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October 4, 2023

MEMORANDUM

TO: Council Members

FROM: Jennifer Light, Director of Power Planning

SUBJECT: Committee Update and Planning: Mid-Term Assessment and Ninth Plan Timeline

BACKGROUND:

Presenter: Jennifer Light

Summary: The Power Committee will start with another Committee Update and Planning item. In addition to providing a general update, Jennifer will share out staff recommendations for the planned Mid-Term Assessment of the 2021 Power Plan. Jennifer will also touch on early thinking about the timeline for the ninth plan. This will be informed by the power division staff retreat held in early October.

Committee Update and Planning

October 11, 2023

Topics for Today:

- October meeting topics connection to the work plan
- Highlight a few division updates, and some work needed in the next couple of weeks
- Focus on the outcomes from the staff offsite
 - Draft outline for the 2021 Plan mid-term assessment
 - Early thinking on the ninth plan

October Meeting Topics (Part 1)

- Our meeting time continues to be focused in large part on implementation of the plan
- Includes:
 - Check in on the conservation program elements
 - Continues the conversation on transmission
 - Weighing in on regional discussion around post-2028 power contracts with Bonneville

Primary Function	Tasks	Timeframe (CY)
A. Implementation of the 2021 Power Plan and Development of the Mid-Term Assessment	A.1. Reporting on Plan Implementation	
	1. Tracking and reporting on energy efficiency accomplishments relative to the 2021 Power Plan Conservation Program.	Annual Report - Q3
	2. Tracking and reporting on generating resource builds, both in region and across the WECC, as compared to the 2021 Power Plan analysis and strategy.	Annual Report - Q1
	3. Tracking and reporting on demand response efforts in the region relative to the 2021 Power Plan.	Annual Report - Q4
	4. Tracking and reporting on progress across other elements of the 2021 Power Plan, including model conservation standards, research, etc.	Ongoing
	5. Convening and/or participating in regional discussions on topics related to the 2021 Power Plan recommendations, including hydro flexibility and assessment of refined datasets to inform consumer impacts.	Scoping - 2023
	A.2. Conduct Periodic Studies on Regional Adequacy	
	1. Develop an updated fuels price forecast.	Q4 2023
	2. Create an updated in region hourly load forecast and updates to WECC-wide loads to inform the Adequacy Assessment.	Q1 2024
	3. Update the wholesale electricity price forecast and the related emissions forecast.	Q2 2024
	4. Conduct the regional Adequacy Assessment and prepare report detailing the analysis and findings.	Q3 2024
	A.3. Tracking Regional Efforts and Policies	
	1. Track emerging technologies, both supply and demand side, providing periodic updates to the Council.	Ongoing - Quarterly Reports
	2. Coordinate with regional utilities on integrated resource planning and other activities to share plan findings and leverage utility insights and advancements.	Ongoing - Annual Report
	3. Track markets efforts, including day-ahead market offerings and transmission planning, to inform Council analysis	Ongoing - Quarterly Reports
4. Track local, state, and Federal policies that impact the energy system and provide periodic reports to Council on new developments.	Ongoing - Annual Report	

October Meeting Topics (Part 2)

- We are also revisiting the topic of a new capital expansion model for the 9th plan
 - A decision today is needed to keep us moving forward and ensure enough time for development in advance of the need for the plan
- RTF support is a mix of implementation of this plan, and preparation for the next plan

B. Preparation of Tools and Data for the Ninth Power Plan	B.1. Tool Enhancement	
	1. Update load forecasting capabilities to better reflect the current power system.	Selection - Q1 2023 Built Out - Q1 2024
	2. Explore new capital expansion modeling approach to provide better optimization for future power system needs.	Selection - Q3 2023
	3. Continued enhancement of GENESYS operations to support periodic studies and next power plan.	Ongoing - Annual Report
	4. Updating tools used to estimate new resource options, both supply and demand side, in preparation of the next power plan.	Ongoing
	B.2. Enhanced Data and Modeling	
	1. Develop approaches to improve the data assumptions and modeling of commercial and industrial energy efficiency potential.	Q2 2023, Ongoing
	2. Develop methodologies to quantify flexibility and resilience impacts from energy efficiency, with a goal of informing other resources as appropriate.	Q1 2023, Ongoing
	3. Refine new multi-metric adequacy standard approach, focusing on risk thresholds.	Ongoing - Annual Report
	4. Conduct an updated upstream methane analysis with regional stakeholders.	2024 or Later
	5. Maintaining climate change data to ensure it remains relevant and improve analysis for loads and resources in the ninth power plan.	Ongoing
	6. Improve data and modeling of emerging technologies, including distributed energy resources and storage.	Ongoing
	7. Explore improvements to modeling hydrogen fuel production and impacts on loads, reserves, transmission capability, locational impacts of resources, the value of non-quantifiable environmental benefits (e.g. land use), and other elements critical to understanding the future power system.	Ongoing
8. Continue to manage the Regional Technical Forum, leveraging its data and analysis to expand and enhance the assessment of energy efficiency and demand response potential.	Ongoing	

Division Updates



Small contract to frame out a modeling path for distributed energy resources, which we will be working on over the coming months



Building out our new long-term load forecasting tool and looking forward to updating the Council on progress in a few months



Western Transmission Expansion Coalition concept paper released and will be working to provide comments by end of month



Staff offsite refined thinking on mid-term assessment and started framing out ideas for ninth plan

Looking Ahead to the Mid-Term and Ninth Plan

Assessment of the 2021 Power Plan

Direction 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.”



Objectives of Mid-Term Assessment

- This assessment would aim to:
 - Provide a check in on the plan around what has been accomplished and what has changed since the plan
 - Connect all the different elements reported to date into a clear narrative
 - Use any insights to outline early thinking from ninth plan analysis
- Staff recommends streamlining resources and focus efforts more on preparation for the next plan
 - Connect the dots between existing work (e.g. resource development, market prices, adequacy)
 - Avoid new analysis (e.g. exploring new strategies or risks)
 - Approving one version, and not going through a draft for comment process

Proposed Outline

1. Executive Summary
2. Introduction
 - A. Background on 2021 Power Plan
 - B. Objectives of Assessment
3. Changes in the Power System
 - A. Evolving Policy Landscape
 - B. Update on Regional Electric Loads
 - C. Implementation of the 2021 Power Plan Resource Strategy
 - D. Implications for Resource Adequacy
 - E. Advances in Research and Development
4. Looking Ahead to the Council's Ninth Power Plan

Updated regional long-term load forecast

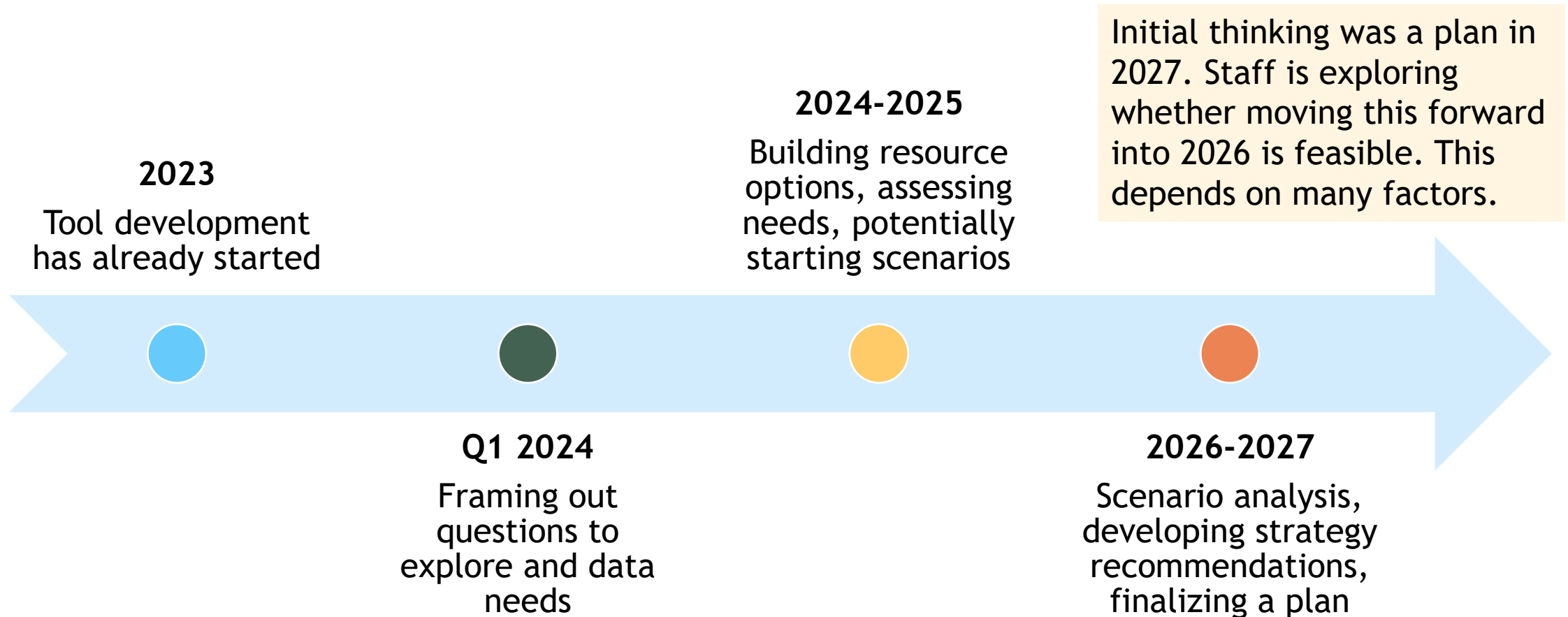
2021 Power Plan Resource Strategy relied on each element (e.g. reserves, renewables, demand-side resources, market prices). Changes in one area have implications for another. This section will connect those elements and outline implications.

Incorporate findings from next year's adequacy assessment to further inform the narrative

Draft Themes to Explore in Ninth Plan

- Bonneville specific resource acquisition guidance
- Uncertainty around resource costs and availability, including:
 - Exploring different strategies across different cost assumptions
 - Exploring implications of resource availability (ex: supply chain issues)
 - Includes understanding how emerging technologies might fit
 - Also includes understanding of transmission risks and the differential locational value of resources
- Trade-offs with hydro system flexibility:
 - Exploring implications of more limited daily river fluctuations relative to current constraints
- Other changes in policies, markets, system operations, loads, etc.

Draft Timeline for Ninth Plan Development





Questions

Work Plan Reminder

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