



Oregon

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MEETING SUMMARY

ODOE Oregon Energy Strategy Advisory Group Meeting #3; September 9, 2024

Attendees

Present Advisory Group members: Aaron Orłowski, Andrea Kreiner, Bryan Adams, Cathy Ehli, Charity Fain, Christine Golightly, Cory Scott, Emily Griffith, Erin Childs, Fred Heutte, Ivy Quach, Jeffrey Roy Hammarlund, Jennifer Bies, Jennifer Hill-Hart, Jimmy Lindsay, Joshua Basofin, Juan Barraza, Laura Tabor, Mary Moerlins, Michael Colgrove, Nate Hill, Patrick Ford Mills, Scott R. Simms, Shannon Souza, Timothy L. McMahon, and Tucker Billman

Absent Advisory Group members: Andrew Mulkey, Cathy Ehli, Rakesh Aneja, and Robert Wallace

Oregon Department of Energy staff: Abby Reeser, Alan Zelenka, Edith Bayer, Jessica Reichers, Jillian DiMedio, Joni Slinger, Josh Price, Lauren Rosenstein, Mary Kopriva, Michael Freels, and Ruchi Sadhir

Consultant team: Ben Duncan (Kearns & West), Gillian Garber-Yonts (Kearns & West), María Verano (Kearns & West), Eileen Quigley (CETI), Ruby Moore-Bloom (CETI)

Number of members of the public in attendance: 18

Welcome and Agenda Review

Ben Duncan, Kearns & West, opened the meeting. Edith Bayer, Oregon Department of Energy (ODOE), welcomed the group and noted that the reference scenario comment period has ended, but that the public comment portal is still open for general questions. She shared that an average of five to ten members of the public attended each of the public Working Group meetings and noted that more information on the modeling, the reference scenarios, and the working group invitation list could be found on the project website.

Edith outlined the goals of the meeting:

- Summarize the modeling approach and objectives.
- Ensure clarity and hear Advisory Group members' reflections on the draft reference scenario.
- Present specific questions for feedback.
- Present emerging options for "What-if" scenarios.

Ben reviewed the group agreements, led the members of the group through introductions, and introduced the ODOE project team, the Clean Energy Transitions Institute (CETI) team, and the Kearns & West team.

Overview of process and model

Edith Bayer reviewed the modeling process, which included holding Public Listening Sessions and Working Group meetings and building on a national-level model tailored to Oregon's needs. As a next step, ODOE is working to complete the model development process and incorporate input from each group. Edith shared that the ODOE team is working to finalize the reference scenario for posting by September 28th.

Edith shared the decision-making criteria and noted that the criteria will be used as an assessment tool for future modeling decisions.

Edith shared an overview of what the analysis does and does not do, explaining that it evaluates tradeoffs between different pathways and strategies to meet Oregon's "aggressive but achievable" energy policy goals. Edith introduced Alan Zelenka, Assistant Director for Planning and Innovation at ODOE, who explained how the modeling will inform future policy recommendations. Edith shared an overview of how the "what-if" questions will inform the policy recommendations and noted the make-up of a demand model and how it differs from a supply side model. Advisory Group members shared the following questions:

Question: Can you clarify how this is not a least cost model, but is a least cost scenario to meet the low needs?

Response: While this model is not a least-cost planning tool, it still considers cost and aims to meet objectives efficiently.

Response: The model does build a least-cost portfolio but is not an Integrated Resource Plan (IRP) process; instead, it creates a reference scenario with aggressive parameters and tests various constraints to guide recommendations and future research.

Question: What are the outputs, what do the delta points on slide 11 refer to, and what is the model looking at?

Response: The model will reveal the required resources on the supply side and assess their availability. Energy efficiency and demand response are not evaluated as competing resources. Instead, the focus is on achieving aggressive but achievable targets within the reference scenario.

Response: All of the scenarios start with the reference case and test deviations to understand impacts on the least-cost path. The model integrates lessons learned to inform recommendations, ensuring all scenarios meet goals and objectives while evaluating changes in supply mix and assessing costs and co-benefits.

Question: How does the scenario of lower electrification in transportation align with our existing goals? Do the constraints conflict with any goals or policies that we have?

Response: Existing policies are incorporated into the model which guides the assumptions throughout.

Question: How will additional costs, like transmission, be captured if they are needed to import the lowest-cost resource? When will the total system cost be evaluated, and how will transmission costs be incorporated?

Response: We will evaluate the total system cost, which includes the delta, and the assumptions for the aggressive but achievable goals are embedded in this evaluation. The analysis will show the benefits of different constraints. More will be discussed later in the meeting.

Question: How does the modeling approach differentiate between categories of cost and categories of co-benefits?

Response: The model will provide insights into the cost of different resources needed to meet demand. Additional analysis will be conducted to assess co-benefits and understand the cost impacts on customers and households.

Working Session: Draft Reference Scenario

Edith Bayer reviewed the proposed reference scenario changes in transportation, commercial hot water heat pumps, demand response participation, buildings, timing of transmission development, generation, and direct use fuels categories. Edith shared that the changes come from feedback received through comments online and in the Working Group meetings and will be used to refine the models which will inform future decision making. Edith mentioned that online comments are still being submitted so these changes are not yet finalized.

Advisory Group members shared the following questions and comments about the proposed changes.

Question: Why isn't any new transmission planned until 2035? Waiting until 2035 might cause timing issues due to permits and limited manufacturers or materials.

Response: We assume no new transmission until 2035 because of the lengthy permitting process for new projects. The model operates in 5-year increments, making it unrealistic to expect new projects before then. We have not seen evidence that significant new projects will be feasible by 2035.

Response: The model allows for new transmission to be developed by 2035 but does not restrict starting earlier. The ODOE team is working to include transmission lines already under development into the modeling

Question: How does the model integrate sales share in its inputs and make choices on the supply side?

Response: The model considers competition among various technologies, like different types of heat pumps, and includes price assumptions. The inputs are not static; they account for ongoing technological development and pricing changes.

Lauren Rosenstein, Community Equity and Inclusion Analyst at ODOE, Michael Freels, Senior Policy Analyst at ODOE, Jillian DiMedio, Senior Policy Analyst at ODOE, Joni Slinger, Senior Clean Electricity and Markets Analyst at ODOE, and Edith Bayer shared with the group the topics discussed at each of the eight Working Groups. The eight Working Groups were Environmental Justice & Equity, Energy Efficiency

& Load Flexibility, Buildings, Direct Use Fuels & Industry, Transportation, Transmission & Distribution, Electricity Generation Technologies, and Land Use & Natural Resources.

The Advisory Group members had the following questions and comments:

Energy Efficiency & Load Flexibility

Question: Is ODOE looking at broad participation options in the demand response, like time-of-use tariffs, or something more specific, like programmatic technology?

Response: The participation we are considering is firm demand response, which goes beyond pricing mechanisms. It involves direct load control or similar mechanisms with a high certainty of participation.

Comment: Could you provide details on the program's demands like number of hours and how frequently customers would experience disruptions?

Response: Understanding the program's demands and disruption frequency will help assess future achievement rates. We can provide this information through a slide at a later presentation.

Buildings

Comment: I am concerned about the 95% overall sales target, especially given the efficiency and effectiveness of heat pumps in colder climates. I am also worried about alignment with building codes and whether hybrid pumps will address these issues.

Response: We are including hybrid heat pumps to address colder climates. We are open to feedback if this does not fully address the concerns. The model does account for different climate zones and variations in technology, and we are considering all input on this topic.

Question: Will all comments on the reference scenario be made publicly available so policymakers can access them?

Response: Yes, all comments will be tracked and responded to. We plan to provide a detailed annex to ensure transparency and accountability.

Transportation

Question: Would it be possible to share the Rocky Mountain Institute (RMI) study you mention on medium- and heavy-duty (MHD) transportation electrification in Oregon?

Response: Yes, here is the RMI study on MHD vehicle electrification: <https://rmi.org/analysis-with-smart-policy-truck-electrification-is-within-reach/>

Transmission & Distribution

Question: Will the work group or model recommend increases in transmission and policy changes needed to achieve our goals in a reasonable timeframe, or will the model only assess impacts based on anticipated transmission developments?

Response: The model will assess the need for transmission and test different scenarios, including constrained transmission within the state. Results from these scenarios will inform policy

discussions. The model itself will not make policy recommendations, but it will provide insights that will guide policy conversations.

Question: Will the Bonneville Power Administration (BPA) be involved in reviewing the scenarios and planning to ensure alignment with their regional transmission work?

Response: Yes, we have a consultant who is evaluating BPA's work and analyzing how it aligns with our modeling. We have also had several meetings with BPA to ensure their input is considered.

Question: Is ODOE incorporating Grid Enhancing Technologies (GETs) like Dynamic Line Ratings and Advanced Conductors into our transmission inputs?

Response: Yes, GETs are considered, but we need to follow up with our modeler to confirm specific details about which technologies and their levels of incorporation.

Question: Is ODOE focusing only on large transmission projects or also on smaller projects BPA is working on for modeling purposes?

Response: The model looks at high-level, large transmission projects and assumptions for improvements. It does not detail individual smaller projects but will consider overall transmission needs.

Question: Does the model consider opportunities for merchant transmission developers, like creative transmission projects?

Response: The model does not distinguish between utility and merchant projects but identifies the need for transmission. Policy discussions will address how to meet this need, including considering various development opportunities.

Question: Can we address the timing of new transmission projects and incorporate them into our modeling and policy discussions?

Response: The modeling will wrap up by the end of the year, but we will try to incorporate relevant new information. We will need to update our discussions based on emerging reports because this is not a one-time effort.

Question: How does the model incorporate regional connectivity and transmission progress outside Oregon?

Response: The model will consider existing and planned transmission projects and regional policies from neighboring states. We will test scenarios of constrained in-state development and look at options for importing electricity from other states.

Question: When does modeling need to be finalized for the overall strategy? Will there be updates or adjustments based on initial reactions?

Response: Modeling should be finished by the end of the year, with no planned additional rounds. We will review initial results and finalize the modeling, and policy discussions will follow.

Comment: There is a lot of new planning information coming soon, and it would be beneficial to reconvene the transmission subgroup for a more in-depth discussion as the modeling progresses.

Comment: The Energy Strategy should inform regional discussions on transmission, and it is important to integrate new planning information as it becomes available.

Electricity Generation

Question: Is the proposed reference scenario specific to just Oregon or does it cover the whole region in the adequacy assessment?

Response: The model is for the entire region, and will consider Oregon within the context of other states in the western U.S.

Question: Were any other models considered in the subgroup, or was the PNUCC (Pacific Northwest Utilities Conference Committee) Forecast the only model debated?

Response: This model was chosen because it aligns better with how our model is structured. Other forecasts, including the PNUCC Forecast, were considered, but this one was preferred due to its compatibility.

Question: If East and West Oregon are modeled as separate regions, will all other assumptions be kept consistent between regions?

Response: There will be some differentiation between East and West Oregon to reflect structural differences. We will communicate these differences and incorporate them into policy discussions.

Question: Will there be an analysis of higher versus lower forecasts for data center load growth, and what can we learn from that?

Response: Yes, we plan to compare higher and lower forecasts for data center load growth to gain insights. We welcome comments on this approach.

Question: Can we expect the public comments and responses to be documented and made available?

Response: Yes, the group has committed to documenting the input received and making it available.

Land Use

Question: Are there updates or better data available now compared to when the PowerPlace study was done, and should we consider incorporating these updates?

Response: Yes, there is better data available now than when the PowerPlace study was conducted. We will consider making updates, especially in areas where the data has improved.

Question: Does the PowerPlace West study adequately account for restrictions on siting solar projects on agricultural lands, or is this something we should be aware of?

Response: The PowerPlace West study uses prime farmland exclusion areas only in siting level three, which may not fully reflect current restrictions on agricultural land. This may be something to consider when interpreting the scenario results.

Question: How is land use being modeled in the scenarios, and will the scenarios provide specific ranges of acres or hectares needed to reach our clean energy goals?

Response: Yes, the model output will show the amount of land needed under different scenarios, such as more or less utility generation. However, these outputs are frameworks for reference

rather than exact predictions. They are meant to test various scenarios rather than provide precise land requirements.

Question: Will the latest studies on energy density for solar and current industry standards be included in the modeling, considering these standards change over time?

Response: Yes, we can check with our energy modeler about incorporating the latest studies on energy density and industry standards.

What-if questions: Emerging Options for 5 Scenarios

Edith Bayer, ODOE, explained that the comment period was focused on the reference scenario and added that the group will discuss the alternative scenarios in the next meeting. She shared that the “what if” questions could be condensed into eight categories, which will need to be reduced to five before they are finalized on September 24th. The topics included more or less energy efficiency and electrification in buildings, constrained transportation electrification, constrained vehicle miles traveled, constrained transmission, enhanced alternative fuels, faster or greater than expected load growth, and a more ambitious decarbonization scenario. Edith added that they will be reserving two scenarios to serve as counterpoints to the aggressive but achievable scenarios. She added that ODOE is accepting comments on these scenarios.

Members of the advisory group shared the following questions and comments:

Question: Can the model look at scenarios that model both more and less energy efficiency, or can it only address one at a time?

Response: The model can look at both scenarios. The reference case is designed to consider an aggressive but achievable level of efficiency and electrification.

Question: Is ODOE incorporating the latest studies on energy density for solar and industry standards into the model?

Response: We will check with our energy modeler about incorporating the latest studies on energy density.

Question: Is it still the case that modeling scenarios must be consistent with existing policies? How can we support policy considerations if the model is constrained by current policies?

Response: We are not strictly limited to existing policies. While we incorporate assumptions that may require additional policies to implement, we do exclude options that are not currently allowed in Oregon.

Question: In the draft reference scenario, there were questions about the cost assumptions for the electricity distribution system and pipeline infrastructure. Have these questions been resolved? Should we consider any additional future costs?

Response: These questions are still open. We have not finalized the solutions for distribution and pipeline infrastructure costs yet. We welcome feedback on these issues. The complexity of these

costs makes it challenging to determine the best approach, and we value input from public partners.

Edith thanked the group for their answers and highlighted their appreciation for everyone's participation.

Preparing for Upcoming Meetings, Next Steps, and Summary

Edith Bayer, ODOE, shared that the next meeting is scheduled for October 17, 9am-12pm. At the meeting, the group will discuss alternative scenarios and collect feedback. She also shared that the November meeting will consist of planning for engagement in early 2025, building on reflections of engagement date, and collecting feedback and recommendations for the engagement process.

Ben expressed his appreciation for Advisory Group members and adjourned the meeting.