

**Jeffery C. Allen**  
Chair  
Idaho

**Ed Schriever**  
Idaho

**Doug Grob**  
Montana

**Mike Milburn**  
Montana



## Northwest **Power** and **Conservation** Council

**KC Golden**  
Vice Chair  
Washington

Washington

**Ginny Burdick**  
Oregon

**Louie Pitt, Jr.**  
Oregon

March 7, 2023

### **MEMORANDUM**

**TO: Council Members**

**FROM: Jennifer Light, Director of Power Planning**

**SUBJECT: Work Plan and Objectives for Mid-Term Assessment**

### **BACKGROUND:**

**Presenter:** Jennifer Light

**Summary:** The Power Committee will discuss the proposed 2023-2024 work plan and the goals for the 2021 Power Plan Mid-Term Assessment. The scope of the mid-term assessment has implications for the near-term work of the division, as well as the timing of delivery of the assessment. The overall objective of this meeting is to get preliminary agreement on the scope and timing of the mid-term assessment to ensure that the work planned in the coming year or two is sufficient to meet the Council's and region's needs.

**Relevance:** The 2021 Power Plan called for the Council to monitor and evaluate the region's evolving power system and policies and develop a mid-term assessment that highlights those changes and reflects on the impacts relative to power plan's strategy. The division's work since completion of the Plan has focused on tracking these changes and working on analytical enhancements in preparation for the mid-term and next plan. This discussion is an opportunity to ensure the committee and staff are aligned in the overall objectives for near-term priorities and the mid-term assessment.

# Power Division Work Plan and Mid-Term Assessment Goals

Jennifer Light  
March 14, 2023

## Objectives

- Outline division work activity over the next couple of years as we feed into the Mid-Term Assessment for the 2021 Power Plan
- Get some initial agreement on the scope of the Mid-Term Assessment to ensure that the activities planned and related timeline are sufficient

## Need for Mid-Term Assessment

The promise from the 2021 Power Plan:

*“The Council’s work to monitor and evaluate the region’s evolving system and policies will keep pace with new data and analysis in this rapidly changing industry. Any changes or unexpected developments will be reported as available and reflected in the 2021 Power Plan’s mid-term assessment.”*

## Questions to Ask for Mid-Term Assessment

Does the resource strategy in 2021 Power Plan continue to ensure an adequate, efficient, economical, and reliable power supply?



Do we know more about our existing system and its ability to support adequacy?



Are new resources being developed consistent with the plan?



How are loads changing, and is the pace of electrification faster than assumed in the plan?



What new policies are being set and how do those provide either more certainty or uncertainty for the future system?



What is the status of emerging technology development?



What is happening outside the region and how might it impact our ability to leverage the market?

# 2023-2024 WORK PLAN

5

## Work Generally Fits in Two Categories



6

## Tracking: Implementation of 2021 Power Plan and Development of Mid-Term Assessment

- 2021 Plan was developed during a time of high uncertainty
- Tracking resources and policies, and testing adequacy, informs:
  - Whether and how the plan is being implemented
  - Potential gaps or key risk areas that might benefit from more focus in next plan



7

## Tracking and Reporting on Plan Implementation

- Tracking of resources builds with annual updates on regional progress relative to the plan strategy

Resource Type	Timing	Notes
Generating Resources	Q1*	Three years of updates to inform mid-term
Energy Efficiency	Q3	Savings for 2022-2023, plus projections
Demand Response	Q4	One round of updates of utility activities/plans

\* Generating resources will be reported on in early Q2 of 2023

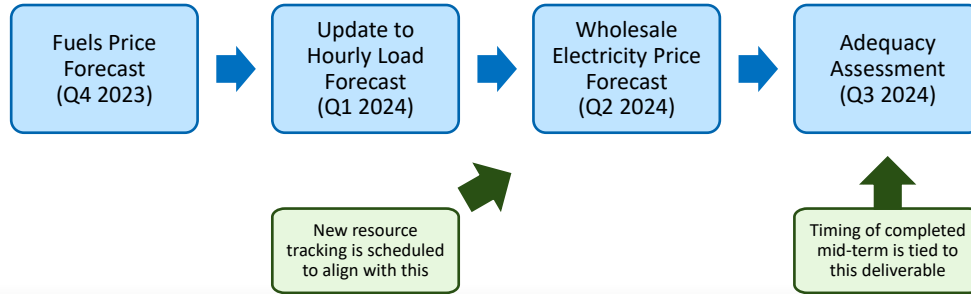
Mid-term timing is tied (in part) to getting at least 2 years of reporting

- Tracking and reporting on other power plan recommendations
- Convening and/or participating in regional discussions related to power plan recommended work areas

8

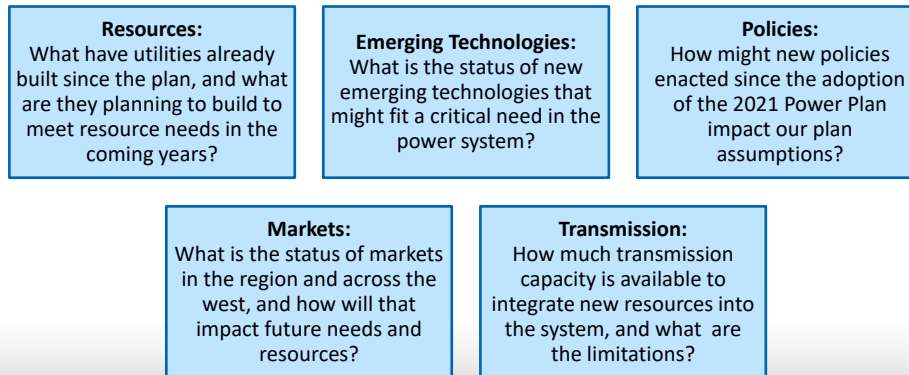
# Adequacy Assessment and Related Studies

Staff plans to prepare one more adequacy assessment in advance of the Mid-Term Assessment



# Tracking Regional Efforts and Policies

Tracking policies and plans is important to implementation and understanding whether the 2021 Plan continues to provide for an adequate system:



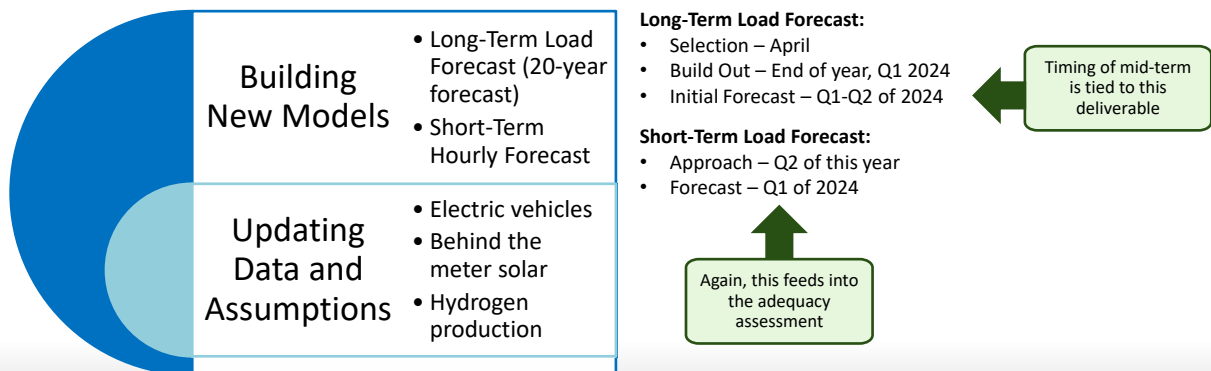
## Building: Preparation of Tools and Data for the Ninth Power Plan

- Power system is becoming increasingly complex
- This pre-plan period is a good time to reconsider our tools and methods
  - Revamping most modeling tools
  - Considering where new data or methods are required



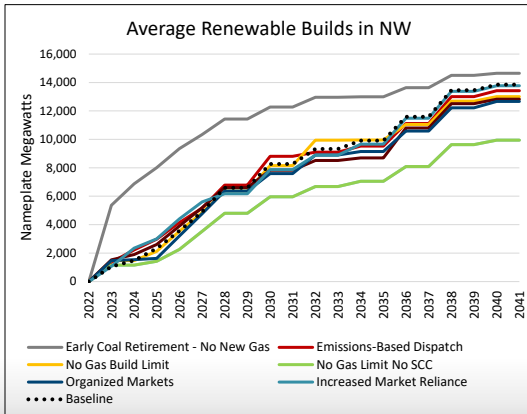
## Tool Enhancement: Load Forecasting

Goal for 2023 is to update our load forecasting capability



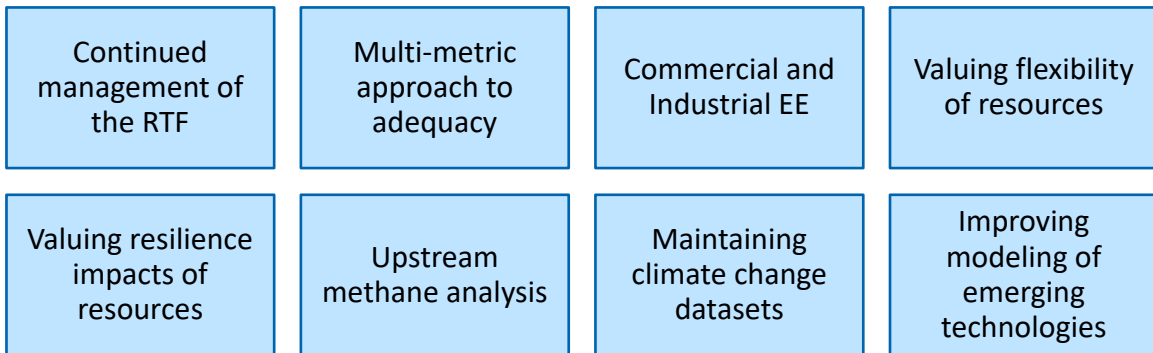
# Tool Enhancement: Regional Capital Expansion Model

Remember these graphs?



- Exploring a new approach to optimizing NW resources
  - Tool built to recognize today's power system challenges
  - Data and analysis to better model relevant resource attributes
- Scoping out options with a goal of recommending path forward in Q3 of 2023

# Data and Modeling Enhancements



And so much more...



## Resource Considerations

Our ambition is limitless, but our resources are not!

- Priority: Enhancing our ability to model the loads and resources in the context of the current system
- Reality: There are a lot areas to understand and enhance, and we are limited in how deep we can go



## SIZING THE MID-TERM ASSESSMENT

## Reminder of the Big Questions

Does the resource strategy in 2021 Power Plan continue to ensure an adequate, efficient, economical, and reliable power supply?



Do we know more about our existing system and its ability to support adequacy?



Are new resources being developed consistent with the plan?



How are loads changing, and is the pace of electrification faster than assumed in the plan?



What new policies are being set and how do those provide either more certainty or uncertainty for the future system?



What is the status of emerging technology development?



What is happening outside the region and how might it impact our ability to leverage the market?

## Answering the Big Questions



Do we know more about our existing system and its ability to support adequacy?

- One more adequacy assessment



Are new resources being developed consistent with the plan?

- Updated generating resources (inside and outside the region), plus a summary of utility plans
- Two years of conservation achievements, plus a forecast out two years
- Updates on demand response activities across the region



How are loads changing, and is the pace of electrification faster than assumed in the plan?

- New long-term load forecast with an initial forecast incorporating recent policies

# Gaining More Certainty in Potential Futures



What new policies are being set and how do these provide either more certainty or uncertainty for the future system?

- Summarized updates of new policies across and anticipated impacts on direction of plan resource strategy



What is the status of emerging technology development?

- Updates to emerging technology, highlighting new changes to costs or availability



What is happening outside the region and how might it impact our ability to leverage the market?

- Clarity around the WRAP and its role to support adequacy
- More insight about markets, updated transmission plans, etc.

# Timeline

- ★ Today!
- ★ Resource Updates
- ➡ Load Forecast Buildout & Initial Forecast
- ➡ Capital Expansion Scoping & Selection
- ➡ Adequacy Assessment
- ➡ Updates on Policies, Emerging Tech, Markets, Transmission, etc.

## 2023



## 2024



## Proposed Out of Scope

- Staff is not proposing to:
  - Develop a final “baseline” load forecast that captures *all* elements of existing policies (e.g. new loads to support decarbonization)
  - Update potential for all resources (i.e. no EE supply curve, no full suite of reference plants)
  - Re-run the regional capital expansion model to test an updated baseline or other scenarios as a comparison to the plan strategy
- These are all going to take more time than currently proposed, and ultimately are all needed for the 9<sup>th</sup> Plan

## Discussion

- Scope:
  - Is the scope appropriate for the mid-term?
  - Are there important elements we are missing?
  - Is there any piece that feels less critical?
- Timing: Is targeting late summer 2024 reasonable?