



October 30, 2023

MEMORANDUM

For Sarah Edmonds, President, Western Power Pool

From Nancy Hirsh, Executive Director, Northwest Energy Coalition and
Angus Duncan, Pacific Northwest Consultant to the Natural Resources Defense Council

Subject NWECC/NRDC Comments to Concept Paper for a West-Wide Transmission (Tx) Planning Process (Western Power Pool – September, 2023)

NWEC and NRDC are pleased to submit these comments to the excellent transmission planning concept paper issued last month by the WPP. We are appreciative of the initiative the WPP and its collaborators have taken to move forward with this critical component of a Pacific Northwest regional decarbonization and electrification strategy. WPP's rationale, and much of this paper, mirror similar arguments and proposals our two organizations have been actively advocating for many months now, as have other knowledgeable and concerned stakeholders. We share the urgency apparent in the language of the paper, but also the caution the paper reflects in inviting those many stakeholders to weigh in on the goals, structure and staging of the process proposed. Thank you for this effort in bringing the region together on a critical need.

Introduction

Transmission planning in recent decades has relied on incremental additions or modifications to the system that was largely in place by the 1970's, modified to reflect the withdrawal of certain large loads (e.g., aluminum plants) and introduction of new – especially

thermal – resources. New such resources were generally allocated the incremental costs of interconnection and pathway capacity to designated loads. This incremental approach still has value but evolving circumstances will require new and less risk-averse strategies that can **anticipate** both new load growth – electronic industry, server farms, electrified HVAC and transportation loads – and a more diverse array of resources – variable wind and solar, battery storage, transportation, electrolytic hydrogen production. Public policy addressing climate change – and especially calendar targets for achieving emissions reductions – must be reflected in planning schedules. Forecast weather/climate trends and system operation changes for meeting salmon recovery obligations need to be integrated into actionable transmission planning, including a range of assumptions for what material changes may arrive sooner than anticipated.

New circumstances will require a range of planning approaches. These may be characterized as:

- **Planning Backward:** Public policy requiring reduced greenhouse gas emissions, especially in Washington and Oregon (where the largest regional loads are centered), is stipulating a largely emissions-free power system by the 2040's. Scenarios laying down pathways to this outcome will set an outward limit toward which system resource and transmission planning pathways must trend. A broad range of weather, climate, and salmon recovery trends/needs must be integrated in long-term planning.
- **Planning Forward:** Emerging and accelerating load trends are indicating rapid growth in electrical usage, and therefore in electricity systems that generate and transmit larger quantities of power. These loads include electronic production and systems usage, and electrification of transportation and HVAC loads among other such circumstances. At the same time, low- or zero-carbon resources will be replacing carbon-intense resources but not necessarily located convenient to existing transmission lines. Regional transmission planning must accommodate these rapidly-approaching system shifts while not losing focus on its 2040's goals. Doing so will require the usual elements of Tx system capacity expansion (upgrading existing lines and exchanges in existing alignments; siting and constructing new lines in new alignments). The process will also benefit from incorporation of Grid-Enhancing Technologies (GETS) as identified by FERC¹ The Brattle Group's "Building a Better Grid"² and other analyses.

¹ Federal Energy Regulatory Commission Notice of Proposed Rulemaking (NOPR) RM21-17-000, April 2022).

² "Building a Better Grid", The Brattle Group, April 20, 2023, identified three such GETS strategies: Dynamic Line Rating (DLR); Flexible Alternating Current Transmissions Systems (FACTS); and Transmission Topology Control.

- **Planning From Inside Out I:** The inner core of the PNW Tx system is primarily BPA-owned and managed. The outer circle of zero-carbon renewable resources is beyond this core (MT wind; NV solar; off-shore wind; etc.). Since we are not going to build a second inner core system, BPA Tx planning and system upgrades are critical to the success of any “next” actionable transmission plan. The agency’s planning, upgrade/siting criteria, schedule and cost/risk management must be reconciled with Tx links that reach beyond this core. BPA planning (a) must be aligned with the planning and implementing of those links, and (b) must be transparent to all other engaged parties (Tx system and resource developers, siting officials, et al).
- **Planning From Inside Out II:** To manage transmission system costs, reduce land use impacts, and strengthen system resilience and reliability of customer service, utilities must begin their transmission planning by reducing the need for new facilities to the fullest extent practicable. They can do this, initially, by intensifying their – and their customers’ – investments in energy efficiency. To this strategy add Distributed System Resource (DSR) development: distributed solar, storage, and customer load management strategies to leverage the capacities within load centers to reduce consumption and increase flexibility and two-way load management. Non-wires measures (e.g., grid-enhancing technologies, or “GETS”) should be leveraged to the fullest extent practicable.
- **Ongoing Planning:** Any initial region-wide Tx plan will be rapidly dated by events, technologies and policy. The region needs an ongoing transmission planning function to revisit prevailing strategies with a frequency set by the pace of such changes. Short-term/incremental planning will require ongoing revisions to reflect variations in supply and storage technologies, load growth and power quality requirements, while long-term/scenario planning will likely require review every two years or so until the pace of operational, technological, policy, weather/climate and demand change settles to a more deliberate and predictable tempo.

Agenda of a WPP Tx Planning Process

A. Sequencing of Issues

1. Task One – Scope and Timing: While the paper does not detail the sequencing of issues to be taken up, we believe it implies much the agenda we also urge. The first focus should be on scope/scale of Tx system strengthening and additions, the timing of the actions necessary, and how impediments to actions and timing may be successfully addressed.

It is almost a cliché today, but also a reality, that new Tx actions can take a decade to plan and another decade to execute. But the greater part of regional loads must be decarbonized within these next two decades, starting today, not 20 years from now. New electrical loads – from transportation, space/water conditioning, server farms, certain industrial loads and other purposes – are coming on-line today, and that electrification process will accelerate in coming months and years. The Tx system must begin adding significant capacity, beyond what is presently in the planning queue, within the next five years. It must then accelerate growth to keep pace with technology curves and public policy goals.

We encourage the proposed Steering Committee to explicitly identify scope and timing as first task of the process, and in consultation with the Technical Task Force to outline a “scenarios” process that will:

- a. propose plausible future regional electrical load growth – including new, non-traditional loads – and distribution³
- b. identify plausible future zero carbon resources – demand and supply side – sufficient to meet that load growth⁴
- c. identify upgrades and enhancements to existing transmission lines (including enlarged corridors if necessary) and new Tx capacity needed to meet that load growth (net of new demand-side resources: efficiency, load management, generation, and storage).
- d. Identify options for interregional power and ancillary services exchanges (including across RTO and day-ahead boundaries) where mutual long-term system, customer and environmental benefits can be obtained.

The Technical Task Force and the Regional Engagement Committee should be consulted: (a) in the selection of the “independent consulting firm” engaged to develop a proposed “West-wide, future looking (e.g., 20 years) **actionable** transmission plan, (b) in framing the goals, meets and bounds of the analysis, and (c) in evaluating the results reported to the process.

The planning process should fully leverage existing and ongoing system planning processes, developed criteria, cited benefits and tradeoffs, and associated data,

³ We are not suggesting a new load forecasting effort, but rather we recommend using the considerable existing regional load forecasting capabilities and scenario forecasts and come to a general agreement for these Tx planning purposes.

⁴ Again, we are not suggesting a new resource forecasting effort by this group, instead the group should use the resource forecasts by the Power Council, PNUCC, and others.

including without limitation the Power Council's 20-Year Resource Plan, CAISO's 20-Year Outlook, WECC's Congestion Needs Analysis, USDOE's National Transmission Planning Study, The Nature Conservancy's "Power of Place West" study and other pertinent documentation and data.

Task Two – Siting and Permitting: The Paper explicitly excludes "outputs relating to transmission construction, siting and permitting." We agree that such a large additional undertaking should be deferred to a next – but only briefly delayed – process in favor of the "Scoping and Timing" task discussed above. However, once the scale/timing inquiry is underway, we encourage the group to begin a second task list: the review of federal, state, local and tribal transmission system siting regulation to identify obstacles and sources of delay that might be modified to accelerate siting decision-making while respecting environmental and cultural values, and the need for transmission to be a good neighbor to the region's communities and residents. In particular we should seek options for moving forward more briskly with Tx upgrades and enhancements to existing links that can remain largely within existing alignments. Opportunities to reduce impacts while increasing capacities may be identified and advanced.

Task Three – Cost and Risk Allocation: The Paper does not contemplate addressing this task. Again, we agree that it should be deferred until after "Scope/Timing" solutions are identified and indicated remedial work is undertaken. That said, new Tx capacity won't be built until the cost and risk signals are clear, and developers can be confident of their returns. Most first-generation Tx was developed and owned by governments and larger utilities that could evaluate and manage risk; the next generation of facilities, however, is likely to have also private entities as partners. Developing acceptable terms for ownership and operations that can be shaped to the different needs of private unregulated and regulated entities as well as government agencies like BPA will have to overlay the plan. Federal and state regulatory bodies, and utilities with experience in sourcing facilities and services from unregulated suppliers, will be best suited to undertaking this task.

In each of these areas, a sub-task will be to introduce flexibility tools into the process, tools that will allow acceleration of some projects (e.g., for which the need is established and the project is "shovel-ready" or nearly so) and deferment of others. For example, the region may elect to move on multiple projects at once at least through preliminary stages (planning/studies/siting/permitting), then hold on some projects while moving others forward to financing and permitting.

B. Federal and State Policy Goals

The Concept Paper includes (in Footnote 1) the definition of an “actionable transmission plan” to include one that helps “states achieve their respective goals.” In “Introduction: Planning Backward” and in Task One above we reference meeting “public policy goals.” Especially for the largest load concentrations in the region – the I-5 Corridor – these goals now include electricity supply decarbonization by the 2040’s and, between now and then, deliberate and extensive electrification of loads now directly reliant on fossil fuels (transportation; home/business HVAC; some industrial processes). In addition, it is important to note the September 2023 Presidential Memorandum that calls for explicit action by Federal agencies related to the Columbia River System (CRS) “to operate, manage, and regulate the CRS to adequately protect, mitigate and enhance fish and wildlife...”

This Tx planning process must take into account, in designing its scenarios, the accomplishment of these goals; although for purposes of flexible planning it may also include scenarios that exceed or fall short of the goals. The Paper should explicitly identify outcomes that may fall within the band defined by (a) commercial/risk parameters and (b) public policy preferences, to the extent these may differ. Financing and risk preferences will need to be reconciled with policy expectations, including but not limited to those grounded in statute.

C. Tribal and Environmental Concerns

The Paper wisely singles out the need for “Engagement with Tribes” and describes a process for engaging directly with the Tribes on those concerns, as well as including two Tribal representatives on the Regional Engagement Committee. The Paper should go further to include *“a Tribal utility representative with electricity system knowledge and experience to the Steering Committee⁵.”* Further, the Steering Committee should obligate itself to show how Tribal goals and concerns – along with environmental values – will be taken into account and respected in the “actionable transmission plan” definition. Further, “Section 1.2: Goals and Objectives” should include language singling out Tribal and environmental values in the planning and development of upgraded and new Tx system links, including expectations that utilities will fully exploit demand-side resource (DSR) opportunities to minimize the scope – and environmental/cultural/land use impacts – of new transmission facilities.

⁵ The Steering Committee should include a member from one of the Tribal utility/power agencies: Warm Springs, Yakama, Kalispell, etc.

The Concept Paper should specifically charge the Steering Committee and Technical Task Force to consult with the Regional Engagement Committee to identify and articulate the impacts, values and tradeoffs associated with new Tx facilities, and to reconcile these with the technical and economic drivers of new Tx capacity. The consultation should be expressly structured to review proposed Tx solutions using the screen of cultural and environmental values that the REC should be responsible for asserting in the planning process. The Steering Committee and Technical Committee should both consult with and seek agreement from Regional Engagement Committee members on issues of scope and timing including identifying the technical consultant, shaping the analytic scenarios and evaluating study results.

D. Definitions; Structuring Interactions Among WPP-proposed Committees

As the concern in Comment C above suggests, more thought needs to be given to how the interactions among the three committees proposed (or four, if a separate Tribal consultation is set up), and how the composite process can be expected to interact with state and federal regulatory, planning and funding agencies. Such interactions may be as straightforward as the Steering Committee seeking technical participation from PNNL, the state regulators and energy and siting agencies. It may be more structured, as in a consulting and sign-off relationship between the Steering Committee and the REC. It may be seeking a technical feasibility review from BPA or PAC for compatibility with existing infrastructure (having representatives on the Steering Committee or REC is likely to be necessary but not in the end sufficient if significant adjustments are sought from the agencies). Generally we would encourage more thought given to rules of engagement among the many parties that will either be located within the proposed process or will have organizational interests in proposals that emerge.

Additionally:

- The Tribes and the environmental/NGO community each should be able to name a member to the Technical Task Force.
- To the three “themes” identified on page 3, add “transparent” to indicate the obligation of this process to not just plan within certain meets and bounds, but to communicate those terms and how the plan aligns therewith (including concepts advanced by Tribal and environmental in “C” above); to invite substantive comment from stakeholders; and to demonstrate responsiveness to such substantive comments.
- Within the “Different” theme and thereafter, continue to add the term “actionable” to references to “transmission plan”(“D”).
- See also “A” above re selection of the “independent consulting firm” and framing of the “West-wide, etc., **actionable** transmission plan.”

E. Exclusions: (i) Proposing an ongoing regional transmission planning function; (ii) Determining appropriate cost allocations

The Paper wisely self-limits the reach and expectations for the process it proposes. We concur in that wisdom. We also know that an ongoing planning and development function is necessary for a component as critical, and as difficult to move forward, as transmission. We encourage the Paper to explicitly acknowledge this going-forward structural need even as it reserves its attention primarily to Scope/Timing issues.

As noted above, we also concur in not initially raising cost/risk allocation issues in this process. There is, however, the beginnings of a parallel process undertaken by state utility regulators that, if it were expanded to include the wider net of participants beyond regulated investor-owned utilities, might begin to fill this gap. The CREPC/Gridworks initiative is already taking up these cost/risk questions with respect to regulated investor-owned utilities, and – with additional participation of stakeholders -- might extend their process to review the extent to which public investment by the federal and state governments may be needed and incorporated to make “forward-planned” (e.g., without being fully subscribed) Tx links feasible and so stay ahead of the needs prompted by public policy goals. We recommend close coordination and alignment with the CREPC/Gridworks so that both efforts work in parallel and/or potentially merge.

F. Other Comments

- Page 3 / Problem Definition: insert after “The limited nature” the words “**of this type**” of regional planning . . .
- Page 4 / Improve Affordability and Reliability: insert after “. . . optimized transmission plan” the words “**which, together with full development of demand-side resources, will provide. . .**”; strike the words “which provide” See also note re demand-side resources in “C” above.
- Page 5 / Steering Committee: insert after “The Steering Committee will provide” the words “**the Tribes and**”