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## Northwest Power and Conservation Council

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March 5, 2024

### DECISION MEMORANDUM

**TO:** Council members

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

**SUBJECT:** Release of Issue Paper on Preparation for the Ninth Power Plan

**PROPOSED ACTION:** Staff is seeking Council authorization to release an Issue Paper that outlines early thinking on the ninth power plan for an approximately 45-day comment period.

**SIGNIFICANCE:** The power division is starting to prepare for the Council's ninth power plan. At this early preparation stage, the staff is starting to scope out potential modeling questions to help ensure that it can prepare models and data accordingly. Staff is seeking stakeholder input at this early juncture to identify priorities and hone proposed scenarios.

### BUDGETARY/ECONOMIC IMPACTS

There are no budgetary impacts to releasing this issue paper for public comment. Ultimately, early and ongoing input will support the power division in its ability to streamline analysis, making the most of Council resources.

### BACKGROUND

The Council adopted its current power plan, the 2021 Power Plan, in February of 2022. The power division is now starting to prepare for its next power plan. A lot of work goes into the early preparation stage, as the power division works to develop draft inputs that will support the testing and preparation of modeling tools. To support this preparation, the Council needs to start framing the potential scope of analysis, as the datasets and

models may need to be adjusted to support the specific analytical questions. It is important to engage the region during this early scoping.

The staff have prepared an issue paper that outlines this early scoping. The paper provides a high-level overview of the Northwest Power Act power planning requirements and the plan development process, as well as providing early thinking on proposed scenario modeling. The proposals represented in this issue paper are far from final. The goal of releasing the paper now is to use the public comment to refine the scope. The Council will have an opportunity to revisit and finalize the scenario scoping over the coming months.

This public comment period is also not the only time for stakeholder engagement in the power plan preparation and development process. The power division will work with its advisory committees throughout preparation and development of the plan, and there will plenty of other opportunities for Council members and staff to engage with stakeholders.

### **ALTERNATIVES**

Staff recommends releasing this issue paper to initiate regional engagement during the preparation (and eventual development) of the Council's ninth power plan. The Council could decide not to release this paper, and instead identify other venues for seeking feedback at this stage. The Council could also choose to delay the release of this issue paper until a later date. Both alternatives are likely to impact the power divisions work plan timelines.

### **ATTACHMENTS**

Staff will send members a copy of the proposed issue paper digitally.

# Release of Ninth Plan Issue Paper

March 13, 2024

# Recommendation for Release of Issue Paper

- Seeking Council authorization to release an issue paper outlining early thinking about the ninth power plan
- Note:
  - Power division is starting to prepare for the Council's ninth power plan
  - Getting public comment on early scoping and priorities will support the Council with preparing models and inputs in preparation for the plan
  - The ideas outlined in the issue paper are draft and anticipated to evolve based on public comment and further staff and member discussion

# Important Process Note!

Today

Late 2026/Early 2027

F&W Program Preparation and Official Process

Ninth Plan Preparation

Ninth Plan Development

Releasing this issue paper is not the official kick of the power plan review. 2024 is a preparation phase of plan work. The official kickoff will occur early next year.

# **Power Act Requirements**

# Power Act: Developing a Power Plan

- Power Act identifies a clear role for the Council in power planning stating the Council must adopt and transmit to Bonneville a “regional conservation and electric plan” [Section 4(d)(1)]
- It also outlines clear purposes of the Council’s power planning and F&W work:
  - Encourage conservation and development of renewables [Section 2(1)]
  - Ensure an adequate, efficient, economical, and reliable power supply [Section 2(2)]
  - Provide for participation of states, local governments, consumers, utilities, fish and wildlife agencies and Tribes, and public [Section 2(3)]
  - Protecting, mitigating, and enhancing for fish and wildlife [Section 2(3)(A), Section 2(6)]

# Power Act: Power Plan Timing

- Timing of power plan development is informed by the Power Act and connected to the Fish and Wildlife Program Amendment process
  - Plan needs to be “reviewed” by the Council at least every five years [Section 4(d)(1)]
  - Act also requires that the Council call for recommendations to amend the fish and wildlife program (and triggering the amendment process) prior to review of the plan [Section 4(h)(2)]
  - Act requires the fish and wildlife program to be incorporated into the plan [Section 4(e)(3), therefore it must be completed prior to the Council releasing a draft power plan
- We are in a preparation phase now and working towards starting official review in the 5-year window with a draft released after completion of F&W Program



# Power Act: Developing Strategy for New Resource Acquisition

- Plan should give priority to cost-effective resources, with conservation given the highest priority, then renewables, third generating resources utilizing waste heat or with high efficiency, then other resources [Section 4(e)(1)]
- Plan should provide a scheme for “implementing conservation measures and developing resources” pursuant to Section 6 of the Act “... to reduce or meet the Administrator’s obligations\* with due consideration” for:
  - Environmental quality
  - Compatibility with the existing system
  - Protection, mitigation, and enhancement of fish and wildlife
  - Other criteria set forth in the plan[Section 4(e)(2)]

*\*Obligations includes both meeting or reducing power sales obligations and assisting in implementation of fish operations*

# Power Act: Other Major Plan Elements

- Section 4(e)(3) of the Power Act outlines other critical elements to be included in a plan, including:
  - Council’s Fish and Wildlife Program
  - Energy conservation program and model conservation standards
  - Demand forecast of at least 20 years
  - Forecast of power resources estimated to meet Bonneville’s obligation
  - Analysis of reserve and reliability requirements, including cost-effective methods for providing reserves to ensure adequacy
  - Methodology for determining quantifiable environmental costs and benefits
  - Recommendations for research and development
  - Methodology for calculating a surcharge (as related to the model conservation standards)

# Power Act: Some Key Definitions

- **Cost-Effective:** Measure or resource that is forecast to be “reliable and available” and meet or reduce power demand “at an estimated incremental system cost no greater than that of the least-cost similarly reliable and available alternative measure or resource” [Section 4(A)]
- **System Cost:** “Estimate of all direct costs of a measure or resource over its effective life, including, if applicable, the cost of distribution and transmission ... waste disposal costs, end-of-cycle costs, and fuel costs ..., and such quantifiable environmental costs and benefits ... directly attributable to such measure or resource” [Section 4(B)]

# How Does the Power Plan Guide New Resource Acquisition?

- Council's Power Plan identifies new resource development needs in the region
- Only legal requirement connected to resource acquisition is with Bonneville
  - Resource decisions must be consistent with the Council's plan [Sections 4(D)(2) and 6(A), 6(B), and 6(C)]
- For others, the Power Act can be influential to inform resource needs and guide analytical decisions including methodologies, data and inputs, etc.
  - Note: In Washington, I-937 creates a statutory connection for WA utilities to the Council's methodologies for conservation

# Advisory Committee Engagement

- Power Act requires the Council to ensure widespread involvement by the public and by specific entities [Sections 4(c)(8) and 4(g)]
- Act also requires the Council establish at least one “scientific and statistical advisory committee” to assist in the development of the plan; Council may establish more [Sections 4(c)(11) and (12)]
- Committees **advise** the Council on scope, assumptions, and analysis
- Staff chair and facilitate committee meetings
- Council members are welcome to participate
- All committee meetings are open to the public

## Existing Advisory Committees:

Conservation Resources (CRAC)  
Demand Forecasting (DFAC)  
Demand Response (DRAC)  
Generating Resources (GRAC)  
Fuels (FAC)  
Resource Adequacy (RAAC)  
System Analysis (SAAC)  
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Regional Technical Forum (RTF)  
RTF Policy (RTF PAC)

# **Ninth Power Plan: Timeline**

# Rough Timeline

Today

Late 2026/Early 2027

F&W Program Preparation and Official Process

Ninth Plan Preparation

Ninth Plan Development

# Rough Timeline: Plan Preparation

Today

Late 2026/Early 2027

## Ninth Plan Preparation

- This phase will take us through this year and into early 2025
- Main goals are to:
  - Scope out the analytical questions and develop methodologies
  - Develop and test tools in preparation for future scenario analysis
  - Start preparing plan inputs to support model testing, which will also enable more streamlined analysis once the official plan review starts
  - Early engagement with advisory committees around scope and methodologies



# Rough Timeline: Power Plan Review

Today

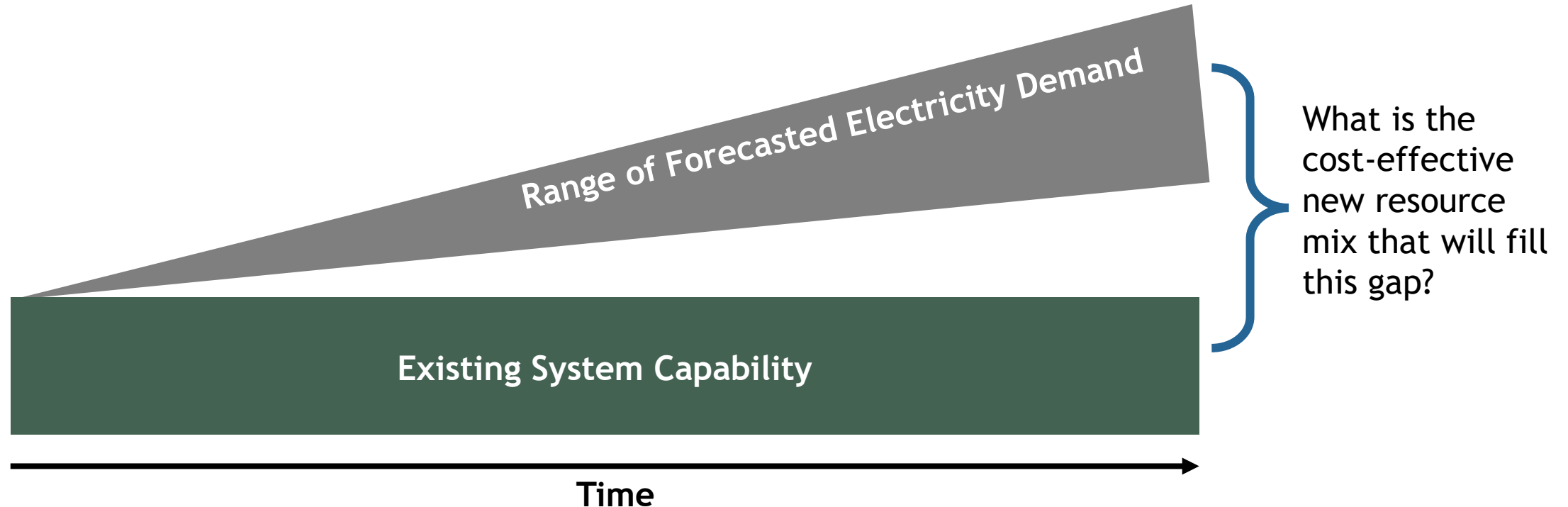
Late 2026/Early 2027

## Ninth Plan Development

- Official kickoff in early 2025; a goal to complete by late 2026 or very early 2027
- This is when we will:
  - Develop final input assumptions for modeling, including adjusting assumptions around existing system capabilities to account for the Fish and Wildlife Program
  - Conduct and discuss modeling of market prices and needs assessment
  - Conduct and discuss scenario modeling and other analysis
  - Develop recommendations of cost-effective new resource needs and more
  - Draft power plan materials, release a draft for public comment, hold public hearings, and finalize the plan

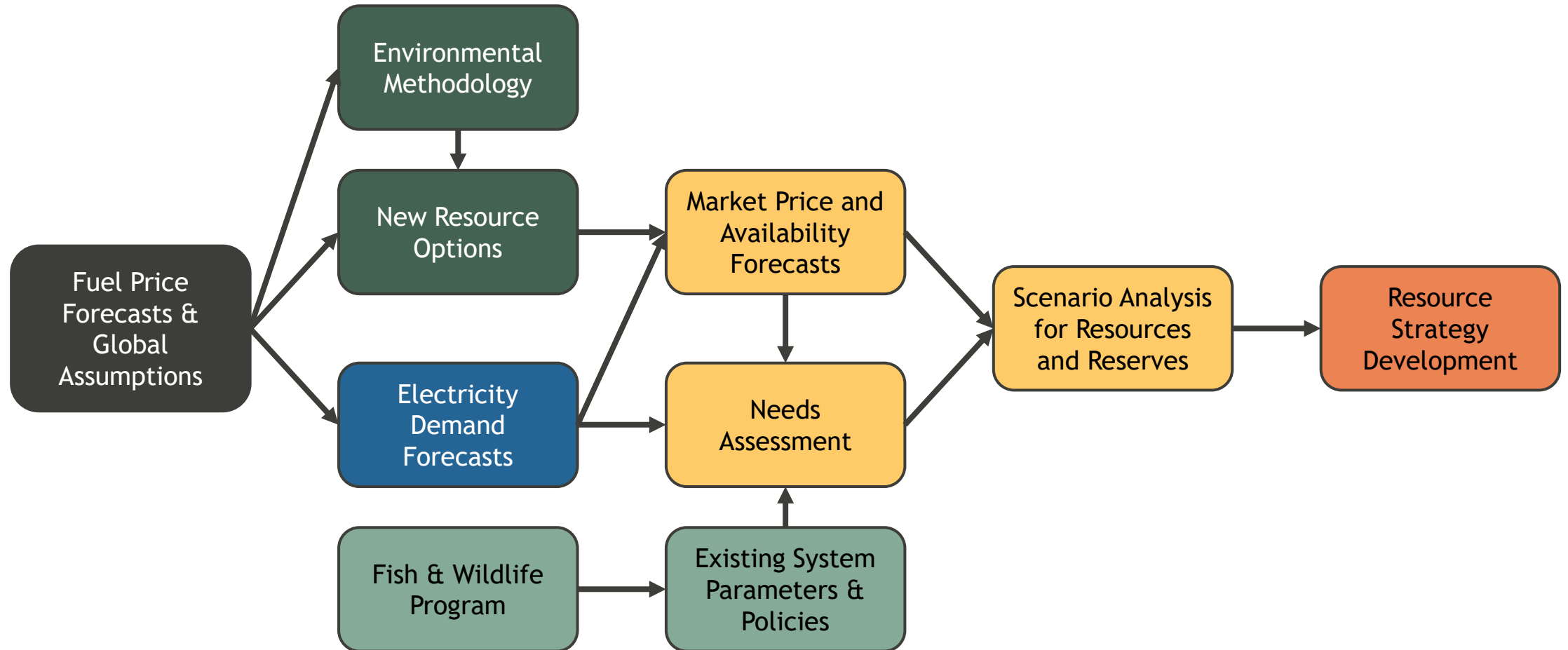
# **Ninth Power Plan: Analytical Approach**

# Super Simplified Description of a Power Plan

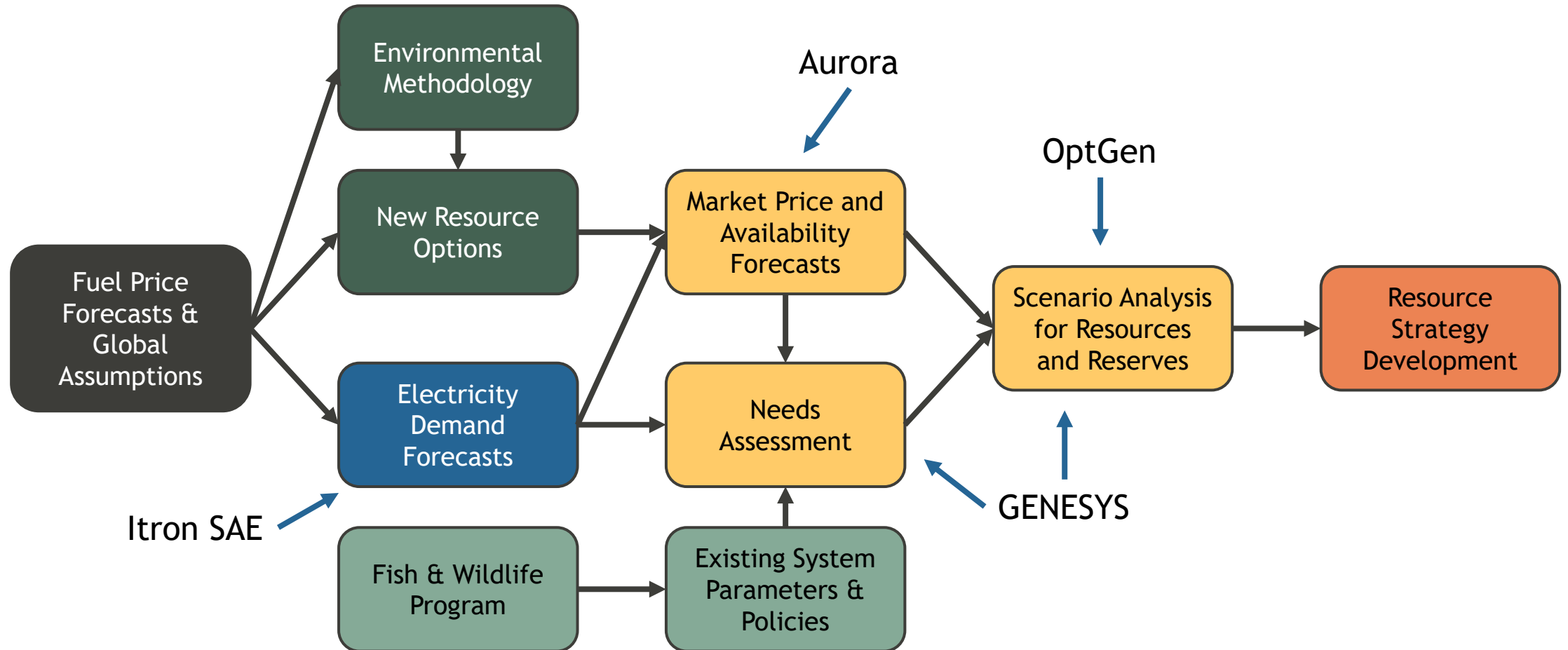


Note: Existing system capability might change over time due to planned retirements announced by resource owners or policy requirements, such as changes to river operations for F&W requirements

# Power Plan Elements and Analytical Flow



# Modeling Suite

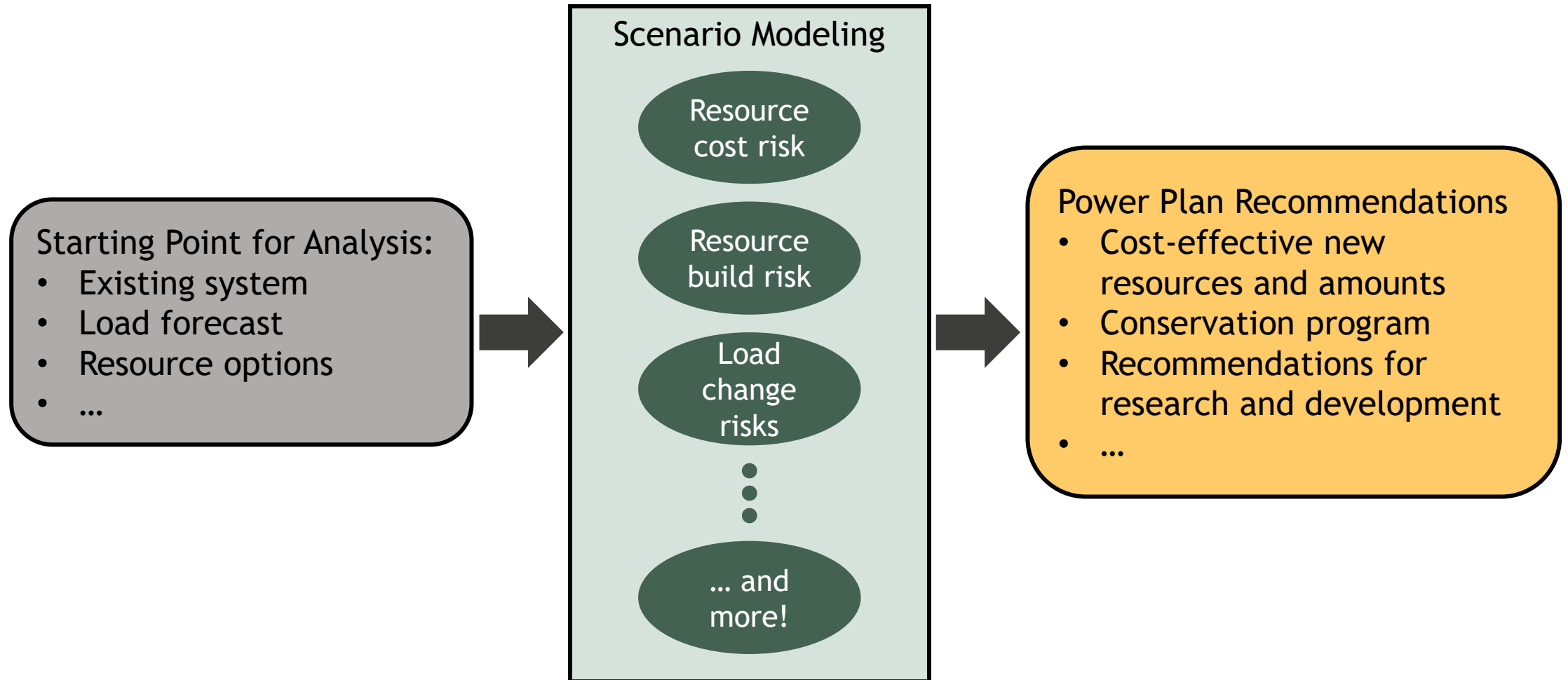


# Modeling Enhancements for Ninth Plan

- Enhanced modeling suite will allow staff to better reflect the existing dynamics in the power system with more geographic and time granularity
- Modeling at the balancing authority level will allow the Council to:
  - Understand impacts of load growth unique to specific geographic areas
  - Assess the locational value of resources
  - Explore trade-offs between transmission development timelines and new resources
- Ability to model at the hourly timescale will provide:
  - Enhanced look at the impact of weather conditions (such as temperature and solar conditions) on an hourly basis
  - Analyze the effect of end-use demand profiles on the power system, particularly at critical peak times
  - Provide cost and risk of proposed portfolios' hourly operations implications

# **Ninth Plan: Early Scoping**

# Developing a Cost-Effective Resource Strategy





# Starting Point and Scenario Modeling

- Council plans under uncertainty
- Starting point provides a common set of assumptions from which future risk and uncertainty can be explored using scenarios
- Proposed starting point will reflect the known elements of the existing system and resource options at time of analysis
- Scenarios will be used to assess uncertainties and risks in those assumptions
- Council will use information from all modeling, and other related analysis, to ultimately develop recommendations for the region



# Proposed Scenarios Identified to Date

## Resource and Transmission Risk

Explore resource decisions under a range resource costs, availability or build-out constraints, options, etc.

## West-Wide Decarbonization

Explore in region resource decisions with wide-scale policies or drivers that increase loads or limit resource options

## Operational Flexibility

Explore trade-offs and opportunities with leveraging specific resources for operational flexibility

## Extreme Weather Testing

Explore implications for resource development in the face of increased extreme weather events

# Developing Recommendations for Bonneville

- Plan to use the refined and enhanced modeling suite to provide useful insights on recommendations into Bonneville
- Using the full range of scenario analysis (rather than being limited to a single scenario) will provide the Council a better understanding of the trade-offs and implications to guide future Bonneville resource acquisition
- Staff will continue to be well coordinated with Bonneville to inform Council assumptions on load and other aspects

# Next Steps and Discussion

# Proposed Release of Issue Paper

- **Today:** Seek authorization to release the issue paper for a 45-day comment period
- **March-April:** Host conversations with regional stakeholders discuss initial proposal and encourage feedback
  - **Public Webinar:** April 3 at 9-11 Pacific (10-12 Mountain)
- **April 26:** Comment period closes
- **May and/or June Council Meeting:** Present comments received and discuss path forward

# Further Discussion



