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

October 7, 2025

MEMORANDUM

TO: **Council Members**

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

SUBJECT: **Power Plan Update**

BACKGROUND:

Presenter: Jennifer Light

Summary: The Power Division is preparing the Council's Ninth Regional Power Plan. Since this is a long process with many interconnected components, staff plan a standing item at Council meetings to provide members with an update on the status of work to date and highlight the next steps.

Relevance: Under the Northwest Power Act, the Council is required to review its power plan no less frequently than once every five years. The Council initiated its review of the power plan in February 2025, with a goal of developing a final power plan by November 2026.

Workplan: B. Development of Ninth Power Plan

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

October 7, 2025

MEMORANDUM

TO: **Council Members**

FROM: **Jennifer Light, Dor Hirsh Bar Gai, John Ollis**

SUBJECT: **Needs Assessment for Changing Hydro Operations Scenario**

BACKGROUND:

Presenters: Jennifer Light, Dor Hirsh Bar Gai, John Ollis

Summary: The Council will have a work session on Tuesday afternoon of the meeting focused on power plan development. Most of the work session will be used for staff to walk through the results from the needs assessment studies conducted for the Changing Hydro Operations Scenario included in the Ninth Power Plan.

The results will be split into two sections:

1. Walk-through of the modeled hydro operations in the system and how they are similar or different across the four sensitivities, with particular focus on The Dalles, Lower Granite, Grand Coulee, and Dworshak
2. Discussion of system needs as identified in this needs assessment analysis in general, as well as differences between the four sensitivities.

This analysis is important for both the Ninth Power Plan development and the Fish and Wildlife Program amendment process. The goal for this work session is to allow sufficient time for members to dig into any aspect around modeled hydro operations or assessment of needs that will be helpful in guiding future discussions around both Council processes.

Relevance: One of the early analytical steps in the power plan development is an assessment of system needs. This analysis essentially looks at the gap between existing system capabilities and future forecasted load growth. This gap is translated into an adequacy reserve margin that captures the size and shape of the need as a factor of load, which is used to guide later steps in modeling of regional resource solutions to ensure results provide for an adequate system. Staff will conduct a needs assessment analysis for each sensitivity in the power plan that has changes to assumptions around existing system capabilities, such as changes in hydro system operations or varying levels of transmission development.

For the Ninth Power Plan, one of the scenarios is exploring how future resource needs change under different hydro operations. Information from this analysis is expected to inform both the Council's Fish and Wildlife Program amendment process and the development of the Ninth Power Plan.

Workplan: B.3.2. Conduct assessments of regional needs to inform scenario modeling.

Background: Hydro system operations provide an important nexus point between the Council's fish and wildlife and power planning responsibilities. On the fish and wildlife side, the Council must develop a program that protects, mitigates and enhances the fish and wildlife impacted by the operation of hydro projects on the Columbia River and its tributaries. This program builds upon the recommendations (and the comments on the recommendations) from the Federal and region's state fish and wildlife agencies, Tribes, and others. Both historically and today, these recommendations have included proposed operational changes to the hydro system for the benefit of fish in the Columbia River System.

On the power planning side, the Council must develop a power plan that puts forward a scheme for developing new resources to reduce or meet the Administrator's obligations. This includes the Administrator's obligations to implement the Council's fish and wildlife program; essentially recognizing that there may be changes to operations for fish and wildlife that would require the acquisition of new resources.

Staff anticipated that hydro operations for fish and wildlife would be a key issue to be addressed in the upcoming amendment process and have been working to create space to assess this issue through both its power planning and program amendment activities. This analysis lives in the Changing Hydro Operations Scenario for the plan. After discussions with the Council and consideration of the recommendations and comments on the recommendations into the Fish and Wildlife Program amendment process, the Council agreed to a set of four sensitivities to include in this scenario:

- **2020 BiOp Operations:** Models the preferred alternative in the 2020 Columbia River System Operations Environmental Impact Statement.

- **2023 RCBA Operations:** Models the operations as defined by the 2023 Resilient Columbia Basin Agreement.
- **Recommended Operations for Minimum Operating Pool (MOP) and Spill:** Models the MOP and spill operations recommended by several entities as part of the Fish and Wildlife Program amendment process.
- **Limited Daily Flexibility:** Models limitations to daily flexibility (changes in daily outflows) to reflect operations more consistent with current day operations.

This needs assessment is the first step in modeling this scenario. The main purpose is to understand the timing, size, and shape of needs in order to develop an adequacy signal for the Council's OptGen model, which will be building out optimized resource portfolios. The results from the GENESYS model can also provide insights on potential impacts on hydro operations throughout the system. Staff will walk through all these pieces in detail during the work session.

More info: In May 2025, staff started the discussion around hydrosystem operations and exploring the intersection between the Council's program and power plan on this topic. In June 2025, staff presented early thinking on a range of potential options for power system analysis, based on the recommendations received in the Fish and Wildlife Program amendment process. In August 2025, the Council discussed and agreed to a scope for the four sensitivities included in this scenario.

In March 2025, power staff presented on the "needs assessment" for the Power Plan, which will be a primary focus when analyzing the impacts of possible changes in hydrosystem operations on the region's power supply.

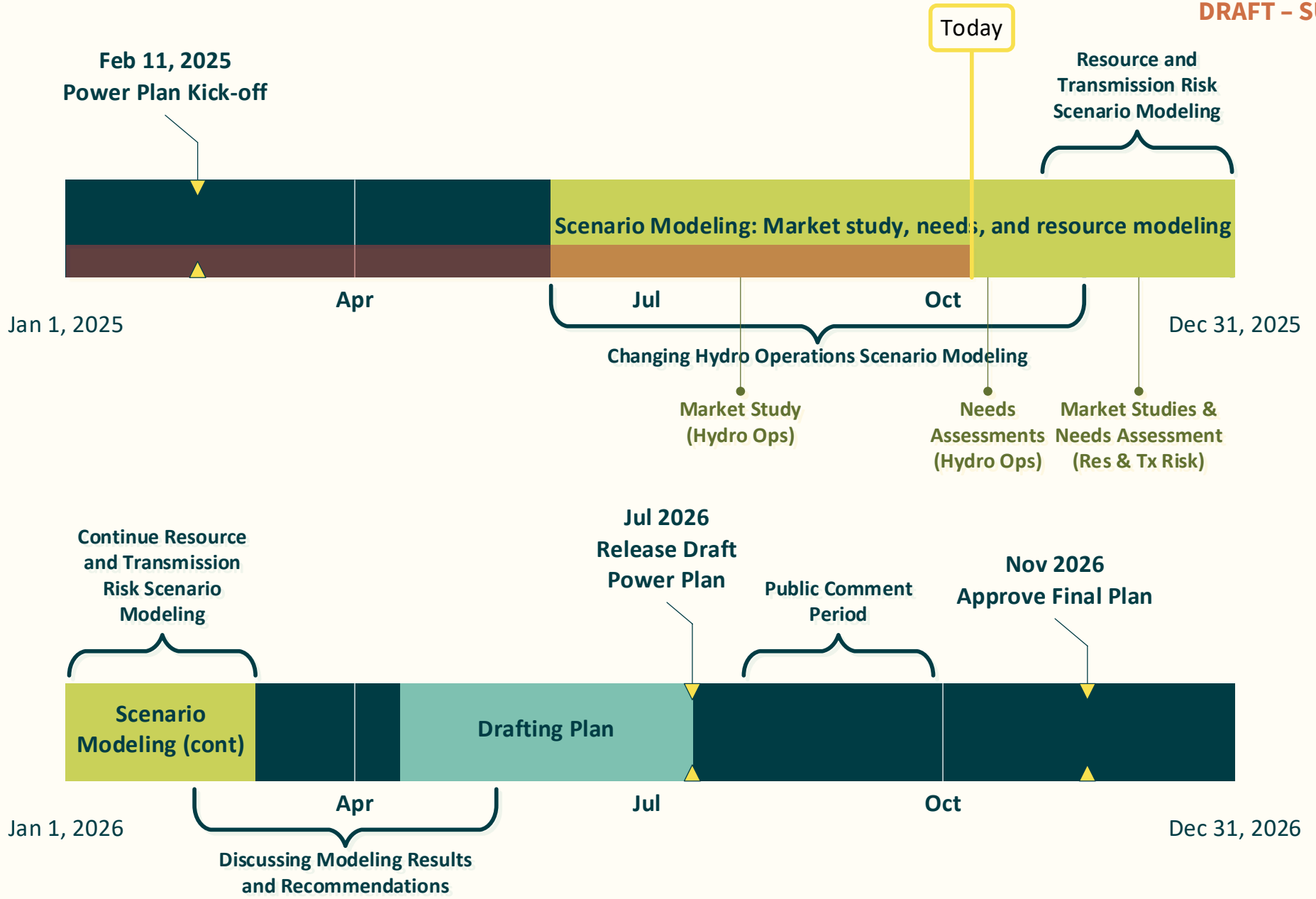
Power Plan Update

Jennifer Light

September 9, 2025

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

Power Plan Timeline



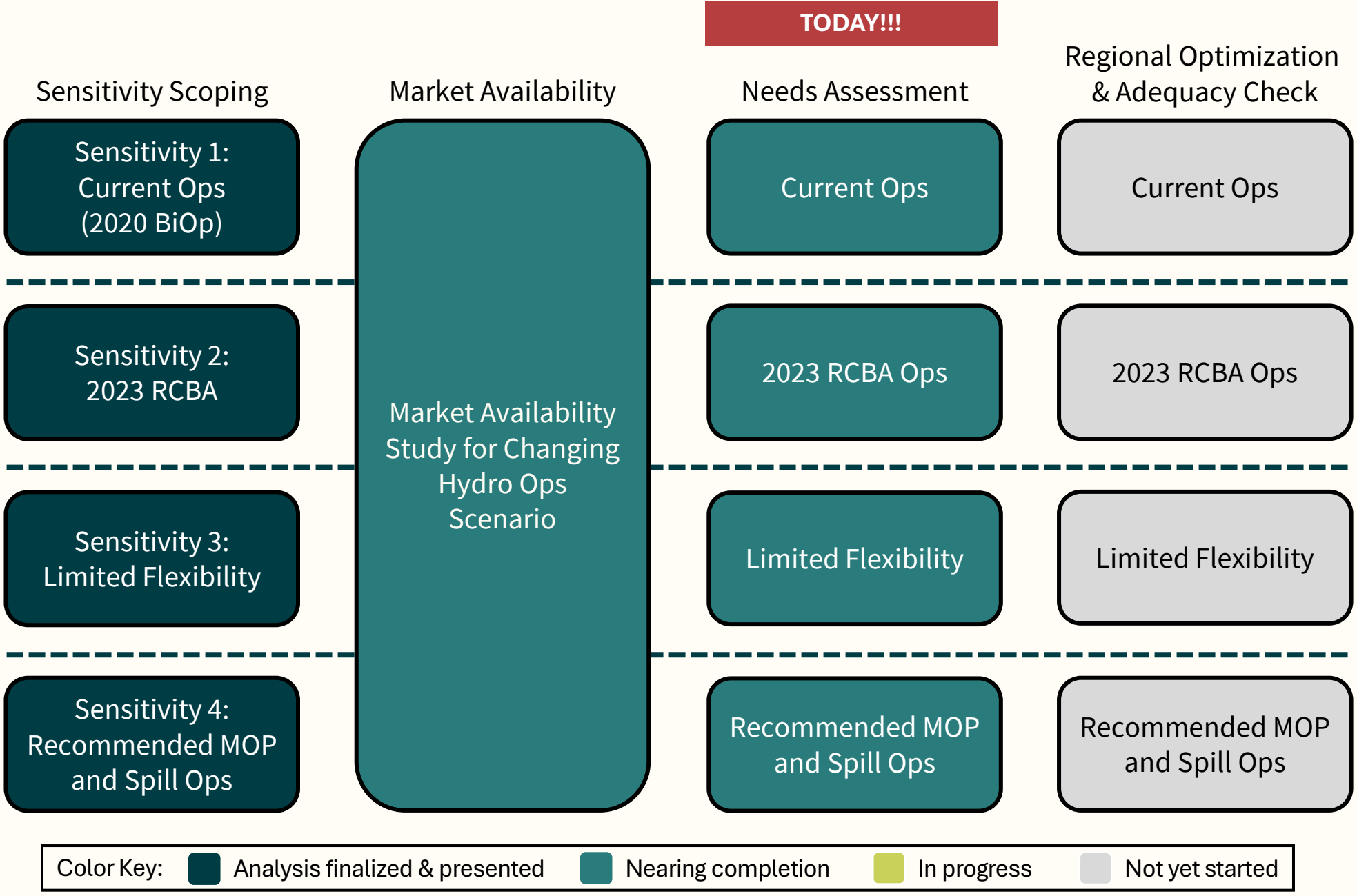
Follow-Up on Discussion on the New Resource and Transmission Risk Scenario

- Staff is planning a slight tweak to the Constrained New Resource and Transmission Risk sensitivity
- Initial approach was to:
  - Limit near-term (first 2-year) availability of commercially available supply side resources
  - Delay availability of ETs by 10 years
  - Use only existing transmission look
- Based on the discussion, there seemed to be some interest in further stressing availability of supply side resources
- Therefore, staff is planning an approach to ramp in the availability of these resources over the full action plan period (first 6-years), instead of just the first 2-years

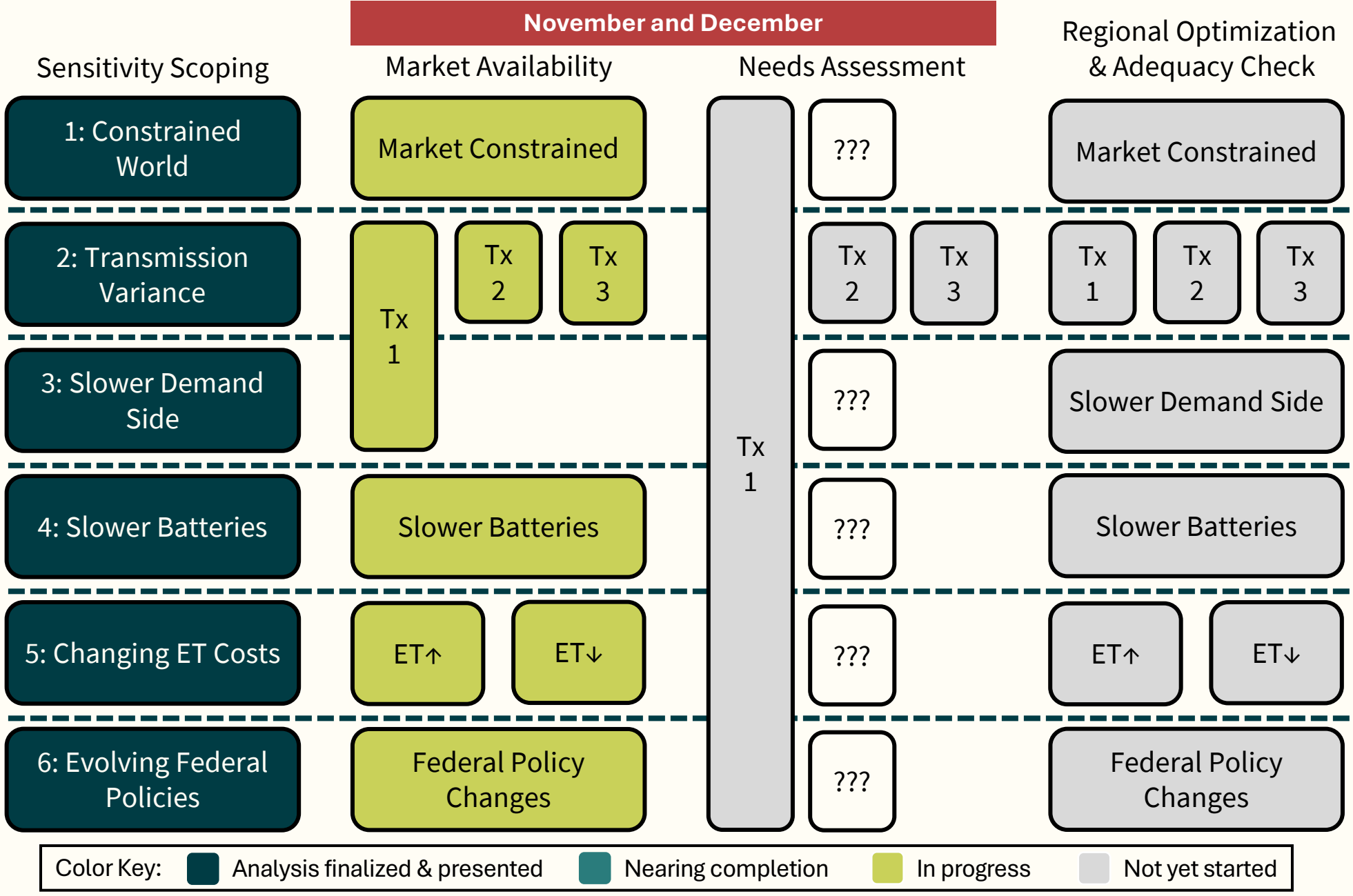
Sensitivities Included

Constrained New Resources and Transmission	Changing Transmission Availability
Changing Emerging Technology Costs	Limited Short-Duration Storage Availability
Slower Demand Side Resource Availability	Evolving Federal Policy Landscape

Changing Hydro Ops



Resource and Tx Risk



What's Coming Up?

Month	Council meeting agenda item
October (Tamarack)	Needs Assessment Results for Changing Hydro Operations Scenario (2 hrs) Grid Enhancing Technologies (1 hr)
November (Portland)	Market Availability Studies for New Resource and Transmission Risk Scenario (1.5 hrs)
December (Webinar)	Needs Assessment Results for New Resource and Transmission Risk Scenario (1 hr) Several other power related topics to support power plan considerations (0-3 hrs)
January (TBD)	Primer on Scenario Results (1 hr) Reminder of Power Act Elements for the Power Plan (45 min)
February & March (TBD)	Scenario Modeling Results (3+ hours, each meeting)
April & May (TBD)	Developing Recommendations (3+ hours, each meeting) • Resource Strategy • Conservation Program Elements • Supporting Recommendations
June (TBD)	Draft Power Plan Chapters (3 hrs)
July (TBD)	Adopt Draft Power Plan for Public Comment

Questions?