

Western Transmission Expansion Coalition
Concept Paper for a West-Wide Transmission Plan

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Facilitated By:



Western Transmission Expansion Coalition

Development of a West-Wide Transmission Plan

Concept Paper

1. Introduction

At the request of leadership from the Bonneville Power Administration (BPA) in response to stakeholders' urging and supported by leadership of several energy industry entities and utilities, an informal group formed to discuss approaches to address a widely recognized concern that current transmission planning frameworks in the West do not result in sufficient transmission solutions to support the needs of the future energy grid.¹ Over the last few months, the group met several times, which resulted in this Concept Paper. The group, referred to in this Concept Paper as the Western Transmission Expansion Coalition (WTEC),² is interested in engaging with the region to explore a new approach for West-wide transmission planning that will result in an actionable transmission plan to address regional and inter-regional needs.³ The plan will be built upon a comprehensive analysis that includes economic studies (production cost modeling), actual physical operations of the system that meets NERC Reliability Standards, and operational flexibility (inclusive of a full contingency analysis), and that is implementable with a high degree of confidence.

¹ The role of the Western Power Pool (WPP) has been to organize and facilitate discussions of the WTEC, which it has provided through informal procedures and with minimal staffing. Should the effort move forward and a project scope be further defined, the WPP will work with its members and other stakeholders to formalize the role of the WPP, including funding for appropriate resources. The WPP will also seek to leverage support and assistance from partners involved in WTEC to advance work and outcomes.

² While the WTEC effort began through discussions in the Northwest among entities from that region, the intent of the effort is to produce a West-wide study involving a broad range of Western participants. It must also be emphasized that this Concept Paper is intended as a launch for additional discussion and participation.

³ For purposes of this Concept Paper, an "actionable" transmission plan is defined as development of a transmission plan that can enhance regional and inter-regional reliability needs, address economic efficiency, and help states achieve their respective goals. The term "regional" is meant to indicate NorthernGrid, the regional planning organization where the WTEC discussion originated, while "inter-regional" is meant to indicate the collective footprint of the three regional planning organizations in the Western Interconnection: NorthernGrid, the California Independent System Operator (CAISO), and WestConnect, as well as BC Hydro & AESO (Canadian Provinces).

Three themes for how to address a new approach emerged from these discussions:

- **Different:** There is a clear call to action to use a different approach than what has been used before that should robustly support an entity or entities wishing to pursue building transmission projects – a chief element of this approach would include partnership with an independent consulting firm to conduct analysis with the goal of producing a West-wide, future looking (e.g., 20 years) transmission plan.⁴
- **Inclusive:** There is a recognition that the structure must be inclusive and ensure that a broad set of perspectives is considered so that decision-makers, policymakers, stakeholders, and regulators will have confidence in the results and recommendations
- **Expedient:** There is broad consensus that regional transmission providers must act expeditiously by leveraging existing tools, capabilities and work products, including complementing other regional efforts, but to also nimbly use new capabilities and partnerships where possible.

This Concept Paper proposes to exclude from its scope outputs relating to transmission construction, siting, and permitting; however, the WTEC acknowledges that these stages of transmission development can be significant barriers to delivery of transmission solutions. The actionable transmission plan contemplated here would provide information or help develop a framework and possible metrics that would help entities wishing to pursue building a project to determine appropriate cost allocation; the WTEC does not intend to formulate or prescribe a cost allocation standard.

1.1 Problem Definition

As noted above, there is a concern that current transmission planning frameworks in the West do not result in sufficient transmission solutions to support the needs of the future energy grid, which are challenged by the dynamically changing resource mix, the devastating impacts of extreme weather events, and forecasts for significant industrial and electrification load growth, among other drivers.

Across the West, regional transmission planning is performed under NorthernGrid, WestConnect, and the CAISO. NorthernGrid and WestConnect were established to satisfy FERC Orders 890 and 1000 compliance for jurisdictional entities. While these processes are FERC-compliant, the legal and regulatory structure upon which they were built is limited and has not resulted in the identification of new transmission solutions that result in transmission builds. The limited nature of regional planning also handicaps the broader West in developing inter-regional transmission solutions. To effectively address the collective needs of the grid for the future, transmission

⁴ While this effort is focused on the production of an initial transmission plan, the WTEC envisions that the process could evolve into a durable, long-term function, including periodic updates and refreshed analysis.

planning must be performed in a more holistic and coordinated manner, such that a plan for transmission expansion solutions can be optimized to meet a broader set of needs.

1.2 Goals and Objectives

This Concept Paper contemplates the production of an actionable transmission plan to resolve grid capability, reliability, and resiliency challenges by meeting the following goals and objectives, each of which has been evaluated by WTEC to ensure they align with the themes identified for this approach – *Different, Inclusive, and Expedient*:

An Actionable Transmission Plan: Successful development of a transmission plan that provides a West-wide view by addressing both regional and inter-regional needs over a 20-year timeframe.⁵ Accordingly, the footprint of the plan would include both regional and inter-regional components. The development of the plan is intended to be a repeatable process.

Reliability: Ensure the footprint has sufficient transmission capacity identified and a plan developed that meets NERC compliance and operational flexibility and that is implementable with a high degree of confidence.

Commercial/Economic Efficiency: Ensure the footprint has sufficient transmission capacity to meet future energy needs while also reducing congestion and planning reserve margins required to maintain reliable operations.

Improve Affordability and Reliability: Enable investment savings by unlocking benefits associated with an optimized transmission plan, which provides for diversity in demand and supply across the footprint, and better utilization of transmission infrastructure using a robust and dependable analytical approach.

Improved Visibility and Coordination: The plan will establish full visibility into the combined capabilities and requirements of the footprint. This will enable stakeholders to make informed transmission planning and engineering solution decisions using collaboratively established common best practice approaches, so that transmission needs are met in the most reliable, efficient, and economical way, including analysis on a portfolio basis of the interplay between and aggregate value of various potential transmission solutions.

Supports Future Cost Allocation Decisions: The plan would include information about transmission benefits that would support appropriate cost allocation for projects that might be built because of the plan.

Fair and Unbiased: A plan that is fair and unbiased across resource types, business models, and to all participants and stakeholders, and which includes recommendations that are acceptable within current and evolving regulations and requirements of each applicable federal, state, and local jurisdiction.

⁵ The plan would also include five-year incremental analyses inside of the 20-year timeframe.

Transparency: Ensure transparency in the process and about the modeling inputs and assumptions. Include frequent communication with stakeholders, including, but not limited to, Tribes, state regulators and representatives, policy makers, and other interested parties.

1.3 Scope

This Concept Paper does not include a detailed technical scope – the Concept Paper instead proposes to set up structures that would define the detailed technical scope in a manner consistent with the concepts contained herein and would also formalize the approach described here for advancing the WTEC transmission plan. While this effort is focused on the production of an initial transmission plan, the WTEC envisions that the process could evolve into a durable, long-term function, including periodic updates and refreshed analysis.

2. Structure

The following proposed structure outlines the organization of essential committees and other stakeholder participation opportunities to support the effort. This Concept Paper contains many proposals for structure and approach that may need to be modified over time in response to changing circumstances or stakeholder feedback. Accordingly, the WTEC provides the following to expeditiously begin moving processes forward but acknowledges that adjustments may be needed.

2.1 Steering Committee

The WTEC effort will be organized into a Steering Committee comprised of senior and executive leadership from diverse entities committed to the study effort. The Steering Committee is responsible for resolving and making major decisions to structure the transmission plan. While the Steering Committee will make decisions informing the transmission plan, it also carries the responsibility to collaborate with other committees organized to support the effort. The Steering Committee will work with the Technical Task Force, the Regional Engagement Committee, and interested parties from the public on major elements of the study approach, including identification of renewable energy zones, resource expansion, electrification and load data, and scenario development. The Steering Committee will provide stakeholders with meaningful input opportunities at every stage of the transmission plan development.

The WTEC acknowledges that Steering Committee composition began through discussions with a diverse set of entities from the Pacific Northwest, however, the proposal below is intended to broaden leadership representation to include inter-regional perspectives.

The Steering Committee is proposed to be comprised of leadership from the following:

- NorthernGrid Transmission Planning

- This would include BPA and other members of NorthernGrid yet to be confirmed
 - CAISO Transmission Planning
 - WestConnect
 - This would include WAPA and other members of WestConnect yet to be confirmed
 - WECC
 - Canadian Province Transmission Planning
 - State Representative (to be determined through further consultation with States)
 - Northwest & Intermountain Power Producers Coalition
 - Renewable Northwest
 - InterWest
 - Pacific Northwest Utilities Conference Committee
 - Public Power Council
- WPP (organizer)

2.2 Regional Engagement Committee

The Regional Engagement Committee (REC) will be comprised of representative(s) from multiple stakeholder sectors and will be responsible for providing input and feedback on the approach for the transmission plan as well as providing input on major decisions informing the transmission plan. The REC will be responsible for reviewing proposals, scopes of work for technical studies, and draft plans. The REC will also engage with the Technical Task Force and interested parties from the public.

The REC is proposed to be composed of members from the following sectors.⁶ Each sector will appoint its own representatives:

- 2 Steering Committee members
- 4 Investor-Owned Utility representatives
- 4 Consumer-Owned Utility representatives
- 2 Non-Federal Power Marketing representatives
- 2 Federal Power Marketing Administration representatives
- 2 Independent Power Producer representatives
- 2 Independent Transmission Company representatives
- 2 Public Interest Organization representatives

⁶ Please see Attachment 1 for a set of suggested sector definitions.

- 2 Ratepayer Advocacy Organization representatives (commercial and residential)
- 2 Industrial Customer representatives
- 2 State Agency representatives
- 2 Tribal representatives

- WPP (organizer)

2.3 Technical Task Force

The Technical Task Force will be responsible for identification of study scope and approach, including but not limited to renewable energy zones, resource expansion, electrification and load data, and scenario development, including extreme event scenarios, phasing of study outcomes and recommendations, data protocols, etc. The Technical Task Force will include an independent consulting organization with demonstrated expertise and capability in transmission analysis who will be responsible for conducting the majority of the analysis and also contributing to the design of the study. The independent consultant will be selected by the Steering Committee. The Technical Task Force will take direction from the Steering Committee, which shall in turn consult with and collaborate with the Regional Engagement Committee. The Technical Task Force shall operate with all necessary data protection procedures and agreements in place.

The Technical Task Force members are anticipated to be a combination of the following:

- Technical staff of Steering Committee members
- Independent Consultant
- Pacific Northwest National Lab
- Northwest Power and Conservation Council
- Merchant and Independent Transmission Developers

- WPP (organizer)

2.4 Engagement with States

In addition to the role for state representation and engagement contemplated above, if desired by states, leadership from the Steering Committee and at least one representative of the Regional Engagement Committee and the Technical Task Force will engage with any states group identified by the states and the Western Interstate Energy Board (WIEB).

2.5 Engagement with Tribes

The WTEC recognizes and appreciates the importance and significance of including Tribes at every stage of the consideration of transmission solutions. For this reason, the WTEC proposes multiple engagement opportunities for Tribes. In addition to the role for Tribes contemplated

above, if desired by Tribes, leadership from the Steering Committee and at least one representative of the Regional Engagement Committee and the Technical Task Force will engage separately with a Tribes group comprised of any representatives identified by Tribes. In that case, the Steering Committee will work with Tribes within the footprint to establish a Tribal Committee. Meetings will be held quarterly to inform tribal members of the work and receive feedback.

2.6 Other Stakeholders

This Concept Paper contemplates periodic communications and public webinars to provide stakeholders from the public with input and feedback opportunities. The core structure above may be supplemented by additional advisory input from interested parties, including through periodic public forums or workshops that share updates, decision points, and opportunities for comment.

3. Communications

The Steering Committee will create a work group to manage and execute external communications for the committees and Technical Task Force. At a minimum, the communications work group will include WPP staff and a member of the Regional Engagement Committee. In addition, PNUCC will support work group organization and execution. The communications work group will be responsible for communications to stakeholders from the public, including but not limited to organization of common talking points, public webinars, media or website communications materials.

Attachment 1: SEC Sector Definitions

(Not all identified sectors above include a proposed definition)

Steering Committee Members

- Senior and executive level leaders from utilities and energy industry stakeholders. Must actively participate in both committees and be willing to serve as a liaison to resolve differences between the groups.

Utility Representatives

- **Investor-Owned Utilities:** This sector includes participants that are public utilities under the Federal Power Act, regulated by one or more state regulatory commission and subject to a fiduciary responsibility to investors to earn a return on rate-based assets.
- **Public Power:** This sector includes participants that are publicly-owned utilities, and electric cooperatives.
- **Power Marketing Administration (PMA):** This sector is a United States federal agency within the Department of Energy responsible for marketing hydropower, primarily from multiple-purpose water projects operated by the Bureau of Reclamation, the U.S. Army Corps of Engineers, and the International Boundary and Water Commission. Representatives from the Bonneville Power Administration and the Western Area Power Administration are eligible for this sector.

Independent Power Producers:

- **Power Marketing:** This sector includes entities that engage in the purchase and sale of electricity and do not own any generation or transmission facilities.
- **Independent Power Producer:** This sector includes participants that own or operates facilities for the generation of electricity for use primarily by the public, and that is not an electric utility.
- **Independent Transmission Company:** This sector includes participants that develop transmission as an independent entity for which the developer assumes all risks associated with the project. Members of this sector cannot pass risk onto captive customers.

Public Interest Organizations & Consumer Advocates

- **Public Interest Organization:** Members of this sector are 501(c)(3) organizations that are actively involved in energy advocacy and represent public interests other than retail customers.
- **Residential & Small Commercial Rate Payer Advocate:** This sector includes agencies or organizations that are specifically authorized to represent the interests of public utility customers.
- **Industrial Customer Advocate:** This sector includes organizations that specifically advocate for the interests of large commercial and industrial customers. May be non-profit or trade associations.

State Agencies:

- **State Agencies:** Members of this sector represent either a state energy office or a regulatory utility commissioner that focuses on electric power systems.