.

Order No. 1000 highlights the importance of stakeholder participation in the regional planning processes as a means of increasing the effectiveness of interregional transmission coordination. While interregional coordination procedures are not required to meet the planning principles required for local planning under Order No. 890 and regional planning under Order No. 1000, ITC maintains that meaningful interregional coordination requires opportunities for stakeholder feedback throughout the coordination process. To this end, ITC suggests the following modifications to the Draft Decision Points.

Interregional Coordination Process

The Draft Decision Points articulate how the WPR coordination group will be used to facilitate interregional coordination and collaboration. Attendance at group meetings will be limited to representatives of the Planning Regions; interregional coordination with stakeholders will be limited to the Annual Meeting and any additional stakeholder meetings held at the discretion of the regions. The interregional coordination process should facilitate identification of more efficient or cost-effective interregional transmission facilities. ITC supports the involvement of all stakeholders in the process by which such facilities are identified. While Order No. 1000 does not require joint stakeholder sessions among Planning Regions, effective and transparent interregional coordination suggests that stakeholders should be able to participate in interregional coordination more than once annually. The WPR coordination group serves as the locus of information exchange among the regions. It is sensible for stakeholders to directly monitor the activities of the WPR coordination group and provide feedback as necessary to further enhance interregional coordination. WPR coordination group meetings should therefore be open to stakeholders.

Annual Interregional Coordination Meeting

In the current draft, the Annual Coordination Meeting serves as the forum in which stakeholders can consider and discuss the information developed by the Planning Regions during the previous year. Stakeholder comments are then due no later than 14 calendar days following the meeting. This proposal provides one meeting per year at which stakeholders learn about a year's worth of planning efforts: what was studied, how it was studied, the assumptions used, the benefits, and the outcome. It is unreasonable to expect within 14 days meaningful feedback from stakeholders on a year's worth of work by the WPR coordination group. If the Planning Regions insist on only one stakeholder meeting per year, stakeholders should have at least 30 days to comment to allow time sufficient for a complete review of the information provided during the Annual Coordination Meeting.

The number of days provided for feedback following the Annual Meeting should reflect the degree to which stakeholders may participate and comment on interregional coordination throughout the year. As articulated elsewhere in these comments, ITC supports additional opportunities for stakeholder participation and feedback. To the extent the Planning Regions expand transparency in the interregional coordination process, an abbreviated 14-day comment period may be appropriate.

Procedures for ITP Coordination

Discussion of whether a potential ITP may be more efficient or cost-effective can occur either at a meeting of the Planning Regions or with stakeholders at the Annual Meeting. The Draft Decision Points notes that a potential ITP can be proposed or identified in two ways, one of which is by a stakeholder submitting its proposed ITP for study into the relevant Planning Regions' planning processes. A discussion of the merits of a stakeholder-driven ITP should include at a minimum the stakeholder who proposed the project, as this stakeholder likely understands the most about the details of the ITP. Stakeholder participation is part of an open and transparent planning process; the Planning Regions' solicitation of stakeholder feedback should not be optional and should occur more frequently than on an annual basis.

Procedures for ITP Joint Evaluation

The language in this section should make clear that a Planning Region has an obligation to study the ITP. While a Planning Region must make the decision whether to include an ITP in its regional transmission plan, the language in Section 1.1 could be construed to imply that a Planning Region can determine what gets studied in the first place. ITC recommends the following amendment to Section 1.1:

The decision to include or not include an ITP in a Planning Region's regional transmission plan will be made by each Planning Region in accordance with the Planning Region's regional planning process *and after following the joint evaluation procedures outlined below*;

Section 1.5 sets forth the joint evaluation study team (comprised of each Relevant Planning Region) that will discuss the ITP. ITC believes these discussions should occur in open forums that allow stakeholders generally, and the stakeholder proposing an ITP in particular, to contribute to the information that will be considered by the study team. As mentioned previously, the stakeholder who proposes a project will have information relevant to the study team's review (data associated with the ITP, projected costs, appropriate study assumptions, etc.). ITC understands the Planning Regions' concern regarding

protection of CEII (as noted in 1.7.1.); however, the Planning Regions can strike an appropriate balance between protecting CEII and providing opportunities for stakeholder participation that strengthen the joint evaluation process.

In outlining the steps the Relevant Planning Regions will follow during and after the initial joint evaluation meeting, the Draft Decision Points specifies that each Relevant Planning Region will provide an opportunity for stakeholders to participate in accordance with its respective regional planning process. ITC believes it is always appropriate to seek stakeholder input as part of an open and transparent transmission planning process; as such, the phrase “if appropriate” should be struck from the last line of Section 1.8.3.

Interregional Transmission Planning Coordination Procedures

Draft Decision Points – June 25, 2015 Stakeholder Conference Call

The following draft decision points have been developed by the Western Planning Regions (WPR or Planning Regions) to present to stakeholders their current thinking on interregional transmission planning coordination procedures¹. While written stakeholder comments from the February 26, 2015 stakeholder have been considered in developing this draft material, the Planning Regions are inviting discussion and seeking further input from stakeholders on our proposed decision points. Written comments on this material and the webinar are due July 9, 2015 and should be submitted to regionaltransmission@caiso.com. All comments received will be considered by the Planning Regions in developing their final draft of the Interregional Transmission Planning Coordination Procedures (ITCP) which will be shared with stakeholders at the August 18, 2015 Interregional Order No. 1000 stakeholder meeting to be held in Denver, Colorado.

Purpose of the ITCP

1. The Planning Regions will follow their established Tariff/Attachment K Regional Planning process to communicate and/or distribute regional reliability, economic and public policy assessments, project information, and its most recent regional transmission plan to the other Planning Regions for their review and comment;
2. The ITCP is the mechanism by which the Planning Regions will effect interregional coordination among themselves and with stakeholders;
3. The Planning Regions will follow the processes and procedures documented in the ITCP to review, update, and exchange data and information among themselves;

Interregional Coordination Process

1. The Planning Regions will facilitate interregional coordination and collaboration through the WPR coordination group for the purpose of facilitating interregional coordination amongst themselves and with stakeholders at the Annual Meeting and other stakeholder meetings that may be scheduled from time to time. In particular, the WPR coordination group provides:

¹ On June 1, 2015, the FERC issued a letter order accepting the CAISOs, NTTG Applicants' and WestConnect Applicants' Interregional Order No. 1000 compliance filings, with an effective date of October 1, 2015, as requested. ColumbiaGrid Applicants' compliance filings were accepted, with an effective date of January 1, 2015, as requested.


- 1.1. An objective of ensuring interregional Order No. 1000 compliance and facilitate interregional coordination amongst the Regions;
- 1.2. Functionally facilitating communication among Planning Region planning representatives on matters relating to technical information and data; coordination and selection of power flow base cases; facilitating information consistency among the draft study plans and transmission plans that are prepared by the Planning Regions through their regional transmission planning processes; and facilitating interregional coordination with stakeholders through the Annual Meeting and the coordination, as appropriate, of any joint evaluation studies that may be initiated by any two or more Relevant Planning Regions;
- 1.3. Attendance will be limited to representatives of the Planning Regions, unless there is agreement by the WPR coordination group to open the attendance to other invited guests directly involved with the interregional coordination efforts;
- 1.4. Meetings will be held on an “as needed” basis to ensure that the requirements identified in the ITCP are being met, to identify possible interregional transmission facilities that address transmission needs more efficiently or cost effectively than separate regional transmission facilities and to discuss;
 - 1.4.1. data and/or draft/updated/final regional study plans and to collaborate on information, material, proposals, or other items of mutual importance to be presented to stakeholders at the Annual Meeting ;
 - 1.4.2. the Planning Regions’ regional analysis and assessment results and share findings;
 - 1.4.3. and share draft regional plans; discuss draft or final ITP evaluations and benefits, received ITP data, preliminary determinations of ITP selection into the Planning Regions’ regional transmission plans, and any cost allocation study results;
- 1.5. Provide a forum for additional meetings to consider and coordinate technical and other matters related to an ITP joint evaluation or other considerations as dictated by the unique circumstances of each regional transmission plan;

Interregional Data Collection and Sharing

1. The Planning Regions believe the most effective way to coordinate and exchange data is to ensure that power flow base cases and production cost model information used by the Planning Regions in their regional processes have undergone a coordinated process to make certain that the model representation of the planning regions is consistent among all power flow base cases and production cost model cases². The Planning Regions will follow the base

² Although not reflected in this document, the Planning Regions are in agreement that production cost data and information coordination and exchange procedures should be documented in the final draft of the ITCP.

case review processes and procedures documented in this ITCP to jointly review model information in all regional power flow base cases or power flow reference base cases that will be utilized by themselves in their regional planning processes and studies;

- 1.1. The Planning Regions will continue to participate in and support the existing data collection and power flow base case development processes currently in place at WECC;
- 1.2. To the extent that there may be additional information or data that is relevant to the Planning Regions, the WPR coordination group will facilitate interregional data collection and sharing among the Planning Regions;
- 1.3. Once data or information becomes available or data or information is required within a Planning Region, the Planning Region will notify the other Planning Regions through the WPR coordination group that all Planning Regions data and/or information is either available or is needed. If a response from the other Planning Regions is needed, the Planning Region requesting the response must notify the other Planning Regions that a written response is required and provide an appropriate time frame for a response to be provided;
- 1.4. Planning Regions who receive a response request are required to respond to the request within the time frame provided for by the requestor. Responses should be provided through the WPR coordination group to ensure all Planning Regions are aware of the information being exchanged;
- 1.5. The Planning Regions will follow their regional processes to provide information and data to their stakeholders and to WECC;
- 1.6. As appropriate, data and information requests and responses will be discussed at the WPR coordination group meetings. The WPR coordination group will report on the data and information requests and responses at the Annual Interregional Coordination Meeting 

Base Case Development and Coordination

1. Commensurate with their tariffs, the Planning Regions will exchange planning data and information among themselves at least annually. The Planning Regions believe an efficient way to facilitate this planning data and information exchange is through a power flow base case data and information coordination process. This process will ensure that the base cases used by each Planning Region will include accurate and up-to-date planning data and information from the other Planning Regions' systems.

The Planning Regions will implement interregional coordination of their planning data and information through joint identification and agreement on a set of available/approved WECC power flow base case(s) to be used as the starting point to develop their own regional planning cases. Each Planning Region will review this set of WECC base case(s) and

develop change files for the corresponding WECC power flow base case(s) to represent the current electrical transmission system topology, loads and resources, and appropriate projected transmission system development plans for that Planning Region. These change files will be made available to the other Planning Regions through the WPR coordination group. Each Planning Region will use these change files to incorporate, as appropriate, the corrected electrical data and models of proposed transmission expansion projects into the power flow base cases developed for their regional planning processes.

- 1.1. At the beginning of every regional planning cycle the WPR coordination group will ensure that the Planning Regions identify and select an agreed upon number of WECC power flow base case(s) that are needed for each of the Planning Regions to perform their respective regional planning assessments. For example, the Planning Regions may determine a number of WECC base cases (year 5 and year 10 summer peak, winter peak, spring, etc.) as the starting point;
- 1.2. Each Planning Region will evaluate the selected WECC power flow base case(s) and identify, for that base case, additional improvements of network topology and other modeling issues relevant to its region;
- 1.3. Through interregional coordination certain data will be collected and shared among the Planning Regions. Each Planning Region will provide corrected/updated electrical models for transmission facilities (230 kV and above) that have interregional significance in the form of change files (epc, raw, or aux files, etc.);
- 1.4. In addition, each Planning Region will provide change files (power flow model data) for proposed transmission expansion projects that could have interregional significance along with expected commercial operation dates associated with the projects;
- 1.5. Each Planning Region will review the electrical representation updates and transmission development plans provided by the other regions and modify their respective regional power flow base cases, as appropriate, for performing regional planning studies;
- 1.6. The Planning Regions will post their regional base cases on their websites consistent with the procedures for CEII data collection and sharing;

Interregional Information Exchange

1. Each Planning Region will review the study plans, regional reliability, economic and public policy assessments, project information, and the most recent regional transmission plans provided by the other Planning Region's and respond to the region that submitted the information in a manner that is consistent with the process established in this ITCP;
 - 1.1. Each Planning Region should seek input from or provide information to the other Planning Regions through the WPR coordination group at the same time they are seeking input from or providing information to their own stakeholders to ensure that all


Planning Regions are aware that information is either available or is needed. This includes but is not limited to draft and final study plans, assessment reports, and regional transmission plans;

- 1.2. If a response from the other Planning Regions is requested, the Planning Region requesting the response must notify the other Planning Regions that a written response is required and provide an appropriate time frame for a response to be provided;
- 1.3. Planning Regions who receive a response request are required to respond to the request within the time frame provided for by the requestor. Responses should be provided through the WPR coordination group to ensure that all Planning Regions are aware of the information being exchanged;
- 1.4. Study plans, assessment reports, and regional transmission plans may be discussed at the WPR coordination group meetings and reported on at the Annual Interregional Coordination Meeting;

Annual Interregional Coordination Meeting

1. The Planning Regions will hold one interregional coordination stakeholder meeting no later than March 31 of each year to provide stakeholders an opportunity to consider and discuss information developed by the Planning Regions during the previous year. Additional interregional coordination stakeholder meetings may be held during any given year at the discretion of the Planning Regions;
 - 1.1. Planning regions will rotate hosting the Annual Meeting;
 - 1.2. Annual meeting notification should be issued no later than 45 calendar days prior to the meeting date
 - 1.3. Meeting materials should be posted no later than 7 calendar days prior to the Annual Interregional Coordination Stakeholder Meeting date;
 - 1.4. Notes from the Annual Interregional Coordination Stakeholder Meeting will not be provided;
 - 1.5. Comments from stakeholders should be provided no later than 14 calendar days after the meeting has been adjourned. The WPR coordination group will collect and ensure all comments are posted on each of the Planning Regions' websites consistent with their regional planning processes;

Additional Stakeholder Meetings

1. Additional stakeholder meetings may be scheduled as needed;
 - 1.1. Additional stakeholder meeting  will be hosted by the planning region requiring the meeting;

- 1.2. Posting and comment procedures will be the same as for the Annual Interregional Coordination Meeting;

Procedures for ITP Identification

1. When two or more Relevant Planning Regions identify a beneficial potential ITP, the Relevant Planning Regions will follow the procedures for ITP identification, coordination, and joint evaluation documented in this ITCP to assess the ITP and its impact on the Western Interconnection;
2. There are two opportunities for a potential ITP to be proposed or identified.
 - 2.1. A stakeholder may propose an ITP by submitting the ITP for study into each Planning Region's regional planning process to which the ITP will electrically connect (hereafter called Relevant Planning Regions). See ITP Submission section in the Joint Evaluation below for further discussion;
 - 2.2. During the Annual Interregional Coordination Meeting or during Planning Regions' regional plan coordination meetings (both described above) a potential ITP may be identified, including identification of conceptual solution(s) that may meet regional transmission needs in two or more Planning Regions more efficiently or cost effectively than transmission projects in an individual Planning Region's regional transmission plan. Once a proposed or potential ITP has been identified, the ITP Joint Evaluation Procedure (described below) will be used to evaluate the ITP through the Relevant Planning Regions' regional transmission planning processes;

Procedures for ITP Coordination

1. The coordination of the Planning Regions' regional plans in the context of interregional coordination includes both the harmonization of planning data and reviewing the Planning Regions' regional transmission plans;
 - 1.1. An element of the ITCP is to harmonize certain relevant regional planning data and assumptions (e.g., transmission topology, load and resource assumptions, generation dispatch, and production costs assumptions such as gas prices, load shape, hydro generation assumptions or other assumptions that were developed by each region);
 - 1.2. This harmonized data may result in a common set of assumptions to develop a regional reference case(s) (i.e., power flow or production cost base cases) that can be used by each Planning Region as part of its regional planning process to assess an ITP. Study results from this Reference case(s) may be shared with the other Planning Regions;
 - 1.3. The common set of assumptions and the regional reference case(s) will be provided to WECC;

2. Another element of the interregional coordination of the Planning Region's transmission plans is to undertake a broader review of the Regional Plans than may have been afforded in the individual regional processes and confer on whether or not there is a more efficient or cost effective ITP than the regional solutions that are determined by the individual Planning Regions;
 - 2.1. By the end of the second quarter and before completion of the Planning Regions' study plans, the four Planning Regions will discuss whether or not a potential ITP may be more efficient or cost effective than the regional transmission projects within the Planning Regions regional transmission plans. The Planning Regions may meet amongst themselves for this review or the Planning Regions may choose to have this discussion with stakeholders during the Annual Interregional Coordination Meeting. Regardless of this choice, during the Annual Interregional Coordination Meeting stakeholders will have the opportunity to engage in preliminary discussion of interregional solutions, including conceptual solution(s) that may meet regional transmission needs in each of two or more Planning Regions more efficiently or cost effectively than the regional transmission solutions. This review may include technical analysis or professional judgment to determine if an ITP alternative might be more efficient or cost effective than the proposed projects in each Planning Region;
 - 2.2. This review of the Planning Regions' regional plans should focus on interregional transmission projects with the purposes of identifying the potential to a) combine projects with similar scope, b) eliminating or downsizing projects that may not be needed due to the development of other projects, or c) proposing a new interregional project that might replace the needs of multiple projects;
 - 2.3. If it is determined that a potential ITP may be a more efficient or cost effective solution than a regional project in the Planning Regions' regional transmission plans, then the Procedures for ITP Joint Evaluation (described below) will be used to evaluate the ITP in accordance with the Relevant Planning Regions' regional transmission planning processes.

Procedures for ITP Joint Evaluation

1. Once a proposed ITP has been identified, the Planning Regions will utilize the joint evaluation procedure to evaluate the proposed ITP through the Relevant Planning Regions' regional transmission planning processes as identified below;
 - 1.1. The decision to include or not include an ITP in a Planning Region's regional transmission plan will be made by each Planning Region in accordance with the Planning Region's regional planning process;
 - 1.2. A proponent of an ITP must submit its ITP data to each Planning Region with which the ITP will interconnect electrically. An ITP submittal must follow each Relevant Planning Region's transmission planning process requirements. Each Relevant Planning Region

will determine if ITP data is properly submitted in accordance with its regional transmission planning process and meets the criteria in Section ???. However, ColumbiaGrid will, as a minimum, accept ITP submittals in the first quarter of even numbered years

- 1.3. The Planning Regions will define the common assumptions relevant to the ITP proposal and, if possible, develop a regional reference case(s) for assessing the ITP. This regional reference case may be one of the WECC power flow bases cases identified as part of the Base Case Development Process or some other power flow base case as agreed upon by the Relevant Planning Regions. All Planning Regions will review the regional reference case(s) and provide to the Relevant Planning Regions change files to update the regional reference case(s) to represent the current electrical transmission system topology, loads and resources, and appropriate projected transmission system development plans for that Planning Region;
- 1.4. Each Relevant Planning Region will, for each ITP that has been properly submitted, participate in a joint evaluation of the ITP with all other Relevant Planning Regions. This joint evaluation will commence with an initial joint evaluation meeting that will be held in a timeframe that is commensurate with the regional processes of all Relevant Planning Regions but no later than ??? of that calendar year;
- 1.5. During the initial joint evaluation meeting the Relevant Planning Regions will form a joint evaluation study team and determine a host Relevant Planning Region to lead the joint evaluation study team. The purpose of the joint evaluation study team will be to discuss the ITP data, determine projected costs, develop study assumptions and determine methodologies that will be used pursuant to each Relevant Planning Region's regional transmission planning process. Each Relevant Planning Region will follow its regional planning process to assess the proposed ITP;
- 1.6. The predominate focus of the technical studies performed by each Relevant Planning Region will be for the portion of the ITP within that Planning Regions' footprint; however, the Planning Region will monitor and report study results from or to the other Relevant Planning Regions as appropriate;
- 1.7. The joint evaluation study team process will coordinate study efforts among the Relevant Planning Regions, Planning Regions, and stakeholders in three ways:
 - 1.7.1. The joint evaluation study team. Coordination among the Relevant Planning Regions will require an open discussion about all data (including CEII data); as such, these meetings are closed to stakeholders;
 - 1.7.2. Through open interregional stakeholder meetings such as the Annual Interregional Coordination Meetings, additional stakeholder meetings and other interregional coordination meetings established by the Relevant Planning Regions and/or the four Planning Regions;

- 1.7.3. Through each Planning Region's open stakeholder meetings in accordance its regional transmission planning process;
- 1.8. During and after the initial joint evaluation meeting the Relevant Planning Regions will complete the following steps for each ITP;
 - 1.8.1. Each Relevant Planning Region will follow its regional planning process to assess the proposed ITP. These studies should be informed, in part, by experiences in prior planning cycles and the availability of new transmission study tools;
 - 1.8.2. The Relevant Planning Regions will seek to resolve any differences between the Relevant Planning Regions that may affect a Relevant Planning Region's evaluation of the ITP. For example, a Relevant Planning Region may forecast different construction costs for the ITP within its footprint even though the terrain and environmental factors are similar to other Relevant Planning Regions. If the cost differences cannot be resolved, the Relevant Planning Regions may agree on a "neutral" methodology to resolve the differences (e.g., perhaps rely on the TEPPC capital cost calculator or a third party independent consultant's costs);
 - 1.8.3. Each Relevant Planning Region will provide stakeholders an opportunity to participate in accordance with its regional planning process. Also, during the course of the joint evaluation study analysis the Relevant Planning Regions will participate in all appropriate interregional coordination meetings (e.g., the Annual Interregional Coordination Meeting and, if necessary, other additional interregional coordination meetings) to update stakeholders on the status of the ITP evaluation and if appropriate, to seek stakeholder input;
 - 1.8.4. Each Relevant Planning Region will notify the other Relevant Planning Regions if it determines that the ITP will not meet any of its regional transmission criteria or identified regional transmission needs;
 - 1.8.5. Each Relevant Planning Region will determine if the proposed ITP is a more cost effective or efficient solution to one or more of its regional transmission needs;
- 1.9. For each ITP, each Relevant Planning Regions will notify stakeholders of upcoming stakeholder meetings in accordance to their regional transmission planning process. During Q3-Q4 of the biennial planning cycle:
 - 1.9.1. Each Relevant Planning Region will conduct a regional needs analysis of the ITP using its regional transmission planning process. Following this Q3-4 analysis, the CAISO publishes a final transmission plan; ColumbiaGrid publishes a Biennial Plan or an updated Biennial Plan; NTTG generates a draft transmission plan; and WestConnect identifies regional needs. . The draft and final

transmission plans will be shared with stakeholders within the regions transmission planning process;

- 1.9.2. When an ITP has requested Interregional Cost Allocation, the Relevant Planning Regions will produce an initial determination of ITP benefits and share this determination, including regional ITP benefits and regional cost assignments, among the Relevant Planning Regions. The Relevant Planning Regions may share these plans and benefits determinations with stakeholders during the Q5 Annual Meeting or other interregional coordination meetings;

1.10. During Q6-8 of the biennial planning cycle:

- 1.10.1. Each Planning Region will incorporate information from other Planning Regions into its study plan and proceed to complete its transmission plan, including a determination whether or not the ITP is more cost effective or efficient than other projects in its regional transmission planning process. This analysis includes an initial regional cost allocation that will be provided to the other Relevant Planning Regions;

- 1.10.2. If all Relevant Planning Regions select the ITP in their respective regional transmission plans for purposes of cost allocation, then each Relevant Planning Region will finalize its cost allocation and regional transmission plans;

- 1.10.3. If at least two, but not all Relevant Planning Regions select the ITP in their regional transmission plans, then each of those Relevant Planning Regions will re-study its Cost allocation determinations and revise its transmission plan if appropriate. The round-robin effort will continue until at least two Relevant Planning Regions remain, and will terminate if less than two Relevant Planning Regions remain. Completion of this round robin process may continue into the next planning cycle;

- 1.11. At the end of the biennial interregional planning process, during Q8-Q9, each Planning Region will publish its Final Transmission Plan, ITP evaluation and determination of benefits

ITCP Update and Change Process

1. The Planning Regions will, through the WPR coordination group, periodically revise the ITCP to reflect changes in the planning processes and procedures. Revisions will be processed pursuant to the ITCP Change Process attached to the ITCP.



**June 25, 2015 Western Planning Regions Coordination Meeting
Stakeholder Comment Form**

Open Comment period: through July 9, 2015

Commenter Contact Information

Date	July 11, 2015
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Interregional Transmission Project Evaluation

PG&E believes that the current draft of the Interregional Transmission Planning Coordination Procedures (ITCP) should be enhanced to include specific details about the timing and coordination of the Interregional Transmission Project (ITP) Joint Evaluation. A proponent of an ITP must submit its ITP data into each Relevant Planning Region’s regional planning process for the ITP to be evaluated. Each Relevant Planning Region will evaluate the benefits to its region of the ITP through the regional planning process and ITP project cost allocations should be determined in accordance with the benefits.

This joint evaluation can be an extremely complex task. The different Western Planning Regions (WPR) all have different regional planning processes, cycle timing, and methodologies for evaluating project benefits. The ITCP should clearly explain when ITPs will be evaluated and interregional cost allocation determinations amongst the Relevant Planning Regions will be made. The timing to evaluate regional benefits of an ITP for the Relevant Planning Regions and determine interregional cost allocations between the Relevant Planning Regions is extremely critical. An ITP cannot effectively be compared to other regional transmission project solutions or alternatives without an understanding of the ITP costs that would be allocated to each Relevant Planning Region. The avoided cost of regional transmission projects that could be replaced by an ITP is a key component in all of the WPR’s methodologies to determine benefits of an ITP. Clarification is needed for each regional planning process about when an ITP is evaluated in each planning cycle and how those planning cycles align.

Some questions that need to be clarified are:

- For each Relevant Planning Region, when will regional project alternatives to an ITP be considered in the calculation of benefits as potential avoided costs?
- Once an interregional cost allocation for an ITP is established based on the calculated benefits, when is it considered for final inclusion in a regional transmission plan?
- After establishing the final interregional cost allocation for an ITP, will it be compared against the same or overlapping set of regional transmission project alternatives that were considered as avoided costs in the benefit calculation methodology?
- What is the threshold after which a regional transmission project will be considered “in flight” and no longer considered an alternative to be replaced by an ITP? If a regional project that is progressing through permitting and some engineering but not yet considered “in flight” is no longer needed because an ITP can serve the need more effectively, how are the costs to date for that regional project accounted for in the ITP evaluation?

Cost Recovery for an Interregional Transmission Project

PG&E believes that an explanation of the cost recovery process for an ITP should be included in the ITCP.

Some questions that should be clarified are:

- Will cost recovery for an ITP occur leveraging the processes in the Relevant Planning Regions?
- What are the cost recovery mechanisms available for an ITP in each of the WPRs?

Dispute Resolution

PG&E would like to reiterate its previous comments that an agreed upon dispute resolution process would be beneficial for interregional planning. Interregional planning is extremely complex and leverages four different and already complex regional planning processes to evaluate ITPs. It would not be surprising if there are disputes or discrepancies that arise. Establishing an agreed upon DRP ahead of any disputes or disagreements can provide a quick, effective, and inexpensive method for resolving those disputes.

PacifiCorp Comments in response to the
Western Planning Regions “Interregional Transmission Planning
Coordination Procedures Draft Decision Points”
July 9, 2015

PacifiCorp appreciates the opportunity to comment at this time on the Western Planning Region’s Interregional Transmission Planning Coordination Procedures Draft Decision Points. PacifiCorp understands that further development of the details of these procedures remains to occur. As such, the following comments are limited to a few items with the understanding that there will be opportunity for future comment as the procedures remain under development.

As a general comment regarding the draft decision points and procedures, PacifiCorp would like to encourage the Western Planning Regions to consider future flexibility in regards to use of WECC base cases as the starting point for each of the Planning Regions interregional planning analysis. NTTG has been expanding its modeling capabilities with tools such as production cost modeling and round-trip analysis and such tools may provide other starting points the Planning Regions could consider for use in future study cycles should they continue to develop or other modeling tools become available.

Interregional Data Collection and Sharing

- Section 1.4 - Suggest additional language after the statement “Planning Regions who receive a response request are required to respond to the request within the time frame provided for by the requestor,” to add “or as mutually agreed upon by the Planning Regions” or something to that effect. While the preceding section says the requestor should give an “appropriate time to respond” it’s not defined what’s appropriate or what happens if the other Planning Region is not able to provide a response in the time required by the requestor.

Interregional Information Exchange

- Section 1.3 – Similar comment as under Section 1.4, Interregional Data Collection and Sharing.

Annual Interregional Coordination Meeting

- Section 1 – Recommend holding the suggested interregional coordination stakeholder meeting early April or within the second quarter of the year rather than by “March 31 of each year” to allow time for updated load and resource data to be made available for stakeholder consideration and discussion by the Planning Regions.
- Section 1.4 – Encourage the Western Planning Regions to provide some notes following meetings even if high-level to memorialize key decisions or discussion points.

**Public Interest Organization Comments on the
Western Planning Regions Stakeholder Coordination Meeting (June 25)
And the Draft Interregional Transmission Planning Coordination Procedures (ITCP)**

Thank you for the opportunity to comment on the draft of the Interregional Transmission Planning Coordination Procedures (ITCP) and the June stakeholder webinar.

We found the June 25th conference call on ITCP very useful and look forward to further steps and collaboration in August.

As we expressed on the call, both transparency with stakeholders and coordination with WECC are critical to the success of the Western planning process.

Below are recommendations and questions:

Transparency and stakeholder engagement

- We appreciate that the Western Planning Region (WPR) Group will follow transparency obligations consistent with FERC Order 890 and Order 1000. However, we are concerned that **restricting attendance at WPR meetings and calls only to members of the planning regions will limit the transparency and effectiveness of the coordination group as well as the quality of its substantive output.** We encourage the WPR to consider whether items discussed in the meetings and calls can be open to the larger group of stakeholders, and that the WPR specify in writing what agenda items qualify for closed member-only meetings. Membership fees and liability issues create a significant barrier to stakeholders becoming members of the planning regions, not to mention the fact that several planning regions do not permit NGO members. Therefore, in order to solicit greater coordination, participation, and buy-in, **we encourage WPR meetings to be open to non-member stakeholders to the greatest extent possible.** At the end of the day, planned projects need broad public support to surmount regulatory and siting risks. The time to build that support is in the planning process, so it is in the interest of the utility companies to engage stakeholders early and often to minimize their project completion risks.
- **Stakeholders should be kept abreast of decisions made in closed meetings and input should be solicited in a formal manner on an ongoing basis.** The assumption should be that all meetings are public and open, unless there are specific legal, personnel, or security issues that justify them being closed. If there are such reasons, they should be stated clearly and the closed portions of meetings should be minimized. The method for sharing information such as study requests with stakeholders and the public along with solicitation of feedback should be clarified in writing in consultation with public interest groups.
- As described in the sections entitled Base Case Development and Coordination and Interregional Information Exchange, a significant amount of interaction will occur among the Planning Regions concerning data exchange and model development. **It is important to have periodic summary reports, perhaps quarterly, at a reasonable**

level of detail on those activities. As mentioned before, doing the bare minimum will not help or improve the reliability of the grid, nor support or promote customer interest. The regions can and should work together to advance the seamless integration of regional planning for their customers.

- The annual stakeholder meeting will be a productive time to solicit feedback from stakeholders, but we feel that **one stakeholder meeting a year is not adequate**, and that the timing of such a meeting should be reconsidered so it can have an impact on the planning process and the scope of the study plan. Having one open meeting a year provides extremely limited opportunities for engagement by all stakeholders affected by planning decision. **We suggest at a minimum two stakeholders meetings be held per year.**
- **There is a significant barrier to stakeholders submitting ITPs.** The current draft IR coordination material indicates two ways for a stakeholder to propose a project: submit a project to each planning region following each region’s process and timeline; or propose a project, or the concept of a project, at an annual stakeholder meeting. The first method is overly burdensome and not a realistic option for most stakeholders. In order to submit a project to the regions, the stakeholder would need to be a member of the region (with its attendant membership fee cost and liability exposures) and have signed a PPA. This is a lengthy and expensive process that is out of reach of most public interest groups, and some regions do not provide for NGO membership. The second method appears to be more open, although it is unclear how a proposal will be considered, studied, and incorporated in the regions’ and WPR’s process, particularly given the proposed timeline for the stakeholder meeting—i.e. February, which is just before the study plan is finalized. **We recommend further clarification in the ITCP and ask the WRP to hold open discussions as to how any stakeholder could initiate a project proposal and how such proposals will be considered.**
- **Distribution of meeting minutes or a meeting summary is a very helpful way to enhance transparency and inclusion.** We encourage WPR to remove the provision that “Notes from the Annual Interregional Coordination Stakeholder Meeting will not be provided.” We do not want to be prescriptive about this but rather be sure that a record is available (e.g. on regional websites) for review of the activities presented and discussed at the annual meeting and other events, to help maintain an inclusive process, keep all stakeholders up-to-speed, and preserve institutional memory of decisions and discussions.
- **We also suggest the regions work together to advance data sharing practices and encourage the transparency of data and models. We understand some data should remain confidential; however, there should be no blanket practice or presumption on confidentiality to avoid sharing important information to promote the reliability of the grid.**

Coordination with WECC

- It is prudent that WPR use and build WECC's data, base cases and models, as well as providing data and results back to WECC. Coordination with and incorporating WECC into the dialogue and planning process is critical in order to avoid gaps and duplication, and to share data and modeling resources. **For example, RPGs and WECC should have a joint venture to perfect roundtrip analysis and ramping analysis. We encourage WPR to coordinate with WECC and to formalize the scope and method for coordination in writing.**
- **We also encourage WPR to utilize the resources at the national labs and leverage the expertise and tools they have to assist in inter-regional planning.**
- **We would like to see WECC and the regions better evaluate non-wires alternatives that cross regional boundaries, including operation changes such as the FASTC methodology, demand response, and real-time and day-ahead markets.**

Lack of Planning Standards

- **We suggest the standard for planning should be information that supports decision making and is worthy of investment and regulatory action.** There is no indication in the WPR draft procedures of what standards WPR planning should meet. The standard for investment grade planning should be that which reasonable corporate officials and boards of directors use in investment grade due diligence for their investments. The standard for public regulatory decisions should expert testimony, subjected to discovery and cross-examination that justifies inclusion in a public decision record. The NTTG state regulators produced a useful checklist for cost allocations decisions in 2007. See: http://nttg.biz/site/index.php?option=com_docman&view=download&alias=193-cost-allocation-principles-and-process&category_slug=cost-allocation-principles-and-process&Itemid=31 The information used by WPR could then be referenced if there are questions about what regulators need to make their decisions about transmission. The regional and inter-regional planning should be focused on investment and public approval decisions.

Thank you for this opportunity to comment and we look forward to working with you more on interregional coordination.

Respectfully,

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Bob Smith
Vice President

TransCanyon Order 1000 Comments

Interregional Transmission Planning Coordination Procedures July 2, 2015 *Stakeholder Comments on Decision Points*

TransCanyon, LLC (TransCanyon) supports the Western Planning Regions' (WPR) efforts in developing Interregional Transmission Planning Coordination Procedures (ITCP) to comply with FERC Order No. 1000 and appreciates the opportunity to actively participate in the development process. TransCanyon is in general agreement with the Interregional Transmission Planning Coordination Procedure Draft Decision Points discussed on the June 25, 2015 stakeholder conference call, but would like to emphasize three key themes for consideration:

1. Detailed procedures for coordination and information sharing
2. Consistent implementation among regions
3. Leveraging of existing WECC resources

Detailed Procedures for Coordination and Information Sharing

TransCanyon believes that the ITCP should be detailed enough that stakeholders reading the procedures can clearly understand how the coordination will occur. TransCanyon believes that transparency regarding the process for interregional information sharing, interregional coordination of transmission plans, interregional transmission project (ITP) identification and assessment, stakeholder outreach and relevant timelines will facilitate successful planning and implementation of transmission solutions that safely, reliably, and cost effectively meet customer needs. Additionally, clarity of ITCP processes will provide all stakeholders a level playing field as they engage with the WPR and their members. To the extent possible, TransCanyon suggests providing more detail on how coordination will occur; including addressing how established Tariff/Attachment K Regional Planning processes will be integrated.

Consistent Implementation among Regions

TransCanyon believes that the four regional planning processes and the interregional coordination procedures should be implemented as consistently as possible. TransCanyon believes that consistency in these procedures is the most efficient way to utilize resources and minimize redundancy among the regions, fostering meaningful collaboration in an effort to deliver prudent transmission solutions to the Western Interconnection. TransCanyon suggests expanding the level of detail and increasing the consistency of these procedures for information sharing, coordination of transmission plans, and ITP evaluation.

Leveraging of Existing WECC Resources

TransCanyon believes that fair consideration should be given to leveraging existing WECC resources and tools to accomplish interregional coordination. WECC resources and tools have

July 2, 2015

Page 2 of 2

historically provided base cases for the development of regional transmission plans and the assessment of new transmission needed to maintain reliability. TransCanyon supports the continued and potential expanded use of WECC resources, as currently reflected in the ITCP, to inform regional planning and facilitate interregional coordination.

TransCanyon appreciates the opportunity to provide comment at this point in the stakeholder process. Please feel free to contact me if you would like to discuss any of the above in more detail.

Best Regards,

Bob Smith

Ladies and Gentlemen:

Thank you for the opportunity to submit comment on the inter-regional procedures document for Order 1000 planning. I submit this comment individually, although I will consider asking my colleagues at the Montana Public Service Commission and at other agencies to join in my comment in future iterations of this document.

The document suffers from at least two significant flaws.

To be clear, the Order 1000 inter-regional tariff language requires a planning region "to seek to resolve any differences it has with the other Relevant Planning Regions relating to the [interregional project] or to information specific to other Relevant Planning Regions insofar as such differences may affect [the planning region's] evaluation of the ITP." (See Section 4.2(a), Joint Evaluation of ITP) The procedures document merely reiterates this same language. A crucial missing piece of the procedures document is that it does not specify a procedure or resolution process by which the regions would seek to resolve differences. Some kind of a process is a necessary implication of the tariff requirement.

Furthermore, the procedures document would benefit from clarity about who, as a representative of any given region, is responsible for "jointly evaluating" an ITP alongside representatives of other regions. Is it each organization's Planning Committee (or similar) lead? Is there a role for state regulators? At what point of the joint evaluation meetings do details -- such as potential disagreements -- need to be reported back to the relevant committee and governing bodies of each region for direction? The procedures document should provide more clarity on the nature of the inter-regional relationship.

There appears to be an impression that the inter-regional planning process does not entail an inter-regional planning organization. That much is true. However, with regard to the foregoing two comments, it is necessary at a minimum that the occasional meetings and engagements of the regions, when engaged in inter-regional planning, have some kind of structure that sets transparent expectations for the conduct of this process.

Thank you for your consideration,

Travis Kavulla

Vice Chairman, Montana Public Service Commission

State Co-Chair, Northern Tier Transmission Group Steering Committee

WIRAB and SPSC Comments on Interregional and Interconnection-wide Transmission Planning

July 9, 2015

The Western Interconnection Regional Advisory Body¹ (“WIRAB”) and the State-Provincial Steering Committee² (“SPSC”) appreciate the opportunity to comment on the Western Planning Regions’ (“Planning Regions”) proposed Interregional Transmission Planning Coordination Procedures (“ITPC Procedures”). Our comments, however, go beyond recommending improvements to the proposed ITPC Procedures. At the outset, we make recommendations about the role of the Western Electricity Coordinating Council (“WECC”) in conducting interconnection-wide transmission planning and reliability analysis and the need for seamless, comprehensive transmission expansion planning across the West.

Our aim in the region should be to build a transmission planning capability and system that features:

- Sophisticated evaluation of grid reliability over a wide range of potential futures including assessments of the use of readily available measures, such as synchronous condensers, to mitigate any identified reliability problems;
- Thorough assessments of transmission needs over a wide range of potential futures including those with a much different resource mix than we have today;
- Thorough evaluation of all non-wire alternatives to meeting the future transmission needs;
- Flexibility to accommodate looming changes in the membership and footprint of regional planning groups;
- Full integration of interconnection-wide and regional planning and planning processes

Today, under Order 1000, we have failed to build such a seamless, comprehensive transmission planning system in the West and the interregional planning proposal will not get us there. We must go far beyond merely complying with Order 1000 requirements region-by-region to advance the interconnection’s interest and serve end-use customers. Comprehensive

¹ WIRAB was created by Western Governors under Section 215 of the Federal Power Act. Members of WIRAB represent the Governors of 14 western states, the Canadian provinces of Alberta and British Columbia, and Mexico. WIRAB is charged to advise the North American Electricity Council (“NERC”), the Federal Energy Regulatory Commission (“FERC”), and the Western Electricity Coordinating Council (“WECC”) on whether proposed reliability standards and the governance and budgets of WECC are in the public interest. FERC has encouraged WIRAB to provide similar advice regarding the governance and budgets of Peak.

² SPSC was created in 2009 to promote the formation of interconnection-wide transmission planning processes in the Western Interconnection with funding provided by the American Recovery and Reinvestment Act (ARRA). The SPSC is comprised of one representative of the Governor and one representative of the public utility commission or public service commission in each state in the Western Interconnection, plus provincial representatives from Alberta and British Columbia. The SPSC has three responsibilities: (1) Provide input into WECC’s transmission expansion planning; (2) Promote actions to make more efficient use of the existing transmission grid; and (3) Promote actions to lower the cost of integrating variable (wind and solar) generation into a reliable power system.

transmission planning is more than the review of projects in the narrow reliability and cost context that some may believe is adequate to comply with Order 1000.

Seamless, comprehensive transmission planning requires that WECC play an integral role in interconnection-wide and interregional transmission planning in the Western Interconnection. Both interconnection-wide and regional plans should be developed with the goals of improving reliability, reducing system cost, and achieving public policy objectives and with sufficiently credible analysis to thoroughly evaluate the benefits and costs of long-distance, high-voltage power line proposals that cross regional planning boundaries.

The Planning Regions and WECC should aim to use common data for all analyses and work to improve to those data bases. The Planning Regions and WECC should use state-of-the-art analytical tools and develop new tools that are capable of evaluating grid reliability under a wide range of potential futures, including those with substantially more wind and solar generation and less thermal generation. They should both have the capability to model measures that address reliability problems. They should closely coordinate on analyses. Further, interconnection-wide and interregional coordination processes will need to address potential changes in Planning Region membership and footprints (e.g. PacifiCorp joining the California ISO).

WECC's interconnection-wide planning and the Planning Regions' region-wide planning complement one another. Both are important. Region-wide planning, without complementary interconnection-wide planning, likely will yield sub-optimal results. Further, interregional planning that consists of the melding of multiple regional plans may lack consistency and coherence from an interconnection-wide perspective.

We offer the following recommendations about the role of WECC and the ITPC procedures:

- 1. WECC should develop 10-year and 20-year interconnection-wide transmission expansion plans. As part of those plans, WECC should undertake robust stress testing of transmission solutions, conduct “what-if” scenario analyses, and examine the reliability implications of transmission configurations.**
- 2. WECC should improve the quality of its public datasets, including its Common Case and Reference Case. Those datasets should be used in common by WECC, Planning Regions, utilities, and others to conduct planning and reliability studies. The Planning Regions should use WECC's Common Case as the starting point for all of their production cost modeling cases.**
- 3. WECC and the Planning Regions should use state-of-the-art analytical tools and develop new tools that are needed to evaluate grid reliability under a wide range of futures including those with a lot more wind and solar and much less thermal generation. WECC and Planning Regions should fully develop roundtrip production cost and power flow modeling capability and expand their capabilities to evaluate ramping needs. WECC should use the refined models to conduct interconnection-wide reliability analyses, including the evaluation of potential mitigation measures.**

4. **Planning Regions should coordinate with WECC staff on regional and interregional transmission planning matters and more fully include WECC in their ITPC Procedures.**
5. **Planning Regions should revise the proposed joint evaluation round-robin process (see Procedures for ITP Joint Evaluation, Section 1.10.3, at page 10). The Relevant Planning Regions should conduct joint benefit-cost analysis of the proposed Interregional Transmission Project (ITP) from the perspective of their joint footprint. These analyses should assess the reliability and economic benefits of proposed projects. WECC should include analysis of long-distance high-voltage lines in its interconnection-wide plans and this analysis should inform the Planning Regions joint evaluation.**
6. **Planning Regions should develop a web-based portal where ITP developers and stakeholders can track progress towards milestones for any ITP. The portal should also include the publicly available databases and key modeling assumptions being used by each Relevant Planning Region to conduct its economic and reliability analysis. The portal should also describe any data and study case reconciliations that are made between Relevant Planning Regions.**
7. **Planning Regions should advance the posting of meeting materials to 15 calendar days prior to the Annual Interregional Coordination Meeting and extend the stakeholder comment deadline to no later than 30 calendar days after the meeting (see Annual Interregional Coordination Meeting, Sections 1.3 and 1.5, at page 5).**
8. **Planning Regions should provide summary notes from the Annual Interregional Coordination Stakeholder Meeting and collect and post responses to all stakeholder comments (see Annual Interregional Coordination Meeting, Sections 1.4 and 1.6, at page 5).**
9. **Planning Regions should only close the portion of the joint evaluation study team meetings involving discussion of CEII data, not the entire meeting, to stakeholders (see Procedures for ITP Joint Evaluation, Section 1.7.1, at page 8).**

Below, we provide further elaboration and justification for these recommendations.

1. **WECC should develop 10-year and 20-year interconnection-wide transmission expansion plans. As part of those plans, WECC should undertake robust stress testing of transmission solutions, conduct “what-if” scenario analyses, and examine the reliability implications of transmission configurations.**

Federal, state, and provincial policy-makers need an independent, objective, and transparent source of information and analysis to set energy policy goals and objectives in the Western Interconnection and to evaluate the alternative paths to achieving those goals and objectives.

Will new transmission lines need to be built to achieve the policy objective? When? Where? Are there alternative ways to achieve the same objective at a lower cost? Will achieving the policy goals impact system reliability? Are technologies or business practices available that could be used to mitigate the reliability impacts? These are some of the questions that can be addressed with robust interconnection-wide transmission planning. Independent and robust interconnection-wide transmission planning is essential to informing policy makers about if, when, and where new transmission lines may be needed and to assure that the bulk electric system continues to be reliable and economic.

WECC is uniquely situated to provide this information and analysis for the Western Interconnection. WECC gained experience working with policy-makers and stakeholders during the development of its 2011 and 2013 Interconnection-wide Transmission Plans. The plans included:

- 10-year and 20-year study horizons;
- Expected common and reference cases;
- Sensitivity analysis of key input assumptions;
- Stress testing of the common and reference cases;
- What-if scenarios to better understand potential energy futures;
- Evaluation of alternatives to transmission expansion;
- Assessment of costs and benefits of long-distance, high-voltage transmission lines; and
- Key observations and recommendations

In particular, policy makers in Western states and provinces place a high value on WECC's interconnection-wide transmission planning because the process allows them to explore potential public policy options and test future "what-if" scenarios.

The joint evaluation procedures and the round-robin interregional effort described in the Planning Regions' ITPC Procedures (*see* Procedures for ITP Joint Evaluation, Section 1.10.3, at page 10) are not equivalent to interconnection-wide transmission planning and should not be considered a substitute for WECC's interconnection-wide transmission planning. The Planning Regions' region-wide and interregional planning should complement WECC's interconnection-wide transmission planning and should not compete with or crowd-out WECC's efforts. The lack of specific linkages between the Planning Regions' established tariffs and WECC's planning activities should not be construed as justification for limiting WECC's role in transmission planning.

- 2. WECC should improve the quality of its public datasets, including its Common Case and Reference Case. Those datasets should be used by WECC, Planning Regions, utilities, and others to conduct planning and reliability studies. The Planning Regions should use WECC's Common Case as the starting point to develop all their production cost modeling cases.**

The use of common and public datasets is essential to transmission planning in the West. Present industry data sharing practices in the West are hampering sound transmission planning. WECC and the four western Planning Regions should share databases as much as possible to avoid duplication of effort and to minimize cost. WECC and the Planning Regions should collaborate to ensure common data bases are accurate and up-to-date and have been vetted by stakeholders. WECC can provide datasets, modeling tools, and professional expertise to other entities without becoming a Registered Entity or impairing its ability to be the independent overseer of grid reliability in the West.

WIRAB/SPSC support the Planning Regions proposal to use WECC's base cases as the starting point to develop their own cases for power flow reliability analysis (*see* ITPC Procedures, Base Case Development and Coordination, Section 1, at page 3). The Planning Regions should also commit to using WECC's Common Case as the starting point to develop all of their cases for production cost modeling and economic analysis.

We also support the proposal of the Planning Region to share data and provide corrected/updated electrical models for transmission facilities that have interregional significance in the form of change files (*see* ITPC Procedures, Base Case Development and Coordination, Section 1.3, at page 4). We recommend that the Planning Regions include WECC in the sharing of these change files.

- 3. WECC and the Planning Regions should use state-of-the-art analytical tools and develop new tools that are needed to evaluate grid reliability under a wide range of futures including those with substantially more wind and solar and less thermal generation. WECC and Planning Regions should fully develop roundtrip production cost and power flow modeling capability and expand their capabilities to evaluate ramping needs. WECC should use the refined models to conduct interconnection-wide reliability analyses, including the evaluation of potential mitigation measures.**

As the reliability assurer for the Western Interconnection, WECC should conduct stringent reliability analyses of all scenarios and transmission solutions identified in plans. To do this it needs to fully develop its roundtrip production cost and power flow modeling capability. Specifically, WECC and the Planning Regions should establish a joint venture to perfect roundtrip analysis and ramping analysis. They should be prepared to replicate the type of reliability analysis underway at NREL and GE that is examining reliability challenges associated with weak parts of the grid and the large scale deployment of variable generation. The Planning Regions and WECC should commit to seek national lab/DOE support in this effort.

WECC should also develop the capability to evaluate measures to mitigate reliability problems. For example, if its analysis indicates that the retirement of a large number of coal plants and the addition of a large amount of variable energy resources could result in system frequency response or weak grid problems, then WECC should analyze the installation of synchronous condensers, the installation of clutches on natural gas plants, and other readily available mitigation measures. WECC should consult and work closely with the Planning Regions to

identify and evaluate potential mitigation measures. WECC also needs to integrate into its planning work the expertise of forward-thinking system operators who can contribute to understanding real-time operational challenges and solutions.

4. Planning Regions should coordinate with WECC staff on transmission planning matters and more fully include WECC in their ITPC Procedures.

The Planning Regions should regularly consult with WECC to improve common databases, modeling tools and planning methodologies. To better achieve these goals, the Planning Regions should more fully involve WECC in the following sections of the ITPC Procedures:

- Purpose of the ITPC, Sections 1 through 3;
- Interregional Coordination Process, Sections 1 and 1.3;
- Base Case Development and Coordination, Sections 1, 1.3, and 1.4;
- Interregional Information Exchange, Section 1.1;
- Procedures for ITP Coordination, Sections 1 and 2.1;
- Procedures for ITP Joint Evaluation, Sections 1.3 through 1.7, 1.8.2, 1.8.3, 1.8.4, 1.9.1, 1.9.2, and 1.10.1.

5. Planning Regions should revise the proposed joint evaluation round-robin process (see Procedures for ITP Joint Evaluation, Section 1.10.3, at page 10). The Relevant Planning Regions should conduct joint benefit-cost analysis of the proposed Interregional Transmission Project (ITP) from the perspective of their joint footprint. These analyses should assess the reliability and economic benefits of proposed projects. WECC should include analysis of long-distance high-voltage lines in its interconnection-wide plans and this analysis should inform the Planning Regions joint evaluation.

The proposed “round-robin” approach to joint evaluation narrowly evaluates proposed ITPs using power flow modeling and reliability analysis. The Planning Regions should put more emphasis on production cost modeling and economic benefit-cost analysis. The criteria for selecting an ITP for inclusion in a regional plan need to be more clearly specified and should include both economic and reliability factors.

In addition to each region using its own production cost modeling to conduct separate economic analyses of interregional projects, the Relevant Planning Regions should conduct thorough cost-benefit analyses of such projects from a multi-region perspective. It is important that ITPs be evaluated from an interconnection-wide and interregional perspective. If there are regional disagreements about costs and benefits and analytical methods, these should be made public and the regions should aim to resolve all such differences.

WECC should analyze proposed long-distance high-voltage transmission lines in its interconnection-wide transmission plans. The results of WECC’s planning studies should inform the joint evaluation of interregional transmission projects by the Planning Regions.

- 6. Planning Regions should develop a web-based portal where ITP developers and stakeholders can track progress towards milestones for any ITP. The portal should also include the publicly available databases and key modeling assumptions being used by each Relevant Planning Region to conduct its economic and reliability analysis. The portal should also describe any data and study case reconciliations that are made between Relevant Planning Regions.**

Transparency of the joint evaluation process is crucial. Developers and stakeholders need to be kept abreast of progress being made by the Relevant Planning Regions and made aware of key differences in the databases and key modeling assumptions being used by the regions to evaluate an ITP. When differences in data, modeling assumptions, or study cases are reconciled these agreements should be documented and made public.

- 7. Planning Regions should advance the posting of meeting materials to 15 calendar days prior to the Annual Interregional Coordination Meeting and extend the stakeholder comment deadline to no later than 30 calendar days after the meeting (see Annual Interregional Coordination Meeting, Sections 1.3 and 1.5, at page 5).**

The proposed 21 day window between the posting of materials for the Annual Interregional Coordination Meeting and the deadline for stakeholder comments is unreasonable. This is the primary opportunity for stakeholders to provide meaningful input on technical and complex interregional planning matters. The comment window should be widened to a least 45 days.

- 8. Planning Regions should provide summary notes from the Annual Interregional Coordination Stakeholder Meeting and collect and post responses to all stakeholder comments (see Annual Interregional Coordination Meeting, Sections 1.4 and 1.6, at page 5).**

There is little incentive for stakeholders to provide verbal comments at the Annual Interregional Coordination Meeting or written comments after the meeting without a reasonable expectation that comments will be considered and addressed. The Planning Regions should commit to publicly responding to stakeholder comments.

- 9. Planning Regions should only close the portion of the joint evaluation study team meetings involving discussion of CEII data, not the entire meeting, to stakeholders (see Procedures for ITP Joint Evaluation, Section 1.7.1, at page 8).**

Meetings of the joint evaluation study team should not be closed to stakeholders by default. The default position should be open meetings. To protect CEII data, the relevant portions of joint evaluation study teams meeting should be closed to stakeholders.