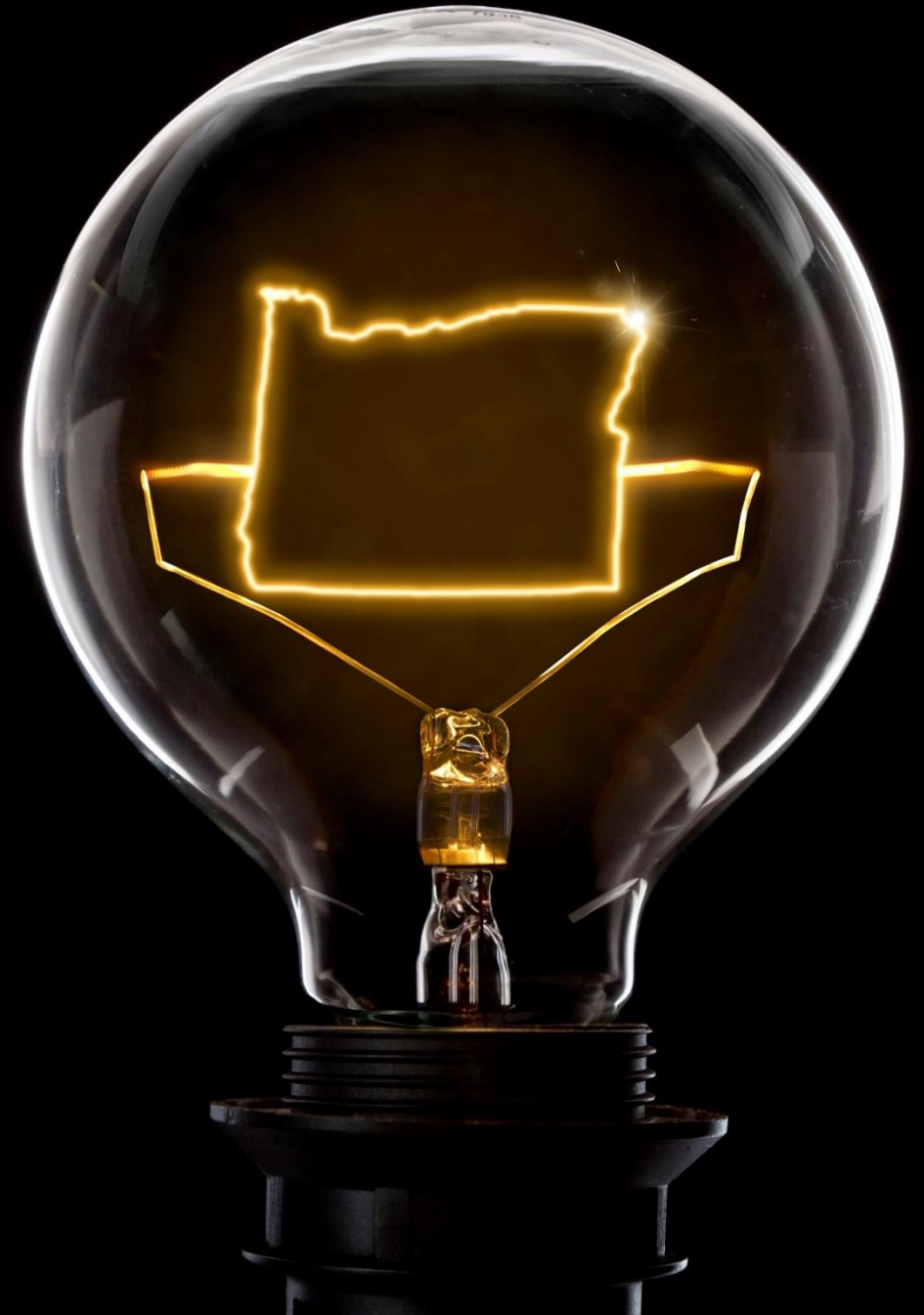




# **Updates to Gas Avoided Costs for Use by Energy Trust**

**Docket No. UM 1893**

**Peter Kernan  
April 8, 2024**



# Agenda

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Time	Topic
1:00	Welcome and introductions
1:10	Background and context
1:25	Energy Trust Presentation: First look at 2025 gas avoided costs
2:20	Additional discussion and next steps

# Operating Agreements

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- Be energy efficient: Allow room for multiple perspectives. Leave time for everyone
- Stay engaged (connected) without tripping the circuit breaker (don't overheat)
- Consider environmental conditions (mute when not speaking)
- Seek understanding (listen to understand, not to respond)
- Group norms (suggestions from participants)

# Introductions



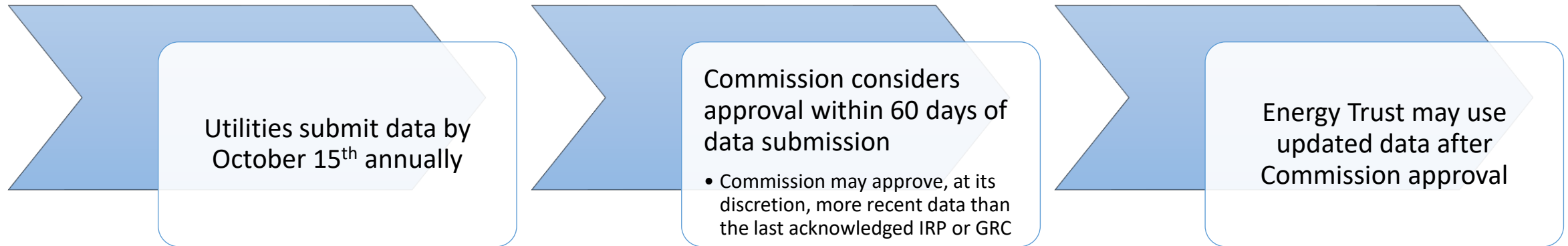
# What are avoided costs?

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The costs a utility would otherwise pay to provide energy through utility supply side resources and delivery infrastructure if demand side energy resources, such as energy efficiency, were not implemented.

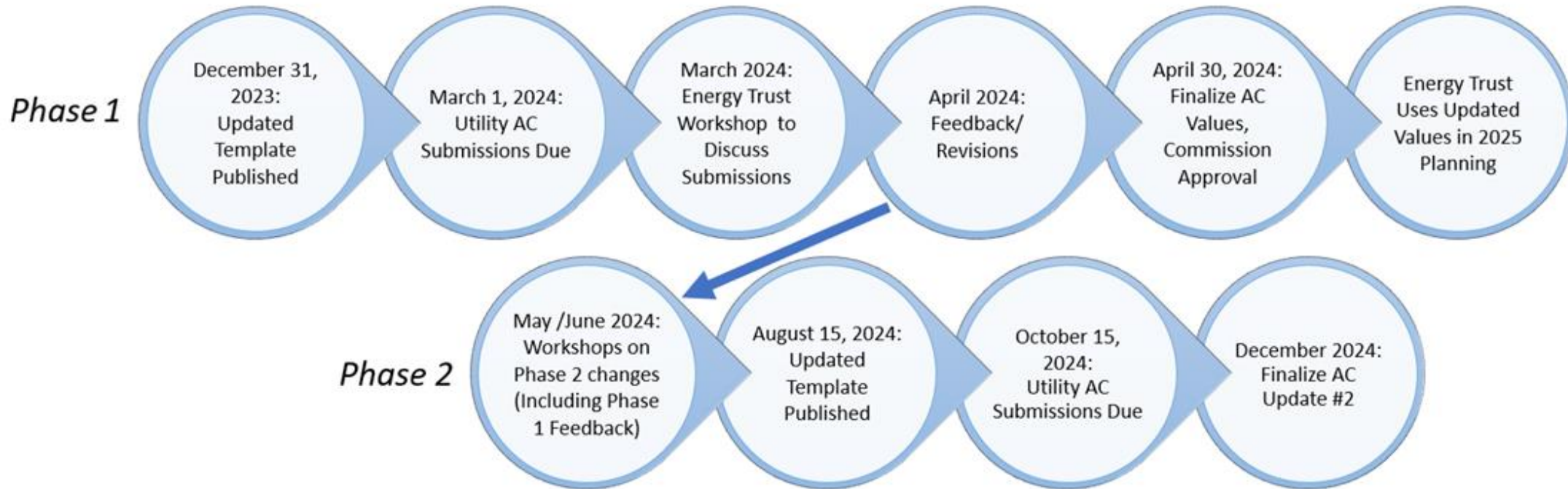
# What is the standard process?

EE avoided costs are updated annually



# Updating Avoided Costs in 2024

## Two Phases



- What questions are there about the values presented?
- Does anything stand out which you think Staff should investigate?
- Are there alternate numbers to which Staff should give particular attention?

## Questions for Consideration





# Overview of 2025 Draft Avoided Costs for Oregon

UM 1893 Workshop Presentation

April 8, 2024

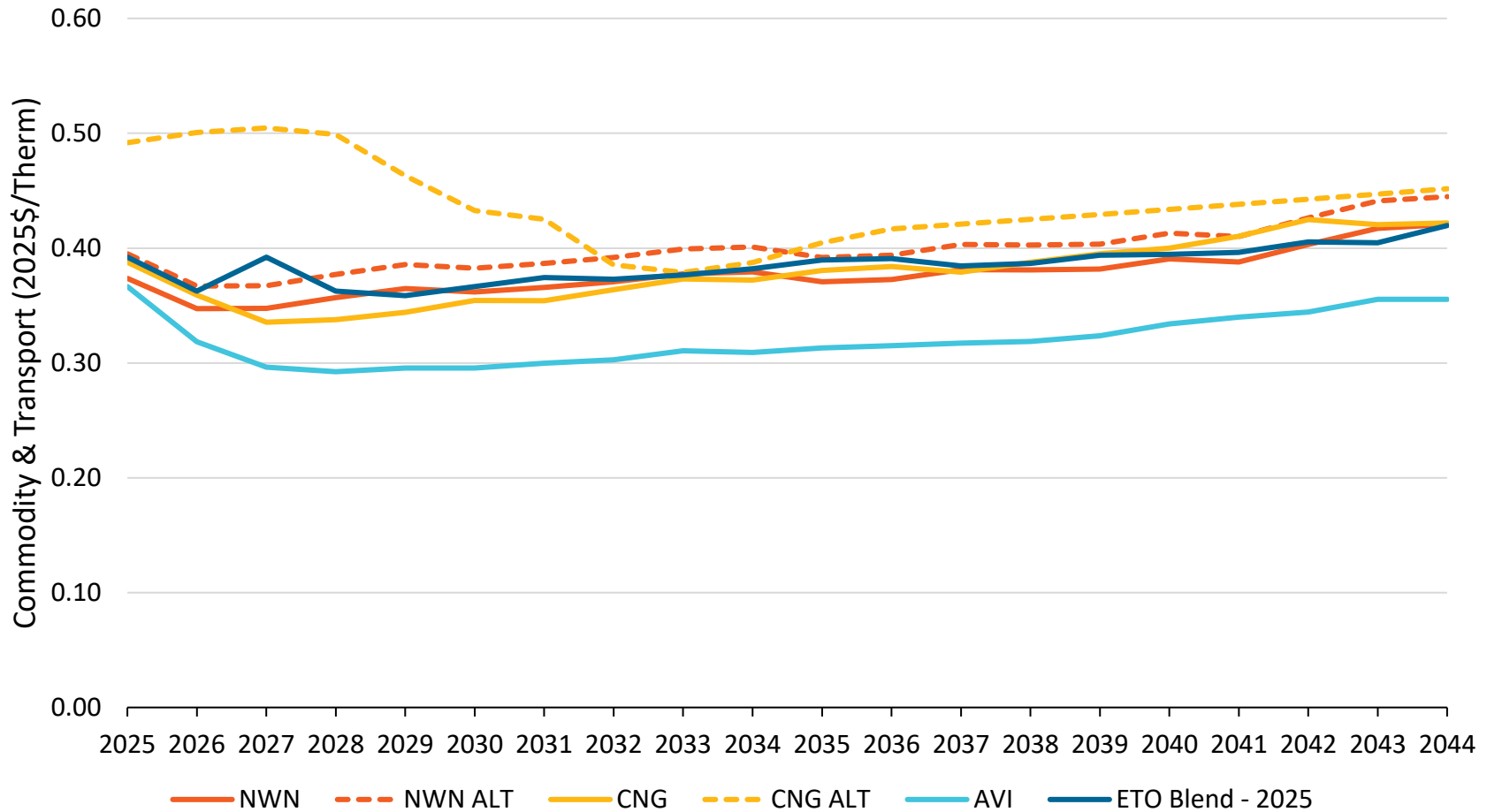


# Draft Gas Avoided Cost Updates

# Key Components of Gas Avoided Costs

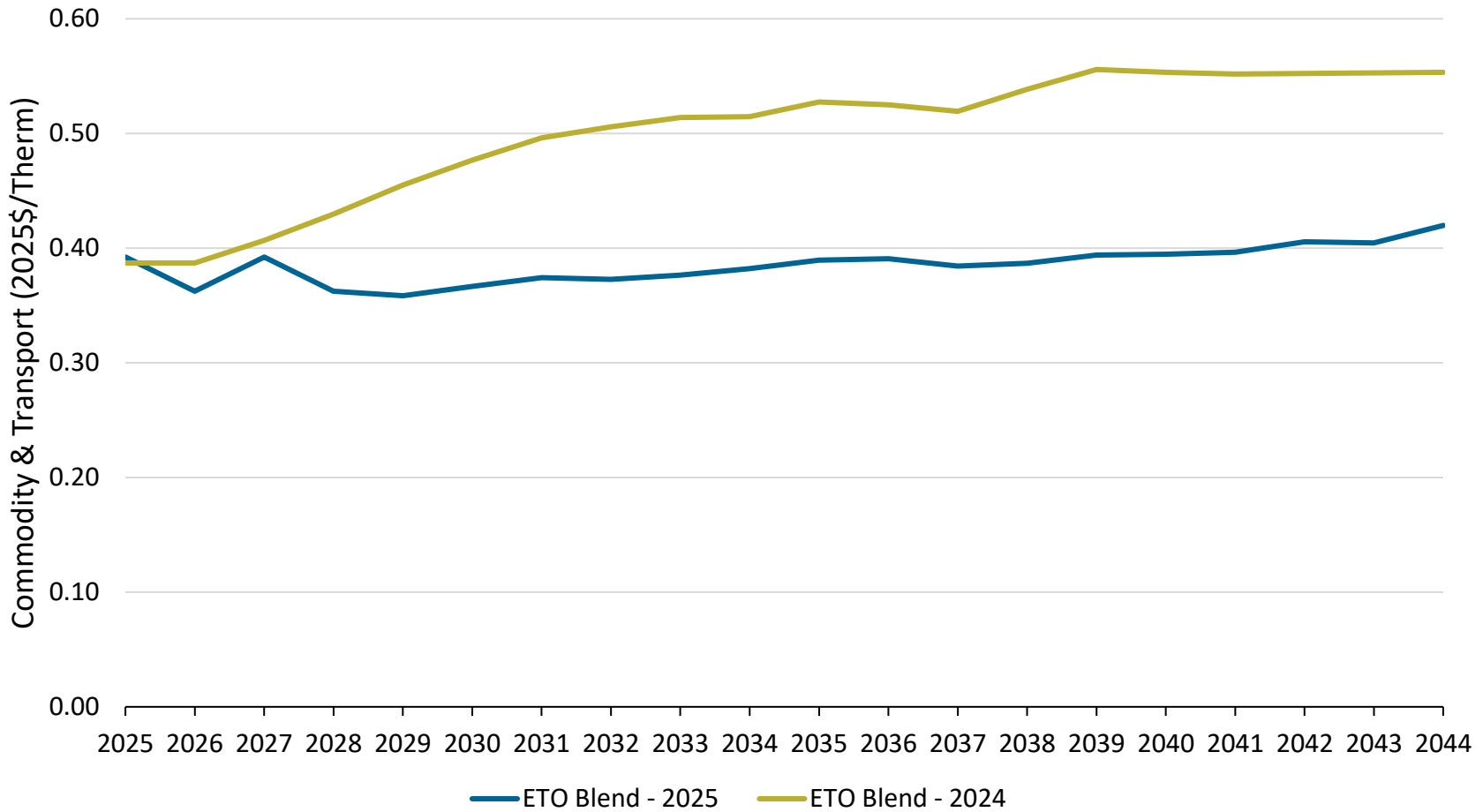
1. Gas Price Forecasts
2. Supply and Distribution Capacity Costs
3. Oregon State Carbon Policy Adder
4. Regional 10% conservation credit
5. Utility risk reduction value

# Gas Utility Commodity and Transport Price Comparison for 2025 Avoided Cost



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# Gas Blended Commodity and Transport Price Comparison



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# Peak Factors for 2025 Gas Avoided Costs

## Daily Peak Factors for 2025 Avoided Costs

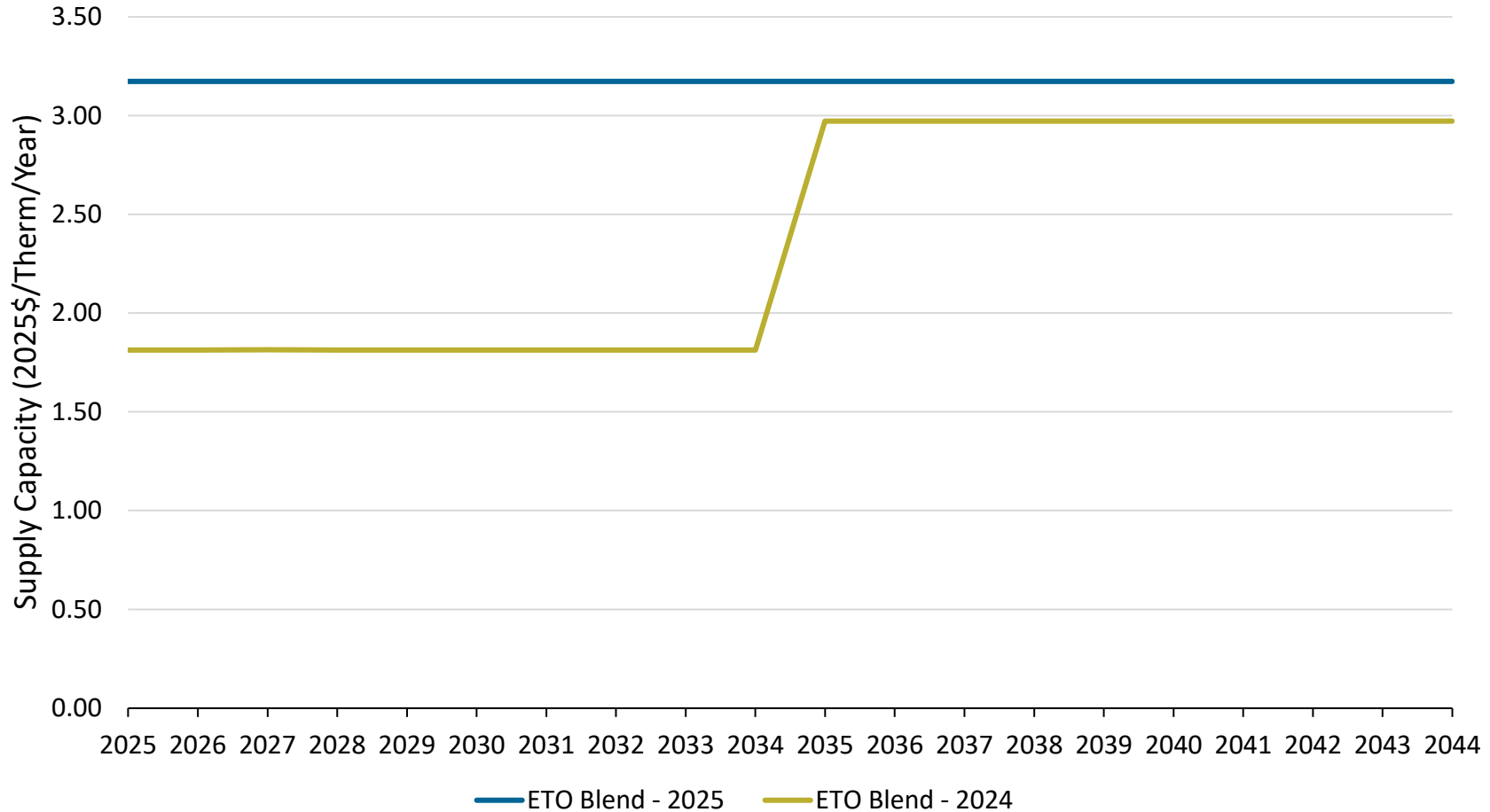
End-Use Load Shape	Peak Day Factor	Peak Day Factor Source
Residential Space Heating	0.0198	Northwest Natural 2022 IRP
Commercial Space Heating	0.0177	Northwest Natural 2022 IRP
Domestic Hot Water	0.0036	NWPCC
Flat	0.0030	NWPCC
Clotheswasher	0.0020	NWPCC

## Hourly Peak Factors for 2025 Avoided Costs

End-Use Load Shape	Peak Hour Factor	Peak Hour Factor Source
Residential Space Heating	0.00144	NWPCC & Northwest Natural 2022 IRP
Commercial Space Heating	0.00140	NWPCC & Northwest Natural 2022 IRP
Domestic Hot Water	0.00030	NWPCC
Flat	0.00013	NWPCC
Clotheswasher	0.00024	NWPCC

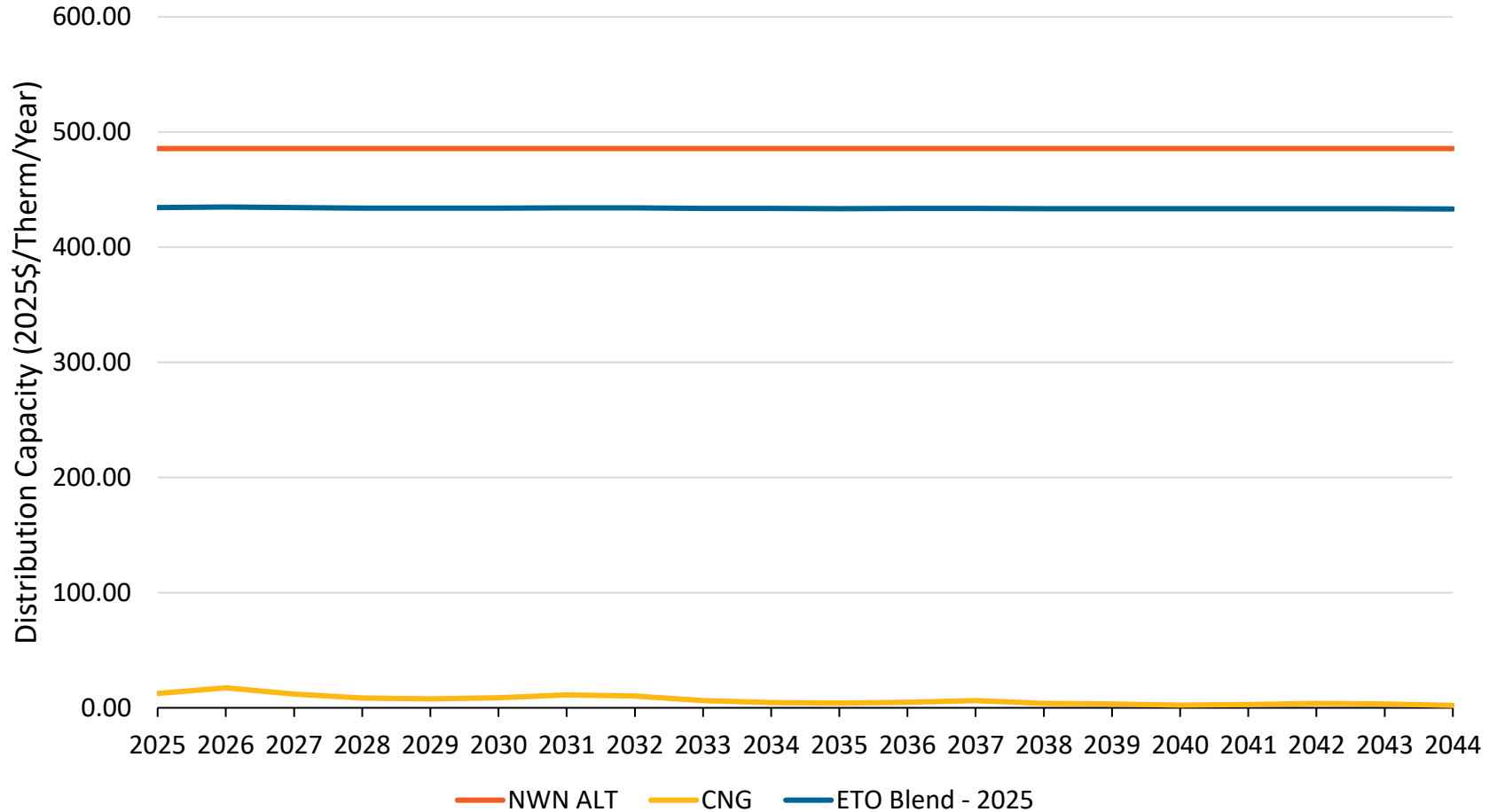
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# Gas Blended Supply Capacity Values for 2025 and 2024 Avoided Costs



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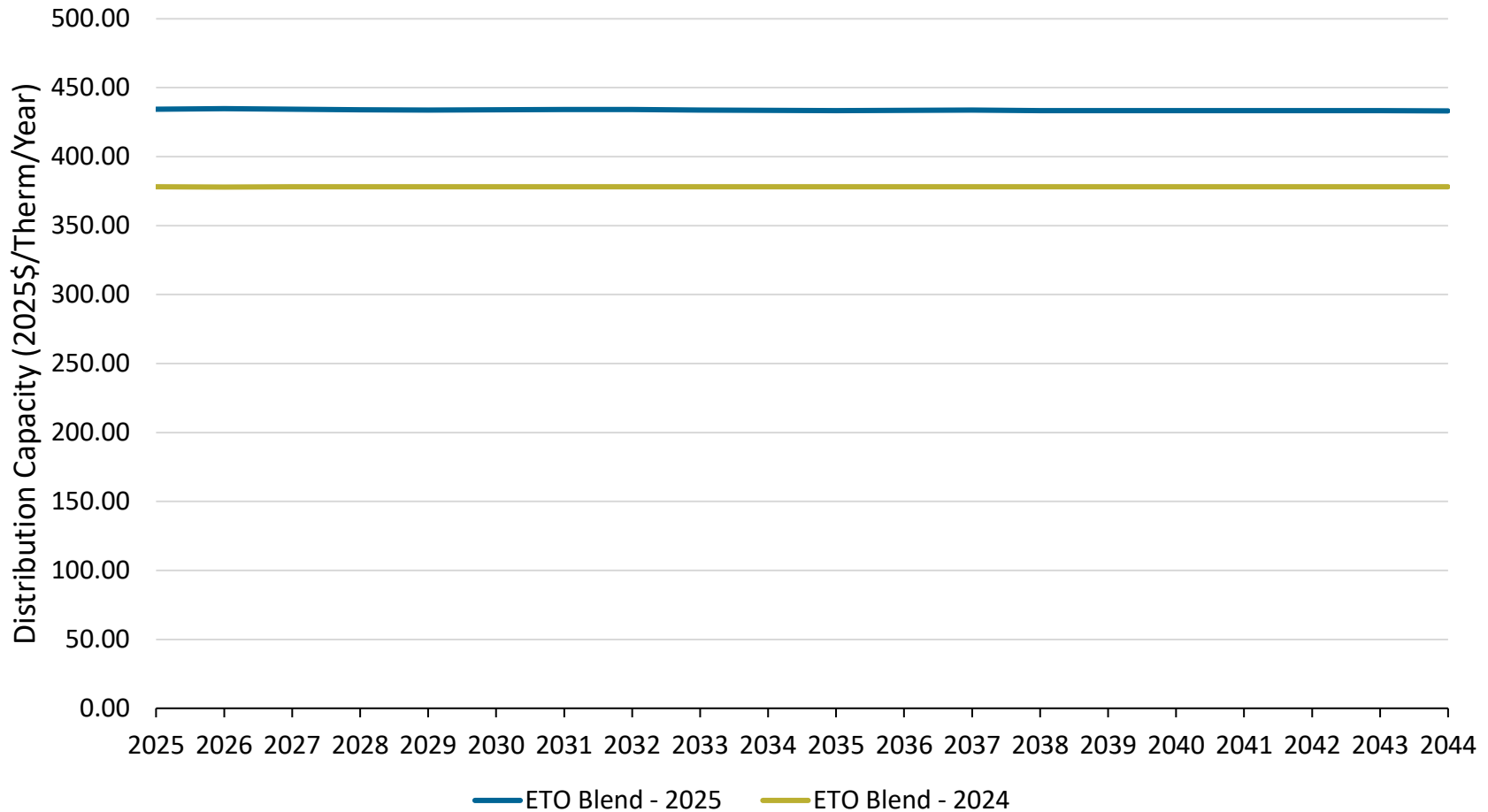
# Distribution Gas Capacity Values



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# Distribution Gas Capacity Values for 2025 and 2024 Avoided Costs



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# Calculating End Use Distribution Capacity

End-Use Load Shape	Peak Hour Factor	Peak Hour Factor Source
Residential Space Heating	0.00144	NWPCC & NWN 2022 IRP
Commercial Space Heating	0.00140	NWPCC & NWN 2022 IRP
Domestic Hot Water	0.00030	NWPCC
Flat	0.00013	NWPCC
Clotheswasher	0.00024	NWPCC

Utility	Coincident System Peak Day Factor	Coincident System Peak Hour Factor
NWN	N/A	N/A
CNG	0.0086	0.0005371
AVI	0.0094	0.0004167

For end-use load profile  $i$  with a measure lifespan of  $t$  years:

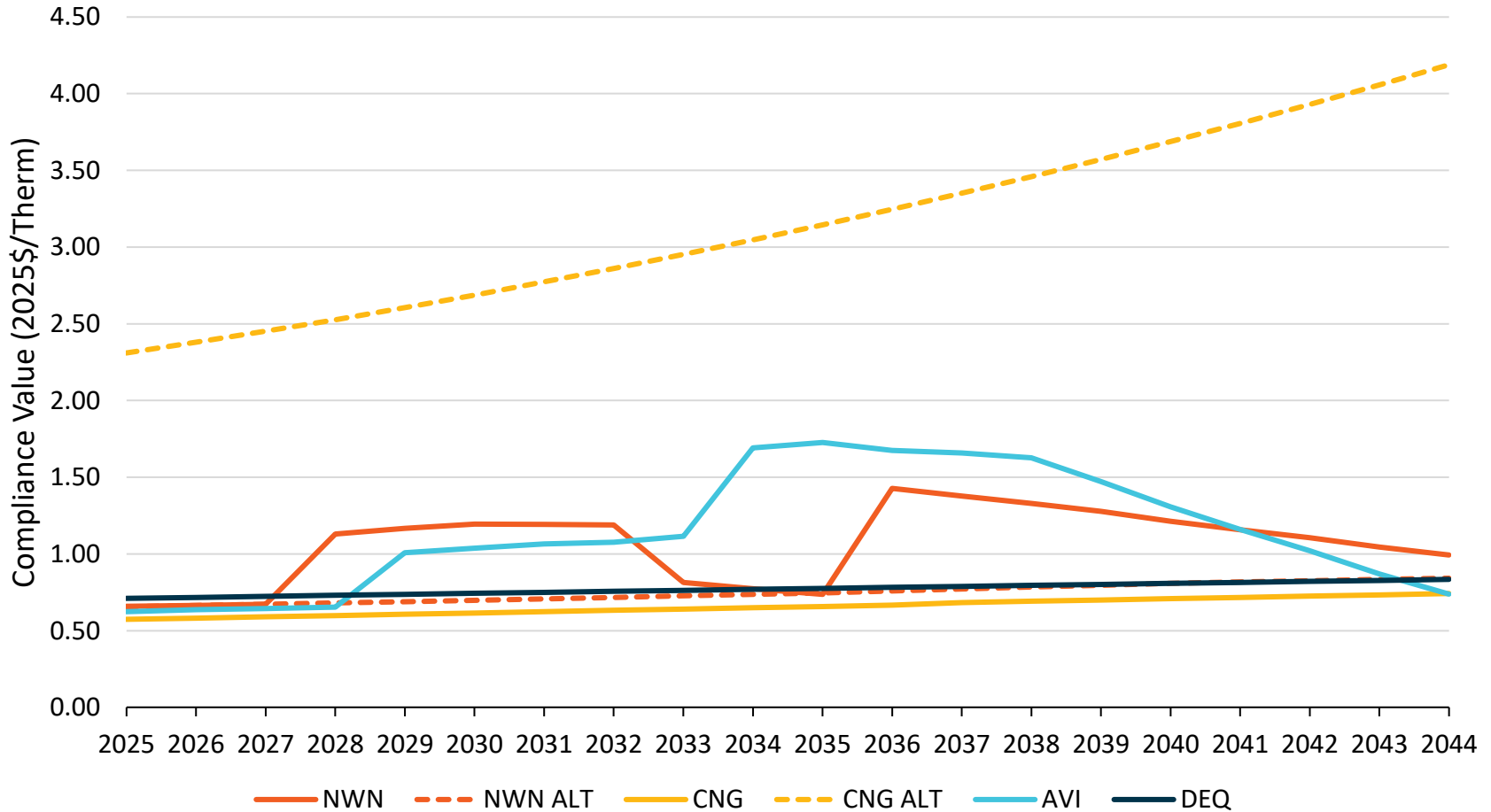
- $End\ Use\ NWN\ Dist.\ Capacity\ Value_{i,t} = Peak\ Hour\ Value_t * 8760 * \frac{1}{10} * End\ Use\ Peak\ Hour\ Factor_i$
- $End\ Use\ CNG\ Dist.\ Capacity\ Value_{i,t} = \frac{CNG\ Peak\ Hour\ Value_t}{CNG\ Coincident\ System\ Peak\ Hour\ Factor} * \frac{1}{10} * End\ Use\ Peak\ Hour\ Factor_i$

## 70-Year Average Blended Distribution Capacity Value by Loadshape (2025 \$/Therm)

	DHW	FLAT	Res Heating	Com Heating	Clotheswasher
2024 Blended Avoided Costs	\$1.31	\$0.56	\$5.65	\$5.47	\$1.05
2025 Blended Avoided Costs	\$1.51	\$0.64	\$7.33	\$7.10	\$1.21
Percent Change	11%	11%	25%	25%	11%

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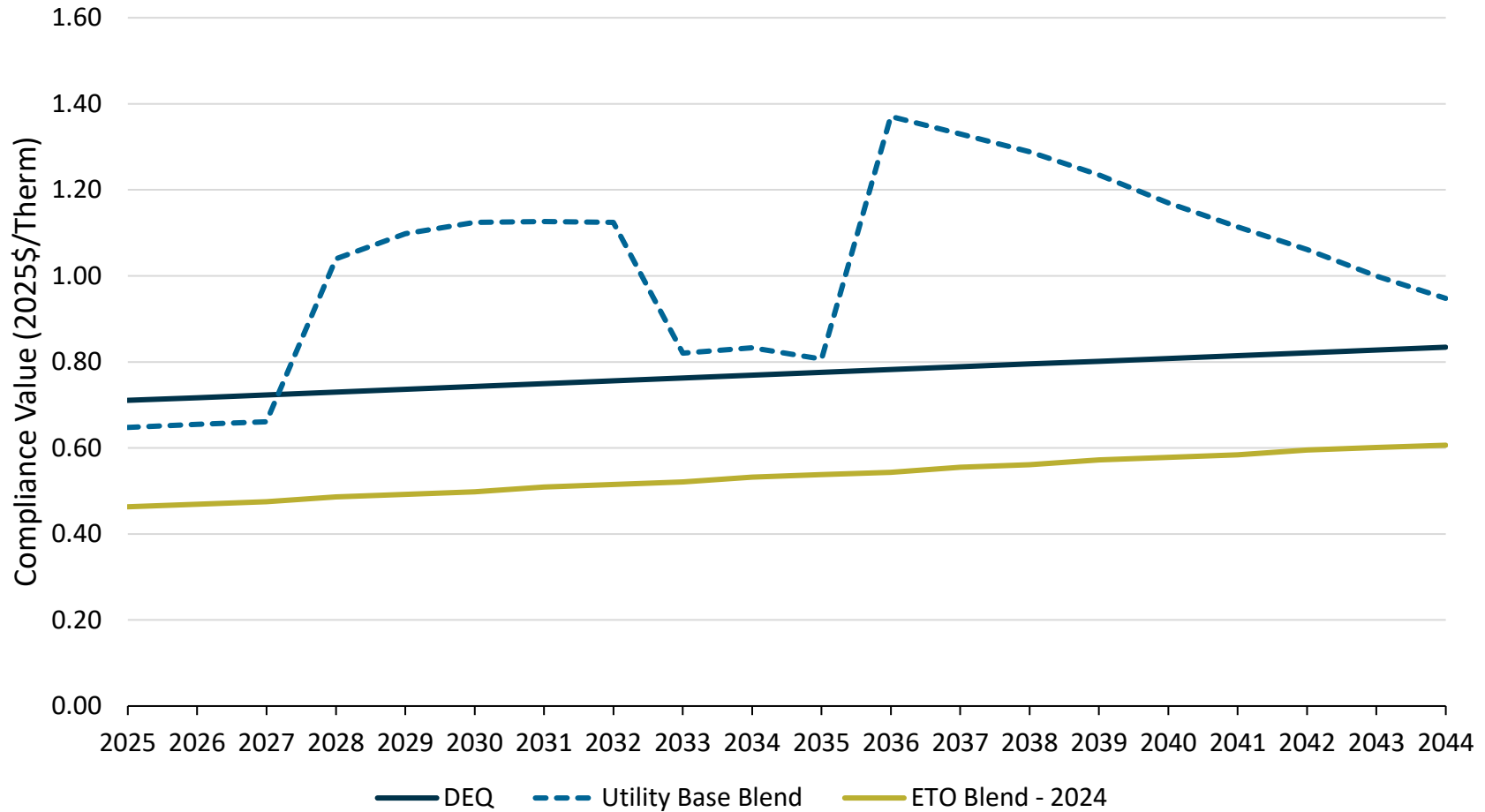
# Gas Utility Carbon Compliance Values for 2025 Avoided Costs



\*DEQ values subject to change in 2024 Climate Protection Program rulemaking. DEQ values presented are from Table 7 CCI credit contribution amount of the [2021 Adopted Rules](#), which were later invalidated by an Oregon Appeals Court in December 2023

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# Gas Utility Carbon Compliance Values for 2025 and 2024 Avoided Costs



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# Risk Reduction and NW Power Act Credit

- Risk reduction values increased 88% from the prior 2024 avoided costs
  - Outcome of previous agreement that if utilities submit a negative value, then a \$0 value will be applied
  - NWN included positive risk reduction values
  - CNG's first two years of negative values were converted to \$0, followed by positive values
  - AVI provided zeroes for all years
- NW Power Act Credit adds 10% to all values
  - In 2025 Avoided Costs, 10% adder now applied to Risk Reduction value per Northwest Power and Conservation Council methodology

# Comparison of Gas Component Values from 2024 Avoided Costs and 2025 Draft Avoided Costs

Input Parameter	2024 AC Blended Value	2025 AC Blended Value	% Change
Inflation rate	2.39%	2.83%	19%
Real Discount rate	4.50%	4.10%	-9%
Regional Act Credit	10%	10%	0%

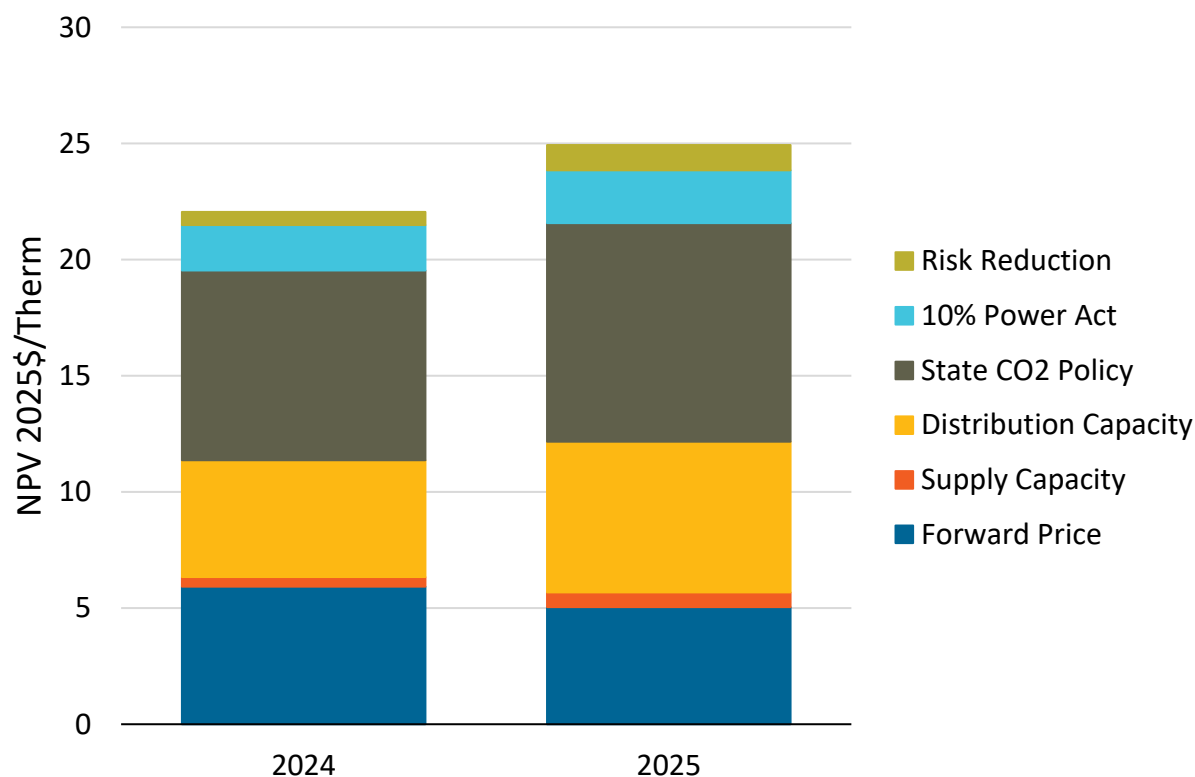
## Blended Input Values – 20-year Levelized (2025 \$/Therm)

Avoided Cost Component	2024 AC Blended Value	2025 AC Blended Value	% Change
Commodity and Transport Prices	\$0.47	\$0.38	-19%
Distribution Capacity	\$393.21	\$433.81	10%
Supply Capacity	\$2.41	\$3.17	31%
CO2 Compliance	\$0.69	\$0.76	11%
Risk Reduction	\$0.05	\$0.09	88%

# Draft Gas Avoided Cost Impacts

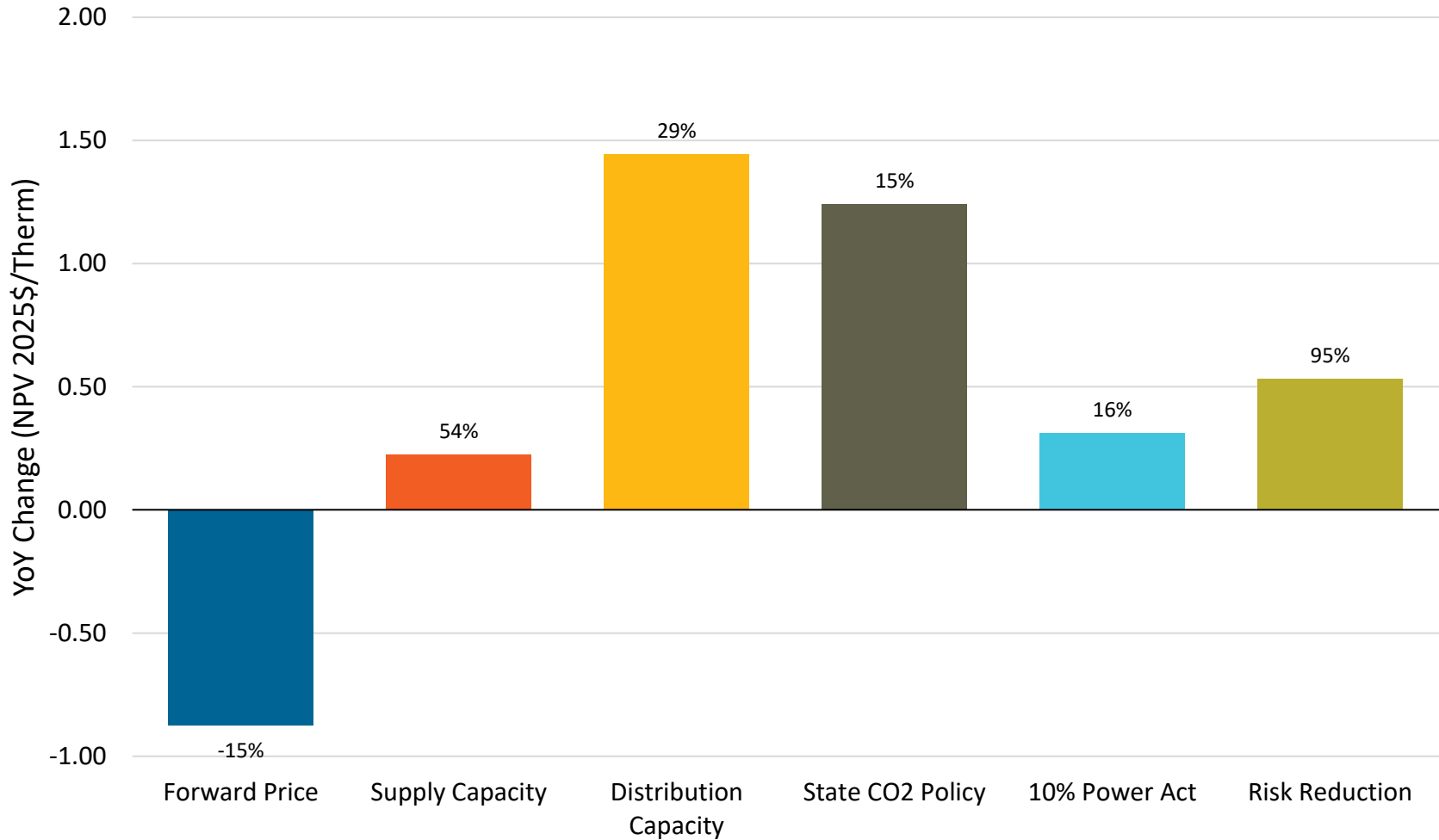
# Gas Results Summary

- Weighted average created with ETO 2022-2023 reportable gas savings by load type
- 13% higher than 2024 Avoided Costs



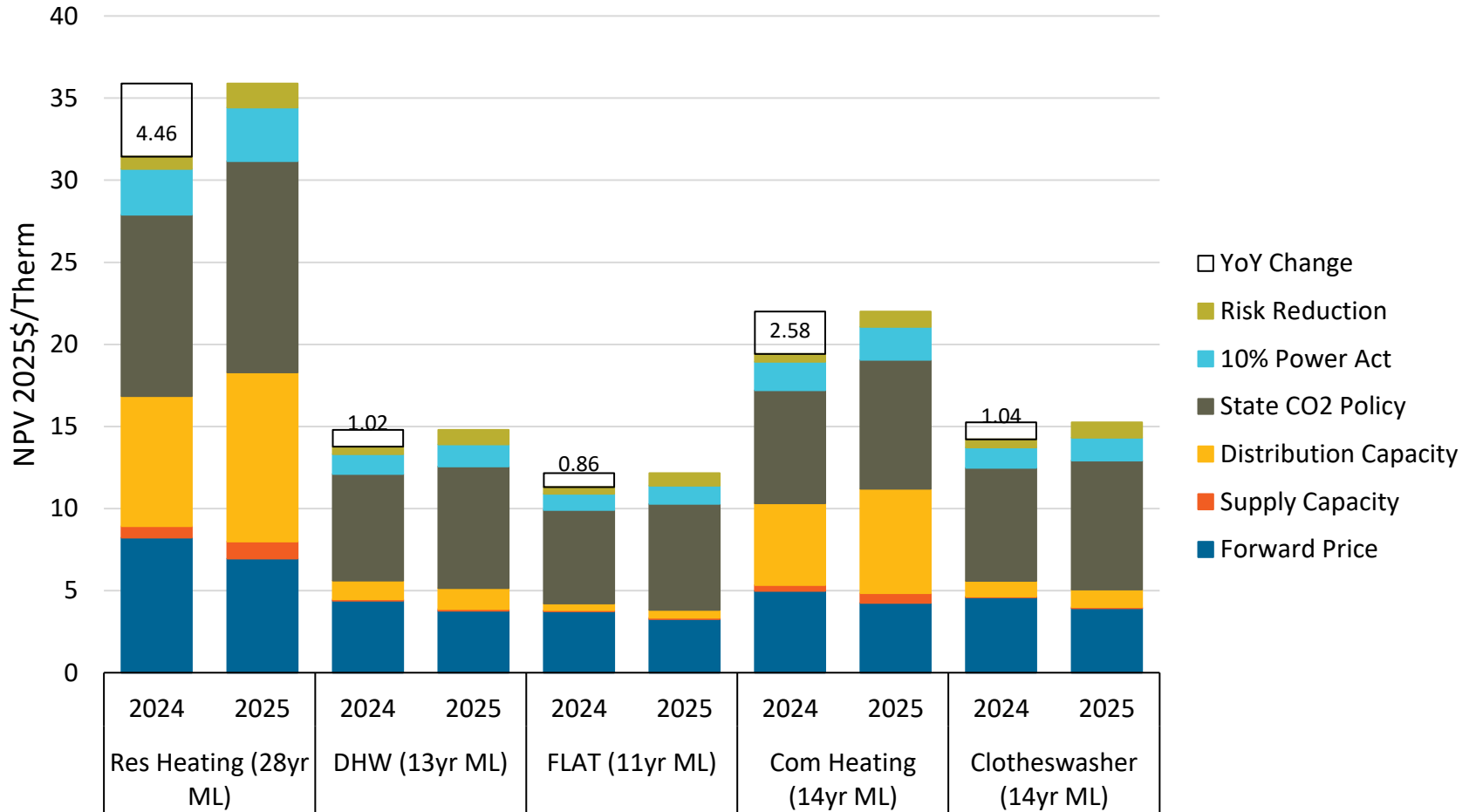


# Gas – Average Percent Change of Each Avoided Cost Component



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# Comparison of Gas Load Shapes by Value Component



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Next Steps

## Next Steps

- Stakeholders submit additional feedback
- Commission approves a set of avoided cost values for Energy Trust's use in 2025 avoided cost calculations
- Energy Trust finalizes calculations



# Questions?

Brian Conlon

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Director of Planning and  
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# Appendix

# Comparison of Gas Avoided Cost Inputs

Input Vintage Description	Avoided Cost Element							
	Inflation Rate	Discount Rate	Regional Act Credit	Commodity & Transport	Distribution Capacity - Hourly	Supply Capacity	CO2 Compliance	Risk Reduction
	Percentage	Percentage	Percentage	\$/Therm	\$/Therm/Year	\$/Therm/Year	\$/Therm	\$/Therm
<b>Northwest Natural</b>								
Selected Input for 2024 Avoided Cost (2025\$)	2.25%	4.54%	10%	\$0.36	\$445.09	\$2.38	\$0.69	\$0.06
Current Submission - IRP (2025\$)	2.85%	3.40%	10%	\$0.37	\$459.28	\$3.64	\$1.03	\$0.10
Current Submission - ALT (2025\$)	2.78%	3.39%	10%	\$0.40	\$485.56	\$3.86	\$0.73	\$0.11
<b>Selected Input for 2025 Avoided Cost (2025\$)</b>	<b>2.85%</b>	<b>3.40%</b>	<b>10%</b>	<b>\$0.39</b>	<b>\$485.56</b>	<b>\$3.86</b>	<b>\$0.76</b>	<b>\$0.10</b>
2025 Avoided Cost Input Source	2022 IRP	2022 IRP	2022 IRP	2022 IRP	2022 IRP	2022 IRP	2022 IRP	2022 IRP
<b>Cascade Natural Gas</b>								
Selected Input for 2024 Avoided Cost (2025\$)	3.70%	7.33%	10%	\$0.37	\$11.52	\$4.52	\$0.69	\$0.00
Current Submission - IRP (2025\$)	3.36%	3.79%	10%	\$0.37	\$7.70	\$0.00	\$0.64	\$0.02
Current Submission - ALT (2025\$)	3.19%	3.96%	10%	\$0.44	\$0.00	\$0.00	\$3.02	\$0.00
<b>Selected Input for 2025 Avoided Cost (2025\$)</b>	<b>3.36%</b>	<b>3.79%</b>	<b>10%</b>	<b>\$0.37</b>	<b>\$7.70</b>	<b>\$0.00</b>	<b>\$0.76</b>	<b>\$0.00</b>
2025 Avoided Cost Input Source	2023 IRP	2023 IRP	2023 IRP	2023 IRP	2023 IRP	2023 IRP	2023 IRP	2023 IRP
<b>Avista</b>								
Selected Input for 2024 Avoided Cost (2025\$)	2.00%	4.36%	10%	\$1.68	\$390.02	\$0.06	\$0.68	\$0.00
Current Submission - IRP (2025\$)	2.00%	4.52%	10%	\$0.32	N/A	\$0.00	\$1.10	\$0.00
Current Submission - ALT (2025\$)	N/A	0.00%	N/A	\$0.00	N/A	\$0.00	\$0.00	\$0.00
<b>Selected Input for 2025 Avoided Cost (2025\$)</b>	<b>2.00%</b>	<b>4.52%</b>	<b>10.00%</b>	<b>\$0.32</b>	<b>\$433.81</b>	<b>\$0.00</b>	<b>\$0.76</b>	<b>\$0.00</b>
2025 Avoided Cost Input Source	2023 IRP	2023 IRP	2023 IRP	2023 IRP	2023 IRP	2023 IRP	2023 IRP	2023 IRP
<b>Energy Trust</b>								
Old Blended Input for 2024 Avoided Cost (2025\$)	2.39%	4.50%	10%	\$0.47	\$393.21	\$2.41	\$0.69	\$0.05
<b>New Blended Input for 2025 Avoided Cost (2025\$)</b>	<b>2.83%</b>	<b>4.10%</b>	<b>10%</b>	<b>\$0.38</b>	<b>\$433.81</b>	<b>\$3.17</b>	<b>\$0.76</b>	<b>\$0.09</b>
Percent Difference	19%	-9%	0%	-19%	10%	31%	11%	88%

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