Comment Category	Stakeholder	Stakeholder Comments	WATT Response
Does the Study Plan Clearly describe the goals of the effort and the end result? Do you feel that it provides a solid foundation for a credible, high-confidence work product?	**James Gilbert**	• No mention is made of planning for integration of aggregated distributed energy resources • Concerned with lack of mention of ratepayer or consumer cost-benefits (e.g. reducing outage times seen by vulnerable communities and critical infrastructure)	WestTEC will include a trajectory of distributed energy resources, and this has been clarified in the Study Plan on page 10. Alternative DER trajectories can be captured in scenarios, if decided by stakeholders. The benefit-cost analysis envisioned in the study plan is focused on evaluating the business case for transmission investment and does not include retail rate analysis.
	CEBA	• The study plan is clearly written and accurately describes how it will create a credible and high value work product at a level of detail sufficient for this stage.	Thank you. Comment received.

	NWEC	• NWEC is pleased with the progress that has been made to date with the most recent iteration (v4) of the Study Plan. We have especially appreciated the continued conversation around the meaning of "actionable" in this context, as well as the clarity around how the Study Plan may be used by entities seeking to construct transmission projects in the future.	Thank you. Comment received.
Does the Study Plan provide sufficient detail to understand the technical work that will occur over the next 2+ years?	**James Gilbert**	• Yes, with the exceptions noted above in the first response.	Thank you. Comment received.
	CEBA	• The Study Plan is a good starting point as this process kicks off for the first time and we look forward to seeing additional details built out during study development. For example, we recommend that WestTEC help stakeholders better understand the nuances between study sensitivities versus scenarios as these elements are developed.	Continued dialog with stakeholders is planned for all study components.
	NWEC	• Yes, although we look forward to continuing to work through the details regarding what future inputs and new information will be considered as the Study Plan moves into its later phases.	Continued dialog with stakeholders is planned for all study components.
What concerns do you have about the Study Plan or the effort in general?	**James Gilbert**	• Concern is that the cost-benefit methods applied may not be comprehensive enough, neglecting ratepayer and other societal cost-benefits in the analysis. • It may also not be proactive enough in its approach to modernization as the Department of Energy and NARUC-NASEO have recommended.	Thank you for your comment. See prior responses on benefit-cost analysis.
	NWEC	• NWEC continues to urge the WTEC leadership team to allow for equitable representation from various	Comment received.

		interest groups in the various committees and sub-committees that are being formed.	
Open Comment Opportunity	**James Gilbert**	• Concerned with citing the CETA transmission expansion study 20 year plan as input to WestTEC work and specifically cost-benefit methods. • The CETA study under-values planned and co-optimized integration of advanced transmission technologies and grid enhancing technologies (GETS). • The WestTEC Plan outline currently makes no mention of DERs or aggregated DERs, a keystone that should be a part of any long-term, holistic transmission and distribution plan.	CETA transmission study was cited as an example of GIS-based routing analysis and busbar mapping and was not referenced as an input to WestTEC. See prior comment regarding DERs. Note this study is not a distribution plan.
	Seattle City Light	• The WestTEC study plan should monitor lower voltage BPS transmission lines where historically there have been contingencies that impacted 200 kV and above facilities due to parallel flows.	See modifications to Study Plan on page 21.
	PIOs (CEERT, WRA, NWEC, Audubon, Belval Connections)	• It is important that WestTEC consider not only costs and technical feasibility but also the environmental impacts of transmission options.	Comment received. Geospatial routing of transmission will consider environmental impact.
		• An important concept used by other transmission planners in the United States and elsewhere has been the identification of targeted energy zones. Energy zones are geographic areas identified for their high-quality energy potential for solar,wind, geothermal and other energy sources. This approach to planning offers a promising framework for coordinating the development of new energy resources and transmission infrastructure, maximizing efficiency, minimizing land-use conflicts, and fostering economic	WATT appreciates the dialog on this matter with the commenters. The commenters and WATT ultimately agreed that the busbar mapping methodology currently proposed in the study will facilitate the type of outcomes desired through this comment, and also has the benefit of being a more granular approach to

		growth and several states in the West have already embraced this concept with differing approaches. • Benefits of energy zones include: coordinated planning among project developers and load serving entities, streamlined development by expediting permitting and regulatory processes, land use optimization and community benefits through development of renewable energy projects. • Suggest WestTEC adopt a scenario approach to transmission expansion that uses energy zones as an organizing tool. By identifying these zones, WestTEC can minimize environmental impacts while maximizing the benefits of new energy resources.	resource siting which is appropriate for detailed nodal transmission studies (versus high-level zones often used for capacity expansion modeling).
	Ron Belval, Jeff Serfass, Robert Kondziolka	• In general, believe the study plan is thorough, complete, and adequately defines the proposed interconnection wide study. Two areas that we can be improved on: ○ Hydrogen: Study Plan could more clearly identify hydrogen as both a load and resource. Use of hydrogen as a fuel in transportation, and specifically heavy and long haul transportation, may be an essential part of improved efficiencies and reduction strategies and, therefore, an important, significant growing load to be served. A couple scenarios that examine the possibilities of hydrogen and their impacts would be advisable.	Comment noted. The capacity expansion model will include hydrogen-fueled options, with capital and fuel cost estimates. This is stated as a resource option in the Study Plan. Scenarios can include alternative hydrogen generation and hydrogen production assumptions when developed.
		• Regional Planning: there is value in coordinating and synchronizing processes with the Western Planning Regions (WPRs) so there is consistency with efforts	The use cases for the Actionable Transmission Study generated by WestTEC

		and outcomes. We also suggest the WestTEC plan consider identifying regional outcomes from the WestTEC efforts for WPRs consideration in their subsequent planning cycle. • Regional needs should be explicitly referenced in the introduction to the study as well as in other sections that address interregional needs. • Specifically, how could WestTEC's efforts complement existing transmission planning processes? • Will jurisdictional transmission provider revisions needed to satisfy Order 1920 ultimately be addressed in some manner in the WestTEC study?	are stated in the Study Plan. One goal is for the outputs to serve as an input to planning processes, including Order 1000 if appropriate. The remaining questions are outside the scope of the study plan and address jurisdictional or compliance issues outside of WestTEC's control.
		• What are WestTEC's requirements for "an individual" "with an interest related to WestTEC" to become a "regional partner"?	There are no requirements to being a regional partner; this term is meant to be inclusive of any individual or organization with an interest in the work of WestTEC. One avenue for individual engagement is through the monthly Regional Engagement Committee (REC) meetings. They are open to the public, and meeting information is provided on the WPP website.

	Eric Blank, Chair of Colorado PUC	• Given all the uncertainty in the West right now (data center loads, climate extremes, VPPs, growing intermittent resources), we'd encourage WestTEC to look at a broad range of load forecasts. ○ For example, this range of load growth scenario analyses could include an extreme high (assuming data center loads double or triple expected load growth?) or an extreme low (assuming VPPs largely eliminate load growth?)	Comment received. The WATT is considering such forecasts of data center load growth and other drivers mentioned, especially within the scenario process.
	CEBA	• As member of the Regional Engagement Committee, CEBA has appreciated the early opportunities to discuss the study plan and applauds WestTEC's investment in working with stakeholders.	Comment received.
	NWEC	• NWEC notes that p. 7 of the v4 Study Plan includes new language that allows for "material" new information that becomes available after publication of the Study Plan to be considered by the Steering Committee on a case-by-case basis. The decision regarding whether new information is "material" should not be made by the Steering Committee alone. • Members of the REC and WATT should also be able to suggest that new information is "material" and should therefore be potentially considered. In addition to obvious new information like revised state or federal policies or new projects, new studies, such as the regional study being undertaken by PNNL may also be "material." NWEC would appreciate a conversation around this issue with the broader WTEC planning effort.	See edits to Page 7.

Study Goals		No comments received.	
Concept of Actionable Transmission Plan		No comments received.	
Reference Case: Assumptions and Data Sources	**CEBA**	• Supports the inclusion of corporate voluntary goals alongside utility voluntary goals and state policy targets. CEBA looks forward to working with the WATT on best practices for incorporating large energy customer demand and clean energy goals into both reference case assumptions as well as scenario analysis.	Comments received.
	Arizona Public Service	• Page 11, Line 15: What metric(s) will be used to gauge resource adequacy (LOLE, EUE, etc.)? • Page 11, Line 16: What about resources such as PV+BESS (hybrid plant), long duration storage, microgrids, CAES, DSM, DR?	A resource adequacy assessment will not be performed. In lieu of this, an evaluation of unserved load, energy prices, and apparent capacity shortfalls will be performed using the results of the 10-year Reference Case production cost model. The resources mentioned, to the extent they are included in IRPs, will be captured.
	RMI	• Understands that WestTEC intends to model load using load forecasts from the WECC 2034 anchor dataset, utility integrated resource plans, and state agency data. Based on familiarity with numerous load forecasts in the West, we believe these load projections may be conservative. We suggest that the WestTEC team use more aggressive load forecasts in	WATT will be considering revisions to the ADS load forecasts when such data is reviewed by WATT. It is anticipated scenarios will capture varying load forecasts as well.

		the Reference Case or include at least one scenario that assumes more aggressive load growth.	
		• Given that a handful of Western states have economy-wide decarbonization targets by 2050, it's imperative that the load forecasts reflect these policies. We suggest that the WestTEC team should use NREL's high electrification scenario from the Cambium 2023 dataset for states with economy wide decarbonization targets or an equivalent aggressive load forecast that is aligned with these states' targets.	Agree that economy-wide decarbonization goals will be critical to incorporate given implications to electric demand. Load forecasting methodology developed by consultants will capture electrification and other demand drivers associated with long-term decarbonization targets.
		• Another data source that would be helpful to use is Energy Innovation's energy policy simulator. For all eleven Western states (no data for BC and Alberta), the platform has both a business-as-usual scenario and an economy wide decarbonization scenario load forecast by sector between now and 2050.	Comments received – the consulting team will review the policy simulator.
Planning Assessment & Methodologies: Step 1: Area to Area		No comments received.	
Planning Assessment & Methodologies: Step 2: Develop Resource Plan	**RMI**	• Agree that a capacity expansion model is the correct tool to pick the lowest-cost portfolio for the Reference Case to meet the West's reliability, environmental, and economic needs of 2045 and beyond. However, we caution the WestTEC team against over-relying on what a model says is simply the most economic portfolio. If we explore the near-optimal solution space (where "optimal" is lowest cost), we will likely	Comments received. WestTEC will address this uncertainty through scenarios.

		find that there are multiple different portfolios of generation resources that can meet the needs of the West with minor difference in total costs. One example of a study that has shown how the West could pursue multiple different portfolios with small difference in costs is The Nature Conservancy's Power of Place West study. We would encourage the WestTEC team to explore this near-optimal solution space and get feedback from the REC committee and other stakeholders on different sub-state energy zones throughout the West.	
		• Energy zones are a common concept used by transmission and resource planners throughout the West. By identifying energy zones, the WestTEC team could collect data on critical aspects of what makes transmission expansion actionable like interest to construct resources in that zone from developers and utilities, interest to sign purchase power agreements with resources in that zone from utilities, interest to have that zone developed from an economic development standpoint from state governments and energy offices, concerns about the environmental and cultural impacts of resources in that zone from conservation groups and tribes, and local interests from communities on the ground, amongst other things.	See comment response above regarding energy zone vs. busbar mapping. An emphasis of study will be to look at accessing new resources with new transmission.
		• A potential approach for gathering feedback and interest on issues beyond the lowest cost: 1. The WestTEC team could first publish the preliminary resource portfolio guided by lowest cost, the results would be organized by Western energy zone.	WestTEC committees plan to review the preliminary results and decide if expert judgement / modification is needed, considering the pros/cons of such modifications.

		2. Next, the team could solicit feedback from committee representatives, utilities, state representatives, tribes, and other stakeholders on each Western energy zone. 3. Finally, the team could consolidate this feedback and reassess the reference case to develop a new near-optimal portfolio that incorporates the insights gained in stage 2.	
Planning Assessment & Methodologies: Step 3: Busbar Mapping	**CEBA**	• The Study Plan notes that the busbar mapping will utilize interconnection queue data to reflect commercial interest in certain geographic locations. • In addition, CEBA recommends that the interconnection queue data be used to influence the buildout of resource types in the 20-year study. Utility IRPs represent an important data source for this forecast; interconnection queue data can be used as a supplemental source to validate the forecast and reflect commercial interest in certain technology types.	Commercial interest data from interconnection queues will be used to inform busbar mapping, ensuring resources are sited in areas where there is development activity. In this manner, it will influence the buildout of resources in the 20-year study. Such queue data can also be used to validate that such levels of development are reasonable for these areas. An emphasis of study will be to look at accessing new resources with transmission.
Planning Assessment & Methodologies: Step 4: Hypothesis Map Development		No comments received.	

Planning Assessment & Methodologies: Step 5: Powerflow Assessment		No comments received.	
Planning Assessment & Methodologies: Step 6: Transmission Portfolio Refinement & Iteration		No comments received.	
Planning Assessment & Methodologies: Step 7 Congestion Assessment		No comments received.	
Planning Assessment & Methodologies: Step 8: Transmission Solutioning		No comments received.	
Planning Assessment & Methodologies: Step 9: Value Proposition (Benefits & Costs)		No comments received.	

Planning Assessment & Methodologies: Step 10: Synthesis of Transmission Portfolios		No comments received.	
Scenario Planning and Sensitivities		No comments received.	