



# **SPG Coordination Group (SCG)**

## **2022 Common Case Transmission Assumptions (CCTA)**

*February 6, 2012*

*FINAL DRAFT*

## Executive Summary

The Subregional Planning Group (SPG) Coordination Group (SCG) aids the Regional Transmission Expansion Planning (RTEP) process by providing the Transmission Expansion Planning Policy Committee (TEPPC) with a list of transmission projects that have a high probability of being in service in a 10-year timeframe. This list of projects serves as a key input assumption for TEPPC's 10-year planning studies. The SCG assisted in the development of the Western Electricity Coordinating Council's (WECC) first 10-Year Regional Transmission Plan by providing this list in 2010, which was called the Foundational Projects List. TEPPC is starting to develop the next 10-year plan that requires an update to that list. This iteration of the list is called the Common Case Transmission Assumptions (CCTA). The purpose, process and projects on the CCTA are presented in this report.

The CCTA is not the WECC 10-Year Regional Transmission Plan, nor does it indicate that WECC members or stakeholders support or endorse any of the transmission projects on the CCTA. The CCTA is comparable to other assumptions required for transmission planning studies, such as predictions on load growth and generator installations. When conducting transmission planning studies, it is necessary to identify and include transmission projects that have a high probability of being in service in the study timeframe. Results from a planning study would be unrealistic if they included changes in predicted load and generation, but failed to include high-probability incremental transmission, or exclude transmission that cannot pass a high-probability threshold. It must be recognized that implementation of the CCTA selection process on a going-forward basis will continue to require broad stakeholder consultation due to some criteria requiring subjective judgment that only a broad-stakeholder process can provide.

The CCTA projects were selected using a transparent, repeatable, consistent and well-documented process. The meetings and webinars where the SCG developed the CCTA selection process were public and open to all RTEP stakeholders. The process relied upon public data and predefined criteria that were used to guide the selection of projects for inclusion on the CCTA. Project information, project development status indicators, selection criteria, and any exceptions to the established process are documented in this report.

The [WECC Transmission Project Information Portal](#) (PIP) contains publically available project information for nearly 90 projects currently under development in the Western Interconnection (Appendix C – WECC Project Information Portal). The SCG reviewed all of these projects and several others, as in certain cases project sponsors provided information directly to the SCG. The 2022 CCTA selection process resulted in the inclusion of 30 transmission projects to be on the list. Of these 30 projects, 14 are listed as “under construction.”

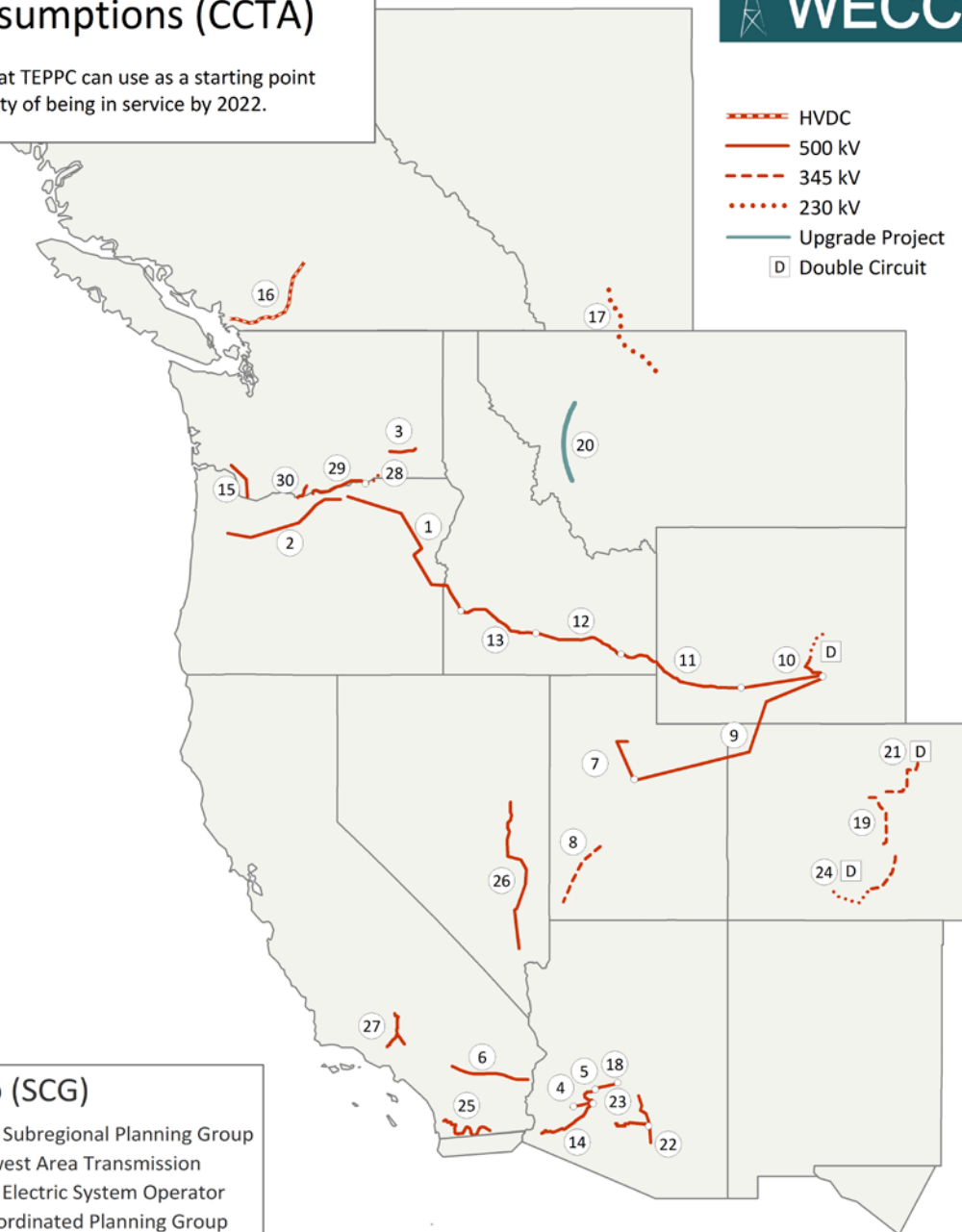
# 2022 Common Case Transmission Assumptions (CCTA)

The purpose of the CCTA is to provide a basic set of transmission facilities that TEPPC can use as a starting point for their own studies. The CCTA is a list of facilities that have a high probability of being in service by 2022.



- 1 Boardman-Hemingway (B2H)
- 2 Cascade Crossing
- 3 Central Ferry - Lower Monumental (Little Goose Area Reinforcement)
- 4 Delaney - Palo Verde Line
- 5 Delaney - Sun Valley Line
- 6 Devers - Colorado River (DCR) Project
- 7 Gateway Central Project: Mona to Oquirrh (Segment C)
- 8 Gateway Central Project: Sigurd - Red Butte
- 9 Gateway South Project: Segment 2 (Aeolus - Mona)
- 10 Gateway West Project: Segment 1A (Windstar to Jim Bridger)
- 11 Gateway West Project: Segment 1B (Bridger - Populus single circuit)
- 12 Gateway West Project: Segment 1C (Populus - Midpoint)
- 13 Gateway West Project: Segment E (Midpoint - Hemingway)
- 14 Hassayampa - North Gila #2 Line
- 15 I-5 Corridor Reinforcement Project (Castle Rock - Troutdale)
- 16 Interior to Lower Mainland Transmission (ILM) Project
- 17 Montana Alberta Tie Project (MATL)
- 18 Morgan - Sun Valley Line
- 19 Midway-Waterton
- 20 Path 8 Upgrade/Colstrip Transmission Upgrade (western portion only)
- 21 Pawnee-Smoky Hill
- 22 Pinal Central-Tortolita
- 23 Pinal West-Pinal Central-Browning (SEV)
- 24 San Luis Valley-Calumet-Comanche
- 25 Sunrise Powerlink
- 26 SWIP South
- 27 Tehachapi Renewable Transmission Project
- 28 Walla Walla to McNary (Energy Gateway Segment A)
- 29 West of McNary Reinforcement Project Group 1 (McNary - John Day)
- 30 West of McNary Reinforcement Project Group 2 (Big Eddy - Knight)

- HVDC
- 500 kV
- - - 345 kV
- ... 230 kV
- Upgrade Project
- D Double Circuit



## Subregional Coordination Group (SCG)

CAISO - California Independent System Operator  
CTPG - California Transmission Planning Group  
CG - ColumbiaGrid  
CCPG - Colorado Coordinated Planning Group  
NTTG - Northern Tier Transmission Group

SIERRA - Sierra Subregional Planning Group  
SWAT - Southwest Area Transmission  
AESO - Alberta Electric System Operator  
BCCPG - BC Coordinated Planning Group

# Acknowledgements

## **Subregional Planning Group (SPG) Coordination Group (SCG) Leadership**

Susan Henderson, Colorado Coordinated Planning Group, SCG Chair

Rich Bayless, Northern Tier Transmission Group, SCG Vice-Chair

## **Subregional Planning Group (SPG) Coordination Group (SCG) Members**

California Independent System Operator

- Neil Millar

California Transmission Planning Group

- Steve Metague

Colorado Coordinated Planning Group

- Susan Henderson

ColumbiaGrid

- Jeff Miller

Northern Tier Transmission Group

- Rich Bayless

Sierra Subregional Planning Group

- Brian Whalen

Southwest Area Transmission

- LeeAnn Torkelson

Alberta Electric System Operator

- Jason Doering

BC Coordinated Planning Group

- Rohan Soulsby

## **Western Electricity Coordinating Council (WECC)**

Bradley Nickell

Keegan Moyer

*The SCG would like to thank all stakeholders who have dedicated their time, effort and resources contributing to this work.*

Cover photo: A 500-kV tower on the existing Interior-to-Lower Mainland (ILM) transmission line in British Columbia. The new ILM project on the 2022 CCTA list will be built through similar terrain when it is constructed next year (photo courtesy of BC Hydro).

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## Background

Multiple utilities own and operate the transmission system that makes up the Western Interconnection. Because changes to the transmission system in one area can impact performance and reliability of the system in another utilities' territory, a regional approach is required when studying the effect of major additions or changes. The Subregional Planning Group (SPG) Coordination Group (SCG) was formed to assist in coordinating regional transmission plans for the Western Interconnection.

The SCG is an ad-hoc committee as described in its charter. Any interested party may participate in SCG activities. The SCG members are listed below and shown in the map to the right.

- Alberta Electric System Operator (AESO)
- British Columbia Coordinated Planning Group (BCCPG)<sup>1</sup>
- ColumbiaGrid
- California Independent System Operator (CAISO)
- California Transmission Planning Group (CTPG)<sup>1</sup>
- Colorado Coordinated Planning Group (CCPG)
- Northern Tier Transmission Group (NTTG)
- Sierra Subregional Planning Group (SIERRA)
- Southwest Area Transmission (SWAT)



The Transmission Expansion Planning Policy Committee (TEPPC) guides the Regional Transmission Expansion Planning (RTEP) process used to create 10- and 20-year regional transmission plans. RTEP is funded, in part, by a grant from the U.S. Department of Energy (DOE). The RTEP process is bottom up with information flowing to TEPPC from stakeholders throughout the Western Interconnection. The SCG represents a set of these stakeholders and provides TEPPC with transmission study assumptions and related technical guidance as necessary.

In 2010, the SCG provided a key study input to TEPPC by submitting a list of transmission projects that were currently under development that would be assumed in service for the TEPPC 2020 Reference Case. This list of projects was known as the "Foundational Projects List" and the 2020 Reference Case was the starting case for all production cost studies used to inform the 2011 Western Electricity Coordinating Council (WECC) 10-Year Regional Transmission Plan. Regionally significant projects that were sufficiently advanced in planning/design/permitting or construction status for the SCG to conclude that there was a high degree of certainty that they would be completed and operational by the end of 2020 were included on the list. These projects were submitted to TEPPC and assumed operational in the 2020 Reference Case. A second list of projects inclusive of other major transmission projects that SCG

<sup>1</sup> New SPG since the last report was provided to TEPPC in August 2010.



members were aware of was also provided. This second list was called the “Potential Projects List.” These projects could be used by TEPPC to mitigate congestion identified in their studies.

TEPPC is constructing a 2022 Common Case to be used as the starting point for studies run in the TEPPC 2011 and 2012 Study Programs. Results from the TEPPC Study Programs will be used to inform the 2013 WECC 10-Year Regional Transmission Plan. The creation of the new 2022 Common Case requires that the SCG provide an updated list of projects to TEPPC. This report documents the purpose, process and resultant list of projects submitted to TEPPC for inclusion in the 2022 Common Case.<sup>2</sup>

This report provides only a list of facilities that have a high degree of certainty of being in service by 2022. Unlike the previous effort, there is no “Potential Projects List.” This new list has been renamed to capture the essence of the list as study input assumptions, which was requested by stakeholders and is now referred to as the “2022 Common Case Transmission Assumptions” or CCTA.

## **Common Case Transmission Assumptions (CCTA)**

In response to interested stakeholder comments, the SCG’s second effort to identify transmission projects that have a high probability of being in service in the approaching 10-year timeframe resulted in the development of a transparent, repeatable and consistently applied process. During this robust process, SCG membership sought greater stakeholder input<sup>3</sup> and also turned to the project sponsors to submit project information to the WECC Transmission Project Information Portal (PIP). In addition to typical project information (e.g., substation terminations, voltage, length, in service), the SCG coordinated with WECC to include new PIP questions<sup>4</sup> designed to help determine if a project was sufficiently far enough along the developmental timeline to be considered in service by 2022. Of the 89 requests sent, 71 responses were received prior to publishing this report.

### ***Purpose of the CCTA***

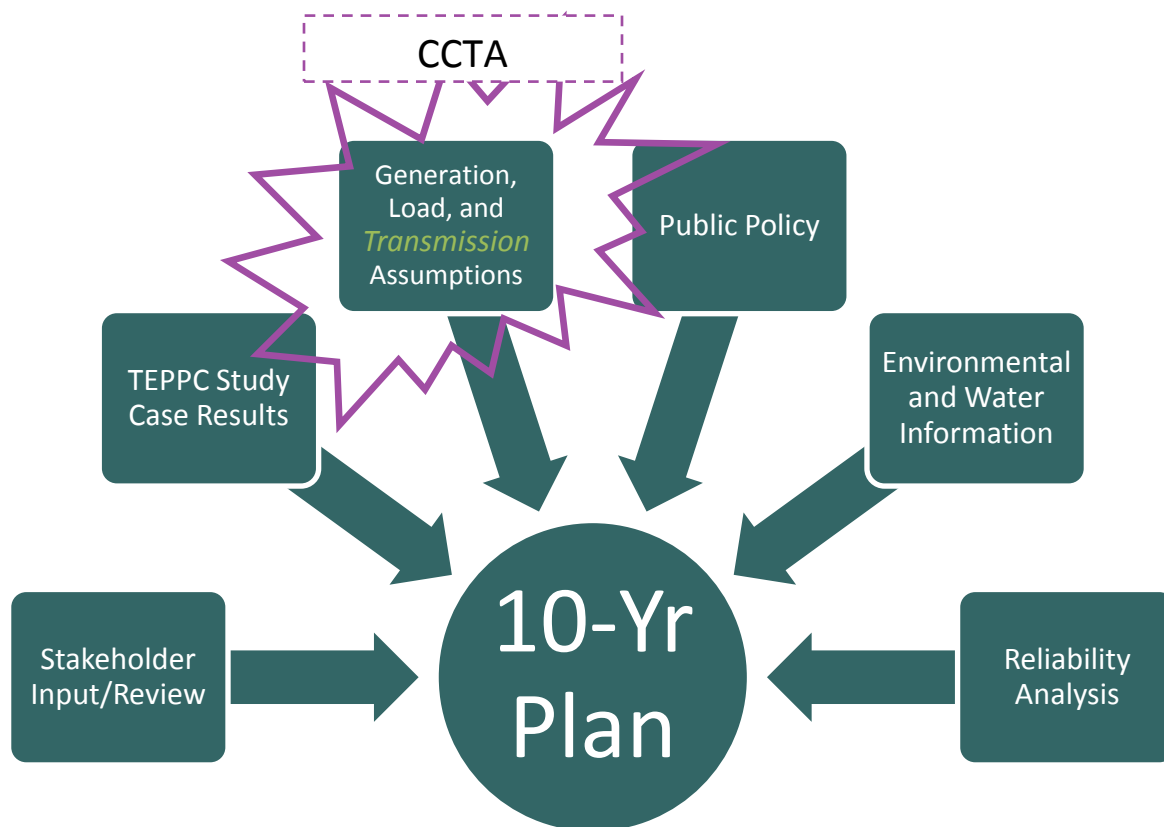
Electric transmission infrastructure, loads and generation resources must be accurately represented when conducting transmission planning studies. Generation, load and transmission change over time and TEPPC has a set of established tools, processes and resources to help estimate these changes. The SCG provides TEPPC with a list of regionally significant transmission projects that have a high probability of being in service in the next 10 years. The CCTA relation to other WECC 10-year plan inputs is shown in the next diagram:

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<sup>2</sup> TEPPC creates 10-year plans biennially. TEPPC conducts analytics annually through a study program. It is these study programs that are used to inform and support the 10-year plans.

<sup>3</sup> Stakeholder outreach is documented in Appendix A – Outreach Activities.

<sup>4</sup> Stakeholders, such as the State-Provincial Steering Committee (SPSC) under the Western Governors’ Association (WGA), requested additional project information.



If TEPPC and the SCG did not include projects that have a high probability of being in service during the appropriate timeframe, results from forward-looking planning studies would be skewed. Generation and load levels typically increase due to population and economic growth. By failing to include high-probability incremental transmission, study results would report unrealistic amounts of congestion. Including all potential transmission projects has the opposite, yet still undesirable, effect. By including a set of high-probability incremental transmission projects, along with predictions on changes in load and generation, an accurate representation of the future Western Interconnection is achieved in TEPPC 10-year studies.

TEPPC can add transmission facilities to mitigate congestion and integrate new resources as necessary. The inclusion of a particular project on the CCTA does not preclude TEPPC from removing the project from its transmission studies. Furthermore, the CCTA does not replace or impose changes on individual SPG transmission planning processes and plans.

### ***CCTA Selection Strategy***

Deciding what specific projects should be assumed in service in planning studies is not a trivial task. There are numerous approaches that could be employed. The SCG discussed three selection strategies that could be used to fulfill the goal of selecting projects with a high probability of being in service in the next 10 years. The first two techniques provide bookends for reasonable approaches, while the third is the strategy employed by the SCG in developing the 2022 CCTA.

- 1) Fully Inclusive - Include all known transmission projects in development and under construction. This method would likely overestimate how much transmission will actually be constructed in the next 10 years as it is commonly understood that not all proposed transmission projects are actually constructed. Permitting difficulties and financial shortcomings are just two examples of issues that cause proposed projects to be cancelled or delayed.



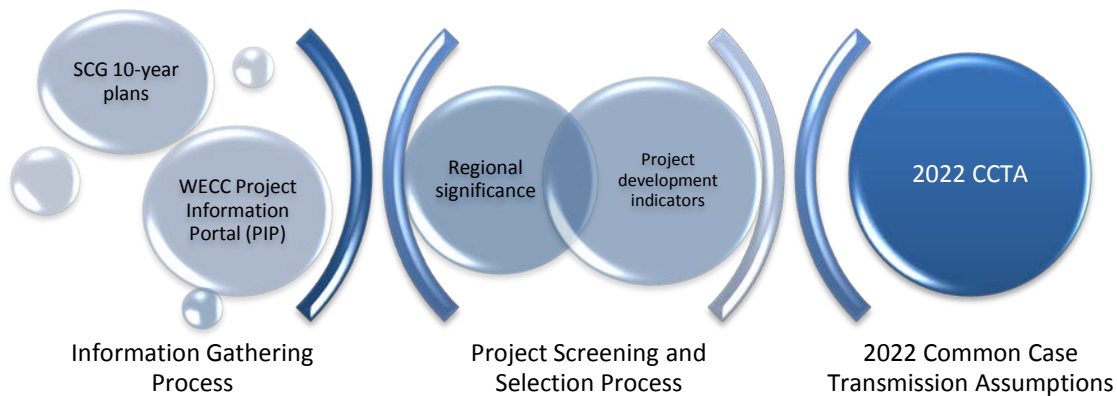
- 2) Construction Only - Include only those projects under construction. It is well understood that projects that are under construction have a high probability of being completed and put into service. However, this strategy would likely underestimate transmission additions in the 10-year timeframe. A set of projects that are moving through the developmental process will enter the construction phase soon. These projects would be excluded using this selection strategy and as a consequence, future transmission infrastructure would be underestimated.
- 3) Construction and Partially Inclusive - Include projects under construction and a set of projects that meet predefined criteria designed to indicate a high probability that the project will be in service in the 10-year timeframe. This strategy represents the 'middle ground' of the previous two options. From the SCG's perspective, this strategy provides the most appropriate starting point for TEPPC 10-year studies.

### *Development of the 2022 CCTA*

Similar to predictions on load growth and generator installations, the CCTA is one of many assumptions used as input into TEPPC planning studies. The CCTA is not the plan, nor does it indicate that WECC members or stakeholders support or endorse any of the transmission projects on the CCTA. The following section is a description of how the 2022 CCTA projects were selected.

### **The CCTA Process**

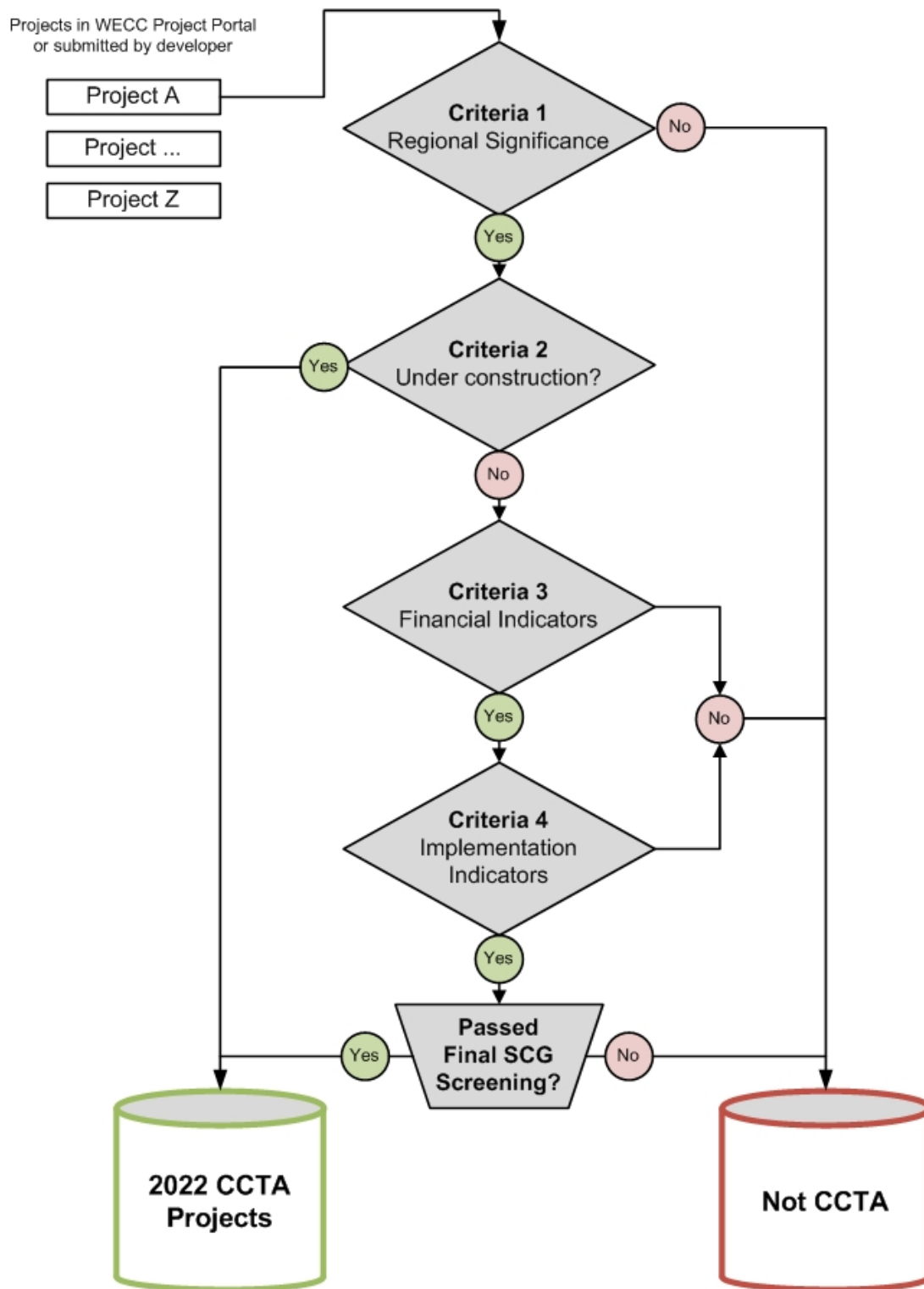
Development of the 2022 CCTA process used project-sponsor-supplied information, as submitted to PIP. The SCG attempted to make the CCTA process highly transparent, repeatable and publicly available. The SCG realized that specific project information was not only important to the CCTA process, but for other planning processes and policy also. The projects and project sponsors were identified by two main methods: 1) SPG 10-year plans; or 2) previous entry into PIP. Once project sponsors updated their project information in PIP, the SCG reviewed the information and assessed the regional significance and development status of each project using a number of indicators. There were several benefits to using PIP, including: availability of public information; all information is stored in one location; and the information can be logically filtered and sorted based on an established criteria. The latter benefit allowed the CCTA process to be repeatable. Also, throughout the process, all of these benefits were requested by interested stakeholders.



Project development indicators were used by the SCG as a guide for selecting the 2022 CCTA. Predetermined criteria were established and each project was evaluated against the criteria using a consistent set of development indicators. It is recognized that strict and rigid criteria for determining what projects should be on the CCTA are neither achievable nor desirable. As such, there were some instances where exceptions were made and projects that met the original developmental criteria were excluded from the 2022 CCTA. The reasons behind these exceptions are documented in this report.

Because information was provided directly by project sponsors, only minimal effort was made to verify the veracity of the submissions. The SCG did, however, contact project sponsors when obvious inconsistencies arose (such as “under construction” was identified but conflicted with “permitting not started”) to clarify responses. In addition, where PIP had not been updated for known projects, the sponsors were contacted to obtain the necessary information.

Projects listed in PIP, or those submitted for SCG consideration, were evaluated for inclusion in the 2022 CCTA using the following process and criteria.



The 2022 CCTA selection process criteria are explained in more detail below.

### *Criteria 1: Regional Significance*

A project must meet one of the following voltage levels in order to be of regional significance<sup>5</sup> and be included on the CCTA:

1. projects that are 500kV and above; or
2. projects at 345kV, unless they are not a backbone<sup>6</sup> facility; or
3. projects above 200kV that are backbone facilities.

If a project met the regionally significant requirement, then it moved on to Criteria 2, or Criteria 3 and Criteria 4 for further evaluation.

### *Criteria 2: Construction Status*

A project that is currently under construction<sup>7</sup> and met Criteria 1 is automatically included on the CCTA list. A project that meets Criteria 1, but is not currently under construction, is further considered in Criteria 3 and Criteria 4.

### *Criteria 3: Financial Indicators*

The SCG used publicly available information in PIP to assess the development status of projects. The list of fields that project sponsors could respond to is available in Appendix B – Letter to Project Sponsors. The SCG distilled this list of questions down to four main financial indicators used to evaluate the project in Criteria 3.

1. Does the project have executed transmission service agreements that commit the project developer to construct the project?
2. Does the project have executed participation contracts from credit-worthy shippers that commit the project developer to construct the project?
3. Is the project included in an Integrated Resource Plan (IRP)?<sup>8</sup>
4. Does the project have regulatory approval for cost recovery?<sup>9</sup>

In order to be considered eligible for inclusion on the CCTA, there must have been at least one affirmative response (“yes”) to any one of the preceding financial indicators.

### *Criteria 4: Implementation Status Indicators*

The SCG used publicly available information in PIP to assess the development status of projects. The list of fields that project sponsors can respond to for a project is available in Appendix B – Letter to Project

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<sup>5</sup> Projects of lower voltage are modeled by WECC members in the power flow base case assembled and vetted by the Technical Studies Subcommittee (TSS).

<sup>6</sup> Backbone transmissions are those facilities that provide network connectivity that are 345kV or above for most of the Western Interconnection, but in certain western regions that voltage may only be 230kV.

<sup>7</sup> “Under construction” is defined as physically building the facility.

<sup>8</sup> Due to differences between state and regional requirements for IRP planning, this criterion is only applicable where transmission is included in the IRP process. For regions or states where transmission is not included in the IRP process, this criterion is not applicable and therefore not used. In Colorado, for example, specific transmission lines are not identified in IRPs, making this criterion inapplicable. Alternatively, in Nevada, specific transmission lines are acknowledged through an IRP. Although this is not an official approval of the project, it does serve as a strong indicator that the project will be built. This criterion was not applied uniformly across all projects to accommodate the unique state and regional approval processes

<sup>9</sup> Cost recovery is separate from cost allocation and varies depending on the jurisdiction of the project developer.

Sponsors. The SCG distilled this list of questions down to a key implementation indicator used to evaluate the project in Criteria 4.

What percentage of the *required* permits has been secured for?

1. Federal
2. State/Provincial
3. Local

A project must have started at least one of the three applicable permitting processes (i.e., percentage complete must be greater than zero) to be eligible for inclusion on the CCTA.

To summarize, all CCTA-eligible projects must pass Criteria 1 (Regional Significance). Projects meeting Criteria 1 that were under construction were included as CCTA projects based on Criteria 2. Those projects not under construction had to pass *both* Criteria 3 (Financial Indicators) and Criteria 4 (Implementation Status Indicators) in order to be included on the CCTA. As a final step, all projects on the CCTA list underwent a final review by the SCG, which reserved the right to exclude projects on an individual basis because selecting projects using rigid criteria is neither achievable nor desirable.

## ***2022 CCTA Projects***

By making use of the CCTA selection process, as introduced above, there are two types of projects that make up the CCTA.

1. Projects that are of regional significance and under construction.
2. Projects that are of regional significance and not under construction, but have developmental indicators sufficient enough to meet the predefined criteria designed to indicate that there is a high probability that the project will be in service in the 10-year timeframe (i.e., met both Criteria 3 and Criteria 4).

The following sets of projects are of regional significance (Criteria 1) and have a high probability of being in service by 2022. These lists, when combined, make up the 2022 CCTA.

### **1. Under Construction (Criteria 2)**

- Delany-Palo Verde 500-kV Line
- Delany-Sun Valley 500-kV Line
- Devers - Colorado River 500-kV (DCR) Transmission Line Project
- Gateway Central Project – Mona to Oquirrh 500kV (Energy Gateway Segment C)
- Montana Alberta Tie-Line (MATL)
- Midway-Waterton
- Pawnee-Smoky Hill
- Pinal Central-Tortolita
- Pinal West-Pinal Central-Browning (SEV)
- Sunrise Powerlink
- SWIP South (Robinson Summit to Harry Allen)
- Tehachapi Upgrade

- West of McNary Reinforcement Project Group 1 (McNary - John Day)
- West of McNary Reinforcement Project Group 2 (Big Eddy - Knight)

## 2. Not under construction, but met CCTA selection Criteria 3 and Criteria 4

<b>Project Name</b>	<b>Criteria 1: Regional Significance</b>	<b>Criteria 2: Construction Status</b>	<b>Criteria 3: Financial Indicators</b>				<b>Criteria 4: Implementation Status Indicators</b>		
	Regionally Significant	Under Construction	Executed transmission service agreements	Executed participation contracts from credit worthy shippers	Included in an IRP	Regulatory approval for cost recovery	Started required federal permitting	Started required state/ provincial permitting	Started required local permitting
Boardman-Hemingway 500kV (B2H)	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes
Cascade Crossing <sup>10</sup>	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes
Central Ferry - Lower Monumental (Little Goose Area Reinforcement)	Yes	No	Yes	Yes	N/A	Yes	Yes	Yes	N/A
Gateway Central Project, Sigurd - Red Butte - Crystal 345-kV Line	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes
Gateway South Project – Segment #2 (Aeolus-Mona 500kV)	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes
Gateway West Transmission Project Segment 1A – Windstar to Jim Bridger 230kV, 500kV	Yes	No	Yes	No	Yes	No	Yes	No	No
Gateway West Transmission Project Segment 1B – Jim Bridger to Southeast Idaho (Bridger – Populus single circuit 500kV)	Yes	No	Yes	No	Yes	No	Yes	No	No

<sup>10</sup> The SCG was made aware of outside information indicating that the project had executed transmission service agreements



Gateway West Transmission Project Segment 1C – Southeast Idaho – South Central Idaho (Populus – Midpoint 500kV)	Yes	No	Yes	No	Yes	No	Yes	No	No
Gateway West Transmission Project Segment E – South to Southwest Idaho (Midpoint – Hemingway 500kV)	Yes	No	No	No	Yes	No	Yes	No	No
Hassayampa - North Gila 500- kV #2 Line	Yes	No			Yes		Yes	Yes	Yes
I-5 Corridor Reinforcement Project (Castle Rock - Troutdale)	Yes	No	Yes		N/A		Yes	Yes	Yes
Interior to Lower Mainland Transmission (ILM) Project,	Yes	No	Yes	Yes	Yes	Yes	N/A	Yes	N/A
Morgan-Sun Valley 500-kV Line	Yes	No			Yes		Yes	Yes	
Path 8 Upgrade/Colstrip Transmission Upgrade (western portion only)	Yes	No	Yes	No	No	Yes	N/A	N/A	N/A
San Luis Valley-Calumet- Comanche	Yes	No	No		No	Yes	Yes	Yes	Yes
Walla Walla to McNary 230kV (Energy Gateway Segment A)	Yes	No	Yes	No	Yes	No	Yes	N/A	Yes

### ***CCTA Process Exceptions***

All CCTA projects were selected based on a consistent process as described in “CCTA Selection Process.” There were several projects that met the initial screening criteria based on responses included in PIP, but were excluded from the CCTA list based on follow-up discussion with the project sponsor or further review of the information submitted to PIP. These projects and the associated reasons for being excluded as viewed by the SCG are listed in the following table. All projects that were not selected as CCTA projects and remain under development will be reevaluated for future study cycles according to the selection criteria established at that time.

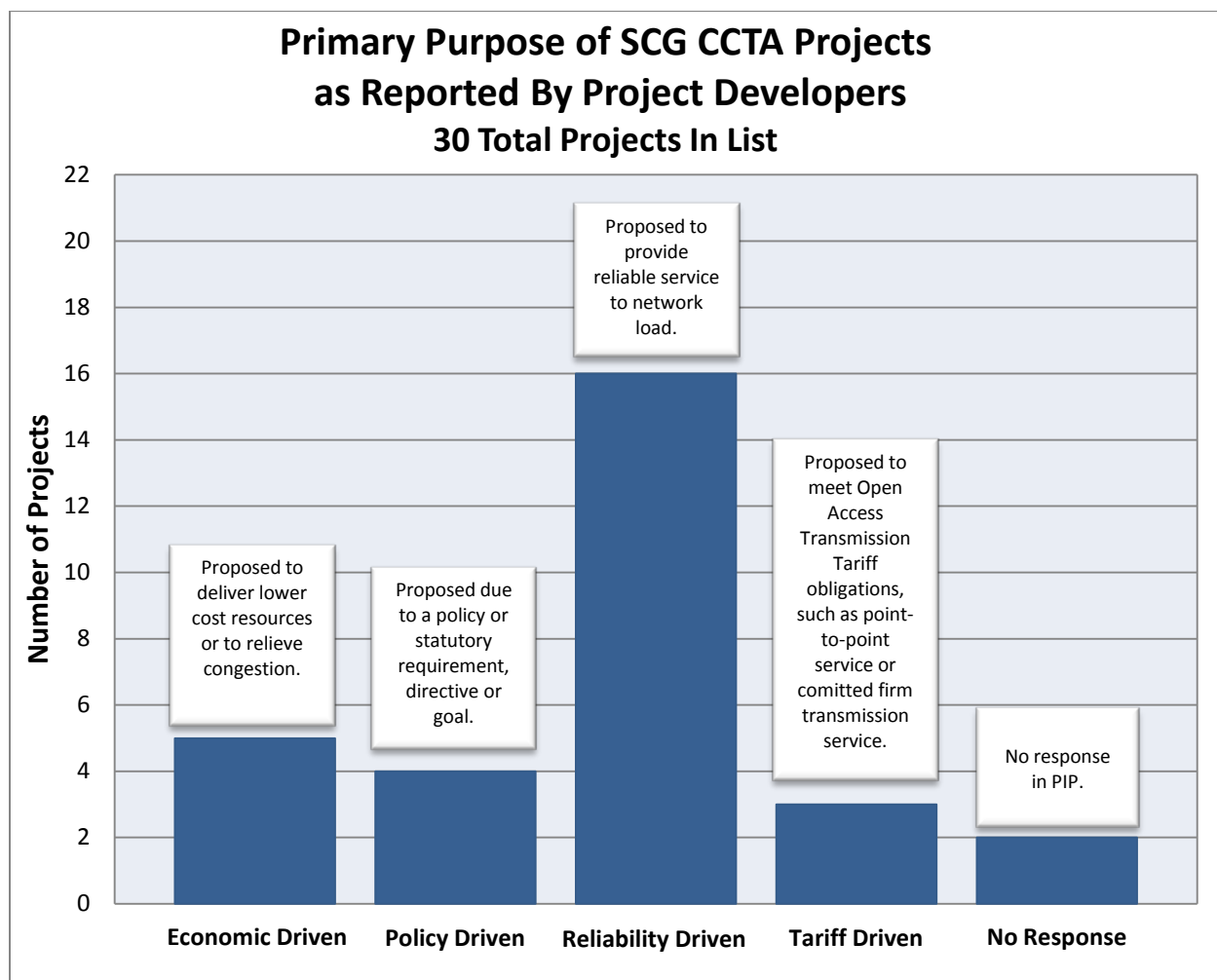
<b>PROJECT</b>	<b>REASON FOR EXCLUSION</b>
ECO 500/230/138-kV Substation	Project was deemed not to be regionally significant. 500/230 substation transformer projects were not considered in the effort. These types of assumptions are brought into TEPPC studies through BA and TO reporting requirements to WECC.
Mountain States Transmission Intertie (MSTI)	Insufficient demonstration of financial commitment. There is inadequate contractual documentation specifying the buyer or identified customers responsible to bear the costs of the project.
NV Energy Self Build Robinson - Harry Allen 500-kV Line	Radial project that TEPPC can include if associated resources are included in 2022 Common Case.
SunZia Southwest Transmission Project	Insufficient demonstration of financial commitment. There is inadequate contractual documentation to specify the buyer or identified customers responsible to bear the costs of the project. <sup>11</sup>
SWIP North	Insufficient demonstration of financial commitment. There is inadequate contractual documentation specifying the buyer or identified customers responsible to bear the costs of the project.
TCP (Northwest - Harry Allen)	Radial project that TEPPC can include if associated resources are included in 2022 Common Case.
Tres Amigas	Insufficient demonstration of financial commitment There is inadequate contractual documentation specifying the buyer or identified customers responsible to bear the costs of the project.
West Side Tie	Radial project that TEPPC can include if associated resources are included in 2022 Common Case.

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<sup>11</sup> SunZia provided detailed comments related to meeting the CCTA. At the SCG meeting on December 7, 2011, there was a robust discussion based on the CCTA. The SCG and stakeholders felt this documentation was germane to most of the projects and, therefore, these notes are included in Appendix E – CCTA Criteria and SunZia.

## Categorization of Projects

As part of the PIP survey, project sponsors were asked to identify the transmission projects' primary and secondary purpose. Stakeholders have asked for a greater understanding as to why transmission projects are proposed. As part of the data gathering, it was suggested the SCG could not only update the transmission projects, but answer stakeholder questions related to transmission development. This information has been solicited to help develop a high-level understanding related to what is driving the industry to expand the transmission system. The SCG, with stakeholder involvement, identified five primary reasons to develop transmission projects. Of the 30 CCTA projects, 28 listed a specific "primary purpose" of the project. A general summary of this information, as well as a description of the primary purpose reasons, are presented in the chart below.



Project sponsors supplied their primary and secondary reasons for transmission development. The SCG did not investigate the veracity of the submissions. Project sponsor feedback to the PIP questions related to the primary and secondary purpose of the project was generally that many projects meet several categories and it is often difficult to choose just one purpose for a project.

## APPENDICES

### *Appendix A – Outreach Activities*

The following is a list of SCG sponsored meetings and links to their respective WECC meeting pages, which help document the SCGs outreach activities. The purpose of these meetings was to engage and encourage comments from interested parties related to the process of identifying the 2022 CCTA.

<a href="#">SCG Meeting</a>	April 4-5, 2011
<a href="#">SCG Meeting</a>	June 21, 2011
<a href="#">SCG Meeting (discuss criteria)</a>	July 7, 2011 (webinar)
<a href="#">SCG Outreach</a>	July 13, 2011 (webinar)
<a href="#">SCG Meeting (review of projects)</a>	August 5, 2011 (webinar)
<a href="#">SCG Meeting (prelim CCTA)</a>	August 15-16, 2011
<a href="#">SCG Meeting (final CCTA)</a>	August 31, 2011
<a href="#">SCG Meeting (CCTA report)</a>	October 19, 2011
SPSC/CREPC Presentation	October 27, 2011
<a href="#">TEPPC Presentation</a>	November 3, 2011
<a href="#">SCG Meeting (review comments)</a>	December 7, 2011
<a href="#">SCG Meeting (report approval)</a>	February 6, 2011 (webinar)

## ***Appendix B – Letter to Project Sponsors***

Below is the original letter and reminder notice sent to project sponsors to update PIP.

### **Original Letter**

**July 11, 2011**

**TO: Transmission Project Sponsors**

**RE: TEPPC request for additional transmission project information**

The WECC [Regional Transmission Expansion Planning](#) (RTEP) process, led by WECC's [Transmission Expansion Planning Policy Committee](#) (TEPPC), recently began its next planning cycle which will produce 10- and 20-year regional transmission plans in 2013. One of the initial activities of the planning cycle is to create a set of starting point assumptions for load, generation, and transmission – the RTEP 2022 Common Case. WECC is reaching out to transmission project sponsors and others to ensure complete and accurate information is available for this planning cycle.

You are receiving this letter because your project was identified by the [Subregional Planning Group Coordination Group](#) (SCG) as being of regional significance (i.e., voltage, length) based on information in the WECC [Transmission Project Information Portal](#) (Portal). In lieu of a separate questionnaire, the Portal has been expanded to include additional questions. Your responses will allow the SCG to assist TEPPC in determining if your project will be included in the RTEP 2022 Common Case as a base input assumption (assumed in-service in 2022) and to better understand how to include your project in various RTEP study cases.

Please follow this link to the [Portal](#) and respond to the questions for your project. The added or modified Portal questions are listed for your reference on the next page. Additionally, in order to model your project in the 2022 Common Case, or any other RTEP studies, you must email your project EPC file (based on the 2020 HS1 case) to Keegan Moyer ([kmoyer@wecc.biz](mailto:kmoyer@wecc.biz)). Project Portal responses and EPC file submittals are due **JULY 29, 2011**. The information contained in the Portal as of this date will be forwarded to the SCG and used for the remainder of the TEPPC 2011 Study Cycle. Developers will not be asked to update the Portal again until January 2012.

If you have specific questions about the purpose of the new questions, or would like help in understanding the intent of a specific question and how it might apply to your project, please contact me or Keegan Moyer. Also, contact Keegan if you have any issues accessing your project(s) on the Portal. Lastly, the SCG is hosting an informational [webinar](#) on Wednesday, July 13, 2011 to discuss the process used to select projects for the RTEP 2022 Common Case. The discussion will cover the Portal's expanded questions and progress on creating criteria to determine project development status. The webinar, open to all, is specifically geared toward project developers.

We appreciate your time and thank you in advance for your prompt response.

Best regards,  
Brad

## Reminder Notice

**7/25/2011**

Transmission Project Sponsor,

You are currently listed as the contact person for a project in the [WECC Transmission Project Information Portal](#) that has not been updated per the attached request. This email is intended to serve as friendly reminder that the information contained in the Portal as of **July 29<sup>th</sup>, 2011** will be forwarded to the SCG and used for the remainder of the TEPPC 2011 Study Cycle. There are new questions in the Portal and WECC is reaching out to transmission project sponsors and others to ensure complete and accurate information is available for this planning cycle.

Feel free to contact me directly if you have any questions and thanks for your participation.

Regards,  
Keegan Moyer

## WECC Transmission Project Information Portal Questionnaire

<b>Project Name *</b>	
<b>Date of Last Update *</b>	
<b>Project Type *</b>	<div>New</div> <div>Upgrade</div>
<b>Project Purpose *</b>	
<b>Sponsoring Organization(s) *</b>	
<b>Other Project Participant(s)</b>	
<b>The project line voltage(s): Select all that apply *</b>	<div>&lt;200kV</div> <div>200-300kV AC</div> <div>300-450kV AC</div> <div>&gt;450kV AC</div> <div>&gt;450kV DC</div>
<b>Estimated Transfer Capability/Rating (MW)</b>	
<b>Estimated In-Service Date *</b>	
<b>Which SPG's does the project terminate in (check all that apply)? *</b>	<div>CTPG</div> <div>CCPC</div> <div>CG</div> <div>NTTG</div> <div>SWAT</div> <div>SIERRA</div> <div>AESO</div> <div>BCCPG</div>



	CAISO
Which SPG planning process is the project participating in (check all that apply)?	CTPG
	CCPC
	CG
	NTTG
	SWAT
	SIERRA
	AESO
	BCCPG
	CAISO
	None
Has the project been studied in a regional or subregional planning forum (check all that apply)?	CTPG
	CCPC
	CG
	NTTG
	SWAT
	SIERRA
	AESO
	BCCPG
	CAISO
	WECC
None	
In what year(s) has the project been studied?	
Status in Most Recent SPG Plan *	Conceptual
	Planned
	Under Construction
Project Map	
Project Website	

Have the transmission interconnection points been determined?	Yes/No
Point of Origin *	
Point of Termination *	
Intermediate Points of Interconnection	
General Route *	
Length in Miles	
Conductor Size and Percent Compensation	
Estimated Cost	\$
Estimated Construction Schedule *	
WECC Reports Submitted	
Siting Studies *	
Economic Screening Studies with Assumptions *	
Economic Analysis and Cost/Benefit Studies *	
Environmental Impact Statement *	
Has the project been studied using a power flow analysis program?	
In what year (s) has the project been studied?	

<p>Although there are many reasons to propose a transmission project, what is the primary purpose for the transmission project?</p>	<p>Economic driven - Proposed to deliver lower cost resources or to relieve congestion.</p>
	<p>Reliability driven - Proposed to provide reliable service to network load.</p>
	<p>Tariff driven - Proposed to meet Open Access Transmission Tariff obligations such as point-to-point service or committed firm transmission service.</p>
	<p>Policy driven - Proposed due to a policy or statutory requirement, directive, or goal.</p>
<p>For what other purposes is the project being proposed? (check all that apply)</p>	<p>Economic driven - Proposed to deliver lower cost resources or to relieve congestion.</p>
	<p>Reliability driven - Proposed to provide reliable service to network load.</p>
	<p>Tariff driven - Proposed to meet Open Access Transmission Tariff obligations such as point-to-point service or committed firm transmission service.</p>
	<p>Policy driven - Proposed due to a policy or statutory requirement, directive, or goal.</p>
<p>Is the project currently under construction? *</p>	<p>Yes/No</p>
<p>Does the project have a commitment for financing and a commitment to move forward with construction</p>	<p>Yes/No</p>
<p>If yes, describe the nature of the financing and construction commitments.</p>	
<p>Does the project have executed construction contracts?</p>	<p>Yes/No</p>
<p>If yes, provide the date of contract execution.</p>	
<p>If yes, provide % of the total project cost that has an executed contract.</p>	
<p>Does the project connect with a system(s) owned by others?</p>	<p>Yes/No</p>

<b>If yes, does the project have interconnection agreements?</b>	
<b>If yes, describe the nature of the interconnection agreements.</b>	
<b>Has the project been included in an integrated resource plan (IRP)?</b>	Yes/No
<b>If yes, provide the date of the IRP and an electronic link, if available.</b>	
<b>If the IRP has been reviewed by state regulators, provide a brief description of the status and/or results of that review.</b>	
<b>If the IRP has been approved or acknowledged by state regulators, provide electronic links to the relevant orders.</b>	
<b>Does the project have Right-of-Way (ROW) contracts with landowners?</b>	Yes/No
<b>If yes, what is the percentage of line mileage ROW obtained?</b>	
<b>Has major equipment (e.g., transformers, towers, wire) been ordered for the project?</b>	Yes/No
<b>If yes, please describe.</b>	
<b>If yes, provide the date.</b>	
<b>Have appropriate regulatory agencies approved cost recovery?</b>	Yes/No
<b>If yes, provide date.</b>	
<b>If yes, what agency provided the approval?</b>	
<b>Indicate the federal permitting status for the project.</b>	
<b>If applicable list % complete.</b>	
<b>Indicate the state or provincial permitting status for the project.</b>	
<b>*If applicable list % complete.</b>	
<b>Indicate the local (e.g., county, municipal) permitting status for the project.</b>	
<b>@ If applicable list % complete.</b>	
<b>Does the project have executed transmission service agreements?</b>	Yes/No

<b>*If yes, provide the date of contract execution.</b>	
<b>If yes, provide % of line capacity under agreement.</b>	
<b>Does the project have executed participation contracts from credit worthy shippers?</b>	
<b>@ If yes, provide the date of the contract execution.</b>	
<b>If yes, provide % of line capacity under contract.</b>	
<b>Has the project been analyzed using a production cost modeling tool?</b>	<b>Yes/No</b>
<b>What phase of the WECC Path Rating process is the project in? *</b>	
<b>Have alternative routes and solutions been investigated?</b>	
<b>The project is being used to fulfill a policy requirement. (CAISO only)</b>	
<b>The project is being used to fulfill a policy directive. (outside of CAISO)</b>	
<b>If yes, to either of the questions above, describe the requirement/directive and how the project fulfills it.</b>	
<b>Is this project dependent upon another transmission project to be completed and used for its intended purpose(s)?</b>	<b>Yes/No</b>
<b>If yes, list the dependent project(s).</b>	
<b>Provide any further information or detail about the project for consideration in WECC's Regional Transmission Expansion Planning (RTEP) process.</b>	
<b>Project Contact Name *</b>	
<b>Project Contact Email *</b>	
<b>Project Contact Street Address</b>	
<b>Project Contact City</b>	
<b>Project Contact Country</b>	
<b>Project Contact State/Province</b>	
<b>Project Contact Zip</b>	

<b>Project Contact Phone Number</b>	
<b>Project Contact Name (2)</b>	
<b>Project Contact Email (2)</b>	
<b>Project Contact Street Address (2)</b>	
<b>Project Contact City (2)</b>	
<b>Project Contact State/Province (2)</b>	
<b>Project Contact Country (2)</b>	
<b>Project Contact Zip (2)</b>	
<b>Project Contact Phone Number (2)</b>	

### Appendix C – WECC Project Information Portal

The evaluation of projects in PIP was performed on projects and project information as of 10/21/2011. The table below presents some basic information for 89 projects in PIP evaluated on the CCTA process. All information in the PIP is located on the [WECC web site](#).

<i>Project Name</i>	<i>Sponsoring Organization(s)</i>	<i>Project voltage(s)</i>	<i>Estimated In-Service Date</i>	<i>Primary Purpose</i>	<i>Currently under construction?</i>	<i>2022 CCTA?</i>
Abel - Ball (formerly Abel-Moody)	Salt River Project	200-300-kV AC	4/15/2019	Reliability driven	No	
Ault-Cherokee	Public Service of Colorado (PSCo)	300-450-kV AC	12/31/2016	Policy driven	No	
Bighorn-Eldorado	NV Energy	>450-kV DC	12/12/2015	Policy driven	No	
Boardman-Hemingway 500kV (B2H)	Idaho Power	>450-kV AC	6/1/2016	Reliability driven	No	Yes
Canada – Northern California Transmission Project – Avista Corporation 500/230-kV AC Interconnection	Avista Corporation	>450-kV AC	1/1/2015		No	
Canada/Pacific Northwest-Northern California	BC Hydro	>450-kV AC; >450-kV DC	1/1/2021	Economic driven	No	
Cascade Crossing	Portland General Electric	>450-kV AC	12/1/2016	Reliability driven	No	Yes
Cedar Mountain Loop-in of Moenkopi-Yavapai 500-kV Line	Arizona Public Service Company	>450-kV AC	12/31/2011	Tariff driven	Yes	
Centennial West Clean Line	Clean Line Energy Partners LLC	>450-kV DC	1/1/2018	Economic driven	No	
Central Ferry - Lower Monumental (Little Goose Area Reinforcement)	BPA	>450-kV AC	7/31/2013	Tariff driven	No	Yes
Chinook	TransCanada	>450-kV DC	12/31/2018		No	
Delaney-Palo Verde 500-kV Line	Arizona Public Service Company	>450-kV AC	12/1/2013	Economic driven	Yes	Yes
Delany-Sun Valley 500-kV Line	Arizona Public Service Company	>450-kV DC	5/1/2015	Reliability driven	Yes	Yes
Desert Basin - Pinal Central	Salt River Project	200-300-kV AC	4/15/2014	Reliability driven	No	



<i>Project Name</i>	<i>Sponsoring Organization(s)</i>	<i>Project voltage(s)</i>	<i>Estimated In-Service Date</i>	<i>Primary Purpose</i>	<i>Currently under construction?</i>	<i>2022 CCTA?</i>
Devers - Colorado River 500-kV (DCR) Transmission Line Project	SCE	>450-kV AC	12/31/2013	Policy driven	Yes	Yes
ECO 500/230/138-kV Substation	San Diego Gas & Electric	<200-kV AC; 200-300-kV AC; >450-kV AC	9/1/2012	Policy driven	No	
Gateway Central Project – Mona to Oquirrh 500kV (Energy Gateway Segment C)	PacifiCorp	>450-kV AC	6/1/2013	Tariff driven	Yes	Yes
Gateway Central Project, Sigurd - Red Butte 345-kV Line	PacifiCorp	300-450-kV AC	6/1/2014	Reliability driven	No	Yes
Gateway South Project – Segment #1 (Mona-Crystal 500kV)	PacifiCorp	>450-kV AC	12/31/2050		No	
Gateway South Project – Segment #2 (Aeolus-Mona 500kV)	PacifiCorp	>450-kV AC	1/1/2019	Reliability driven	No	Yes
Gateway West Transmission Project Segment 1A – Windstar to Jim Bridger 230kV, 500kV	PacifiCorp and Idaho Power	>450-kV AC	6/1/2017	Reliability driven	No	Yes
Gateway West Transmission Project Segment 1B – Jim Bridger to Southeast Idaho (Bridger – Populus single circuit 500kV)	PacifiCorp and Idaho Power	>450-kV AC	1/1/2017	Reliability driven	No	Yes
Gateway West Transmission Project Segment 1C – Southeast Idaho – South Central Idaho (Populus – Midpoint 500kV)	PacifiCorp and Idaho Power	>450-kV AC	1/1/2018	Reliability driven	No	Yes
Gateway West Transmission Project Segment E – South to Southwest Idaho (Midpoint – Hemingway 500kV)	PacifiCorp and Idaho Power	>450-kV AC	1/1/2018	Reliability driven	No	Yes
Great Basin HVDC	Great Basin Energy Development, LLC (GBHVDC)	>450-kV DC	12/31/2016	Economic driven	No	
Harcuvar Transmission Project	Central Arizona Water	200-300-kV AC	1/1/2015		No	

<i>Project Name</i>	<i>Sponsoring Organization(s)</i>	<i>Project voltage(s)</i>	<i>Estimated In-Service Date</i>	<i>Primary Purpose</i>	<i>Currently under construction?</i>	<i>2022 CCTA?</i>
	Conservation District					
Hassayampa - North Gila 500-kV #2 line	Arizona Public Service	>450-kV AC	5/1/2015	Reliability driven	No	Yes
Hassayampa-Pinal West #2	Salt River Project	>450-kV AC	N/A	Reliability driven	No	
Hemingway-Captain Jack 500-kV Transmission Line	PacifiCorp	>450-kV AC	1/1/2030		No	
High Plains Express Transmission Project	Black Hills Corporation; Colorado Springs Utilities; Public Service Company of New Mexico, Public Service Company of Colorado (Xcel Energy); Salt River Project; Tri-state Generation & Transmission; Trans-Elect Development Company; Western Area Power Administration; Colorado Clean Energy Development Authority; New Mexico Renewable Energy Transmission Authority; and Wyoming Infrastructure Authority	300-450-kV AC; >450-kV AC	1/1/2017	Economic driven	No	
Hoodoo Wash Loop-in of Hassayampa-North Gila 500-kV #1 Line	Arizona Public Service Company	>450-kV AC	12/31/2011	Tariff driven	Yes	
I-5 Corridor Reinforcement Project (Castle Rock - Troutdale)	Bonneville Power Administration (BPA)	>450-kV AC	12/1/2015	Reliability driven	No	Yes
Interior to Lower Mainland Transmission (ILM) Project	BC Hydro	>450-kV DC	10/31/2014	Reliability driven	No	Yes
Juan de Fuca HVDC Sea Cable	Sea Breeze Pacific Juan de Fuca Cable, LP		1/1/2013			

<i>Project Name</i>	<i>Sponsoring Organization(s)</i>	<i>Project voltage(s)</i>	<i>Estimated In-Service Date</i>	<i>Primary Purpose</i>	<i>Currently under construction?</i>	<i>2022 CCTA?</i>
Juan de Fuca II HVDC Cable	Sea Breeze Pacific Regional Transmission System, Inc (SBP-RTS)		1/1/2015			
Lake Elsinore Advanced Pumped Storage (LEAPS Transmission Project (Talega-Escondido / Valley-Serrano 500-kV line)	Nevada Hydro Company, Inc. and The Lake Elsinore Valley Municipal Water District	<200-kV AC	1/1/2009		No	
Lamar-Front Range	Public Service of Colorado (PSCo) & Tri-State G&T	300-450-kV AC	12/31/2017	Policy driven	No	
Lamar-Vilas	Public Service of Colorado (PSCo)	200-300-kV AC	12/31/2017	Policy driven	No	
Las Vegas - Los Angeles Transmission Project	Energy Capital Partners PDS Consulting	>450-kV AC	5/1/2017	Economic driven	No	
Lassen Double-Circuit 230-kV line	Lassen Municipal Utility District	200-300-kV AC	6/1/2016		No	
Lucky Corridor Transmission Project	Lucky Corridor, LLC	200-300-kV AC	4/1/2015	Policy driven	No	
Midway-Waterton	Public Service of Colorado	300-450-kV AC	6/30/2011	Policy driven	Yes	Yes
Montana Alberta Tie-Line	Montana Alberta Tie Ltd. (MATL)	200-300-kV AC	6/30/2012		Yes	Yes
Morgan-Sun Valley 500-kV Line	Arizona Public Service Company	>450-kV AC	6/1/2016	Reliability driven	No	Yes
Mountain States Transmission Intertie (MSTI) (Townsend-Midpoint 500kV)	Northwestern Energy	>450-kV AC	9/30/2016	Economic driven	No	
Navajo Transmission Project Segment #1 (Four Corners - Marketplace 500kV)	Dine Power Authority		1/1/2010			
North Gila - Imperial Valley #2 Project	Southwest Transmission Partners, LLC	>450-kV AC	1/1/2017	Economic driven	No	
North Gila- TS8 230-kV Line	Arizona Public Service Company	200-300-kV AC	6/1/2014		No	
NorthernLights	TransCanada Energy	>450-kV DC	1/1/2015		Yes	

<i>Project Name</i>	<i>Sponsoring Organization(s)</i>	<i>Project voltage(s)</i>	<i>Estimated In-Service Date</i>	<i>Primary Purpose</i>	<i>Currently under construction?</i>	<i>2022 CCTA?</i>
Northwest Transmission Line	BC Hydro	<200-kV AC; 200-300-kV AC	12/31/2013	Economic driven	Yes	
NV Energy Self Build Robinson - Harry Allen 500-kV Line	NV Energy	>450-kV AC	12/12/2015	Policy driven	No	
Palm Valley-TS2-Trilby Wash 230-kV Line	Arizona Public Service Company	200-300-kV AC	6/1/2015		No	
Path 42 Upgrade Project	SCE	200-300-kV AC	12/31/2013	Economic driven	No	
Path 8 Upgrade/Colstrip Transmission Upgrade (full project, west and eastern portions)	NorthWestern Energy (NWE), and some or all of the Colstrip Transmission System (CTS) (east of Townsend), Bonneville Power Administration (BPA) (west of Townsend)	>450-kV AC	12/31/2013	Economic driven	No	Yes
Pawnee-Daniels Park	Public Service of Colorado	300-450-kV AC	12/31/2018	Policy driven	No	
Pawnee-Smoky Hill	Public Service of Colorado (PSCo)	300-450-kV AC	6/30/2013	Policy driven	Yes	Yes
Pinal Central – Sundance 230-kV Line	Arizona Public Service Company	200-300-kV AC	6/1/2014		No	
Pinal Central-Tortolita	Tucson Electric Power Co.	>450-kV AC	4/15/2014	Reliability driven	Yes	Yes
Pinal West-Pinal Central-Browning (SEV)	Salt River Project	>450-kV AC	4/15/2014	Reliability driven	Yes	Yes
RTI Dixie-Oreana	NV Energy	300-450-kV AC	12/12/2015	Policy driven	No	
RTI Tracy-Viewland 345kV	NV Energy	300-450-kV AC	12/12/2015	Reliability driven	No	
RTI Westside Tie 345kV	NV Energy	300-450-kV AC	12/12/2015	Policy driven	No	
RTI Zone 4 to Harry Allen	NV Energy	>450-kV AC	12/12/2014	Policy driven	No	
San Francisco Bay Area Bulk Transmission Reinforcement	Pacific Gas & Electric		1/1/2013			

<i>Project Name</i>	<i>Sponsoring Organization(s)</i>	<i>Project voltage(s)</i>	<i>Estimated In-Service Date</i>	<i>Primary Purpose</i>	<i>Currently under construction?</i>	<i>2022 CCTA?</i>
San Luis Rio Colorado (SLRC) Project	North Branch Resources, Generadora del Desierto, SA de CV, and Western Area Power Administration	200-300-kV AC	6/1/2014	Economic driven	No	
San Luis Valley-Calumet-Comanche	Public Service of Colorado (PSCo) and Tri-State G&T	200-300-kV AC; 300-450-kV AC	12/31/2016	Policy driven	No	Yes
South Orange County Reliability Upgrade Project (SOCRUP)	San Diego Gas & Electric	<200-kV AC; 200-300-kV AC	6/1/2017	Reliability driven	No	
Southline Transmission Project (Afton-Apache)	Southline Transmission, L.L.C.	300-450-kV AC	12/31/2015	Reliability driven	No	
Southline Transmission Project (Apache-Saguaro)	Southline Transmission, L.L.C.	200-300-kV AC	12/31/2015	Reliability driven	No	
Sun Valley – Trilby Wash 230-kV Line	Arizona Public Service Company	200-300-kV AC	6/1/2014		No	
Sunrise Powerlink	San Diego Gas & Electric	>450-kV AC	6/1/2012	Economic driven	Yes	Yes
SunZia Southwest Transmission Project	SouthWestern Power Group, Salt River Project, Tucson Electric Power, Shell WindEnergy, and Tri-State Generation & Transmission Association	>450-kV AC	1/1/2016	Economic driven	No	
SWIP North	Great Basin Transmission, LLC	>450-kV AC	1/1/2014	Economic driven	No	
SWIP South	Great Basin Transmission, LLC	>450-kV AC	1/1/2014	Economic driven	Yes	Yes
TCP (Transmission Corridor Project, Amargosa-Northwest)	NV Energy	>450-kV AC	12/12/2015	Policy driven	No	
TCP (Transmission Corridor Project, Harry Allen - Eldorado)	NV Energy	<200-kV AC; >450-kV AC	12/12/2015	Economic driven	No	

<i>Project Name</i>	<i>Sponsoring Organization(s)</i>	<i>Project voltage(s)</i>	<i>Estimated In-Service Date</i>	<i>Primary Purpose</i>	<i>Currently under construction?</i>	<i>2022 CCTA?</i>
TCP (Transmission Corridor Project, Northwest - Harry Allen)	NV Energy	>450-kV AC	12/12/2015	Policy driven	No	
TOT3 Archer Interconnection Project	Tri-State G&T		12/31/2013			
TransWest Express Project	TransWest Express, LLC	>450-kV DC	1/1/2016	Economic driven	No	
Tres Amigas	Tres Amigas, LLC	300-450-kV AC	10/1/2014	Economic driven	No	
Triton HVDC Sea Cable Project	Sea Breeze Pacific Regional Transmission System, Inc (SBP-RTS)		1/1/2013			
Walla Walla to McNary 230kV (Energy Gateway Segment A)	PacifiCorp	200-300-kV AC	12/31/2013	Reliability driven	No	Yes
WECC - Eastern Interconnect DC Tie Upgrade Project	Energy Capital Partners PDS Consulting	200-300-kV AC	5/1/2015	Economic driven	No	
West Coast Cable Project	Sea Breeze Pacific West Coast Cable, LP		1/1/2016			
West of McNary Reinforcement Project Group 1 (McNary - John Day)	Bonneville Power Administration	>450-kV AC	2/28/2012	Tariff driven	Yes	Yes
West of McNary Reinforcement Project Group 2 (Big Eddy - Knight)	Bonneville Power Administration	>450-kV AC	2/28/2013	Economic driven	Yes	Yes
West Side Tie	NV Energy	>450-kV AC	12/12/2018	Policy driven	No	
Wyoming-Colorado Intertie Project	Wyoming-Colorado Intertie, LLC (member of LS Power Group) and Wyoming Infrastructure Authority	300-450-kV AC	1/1/2016	Tariff driven	No	
Zephyr	TransCanada	>450-kV DC	12/31/2018		No	

## ***Appendix D - Comparison to the 2010 “Foundational Projects List”***

The CCTA has different projects than the 2010 Foundational Projects List for a number of reasons. Since development of the Foundational Projects List, transmission projects have been placed in service or have not been included due to changing criteria. The Foundational Projects List had 44 projects, the CCTA has 30 projects. The Potential list that accompanied the Foundational Projects List has been replaced with PIP.

### **New Projects**

The following project is a new addition:

- Path 8 Upgrade/Colstrip Transmission Upgrade (western portion only)

### **Projects in service:**

- Hughes – Wyodak South
- BC-US Intertie Upgrade
- Path 36 TOT 3 Upgrade

### **Projects that have been renamed:**

- I-5 -> I-5 Corridor Reinforcement Project (Castle Rock – Troutdale)
- West of McNary -> West of McNary Reinforcement Project Group 1 (McNary – John Day)
- Big Eddy – Knight -> West of McNary Reinforcement Project Group 2 (Big Eddy – Knight)
- Little Goose -> Central Ferry – Lower Monumental (Little Goose Area Reinforcement)
- Palo Verde – North Gila #2 -> Hassayampa – North Gila 500-kV #2 Line
- Nicola – Meridian -> Interior to Lower Mainland (ILM)

### **Projects not included in the 2022 CCTA that were on the 2020 Foundational List**

The following projects, due to the use of different criteria were not included on the CCTA or because insufficient data was on the portal to make an assessment of the project:

- All AESO projects
- Archer Interconnection

The following projects were not included on the CCTA as the resource additions necessary to drive these projects were not committed. If TEPPC were to model these resource additions, these projects should be added to the simulations.

- TCP (Harry Allen to Northwest)
- TCP (Northwest to Amargosa Valley)



## ***Appendix E – CCTA Criteria and SunZia***

Stakeholders requested that the notes reflect the robust conversation that took place at the SCG meeting on December 7, 2011 with respect to SunZia's public comments to the Common Case Transmission Assumption (CCTA) report and project inclusion list. In response to that request, the SCG requested assistance from Tom Wray, SunZia's project sponsor, to generate some notes to capture the key points discussed.

The SCG strives to meet the principles of being open and transparent with respect to its discussions and business. It is in the spirit of those principles that Mr. Wray's response is captured in this Appendix unedited and unrevised to capture the essence and frustration with the conversation and overall CCTA process. Supplemental notes are provided at the end of Mr. Wray's comments to expand on the SCG decision to *not* include SunZia as part of the Common Case Transmission Assumption list.

Although, this discussion is based around SunZia, Mr. Wray's comments and the supplemental notes are beneficial insights to the CCTA criteria and, therefore, are included in this report.

It should also be noted that decisions by the SCG are governed by the Charter and are not made at the sole discretion of any single member, individual or entity.

Email received on January 11, 2012:

Susan:

Thank you for the opportunity to offer notes to complete your record of this meeting. It would be inappropriate for me to construct the meeting's minutes of the discussion of this topic. What I will provide for your use as you deem fit is a statement of SunZia's reservations with *how* SCG is applying its own criteria to determine the Common Case Transmission Assumptions.

I incorporate as if fully-written herein my comments sent the Subregional Planning Group's Coordination Group (SCG) on November 10, 2011 (attached).

*Following a discussion of how the SCG applies their own criteria, there appeared to be general consensus, as it was articulated by the Chair, that the SunZia Southwest Transmission Project failed to satisfy "Criteria No. 3: Financial Indicators".*

*SunZia represented that the issuance of its FERC Declaratory Order (Docket No. EL11-24-000) explicitly set forth its means of cost recovery and should be deemed adequate to satisfy Criteria No. 3. SunZia noted that the SCG had approved utility-sponsored projects that do not have similar regulatory orders in hand from their state PUCs.*

*SunZia suggested that prior to any incumbent utility representing that it had an approved cost recovery mechanism, it would need to have obtained an order from its state PUC approving recovery of prudently-incurred costs attributable to the CCTA*

*project that had been placed in service by the utility. The committee disagreed with this recommendation.*

*Upon further discussion, the Chair allowed that the fact, as raised by SunZia, that of the 28 CCTA projects approved by SCG, the only ones that are merchant transmission projects (SWIP South and MATL) are under construction, their certainty being easily assessed by the committee. All other CCTA projects are utility-sponsored transmission projects, had not yet initiated construction and therefore could not have arranged cost-recovery mechanisms in the form of PUC-issued orders making recovery of costs certain. Such prudence determinations are made by state PUCs **after** construction of the subject project.*

*The committee agreed that utility-sponsored projects had the certainty of cost recovery emanating from their obligation to serve and a captive rate base of retail customers who would ultimately bear the full burden of cost recovery. Thus the odds of not recovering such costs, regardless of prudence, were deemed to be nugatory. Merchants on the other hand, would have to secure their cost recovery through creditworthy and financeable bilateral contracts (e.g.: transmission service agreements). Such contractual recovery was deemed too risky by the committee, thereby failing to satisfy Criteria No.3.*

*SunZia summarized that under this methodology the only merchant projects that could achieve approval of the SCG and thereby a listing as a CCTA, would be those projects already under construction. All other CCTA projects not under construction would only be those projects sponsored by incumbent utilities.*

*Following the discussion the committee decided to offer no revision to the approved CCTA listing and declined to accept SunZia's arguments to do so. SunZia indicated that this practice might be seen by the Federal Energy Regulatory Commission as being discriminatory and most certainly was not consistent with the precepts of regional planning the commission has articulated in its Order 1000.*

*SunZia indicated that the SCG's practice of treating utility and merchant transmission projects differently by lowering the bar for utilities and raising it for merchants in order to satisfy Criteria No. 3 would be discussed with both TEPPC and FERC Staff.*

Susan, I hope this is helpful to your consideration of the record of the meeting, and I thank you for the opportunity to provide comments.

Tom

Tom Wray  
Project Manager  
SunZia Southwest Transmission Project  
(602)808-2004 W  
(505)695-0323 M  
[twray@southwesternpower.com](mailto:twray@southwesternpower.com)

#### Supplemental Notes by SCG:

The SCG received comments on the Draft Common Case Transmission Assumption (CCTA) Report for Public Comment from the sponsor of SunZia, Tom Wray. The comments made a case that the SunZia project *did* meet the CCTA criteria set forth within the report and, therefore, should be included on the CCTA list.

The participants in the meeting on December 7, 2011, including SCG members and interested stakeholders, discussed the merits of the received comments with respect to the developed CCTA criteria.

The SCG agreed with the sponsor that SunZia had met the regional significance criterion because the project is proposed at a voltage of 500kV or above.

The information provided by the sponsor, within PIP, indicated that the project was not yet “under construction.” Because the project was not under construction, the project would have to qualify for the CCTA under financial and implementation criteria.

The SCG agreed with the project sponsor that SunZia adequately met the implementation criterion by being 70% complete with federal permitting status and engaging in preliminary stages of permitting at the state level.

The SCG disagreed with the sponsor that it had adequately demonstrated financial commitment with respect to the financial criterion (Criteria 3). The sponsor believed the project met the financial criterion with respect to cost recovery for the project due to the FERC approved docket no. EL-11-24-000, issued on May 20, 2011 that provides for negotiated rate authority on transmission.

The SCG decided that FERC approval of negotiated rate authority did not meet the intent of the financial requirement of approved cost recovery. The reasoning behind this decision is that although FERC approved negotiated rate authority does provide a rate that will be associated with the line, the rate itself does not provide contractual obligations for a shipper or buyer, thereby leaving a questionable revenue stream for the transmission line.

The true distinction lies between the differences in cost allocation and cost recovery for incumbent utility projects versus merchant projects. The FERC rate authority allows for cost recovery on the transmission system, however, it does not stipulate a cost allocation mechanism that would be provided for in shipper and buyer contracts. By contrast, for incumbent utilities, approval of cost recovery through state regulatory or governing boards inherently has a cost allocation mechanism with the obligation to serve the customers and with obligations as stated in individual FERC approved Open Access Transmission Tariffs (OATT).

It was also noted that FERC Order 1000 was recently issued and is meant to address the FERC-viewed discriminatory access to cost allocation mechanisms. The SCG indicated that, although FERC Order 1000 is being addressed by regions, it is too early in the process to be used in the criteria for the CCTA.

For the attendee list of the SCG meeting, please refer to the notes posted on the [WECC Web site](#).

# Glossary

AC: Alternating Current - A type of electrical current, the direction of which is reversed at regular intervals or cycles in the U.S. the standard is 120 reversals or 60 cycles per second.

AESO: Alberta Electric System Operator

Backbone facility: Backbone transmissions are those facilities that provide network connectivity that are 345kV or above for most of the Western Interconnection, but in certain western regions that voltage may only be 230kV.

BCCPG: British Columbia Coordinated Planning Group

CAISO: California Independent System Operator

CCPG: Colorado Coordinated Planning Group

CCTA: Common Case Transmission Assumptions

Congestion - A condition that exists when transmission system constraints prevent the dispatch of lowest cost resources to meet system loads.

CTPG: California Transmission Planning Group

DC: Direct Current - A type of electricity transmission and distribution by which electricity flows in one direction through the conductor

DOE: U.S. Department of Energy - The federal agency designed “to advance the national, economic, and energy security of the United States; to promote scientific and technological innovation in support of that mission; and to ensure the environmental cleanup of the national nuclear weapons complex.”

Electric Load - An end-use device or customer that receives power from the electric system.

Generation - The process of producing electricity by transforming other forms or sources of energy into electrical energy; measured in kilowatt-hours.

IRP: Integrated Resource Plan - A plan developed by an electric power provider, sometimes as required by a public regulatory commission or agency, that defines the short and long term capacity additions (supply side) and demand side management programs that it will undertake to meet projected energy demands.

MW: Megawatt - One thousand kilowatts, or 1 million watts; standard measure of electric power plant generating capacity.

NTTG: Northern Tier Transmission Group

Path - Path, or Transmission Path, is a single or set of transmission lines with an established rating. There are 66 WECC-rated paths in the Western Interconnection. Paths are analogous to the term “flowgate” used in other parts of North America.

PIP: Transmission Project Information Portal

PCM: Production Cost Model - An analytic representation of an electrical generation and transmission system used to determine the most efficient dispatch of generation to meet system loads within the reliability constraints on power system operations.

ROW: Right of Way - A corridor of land on which electric lines may be located. The Transmission Owner may own the land in fee, own an easement, or have certain franchise, prescription, or license rights to construct and maintain lines.

SCG: SPG Coordination Group - Coordinates SPG activities of mutual interest.

SCG Foundational Projects List - The SCG facilitated the preparation of and developed the criteria for the SCG Foundational Transmission Projects List. The list identified projects having a high probability of being in-service by 2020. These projects provide an assumed minimum transmission system starting point for TEPPC’s future planning studies, and are included as inputs into the 2011 WECC 10-Year Regional Transmission Plan.

SIERRA: Sierra Subregional Planning Group

SPG: Subregional Planning Group - An organization that coordinates planned transmission system changes within a defined geographical area in the Western Interconnection. WECC currently recognizes nine SPGs in the Western Interconnection: Alberta Electric System Operator (AESO), British Columbia Coordinated Planning Group (BCCPG), California Independent System Operator (CAISO), Colorado Coordinated Planning Group (CCPG), ColumbiaGrid, California Transmission Planning Group (CTPG), Northern Tier Transmission Group (NTTG), Sierra Subregional Planning Group (SSPG), and Southwest Area Transmission (SWAT).

SPSC: State-Provincial Steering Committee - The SPSC consists of appointees from each state and province in the Western Interconnection, and comprises one-third of the SPSG membership. The Western States’ Water Council and the Western Governors’ Wildlife Council are ex-officio members of the SPSC. The purpose of the SPSC is to provide input to Western Interconnection transmission planning and analysis.

Stakeholder - A person or entity interested or wishing to participate in WECC’s planning activities.

Study Case - A set of load, resource, and network topology conditions used to model the performance of the Western Interconnection transmission grid.

Study Program - A set of studies, developed under the provision of the TEPPC Transmission Planning Protocol, to be completed by TEPPC within that study year. Each Study Program is developed based on consideration and prioritization of all study requests received for that year.

SWAT: Southwest Area Transmission

TEPPC: Transmission Expansion Planning Policy Committee - A WECC Board committee that conducts and facilitates economic transmission planning for the Western Interconnection. TEPPC activities include fulfilling transmission owner/operator and Subregional Planning Group planning requirements under FERC Order 890. TEPPC has a balanced membership comprised of individuals from WECC-member organizations and stakeholders.

Transmission - An interconnected group of lines and associated equipment for the movement or transfer of electric energy between points of supply and points at which it is transformed for delivery to customers or is delivered to other electric systems.

Under construction: physically building the facility.

WECC: Western Electricity Coordinating Council - The Regional Entity responsible for coordinating and promoting Bulk Electric System reliability in the Western Interconnection.

Western Interconnection - The interconnected electrical system that encompasses the provinces of Alberta and British Columbia, the northern portion of Baja California (Mexico), and all or portions of the 14 western states in between.