

Informal Stakeholder Meeting #1



Presented by NW Natural's IRP Team
April 18, 2024



Agenda



- 1:00 - 1:10 pm: MS Teams functions and best practices
- 1:10 - 1:20 pm: Introductions and Two Minutes for Safety
- 1:20 - 3:00 pm: Review of 2022 IRP and WUTC Staff Recommendations

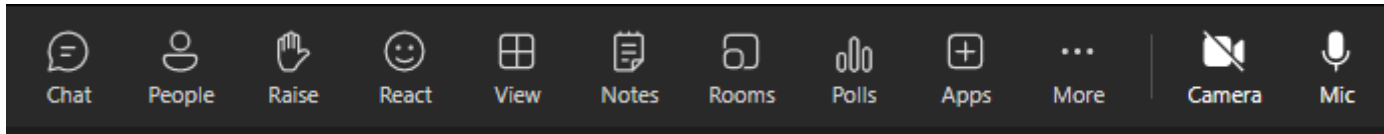
This meeting will be recorded and posted on NW Natural's website:

www.nwnatural.com/about-us/rates-and-regulations/resource-planning

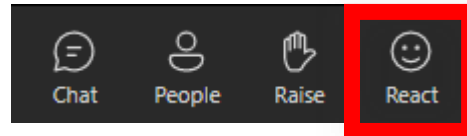
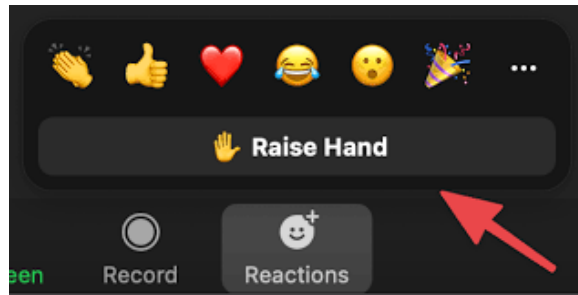
How to Interact in a Teams Meeting



- Participant Controls are at the top or bottom of your screen

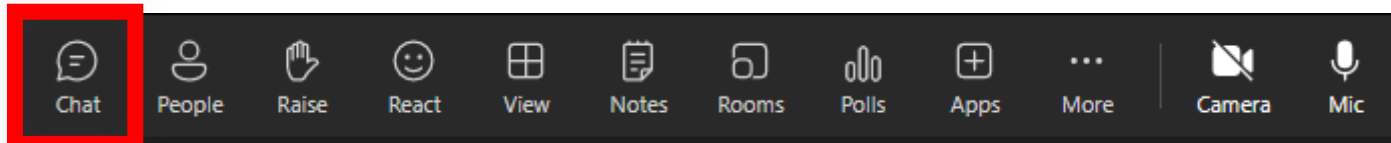


- Ask a question or comment at any time using the “raised hand”



A member of the IRP team will monitor the chat, and participant list for raised hands during the meeting.

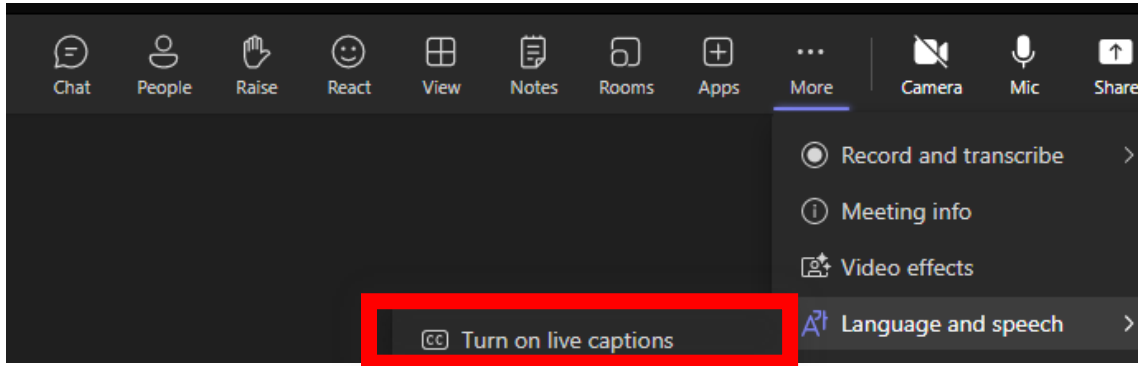
- You may also use the chat box



Teams Meeting – Accessibility Functions



- [Live Captions](#) - real-time auto-generated text of what is said in a meeting. They appear a few lines at a time for a user who has turned them on, and aren't saved



- Reducing Distractions and Customizing Views:

- Microsoft Teams has a variety of features to support different learning styles, please find reference material for:

- [Turn on live captions during meetings](#)
- [Customize your meeting view](#)
- [Change background effects in Teams meetings](#)
- [Reduce background noise in Teams meetings](#)
- [5 tips for using Teams when you're deaf or hard of hearing](#)

- Meeting Recordings:

- NW Natural will record IRP virtual meetings and will post them to the NW Natural website on the [resource planning webpage](#)

Introductions



NW Natural IRP Team*

**Tamy
Linver**

*Sr. Director
of Strategic
Planning*

Matt Doyle

*Director of
Integrated
Resource
Planning*

**Melissa
Martin**

*Project
Specialist*

**Taylor
Nickel**

*Data
Scientist*

**Mike
Meyers**

Economist

**Haixiao
Huang**

Economist

**Kyle
Putnam**

Economist

*but it takes a village to pull together an IRP and we pull in many subject matter experts from other departments as needed.

Take 2 Minutes for Safety:

Call before you dig



Before you dig, call 811 to locate underground utility lines

- Underground utility may include natural gas, electricity, telecommunications, water, and/or sewer
- To ensure your safety, call 811 to locate lines before you start any projects that involve digging on your property
 - For example: landscaping, fence installation, construction
- It's free and it's the law

For more information, please visit: <https://www.nwnatural.com/safety/call-before-you-dig>

Review of 2022 IRP

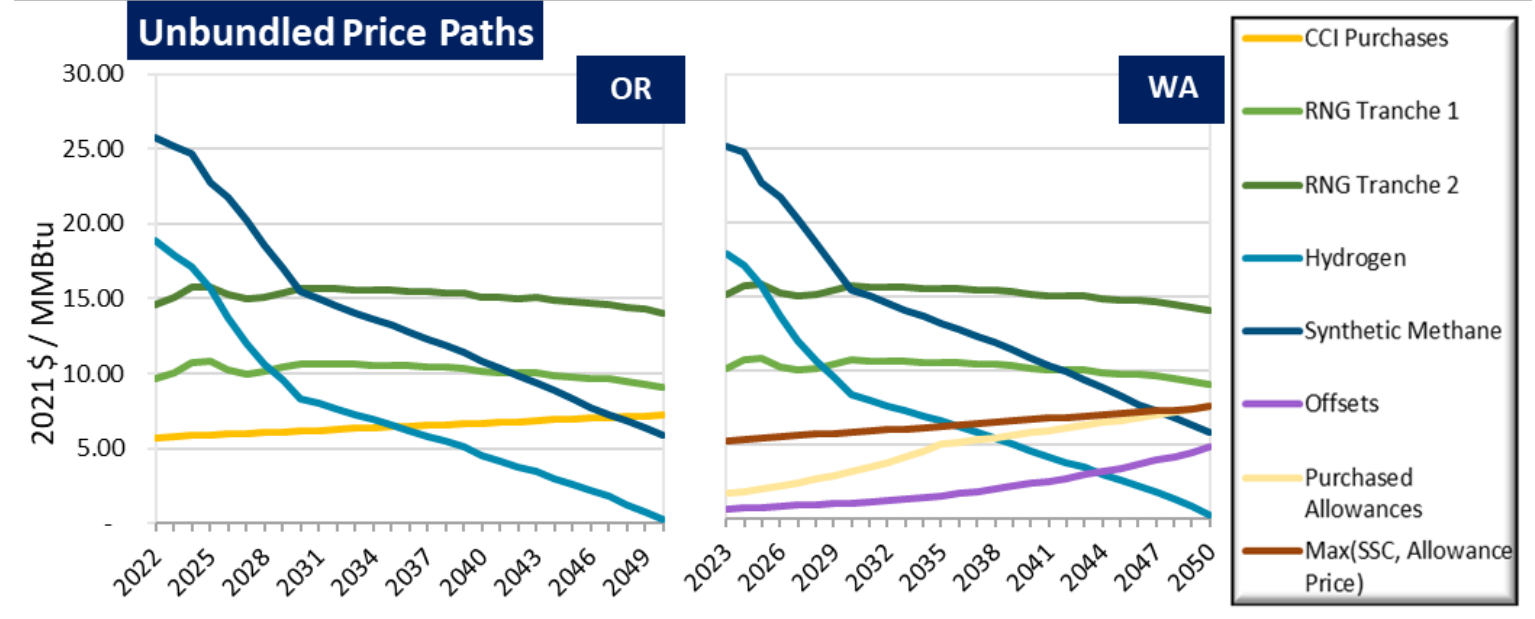
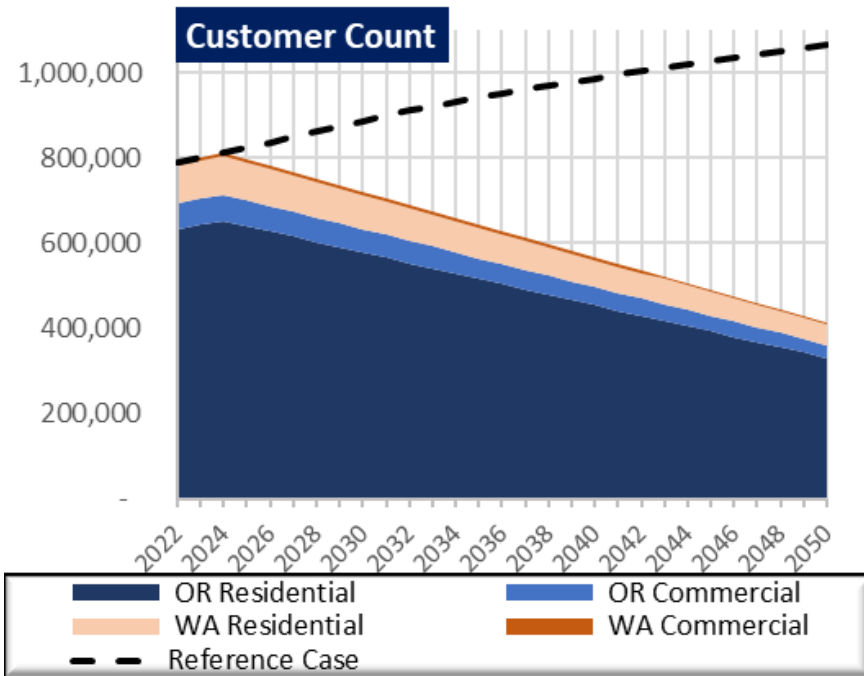
Scenarios from last 2022 IRP



<u>2022 IRP Scenarios- Summary Version</u>		Reference (Trend Continuation) Case	1	2	3	4	5	6	7	8	9	
			Balanced Approach	Carbon Neutral by 2050	Dual-Fuel Heating Systems	New Direct Use Gas Customer Moratorium in 2025	Aggressive Building Electrification	Full Building Electrification	RNG and H2 Production Tax Credit	Limited RNG Availability	Supply-Focused Decarbonization	
Demand-Side	Weather	Climate change adjusted expected ("normal") weather in each year										
	Customer Growth	Current expectations				No New Customers After 2025				Current expectations		
	Space and Water Heating Equipment	Current EE expectations	Moderate gas powered heat pump and hybrid heating adoption		All residential and commercial space heating becomes hybrid heating by 2050	Moderate gas heat pump and hybrid adoption for existing customers	High electrification of existing residential and commercial load by 2050	Full electrification of existing residential and commercial load by 2050	Moderate gas heat pump and hybrid heating adoption		No gas powered heat pumps and low levels of hybrid heating	
	Industrial Use Efficiency		Consultant projection	High sensitivity	Consultant projection		60% Electrified by 2050	90% Electrified by 2050	Consultant projection			
	Building Shell Improvement		Energy Trust projection	Energy Trust high sensitivity projection	Adjusted Energy Trust projection				Energy Trust projection			
Supply-Side Assumptions	Conventional Gas	Expected pricing in each month										
	Capacity Resources	All capacity resources available at expected cost										
	Renewable Natural Gas	Expected availability and cost	Higher availability and expected cost	Expected availability and cost				High avail and low cost to customers	Low availability and high cost	Expected availability and cost		
	Hydrogen	20% Energy maximum (blended and dedicated) and expected cost	40% Energy maximum and expected cost	20% Energy maximum and expected cost				30% energy max and low cost to customers	12% energy max and high cost	35% max and expected cost		
	Synthetic Methane	No energy max and expected cost						No energy max and low cost to customers	No energy max and high cost	No energy max and expected cost		
OR- CCIs		Costs and limits defined in CPP rule										
WA- Allowances & Offsets		Higher of social cost of carbon or California allowance projection in each year										

2022 IRP Scenario Inputs

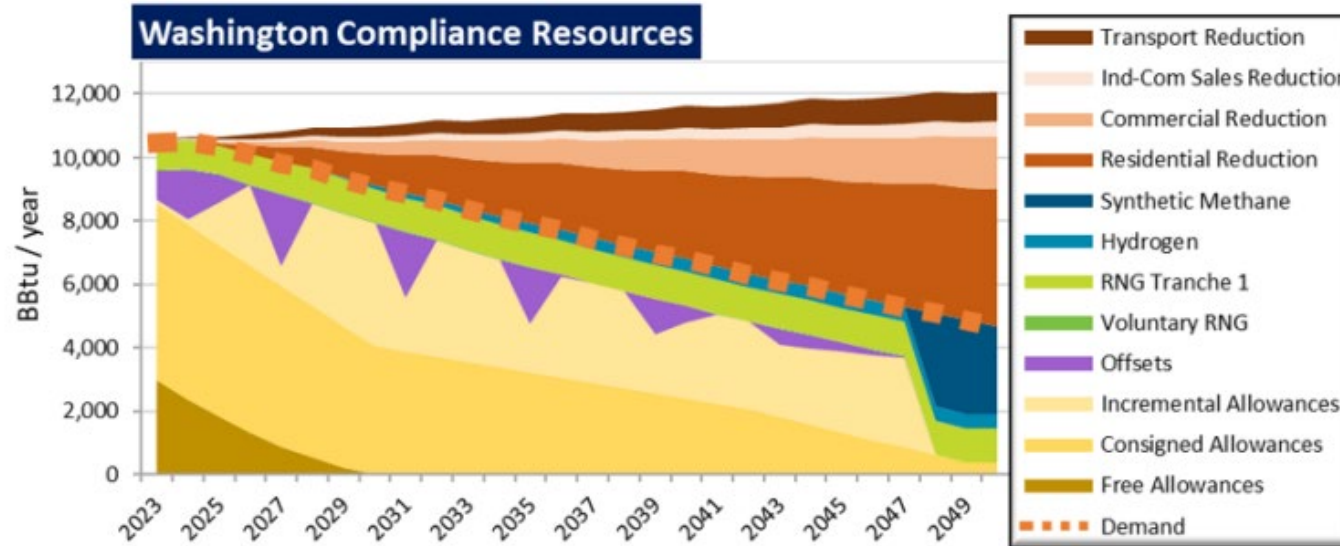
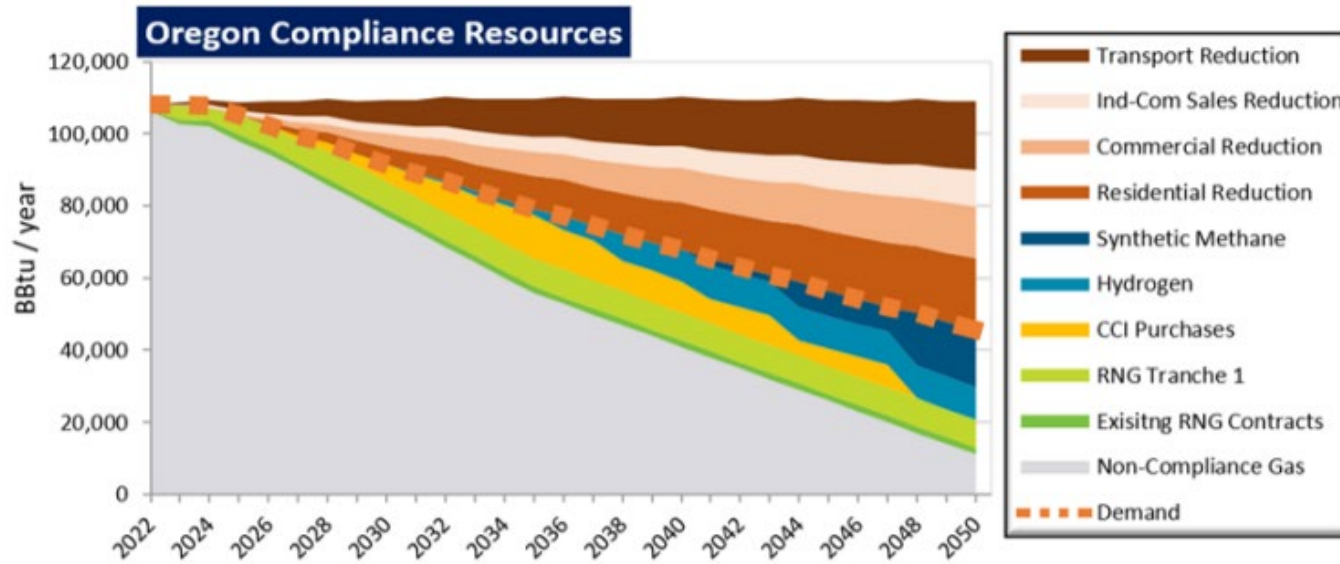
Scenario 5 – Aggressive Building Electrification



2022 IRP Scenario Portfolio Outputs



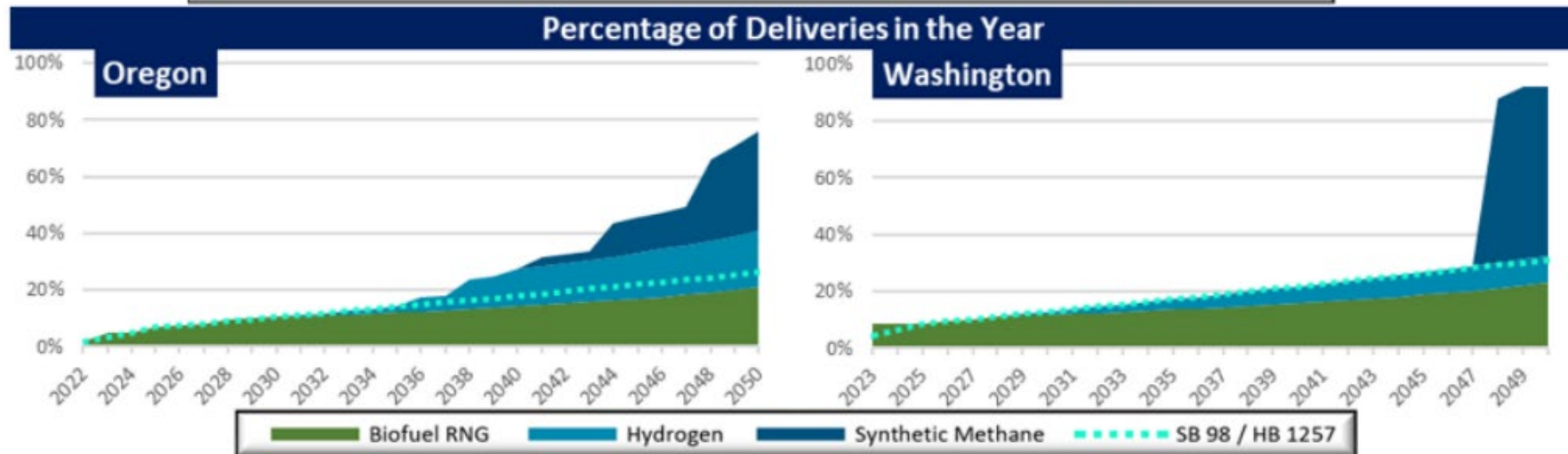
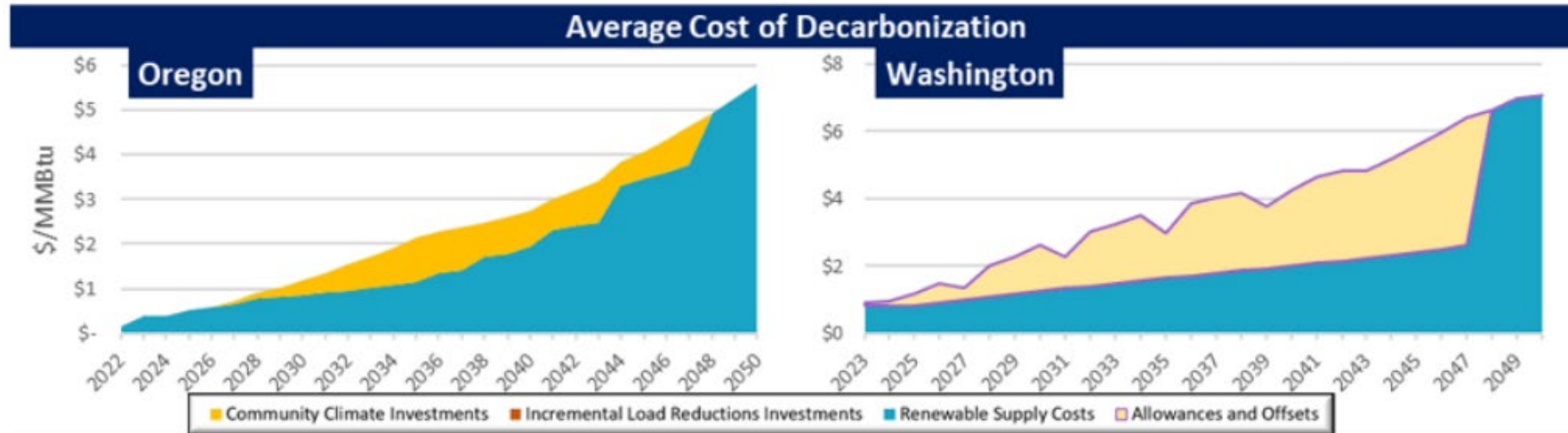
Scenario 5 – Aggressive Building Electrification



2022 IRP Scenario Output Results



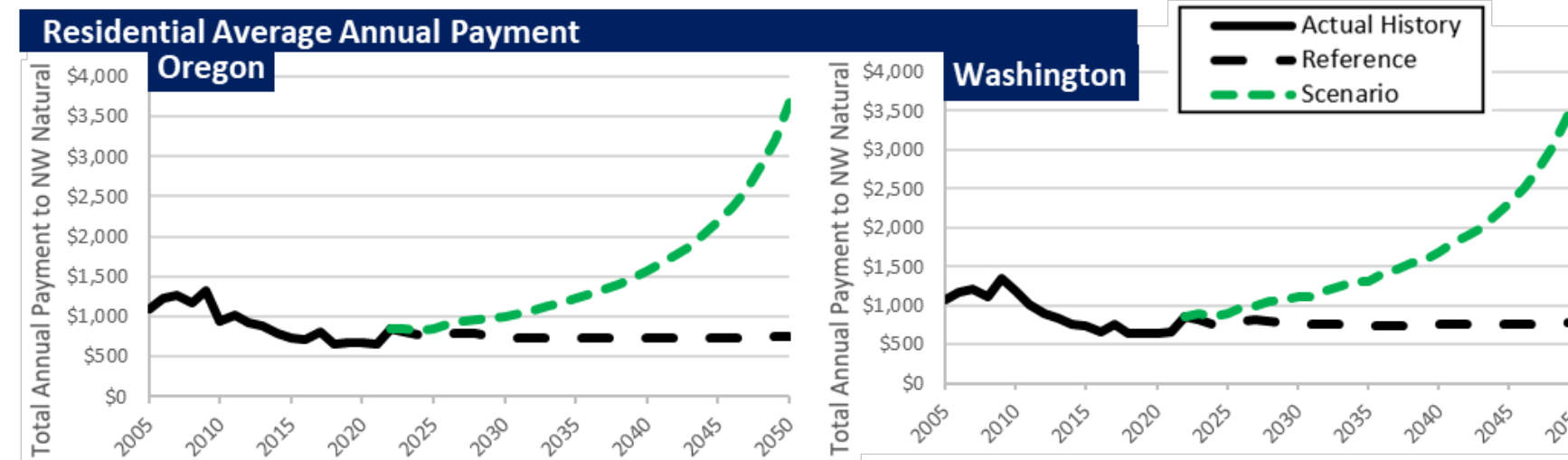
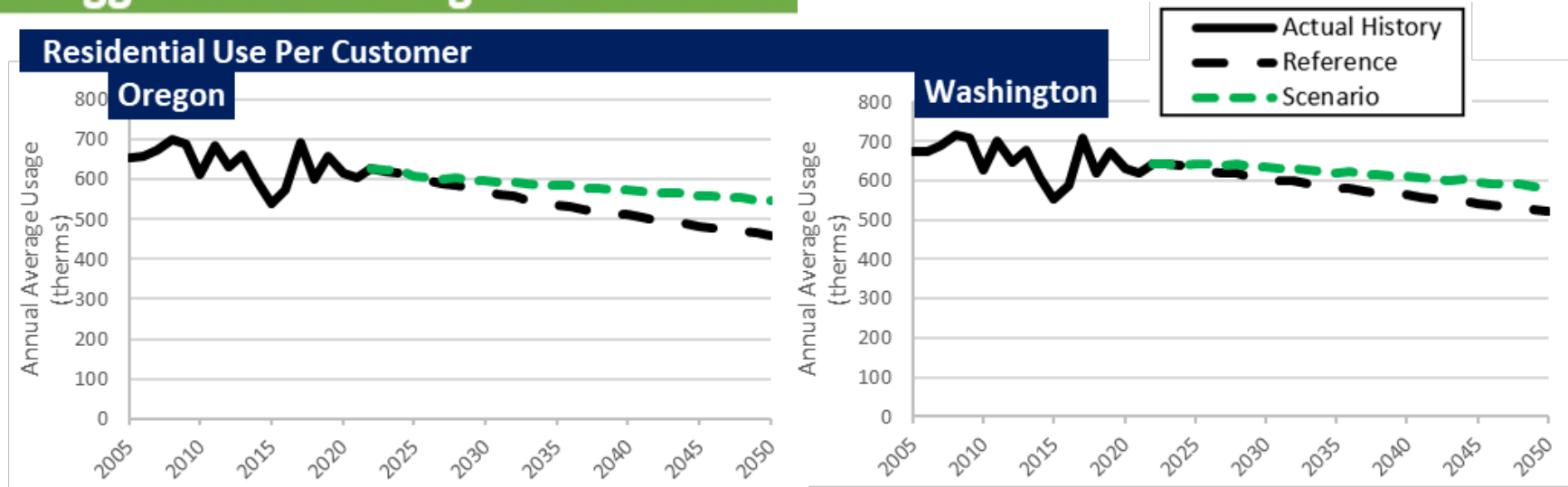
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2022 IRP Scenario Output Results



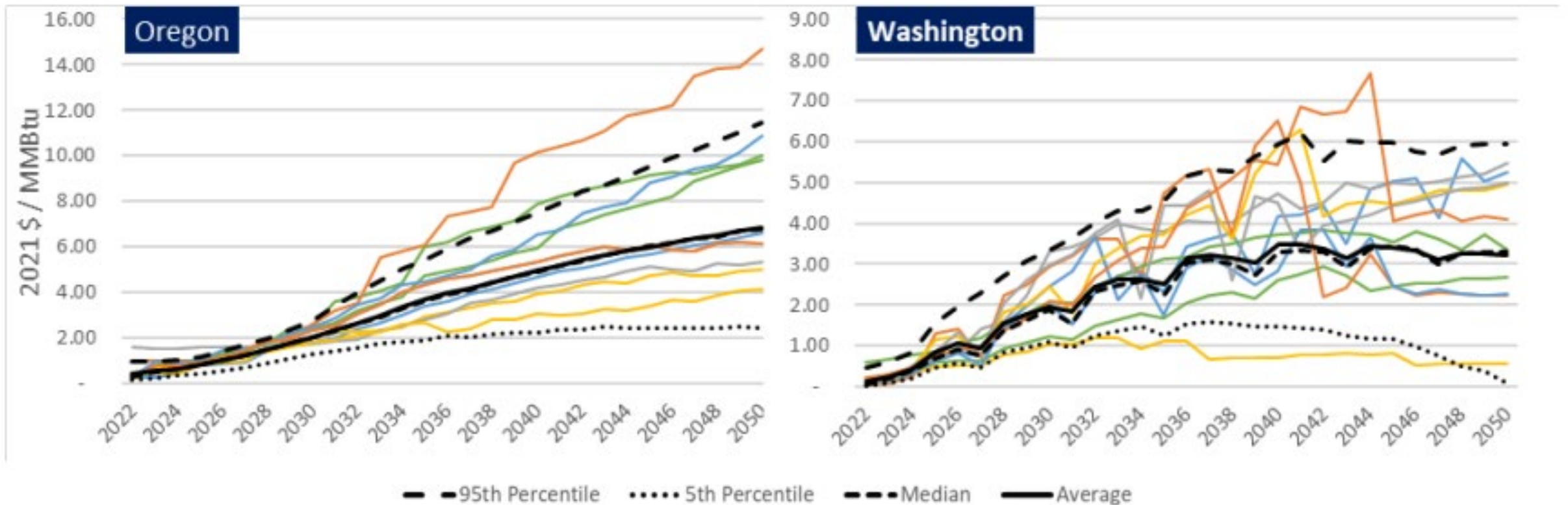
Scenario 5 – Aggressive Building Electrification



2022 IRP Stochastic Outputs



Figure 7.13: Monte Carlo Total WACOD



Staff Recommendations

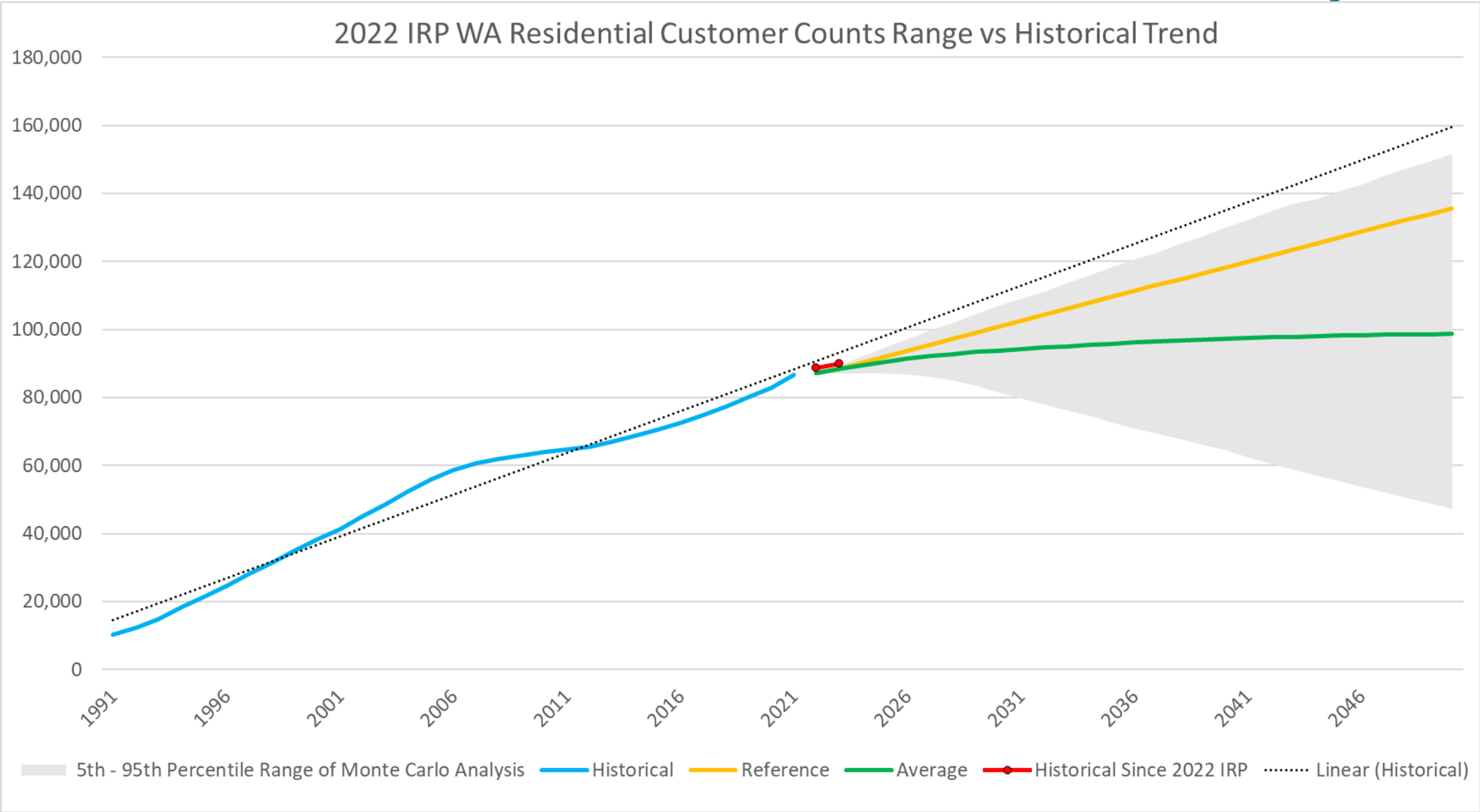
Staff Recommendations



Group 1:

- Use the Washington State Building Code Council's statutory obligations as a basis for NW Natural's current customer growth expectations for scenarios rather than projecting historical trends forward.
- Analyze the risks imposed on rate payers in scenarios 4, 5, and 6, ratepayer responses to these risks, and the corollary risk of over investment and stranded assets.
- Analyze possible customer responses to future changes in price-competitiveness of NW Natural's services.

2022 IRP WA Residential Customer Counts Range vs Historical Trend



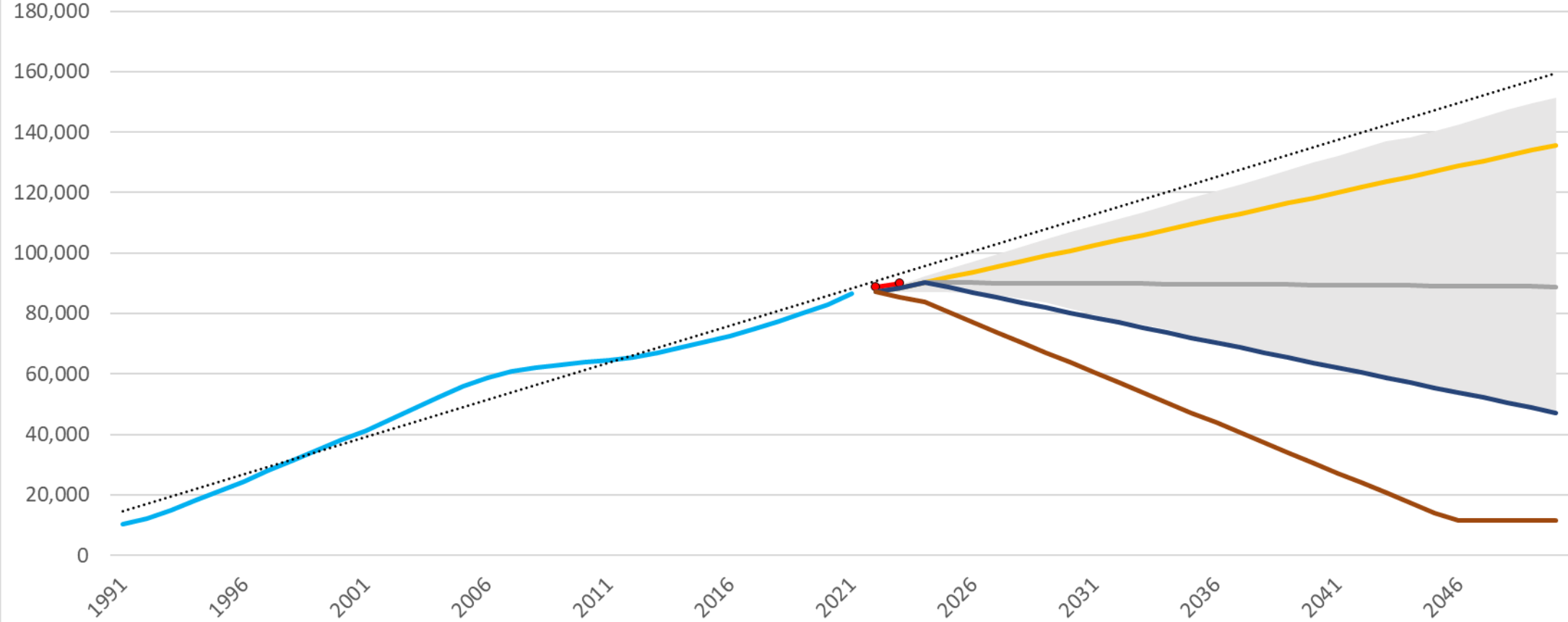
Scenarios from last 2022 IRP



Electrification Scenarios

2022 IRP Scenarios- Summary Version		Reference (Trend Continuation) Case	1 Balanced Approach	2 Carbon Neutral by 2050	3 Dual-Fuel Heating Systems	4 New Direct Use Gas Customer Moratorium in 2025	5 Aggressive Building Electrification	6 Full Building Electrification	7 RNG and H2 Production Tax Credit	8 Limited RNG Availability	9 Supply-Focused Decarbonization	
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2022 IRP WA Residential Customer Counts Scenarios vs Historical Trend



- 5th - 95th Percentile Range of Monte Carlo Analysis
- Reference
- Historical Since 2022 IRP
- Scenario 6- Full Building Electrification
- Historical
- Scenario 4- New Gas Customer Moratorium
- Scenario 5- Aggressive Building Electrification
- Linear (Historical)

State Energy Code



State energy code—Adoption by state building code council—Preemption of local residential energy codes.

[RCW 19.27A.020\(2\)\(a\)](#): Construct increasingly energy efficient homes and buildings that help achieve the broader goal of building zero fossil-fuel greenhouse gas emission homes and buildings by the year 2031;

[RCW 19.27A.160](#): **Residential and nonresidential construction—Energy consumption reduction—Council report.**

(1) Except as provided in subsection (2) of this section, residential and nonresidential construction permitted under the 2031 state energy code must achieve a seventy percent reduction in annual net energy consumption, using the adopted 2006 Washington state energy code as a baseline.

(2) The council shall adopt state energy codes from 2013 through 2031 that incrementally move towards achieving the seventy percent reduction in annual net energy consumption as specified in subsection (1) of this section. The council shall report its progress by December 31, 2012, and every three years thereafter. If the council determines that economic, technological, or process factors would significantly impede adoption of or compliance with this subsection, the council may defer the implementation of the proposed energy code update and shall report its findings to the legislature by December 31st of the year prior to the year in which those codes would otherwise be enacted.

Staff Recommendations



Group 2:

- Consider electrification in its next IRP and that the Company consider comparative electrical costs.
- Consider including the cost of electricity in the unbundled price path charts to ensure NW Natural is adequately considering conservation measures available and the price competitiveness of the services they provide.
- Consider incorporating an electrification strategy into its next IRP. Staff encourages NW Natural to refer to the most recent general rate case orders for Avista Corporation and Puget Sound Energy for context on how the Commission has ordered those two utilities to consider electrification in their next natural gas IRPs.
- Include non-gas appliances in emerging technologies evaluation and consider such appliances in the context of price competitiveness compared to gas technologies.

Staff Recommendations



Group 3:

- Commit to holding robust discussions about the future availability of green hydrogen.
- Work with Advisory Group(s) to consider how NW Natural might develop a method which incorporates and appropriately values the CI scores of RNG when evaluating resources in the IRP process.
- Develop clear criteria for the selection of climate models.
- Provide a written and, where appropriate, graphic analysis of greenhouse gas emissions, sources and size of greenhouse gas emissions, and explicitly state assumptions used by NW Natural in their analysis of greenhouse gas emissions.
- Analyze the difference in low-income energy efficiency program outcomes and discuss it with the advisory group.
- Discuss the benefits of two tranches in the next IRP cycle within the Advisory Group.
- Place a greater emphasis on editing.



Questions/Feedback

Strategic Planning | Integrated Resource Planning Team
irp@nwnatural.com

Please click below to find information about our IRPs:

www.nwnatural.com/about-us/rates-and-regulations/resource-planning