

WestConnect-SWAT-CCPG

**Principles for
Regional Transmission Expansion Planning**

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WestConnect-SWAT-CCPG Principles for Regional Transmission Expansion Planning

1. Introduction

- 1.1 These WestConnect-SWAT-CCPG Principles for Regional Transmission Expansion Planning outline the process that the parties to the WestConnect Memorandum of Understanding, dated December 6, 2004 (“WestConnect Participants”), entities participating in the Southwest Area Transmission Planning Group (“SWAT”) and entities participating in the Colorado Coordinated Planning Group (“CCPG”) will follow to develop, coordinate and endorse a biennial WestConnect Regional Transmission Expansion Plan (“WCRTEP”) for the WestConnect Grid.
- 1.2 The WCRTEP process will develop on a biennial basis a ten (10) year integrated subregional transmission plan for the WestConnect Grid that is also integrated with the expansion of other Bulk Power facilities within the Western Interconnection and that complies with the reliability practices utilized within the Western Interconnection. The WCRTEP process will include, but not be limited to, the following basic steps:
 - 1.2.1 Identify resource needs and interests, load serving requirements, congestion management analysis, and economic expansion opportunities on a subregional basis for all stakeholders that have an interest in the WestConnect Grid;
 - 1.2.2 Develop a transmission planning Base Case that is agreed upon by SWAT, CCPG and the WestConnect Steering Committee, which will be used by SWAT and CCPG to perform baseline and alternative analysis and by all Stakeholders in the analysis of projects proposed for the WCRTEP;
 - 1.2.3 Consider and evaluate a broad range of assumptions and alternatives to cover different strategies and scenarios that the WestConnect Grid may encounter and develop an agreed-upon study plan that analyzes the defined range of assumptions and alternatives, comparing how each proposed project and scenario performs with respect to the Base Case;
 - 1.2.4 Coordinate WCRTEP efforts with applicable state and local oversight authorities;
 - 1.2.5 Develop consensus alternatives for the WCRTEP for the expansions, additions and upgrades that (1) provide the best performance under the agreed-upon range of scenarios, (2) are common to the greatest number of proposed plans and projects, (3) best enable the WestConnect Participants to provide low cost, efficient, reliable and non-discriminatory transmission services on their respective transmission systems from the suppliers of choice, (4) facilitate continued expansion of the competitive bulk power market in the Western Interconnection, and (5) minimize the overall amount of new transmission lines that will be required; and
 - 1.2.6 Allow for an endorsement by a vote of the WestConnect Steering Committee that the planning process set forth in these Principles has been followed and that the proposed alternatives that constitute the WCRTEP are adequate and cost-effective in meeting subregional transmission needs.

2. Definitions

- 2.1 Applicable Reliability Criteria: The reliability standards of the NERC and WECC and Local Reliability Criteria, as amended from time to time, and including any requirements of the Nuclear Regulatory Commission.
- 2.2 Base Case: The agreed-upon solved power flow base case that will be used as the starting point for WCRTEP studies and analysis.
- 2.3 Bulk Transmission Facilities or Bulk Transmission: The high voltage transmission facilities connected to Generating Units and to the lower voltage distribution systems that deliver electricity to End-Use Customers.
- 2.4 Colorado Coordinated Planning Group (CCPG): The Colorado Coordinated Planning Group is a joint, high voltage transmission system planning forum for the purpose of assuring a high degree of reliability in the planning, development and operation of the high voltage system in the Rocky Mountain region, in accordance with the Joint Transmission Access Principles and the Electric Transmission Service Policy Statement, dated December 16, 1991. The CCPG provides the technical forum required to complete reliability assessments, develop joint business opportunities, and accomplish coordinated planning, under the single-system planning concept in the Rocky Mountain Region of the WECC.
- 2.5 Demand: The rate at which Energy is scheduled to be delivered or is actually delivered to Loads, usually expressed for the period of a single settlement period.
- 2.6 End-Use Customer: An entity that purchases and does not sell electric power to satisfy a Load directly connected to the WestConnect Grid or to a distribution system.
- 2.7 Energy: The electrical energy produced by Generating Units and transmitted through transmission or distribution facilities or consumed by Loads.
- 2.8 Generating Unit: An electric generator and its associated plan and apparatus whose electrical output is capable of being separately identified and metered. A Generating Unit may be an individual unit or a group of units with a common connection point and meter.
- 2.9 Good Utility Practice: Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.
- 2.10 Load: An end-use device of an End-Use Customer that consumes power.
- 2.11 Local Reliability Criteria: The reliability criteria unique to a WestConnect Participant's Bulk Transmission Facilities located in the WestConnect Grid.
- 2.12 NERC: The North American Electric Reliability Council.

- 2.13 Principles: These WestConnect-SWAT-CCPG Principles for Regional Transmission Expansion Planning.
- 2.14 Project Proponent: An entity, including WestConnect Participants and Stakeholders, that proposes a Bulk Transmission Facility project or upgrade pursuant to these Principles.
- 2.15 Resident Load: A Load in the WestConnect Grid that a WestConnect Participant has an obligation to serve.
- 2.16 Resource: A Generating Unity, or import or export of Energy.
- 2.17 Resource Adequacy: (look at WECC Loads & Resources Subcommittee material)
- 2.18 Southwest Area Transmission (SWAT): The Southwest Area Transmission planning work group is comprised of transmission regulators/governmental entities, transmission users, transmission owners, transmission operators, and environmental interests that participate in developing a coordinated subregional transmission plan for the Desert Southwest.
- 2.19 Stakeholders: Entities with an interest in the production and delivery of electricity in interstate commerce in the Western Interconnection and the WestConnect Grid. Such stakeholders would include, but not be limited to, transmission providers, load serving entities, independent power producers, demand side initiatives, environmental interests, and federal, state and local regulators.
- 2.20 State Renewable Portfolio Standards:
- 2.21 State Resource Adequacy Standards or Targets:
- 2.22 WECC: Western Electricity Coordinating Council.
- 2.23 WestConnect Grid: The Bulk Transmission Facilities located within the Western Interconnection that are owned by WestConnect Participants or to which the WestConnect Participants have rights. The Bulk Transmission Facilities included in the WestConnect Grid may change depending on the entities that are parties to the WestConnect MOU.
- 2.24 WestConnect Participants: WestConnect Participants are parties to the WestConnect Memorandum of Understanding for Wholesale Market Enhancements, dated December 6, 2004 (WestConnect MOU).

3. WestConnect Regional Transmission Expansion Planning Roles and Responsibilities

- 3.1 SWAT and CCPG Transmission Planning Work Group Responsibilities in the WCRTEP Process
 - 3.1.1 SWAT and CCPG will be responsible for developing a proposed biennial WCRTEP, that is composed of consensus alternatives, for the WestConnect Grid and presenting the WCRTEP for review and endorsement by the WestConnect Steering Committee.

- 3.1.2 SWAT and CCPG will be responsible for developing a WCRTEP Base Case that is agreed upon by SWAT and CCPG. SWAT and CCPG will use this Base Case to perform baseline analysis for the WCRTEP process.
- 3.1.3 SWAT and CCPG will be responsible for developing proposed Planning Objectives and Planning Standards for the WCRTEP process.
- 3.1.4 SWAT and CCPG will act as the transmission planning work groups for their respective transmission system areas within the WestConnect Grid, providing the data, information and analytical support necessary to perform studies for the WCRTEP process and coordinating, but not duplicating, WCRTEP study work as required. For their respective transmission system areas, SWAT and CCPG will:
 - 3.1.4.1 Identify engineering and technical issues;
 - 3.1.4.2 Identify economic expansion issues and opportunities; and
 - 3.1.4.3 Identify solutions and alternatives with respect to the work within the scope of the WCRTEP.
- 3.1.5 SWAT and CCPG will be responsible for coordinating WCRTEP transmission planning activities for the WestConnect Grid with WECC, subregional and regional planning groups and other transmission providers in the Western Interconnection.
- 3.1.6 Participation in the SWAT and CCPG planning work for the WCRTEP will be open to all Stakeholders. Any Stakeholder may, and each WestConnect Participant must, designate one working group member to SWAT and/or CCPG, as appropriate to the transmission system(s) of interest, by providing written notice to the secretary of SWAT and/or CCPG, identifying the name of the WestConnect Participant or Stakeholder and the working group member's name, address, telephone number, facsimile number and e-mail address. WestConnect Participants and Stakeholders may remove or replace their SWAT and/or CCPG representatives at any time by written notice to the secretary of the SWAT and/or CCPG. The secretaries of SWAT and CCPG will maintain a list of current WCRTEP members on the WestConnect Website.
- 3.1.7 SWAT and CCPG will not have structured voting in the development of the proposed WCRTEP. Rather, SWAT and CCPG will each work to develop consensus and will carry forward minority positions. Reports will be provided to the WestConnect Steering Committee on the minority positions, detailing WestConnect Participant and Stakeholder support for such minority positions.
- 3.1.8 The secretaries of SWAT and CCPG will maintain a correspondence distribution list that is not limited to SWAT and CCPG members participating in the WCRTEP process, but is open to all Stakeholders. The purpose of the distribution list is to communicate with all Stakeholders as openly as possible with respect to planning information within or impacting the WestConnect Grid. The correspondence distribution list will be used for disseminating meeting notices, meeting minutes, reports, and other pertinent information impacting planning.

- 3.2 WestConnect Participant and Stakeholder Technical Responsibilities in the WCRTEP Process
- 3.2.1 Stakeholders participating in the development of the proposed WCRTEP will be responsible for giving input and commenting on policy issues, objectives, study scope, assumptions and methodologies, and alternatives for consideration in the planning and study process.
- 3.2.2 WestConnect Participants and Stakeholders that propose projects for inclusion in the WCRTEP study work (“Project Proponents”) must utilize the consensus Base Case developed pursuant to Section 3.1.2 and perform, or cause to be performed, all study work for their proposed projects.
- 3.2.3 The WestConnect Steering Committee will review the SWAT and CCPG recommendations for the WCRTEP and the process followed by SWAT and CCPG for developing the recommendations. A vote by the WestConnect Steering Committee to endorse the proposed WCRTEP signifies that the planning process set forth in these Principles has been followed and that the proposed alternatives that constitute the WCRTEP are adequate and cost-effective in meeting subregional transmission needs. The WestConnect Steering Committee may also vote to remand the recommended WCRTEP to SWAT and CCPG for further analysis.

4. WestConnect Regional Transmission Expansion Planning Objectives

SWAT and CCPG will be responsible for developing and amending, as necessary, the proposed WCRTEP Planning Objectives, and the WestConnect Steering Committee will be responsible for reviewing and approving such proposed Planning Objectives. WCRTEP Planning Objectives must include and conform to the following:

- 4.2 Meet forecasted growth in WestConnect Participant Demand;
- 4.3 Give full consideration to all market perspectives and identify expansions that are critically needed to support competition as well as reliability needs;
- 4.4 Incorporate planned Generating Unit additions;
- 4.5 Coordinate with the WECC and other regional and sub-regional planning groups and transmission providers, as appropriate;
- 4.6 Avoid unnecessary duplication of facilities;
- 4.7 Ensure the reliable and efficient use and expansion of transmission facilities within the WestConnect Grid;
- 4.8 Encourage the continued development of a robust wholesale marketplace;
- 4.9 Recognize and, as requested, facilitate compliance with the legal obligations of WestConnect Participants and Stakeholders, including obligations to serve Resident Load;
- 4.10 Conform to State Renewable Portfolio Standards;
- 4.11 Conform to State Resource Adequacy Standards or Targets;

- 4.12 Meet regional, State and transmission owner needs;
- 4.13 Address transmission congestion and potential generator market power; and
- 4.14 Analyze the alternatives included in the WCRTEP for cost effectiveness.

5. WestConnect Regional Transmission Expansion Planning Standards and Methodology

SWAT and CCPG will, with review and approval from the WestConnect Steering Committee, develop and make available for all WCRTEP study participants the Planning Standards, assumptions, and Base Case data to allow any WestConnect Participant or participating Stakeholder the opportunity to evaluate alternatives to the proposed Base Case transmission plans. At a minimum, the WestConnect Planning Standards and assumptions will address:

- 5.1 Conformance to Applicable Reliability Criteria, including Local Reliability Criteria, and to the planning principles, guidelines, standards and measures developed by NERC and WECC;
- 5.2 Consideration of the plans of the WestConnect Participants and WCRTEP Stakeholders, WestConnect Grid reliability, obligations to serve Resident Load, economic and environmental considerations, and the development of a robust competitive wholesale electricity marketplace;
- 5.3 Consideration of Demand forecasts, including demand-side projects, enhancements and expansions, and forecasts of Resource additions and retirements consistent with Good Utility Practices;
- 5.4 Incorporation of known expansion plans;
- 5.5 Consideration of Generating Unit additions;
- 5.6 Modeling of projected generation needs and locations on a generic basis, when appropriate, to maintain a Demand and Resource balance within the WestConnect Grid;
- 5.7 Provision of adequate operating flexibility, i.e. the ability to reliably operate the system while facilities are being maintained; and
- 5.8 Adequate integration of transmission plans within and outside the WestConnect Grid.

6. WestConnect Regional Transmission Expansion Plan

- 6.1 The WCRTEP must conform to Good Utility Practice, the WestConnect Planning Objectives, the WestConnect Planning Standards, and Applicable Reliability Criteria.
- 6.2 SWAT and CCPG will be responsible for developing the assumptions to be utilized in the assessment of the WCRTEP.
- 6.3 The WCRTEP will identify, for years five (5) and ten (10) in the ten (10) years of the forecast period, a list of proposed enhancements and expansions. SWAT, CCPG and the WestConnect Steering Committee will evaluate alternatives to allow a comparison of cost and performance for each planning scenario.

6.4 The plan will identify any projected need for increased transfer capability.

7. Procedures for Developing the WestConnect Regional Transmission Expansion Plan

To ensure the reliable and efficient operation and expansion of Bulk Transmission Facilities in the WestConnect Grid, SWAT and CCPG will develop and be responsible for the planning process to create the WCRTEP.

7.1 Submitting Planning Proposals

7.1.1 WestConnect Participant Planning Proposals

- 7.1.1.1 On a biennial basis, consistent with the time requirements of WECC, each WestConnect Participant will propose to SWAT and/or CCPG, as appropriate for its transmission system, a minimum ten (10) year expansion plan for its service territory consistent with the WestConnect Planning Objectives and WestConnect Planning Standards, including plans for addressing all currently identified or projected system needs. Each WestConnect Participant's expansion plan will adhere to the common methodology and format developed jointly by SWAT and CCPG for WCRTEP purposes. Each such expansion plan will cover enhancements and additions for Resources and Bulk Transmission Facilities.
- 7.1.1.2 Each WestConnect Participant will be responsible for conducting the necessary technical, engineering or analytical study work required to ensure that its expansion plan meets the WestConnect Planning Objectives and WestConnect Planning Standards. Each WestConnect Participant will submit its respective expansion plan, all associated study work and all the necessary financial, technical and engineering data to SWAT and/or CCPG to support the validity of its expansion plan.
- 7.1.1.3 Each WestConnect Participant will use the commonly developed Base Case for study work associated with the WCRTEP process. The Base Case will include all previously assumed facilities and agreed upon additions for the baseline scenario. Each WestConnect Participant will include in the study work it performs the interactive results, impacts, and benefits of all baseline projects studied together as one system plan.
- 7.1.1.4 SWAT and/or CCPG may direct the appropriate WestConnect Participant to complete additional study work if required to fully assess the WestConnect Participant's compliance with the WestConnect Planning Objectives and WestConnect Planning Standards.

7.1.2 Stakeholder Planning Proposals

- 7.1.2.1 A Stakeholder Project Proponent may propose projects for inclusion in the WCRTEP on the same biennial schedule that the WestConnect Participants submit their proposed ten (10) year expansion plans. Stakeholder proposals will adhere to the common methodology and format developed jointly by SWAT and CCPG for

WCRTEP purposes. Each such proposal must adhere to Applicable Reliability Criteria and cover any desired Resource and Bulk Transmission Facilities enhancements and additions.

- 7.1.2.2 A Stakeholder Project Proponent that wishes to include a project in the WCRTEP process will use the commonly developed Base Case for study work associated with the WCRTEP process. The Base Case will include all previously assumed facilities and agreed upon additions for the baseline scenario. Each Stakeholder Project Proponent will include in the study work it performs the interactive results, impacts, and benefits of all baseline projects studied together as one system plan.
- 7.1.2.3 The Stakeholder Project Proponent will submit to SWAT and/or CCPG, as appropriate for its system, its proposal(s), associated study work and all the necessary financial, technical and engineering data to support the validity of the proposal for inclusion in the WCRTEP. SWAT and/or CCPG may direct the Stakeholder Project Proponent to submit additional information or analysis if required to fully assess the Stakeholder's compliance with the WestConnect Planning Objectives and WestConnect Planning Standards.

7.2 Creation of the Biennial WestConnect Regional Transmission Expansion Plan

- 7.2.1 On a biennial basis, SWAT and CCPG will evaluate the WestConnect Participants' expansion plans and Stakeholders' proposals and plans for inclusion in the WCRTEP. SWAT and CCPG will review these proposals and plans for conformance with the WestConnect Planning Objectives and WestConnect Planning Standards, utilizing the agreed upon Base Case and assumptions.
- 7.2.2 At the initiation of an effort to develop a new WCRTEP, SWAT and CCPG will consider input for the new plan from members of SWAT, CCPG and any other parties that desire to comment.
- 7.2.3 SWAT and CCPG will review all facilities proposed to be connected to, or made part of, the WestConnect Grid to ensure that the facilities being proposed provide for acceptable operating flexibility (e.g., the ability to reliably operate the system while facilities are being maintained) and meet all requirements for proper integration with the WestConnect Grid. If SWAT and/or CCPG find that such facilities do not provide for acceptable operating flexibility or do not adequately integrate with the WestConnect Grid, SWAT and/or CCPG may direct the WestConnect Participant or Stakeholder Project Proponent to revise its proposal for the facilities.
- 7.2.4 SWAT and/or CCPG may direct the appropriate WestConnect Participant or Stakeholder Project Proponent to provide additional supporting data and analysis if required to fully assess the impact of the proposed project on the WCRTEP's compliance with the WestConnect Planning Objectives and WestConnect Planning Standards. SWAT and/or CCPG may also direct a WestConnect Participant or Stakeholder Project Proponent to perform any studies that SWAT and/or CCPG believe to be reasonably necessary to evaluate:

- 7.2.4.1 Any proposed project under different assumptions, including revised Demand growth, revised levels of generation and alternative transmission expansion projects for the WestConnect Grid;
 - 7.2.4.2 Any Generating Unit, or other project being proposed to take the place of a transmission upgrade; or
 - 7.2.4.3 The need for and configuration of any additional transmission expansion or upgrade projects for the WestConnect Grid that SWAT and/or CCPG consider necessary or appropriate to address conditions on the WestConnect Grid that were not addressed by earlier proposed projects.
- 7.2.5 In integrating the WCRTEP study work and developing drafts of the WCRTEP, SWAT and CCPG will evaluate how the WestConnect Participants' 10 year expansion plans for their service territories and Stakeholder proposed projects compare in performance under the different scenarios and will determine, by consensus, which combinations of projects meets the broadest number of and most likely scenarios. SWAT and CCPG will identify those projects that are common to all or most scenarios and best meet long term load serving and market needs. The SWAT and CCPG study work will include the evaluation of all proposed projects and how they address future needs. All acceptable solutions will be included in the draft WCRTEP that will be presented to the WestConnect Steering Committee.
- 7.2.6 Drafts of the WCRTEP developed by SWAT and CCPG will be posted on the WestConnect Website and provided to the WestConnect Participants and Stakeholders. WestConnect Participants and Stakeholders will be invited to provide input on posted drafts, and such input will be considered in preparing and revising subsequent drafts. Before a final draft of any proposed WCRTEP is recommended to the WestConnect Steering Committee for final approval, SWAT and CCPG will post the latest draft of the plan on the WestConnect Website and will hold one or more open meetings to receive input directly and to discuss any proposed revisions to the draft. The final WCRTEP approved by the WestConnect Steering Committee, including approved alternatives, will be posted on the WestConnect Website.
- 7.2.7 If a proposal originally submitted pursuant to Section 7.1, 7.2.1 or 7.2.2 is not included by SWAT and CCPG in the draft WCRTEP that is to be recommended to the WestConnect Steering Committee, SWAT and/or CCPG will prepare and include a written explanation of why such proposal was not included in the recommended plan, and such explanation will be made public.
- 7.2.8 Additional proposed transmission upgrades may be approved and added to the WCRTEP by the WestConnect Steering Committee at any time in a given year, provided that there has been consideration of input from SWAT, CCPG and Stakeholders, and provided further that the proposed addition is consistent with WestConnect Planning Objectives and WestConnect Planning Standards. Similarly, the WCRTEP may be revised to remove a proposed transmission upgrade from the plan on the approval of the WestConnect Steering Committee, provided that consideration has been given to input from SWAT, CCPG and Stakeholders, alternative resource plans have been proposed by WestConnect Participants or Stakeholder Project Proponents, and circumstances show that the need for the proposed

transmission upgrade no longer exists. All transmission upgrades proposed to be added or removed outside of the biennial WCRTEP timetable must meet the requirements of Section 7 and be approved by the WestConnect Steering Committee.

8. WestConnect Steering Committee Approval

- 8.1 The draft WCRTEP recommendation by SWAT and CCPG to the WestConnect Steering Committee will identify, to the extent practicable, the anticipated benefits and performance of each proposed project studied. To the extent a proposed project to reduce transmission congestion is studied, the report will include data and information that would reasonably permit entities to calculate the costs and economic benefits of such a project.
- 8.2 SWAT and CCPG will present a draft WCRTEP at least biennially to the WestConnect Steering Committee for approval. The draft will be presented to the WestConnect Steering Committee no later than November 15, or such other date as required to be consistent with WECC timing requirements, of every other year. The WestConnect Steering Committee will review and act upon the proposed WCRTEP within forty-five (45) calendar days of receipt. The WestConnect Steering Committee may approve the recommended plan as submitted or remand the report back to SWAT and/or CCPG with guidance for development of a revised recommendation.
- 8.3 The WestConnect Steering Committee will evaluate the draft WCRTEP for conformance to the requirements set forth in these Principles and ensure that processes were in place and followed for the proper development of plans, that alternatives and minority viewpoints are included, and that proper leadership and support was provided.

9. Study Cost Responsibility and Disputes

- 9.1 Each Project Proponent of a WCRTEP alternative is responsible for the costs of developing its plan, including any sensitivities, updates or revisions to such plan as may be necessary.
- 9.2 The WestConnect Participants will be responsible for paying for the costs of managing the WCRTEP processes in SWAT and CCPG, as detailed in a budget approved by the WestConnect Steering Committee, pursuant to the cost allocation formula set forth in Section 3.6 of the WestConnect Memorandum of Understanding, dated December 6, 2004, or as otherwise agreed to in writing by the WestConnect Participants.
- 9.3 Any dispute relating to any study or information required to be provided to the SWAT and/or CCPG for inclusion in the WCRTEP, including disputes regarding the scope of additional studies and the costs of providing such studies or information, shall be resolved through utilization of the WECC Dispute Resolution Process.