2027 Electric and Natural Gas Integrated Resource Plans

Technical Advisory Committee Meeting No. 3 Agenda

Thursday, November 20, 2025

Virtual Meeting – 2:00 pm to 4:30 pm Pacific Time

Topic	State	Audience
• Introduction and Questions from TAC 2		
• Future Climate Analysis	All	E&G, Dist.
• Washington Non-Pipe Analysis	WA	Gas
• CCA/CPP Discussion	WA/OR	E&G
• Natural Gas-Fired Heat Pump Technology	All	Gas
• (Moved to TAC 4 in Jan. 2026) Carbon Sequestration	All	E&G

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For organizers: Meeting options | Reset dial-in PIN

Introductions 2027 Electric & Gas Integrated Resource Planning

TAC 3 – November 20 , 2025

John Lyons, Ph.D. – Senior Resource Policy Analyst

TAC 4 Agenda

- Introduction and Questions from TAC 2, John Lyons
- Future Climate Analysis (All), Mike Hermanson
- Washington Non-Pipe Analysis (WA), Cadmus and Avista
- CCA/CPP Discussion, Janna Dubnicka and Michael Brutocao
- Natural Gas-Fired Heat Pump Technology (All), Reuben Arts
- (Moved to TAC 4, Jan. 2026) Carbon Sequestration (All), Robert Hughes

Meeting Guidelines

- IRP team is in office Monday – Wednesday; also available by email, phone and Teams for questions and comments
- Stakeholder feedback responses shared with TAC at meetings, in Teams and in Appendix
- Working IRP data posted to Teams
- All TAC meetings will be virtual on Teams
- Draft TAC presentations emailed three days before each meeting
- Final TAC presentations, meeting notes and recordings posted on IRP page

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Virtual TAC Meeting Reminders

- Please mute mics unless speaking or asking a question
- Raise hand or use the chat box for questions or comments
- Respect the pause
- Please try not to speak over the presenter or a speaker
- Please state your name before commenting for the note taker
- This is a public advisory meeting – presentations and comments will be documented and recorded

Answers to Questions from TAC

- Difference in Named Community population from the Department of Health Map Version 1 to Version 2 – See next slide
- Adding natural gas and electric coordination presentation to TAC 4, January 21, 2026
- Natural gas disconnect question about work orders for meter removals
  - Pulled work order data for past 7 years
  - Only 135 meter removals, which is probably higher than actual
  - No specific coding for removing meter for electrification
  - Anecdotally, gas servicemen in all 3 states say they only do this once or twice per year
- Natural gas pipeline embrittlement by hydrogen – engineers are following this issue, but we are not expecting hydrogen being injected into our system anytime soon
- Existing gas customer forecast in Washington – See customer and load growth slide

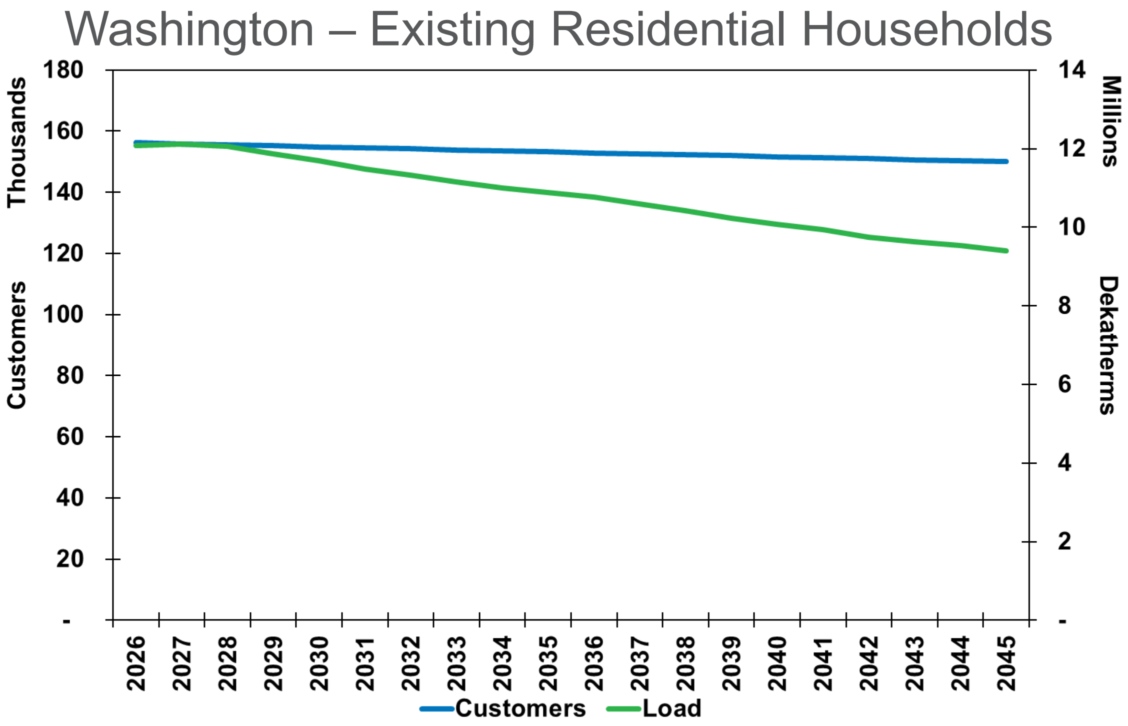
Named Communities* Populations – Updated

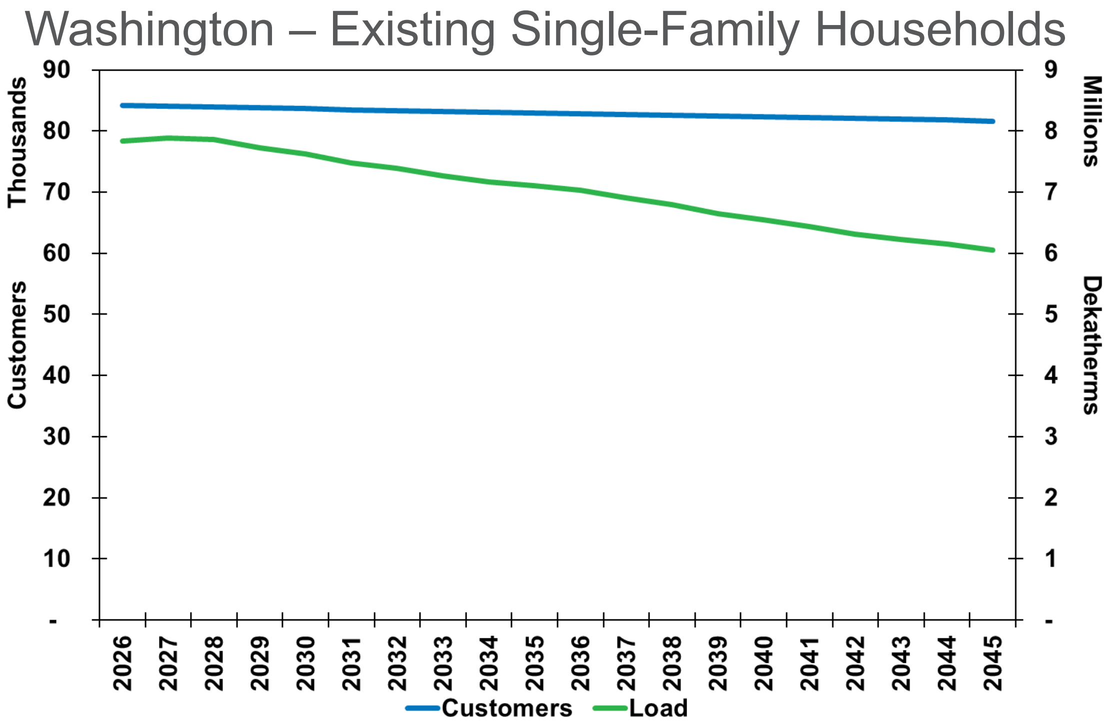
	2021 CEIP	2025 CEIP
Avista Electric Residential Households (as of Q4 2024)	**245,564****	
Washington State Department of Health (DOH)	**DOH V1 2019**	**DOH V2**
Highly Impacted Communities	15,157	+ 19,610
Vulnerable Populations	43,010	+ 6,967
Both HIC & VP	47,700	+ 1,932
Total	**105,867 or 43%**	**134,720 or 55%****
Federal Climate and Economic Justice 40 Map		**J40 V2 2024**
All sensitives & scores added to Vulnerable Populations		+ 8,637
Avista's Projected Named Community Population		**143,013 or 58%****

*The Named Community designation is not a direct correlation to known low-income customers

**The Named Community percentage based on point-in-time Washington electrical residential household count

2025 Natural Gas IRP – Customer and Load Growth





TAC 4 – Wednesday, January 21, 2026 (13:00 – 16:00 PST)		
Topic	**State**	**Audience**
Market Overview ad Price Forecast	All	Gas
Wholesale Electric Price Forecast	WA/ID	Electric
Sub-Hourly Modeling	WA/ID	Electric
DER Forecast Impact on Distribution System	WA	Dist.
Cost of Carbon (SCC, Allowances, CCI)	WA	E & G
Natural Gas and Electric Coordination	All	E & G

TAC 5 – Friday, February 20, 2026 (13:00 – 16:00 PST)		
Topic	**State**	**Audience**
New Electric Resource Options	WA/ID	Electric
Wholesale Price Forecast – Deterministic	WA/ID	Electric
New Gas Resource Options	All	Gas
Liquified Natural Gas Analysis	All	Gas
Electrification Assumptions and Scenarios	All	Gas

TAC 6 – Monday, March 16, 2026 (13:00 – 16:00 PDT)		
Topic	**State**	**Audience**
Wholesale Price Forecast – Stochastic	WA/ID	Electric
Wholesale Market Price Scenarios	WA/ID	Electric
All-Source RFP Update	WA/ID	Electric
Economic Forecast and Five-Year Load Forecast	All	E&G

TAC 7 – Wednesday, April 15, 2026 (13:00 – 16:00 PDT)		
Topic	**State**	**Audience**
Energy Efficiency Savings Since 2025 IRP	OR	Gas
Hybrid Heat Pump Program Update	OR	Gas
Gas Avoided Cost	All	E & G
Long-Run Load Forecast	All	E & G
End-Use Load Forecast	All	E & G

TAC 8 – Monday, April 20, 2026 (13:00 – 16:00 PDT)		
Topic	**State**	**Audience**
Conservation Potential Assessment	All	E & G
Demand Response Potential Assessment	All	E & G

TAC 9 – Friday, May 15, 2026 (13:00 – 16:00 PDT)		
Topic	**State**	**Audience**
IRP Generation Option Transmission Planning Studies	WA/ID	Transmission
Distribution System Planning within the IRP	WA/ID	Dist.
Transmission Project Example Evaluation	WA/ID	Transmission
QCC Forecast	WA/ID	Electric
Gas Distribution Update	All	Gas
Natural Gas Availability & Resiliency	All	Gas

TAC 10 – Wednesday, May 27, 2025 (9:00 – 12:00 PDT)		
Topic	**State**	**Audience**
CEIP Update	WA	Electric
CETA Interim/Energy Compliance Report	WA	Electric
Load Forecast Update	All	E & G

TAC 11 Technical Modeling Workshop – Monday, June 15, 2026 (13:00 – 16:00 PDT)		
Topic	**State**	**Audience**
PRiSM Model Tour	All	E & G
Aurora Resource Adequacy Model Tour	WA/ID	Electric
New Resource Cost Model	All	E & G

TAC 12 Wednesday, July 15, 2026 (TDB)		
Topic	**State**	**Audience**
Load & Resource Balance and Methodology	WA/ID	Electric
Loss of Load Probability	WA/ID	Electric
WRAP Update	WA/ID	Electric
Draft Preferred Resource Strategy Results	All	E & G
ETO Energy Savings	OR	Gas

TAC 13 – Monday, August 17, 2026 (13:00 – 16:00 PDT)		
Topic	**State**	**Audience**
Preferred Resource Strategy Results	All	E & G
Oregon Non-Pipe Alternatives	OR	Gas
Aldyl-A Analysis and Targeted Voluntary Electrification	OR	Gas
IRP/Progress Report Outlines	All	E & G
Next Steps	All	E & G

TAC 14 – Thursday, September 17, 2026 (13:00 – 16:00 PDT)		
Topic	**State**	**Audience**
Portfolio Scenario Analysis	All	E & G
Avoided Cost	All	Electric
Resource Adequacy Results	WA/ID	Electric
CBI Forecast and Results/Energy Burden	WA/OR	E & G
Final Report Overview and Comment Plan	All	E & G
Action Items	All	E & G

Electric Transmission & Distribution 5-Year Plan – October 7, 2026 (10:00 – 12:00 PDT)		
Topic	**State**	**Audience**
Electric Trans Transmission & Distribution 5-Year Plan	WA/OR	Electric

Other Key Dates

- Oct 15, 2026 – Draft Electric IRP Released to TAC
- Nov TBD 2026 – Virtual Public Meeting
  - Noon-1pm
  - 6-7pm
- Jan 1, 2027 – Final Electric IRP Filed
- Feb 15, 2027 – Draft Gas IRP Released to TAC
- Apr 1, 2027 – Final Gas IRP Filed

IRP Climate Change Analysis

Forecasted streamflow and temperature changes for 2027 IRP Analysis

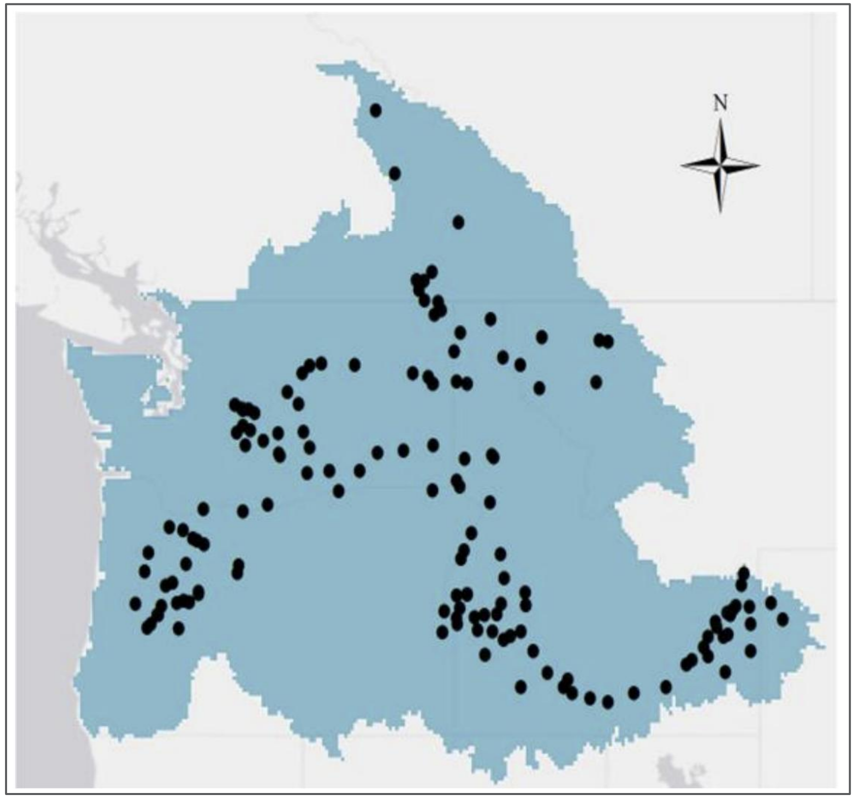
Mike Hermanson, Senior Power Supply Analyst
Michael Brutocao, Natural Gas Planning Manager
2027 IRP TAC 3 - November 20, 2025

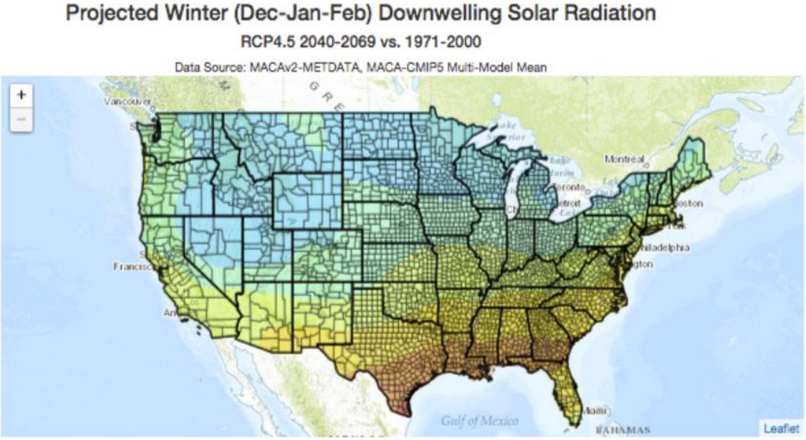
Overview

- Data sources and methodology
- Hydrogeneration analysis
- Temperatures analysis for peak electric
- Temperatures analysis for natural gas peak and energy

Data Sources

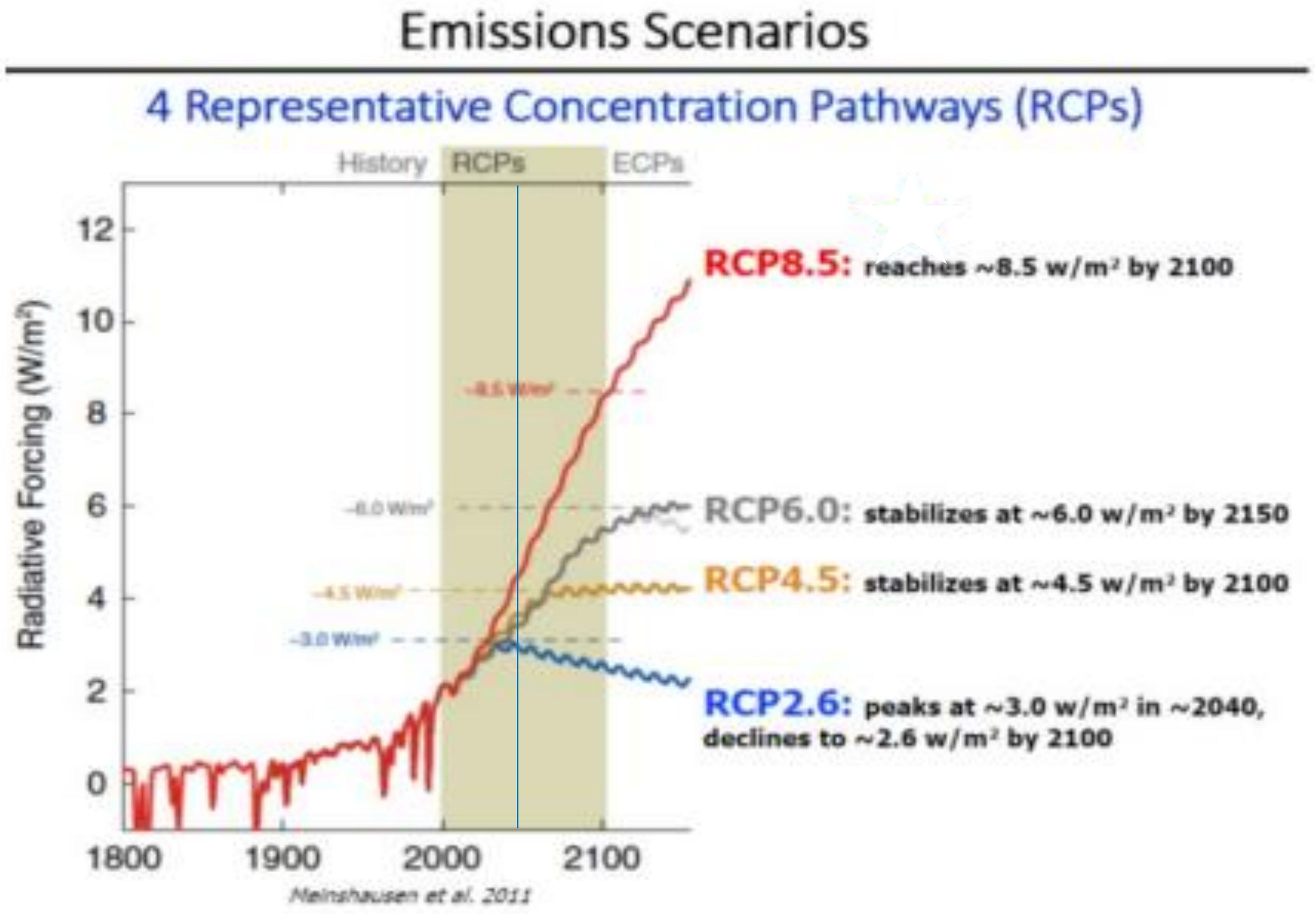
- Climate and Hydrology Datasets for RMJOC Long-Term Planning Studies: Second Edition
  - River Management Joint Operating Committee (RMJOC)
    - BPA, US Army Corps of Engineers, US Bureau of Reclamation
  - Research Team
    - University of Washington, Oregon State University
- Part I – Unregulated stream flows (2018)
- Part II – Reservoir Regulation and Operational Constraints (2020)
- Both temperature and streamflow were available from this study which covered the Columbia River Basin
- Oregon Locations –
  - Multivariate Adaptive Constructed Analogs (MACA) Datasets. Compliation led by University of California Merced
  - Data from 20 different GCMs from the Coupled Model Intercomparison Project (2014)





Global Climate Models

- Global Climate Models (GCMs)
  - Coarse resolution ranging from 75 to 300 km grid size
  - Provides projections of temperature and precipitation, and other meteorological variables (wind)
  - Multiple Representative Concentration Pathways (RCP 4.5 & RCP 8.5)
  - 10 GCM models used in study
    - CanESM2 (Canada)
    - CCSM4 (US)
    - CNRM-CM5 (France)
    - CSIRO-Mk3-6-0 (Australia)
    - GFDL-ESM2M (US)
    - HadGEM2-CC (UK)
    - HadGEM2-ES (UK)
    - inmcm4 (Russia)
    - IPSL-CM5-MR (France)
    - MIROC5 (Japan)



w/m^2 = watts for meter squared

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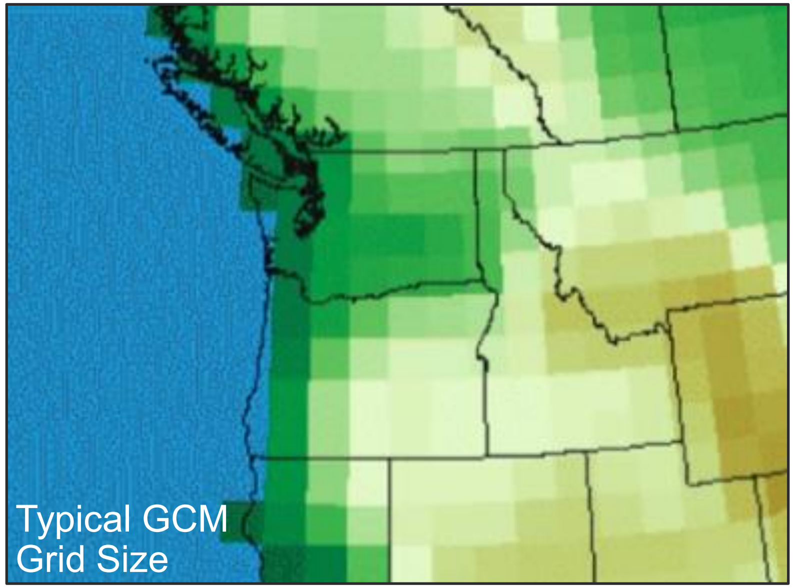
Representative Concentration Pathways

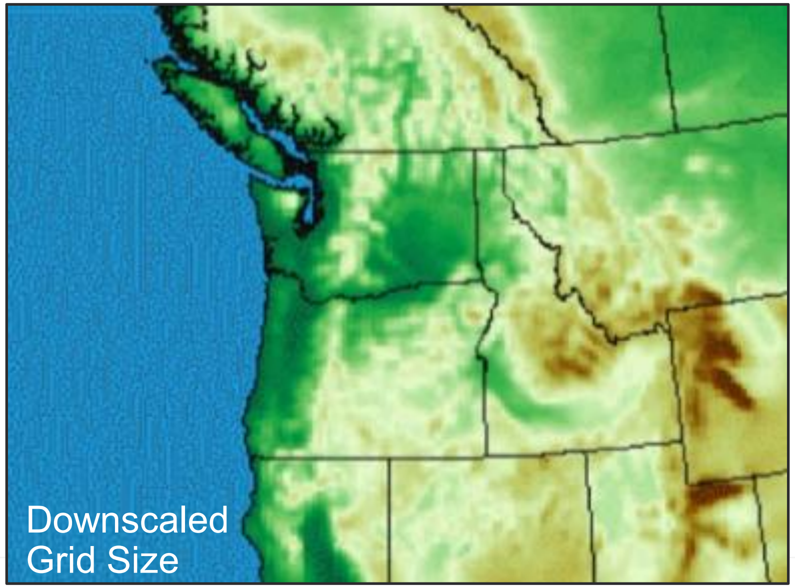
- Description by Intergovernmental Panel on Climate Change (IPCC)
  - RCP2.6 – stringent mitigation scenario
  - RCP4.5 & RCP6.0 – intermediate scenarios
  - RCP8.5 – very high GHG emissions
- RMJOCII Study evaluated RCP4.5 and RCP8.5
- RCP4.5 and RCP6.0 have a similar mean and 'likely range' by the end the IRP planning horizon

	Scenario	2046-2065		2081-2100	
		Mean	Likely range	Mean	Likely range
Global Mean Surface Temperature Change (C°)	RCP2.6	1.0	0.4 to 1.6	1.0	0.3 to 1.7
	RCP4.5	**1.4**	**0.9 to 2.0**	**1.8**	**1.1 to 2.6**
	RCP6.0	**1.3**	**0.8 to 1.8**	**2.2**	**1.4 to 3.1**
	RCP8.5	2.0	1.4 to 2.6	3.7	2.6 to 4.8

Downscaling Techniques

- Downscale GCM data to finer resolution necessary to model hydrology
  - Statistical methods to represent variation within large grid size
  - Two methods used (BCSD, MACA)
    - Bias Corrected Spatial Disaggregation
    - Multivariate Adaptive Constructed Analog
  - Oregon locations used MACA dataset that covers the entire US from the University of California Merced

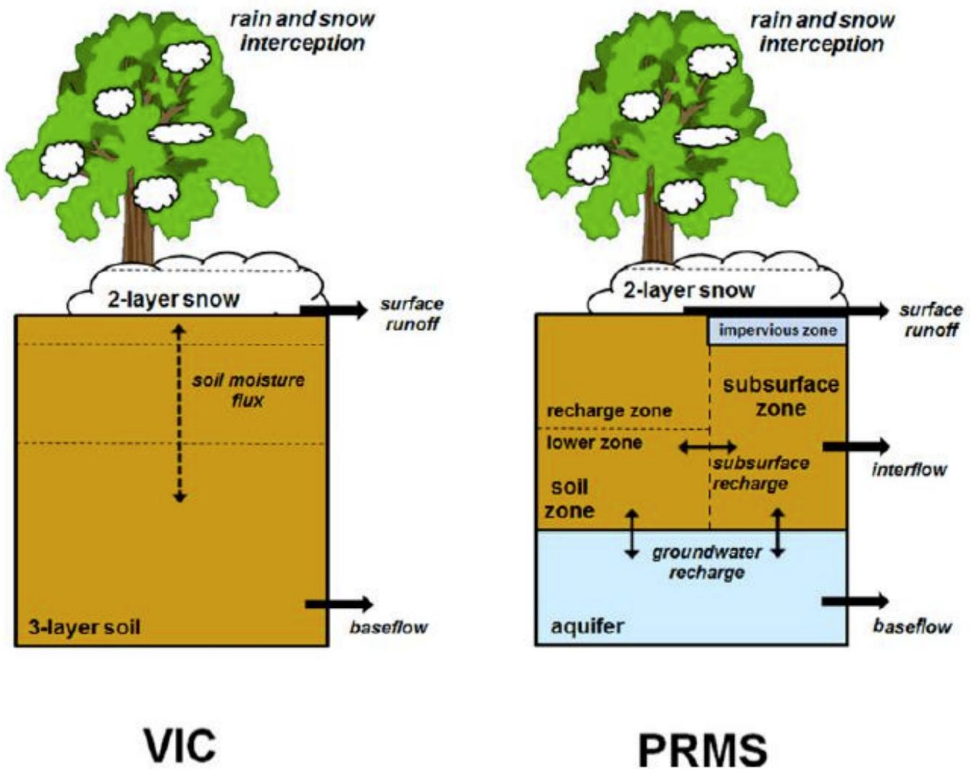




Modeling Climate Change Impacts on Hydrogeneration

- Hydrologic models
  - Downscaled temperature and precipitation is input to hydrologic models.
  - Hydrologic models use soil, geology, slope, vegetation, aspect, snow cover, etc. to model how precipitation translates into runoff and streamflow.
  - 2 different hydrology models used.
    - 1 version of PRMS model
    - 3 versions of VIC model

- Hydro regulation models
  - Unregulated streamflow is input to reservoir models of Columbia River system to generate regulated flows.



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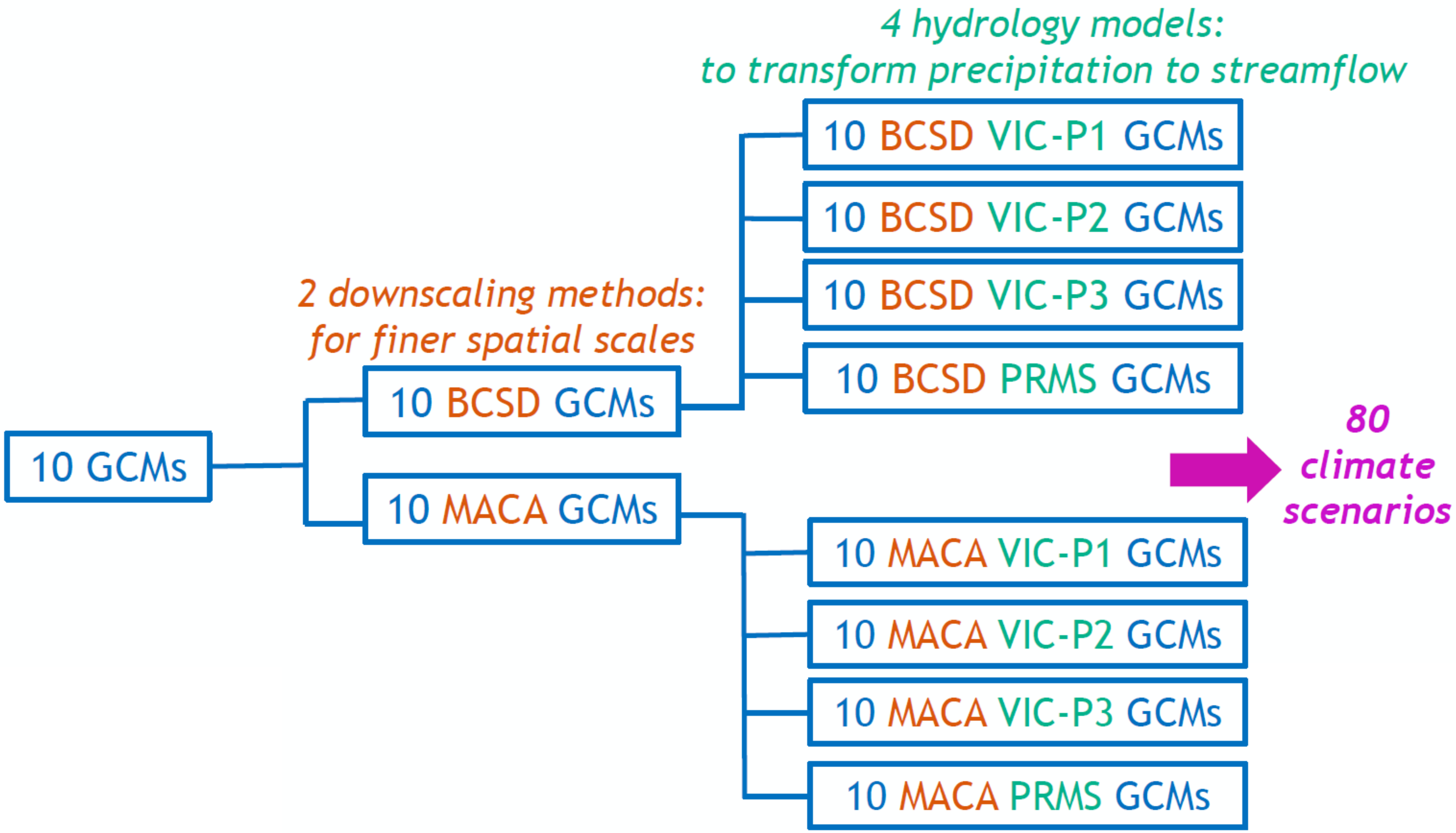
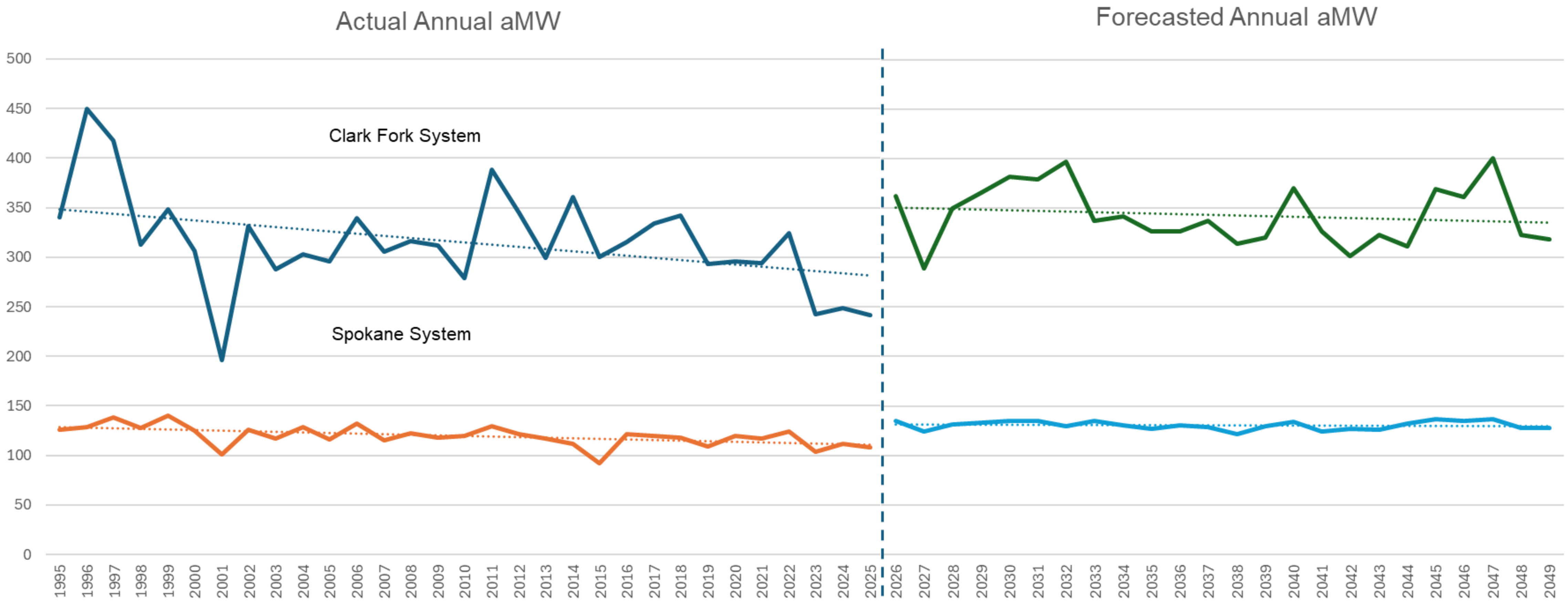
Modeling Climate Change Impacts on Hydrogeneration



2027 IRP Hydrogeneration

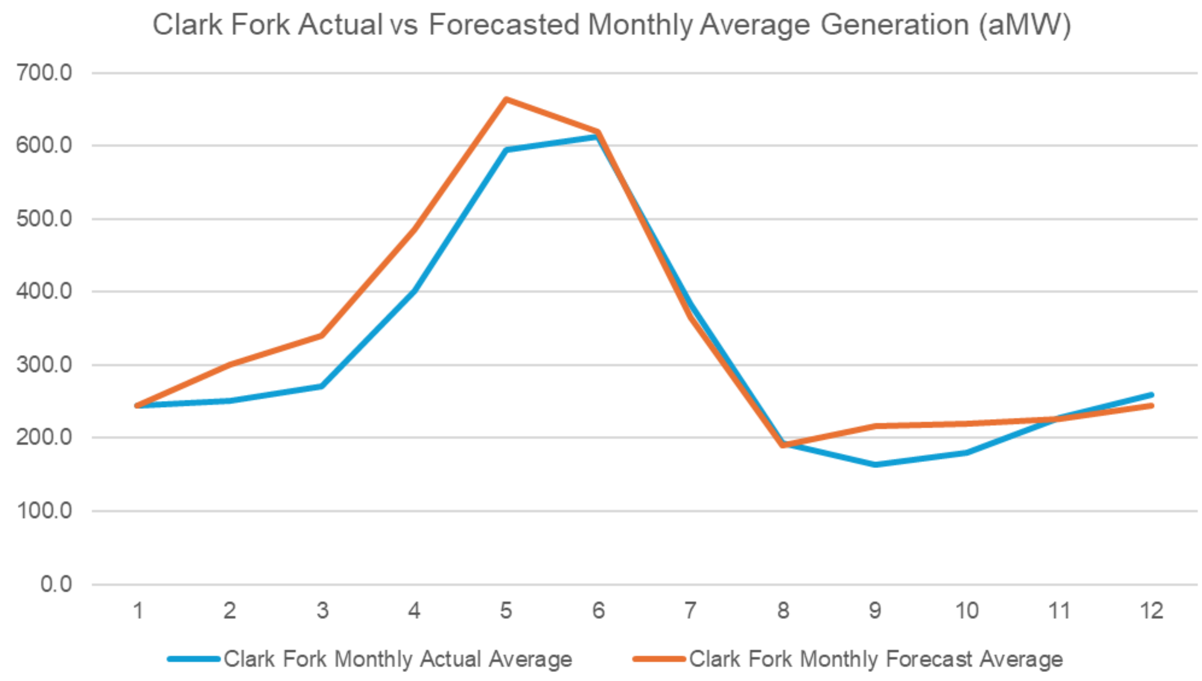
- BPA selected 19 of the 80 scenarios that encompass a sufficient range of uncertainty.
- Two regulated river flow data sets utilized:
  - 1995-2025 uses actual generation data from each project
  - 2025-2049 used climate change river flows.
- Median of 19 BPA selected scenarios was used for the flow data set.
- A regression analysis was conducted on the historical relationship of flow and generation at each project to develop the forecasted generation.

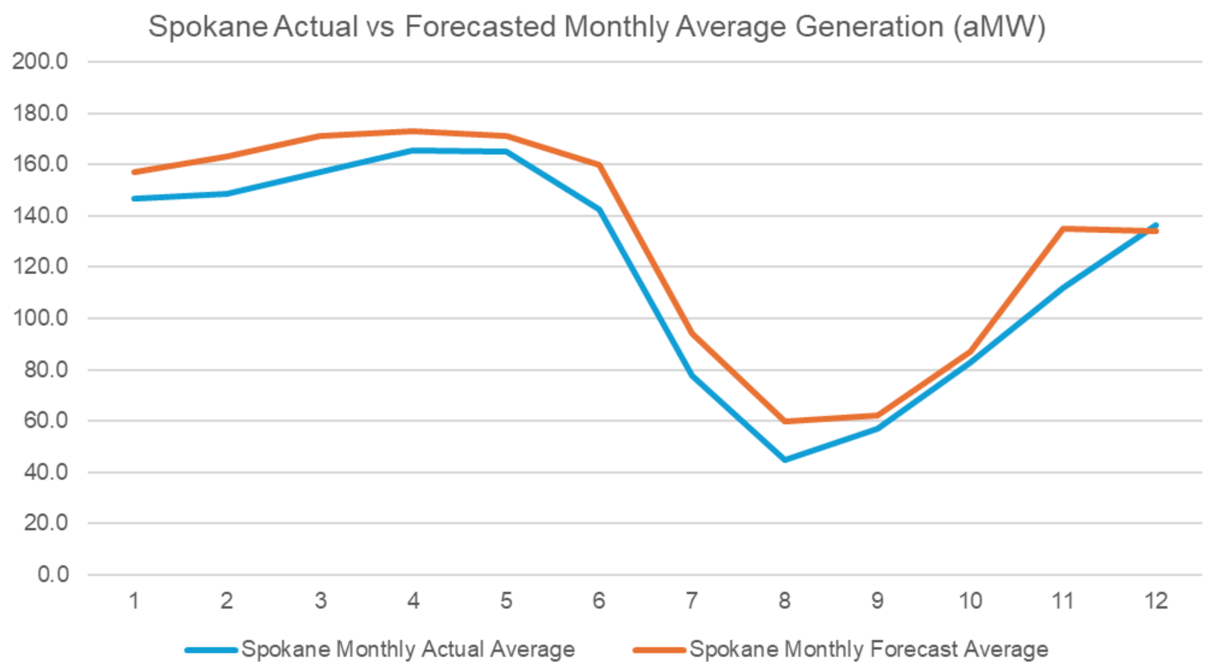
Results



- Forecasted annual average generation is greater than actual generation in both Spokane and Clark Fork Systems

Results



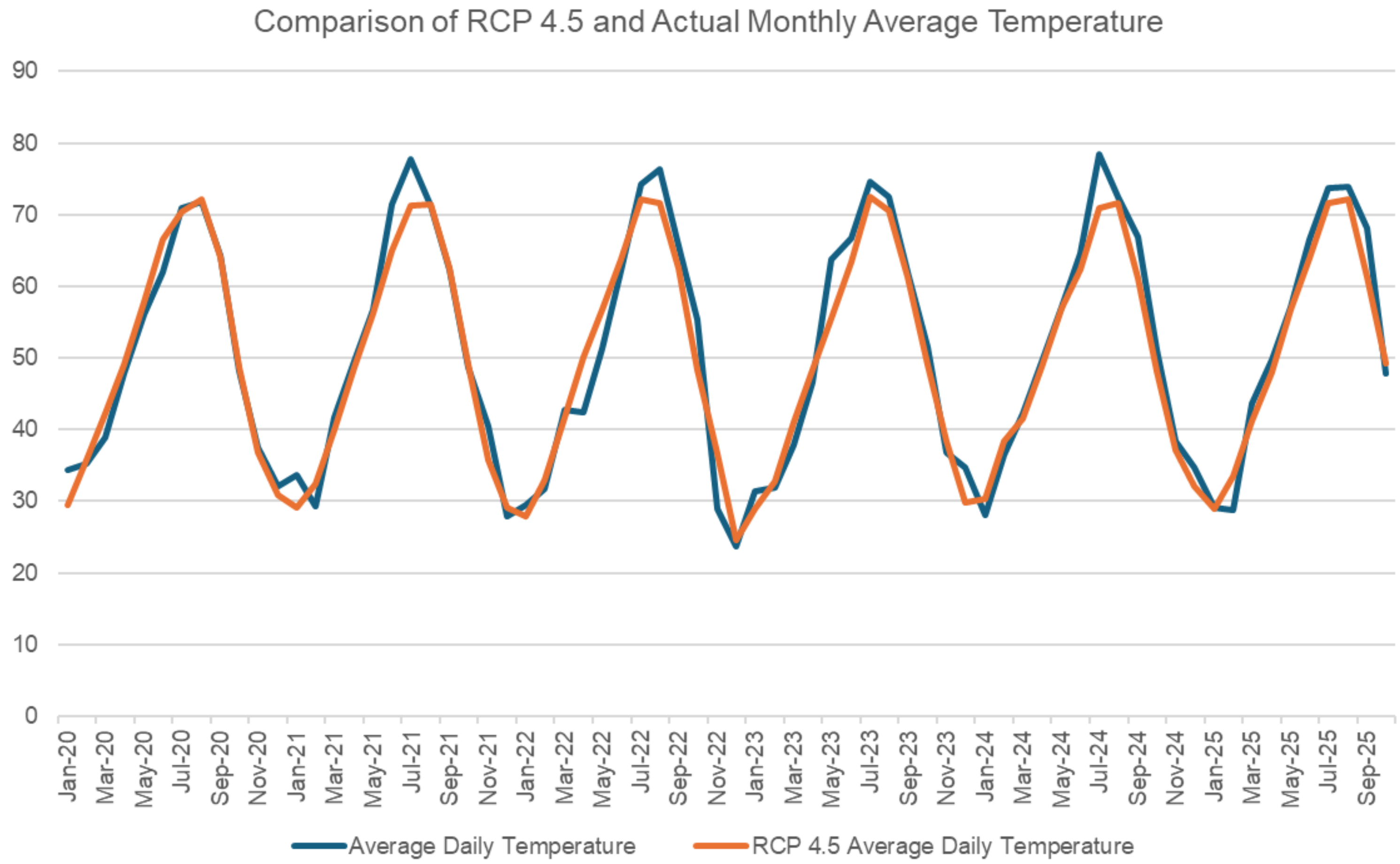


- Clark Fork system greater in the winter/early spring months
- Spokane system forecast is greater in all months, following a very similar pattern as actuals

Climate Change Temperatures for Load Forecast

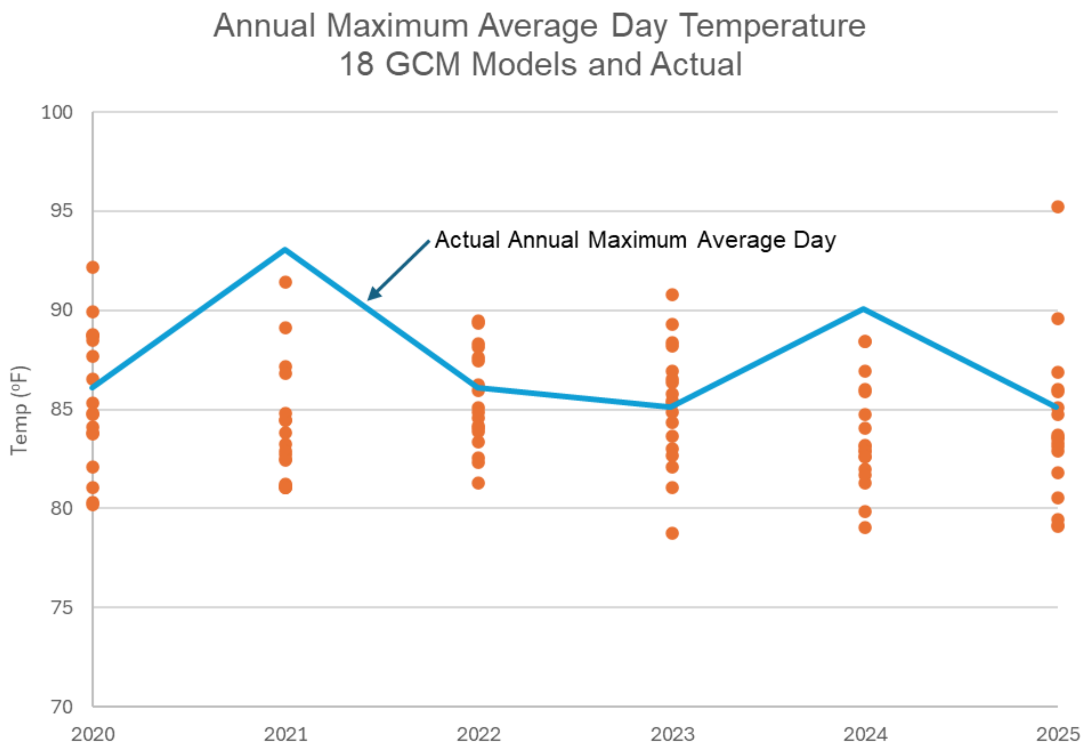
- Data:
  - Spokane – RMJOCII study temperatures
  - Klamath Falls – MACA Compilation by University of California Merced
  - La Grande - MACA Compilation by University of California Merced
  - Medford - MACA Compilation by University of California Merced
  - Roseburg - MACA Compilation by University of California Merced

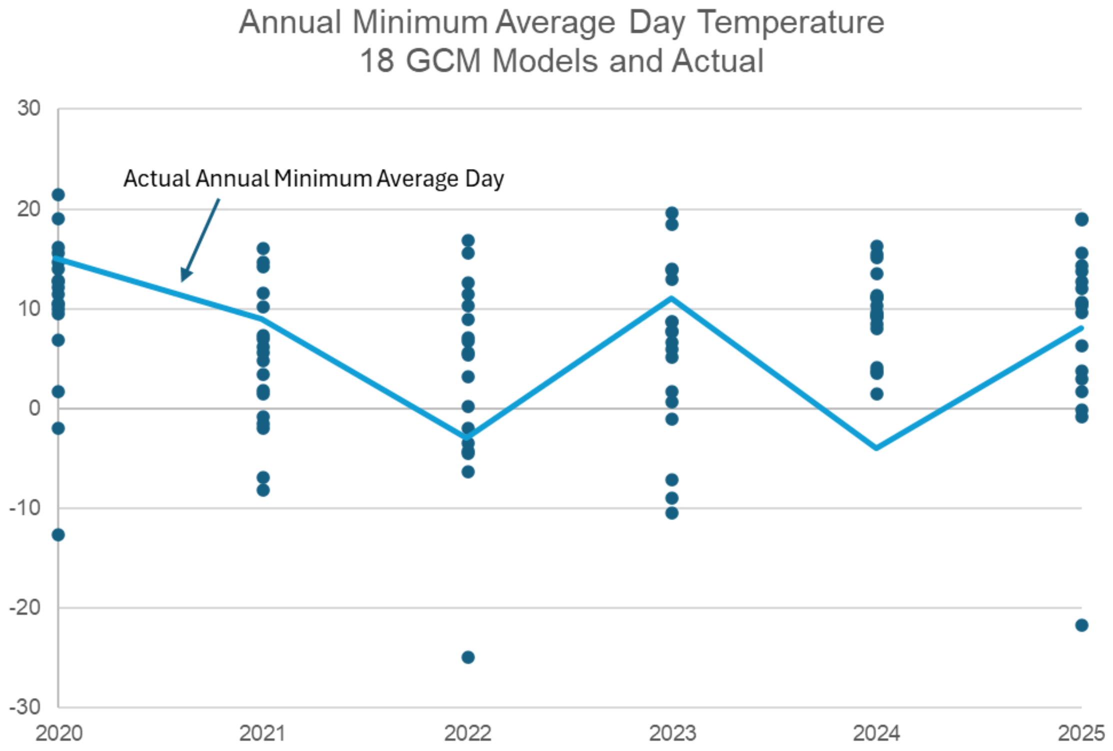
Comparison of Actual Temp to Modeled Temps



- Summer actual daily temperatures higher than models and winter actual daily temperatures equal to or lower than models

Comparison of Actual Temp to Modeled Temps





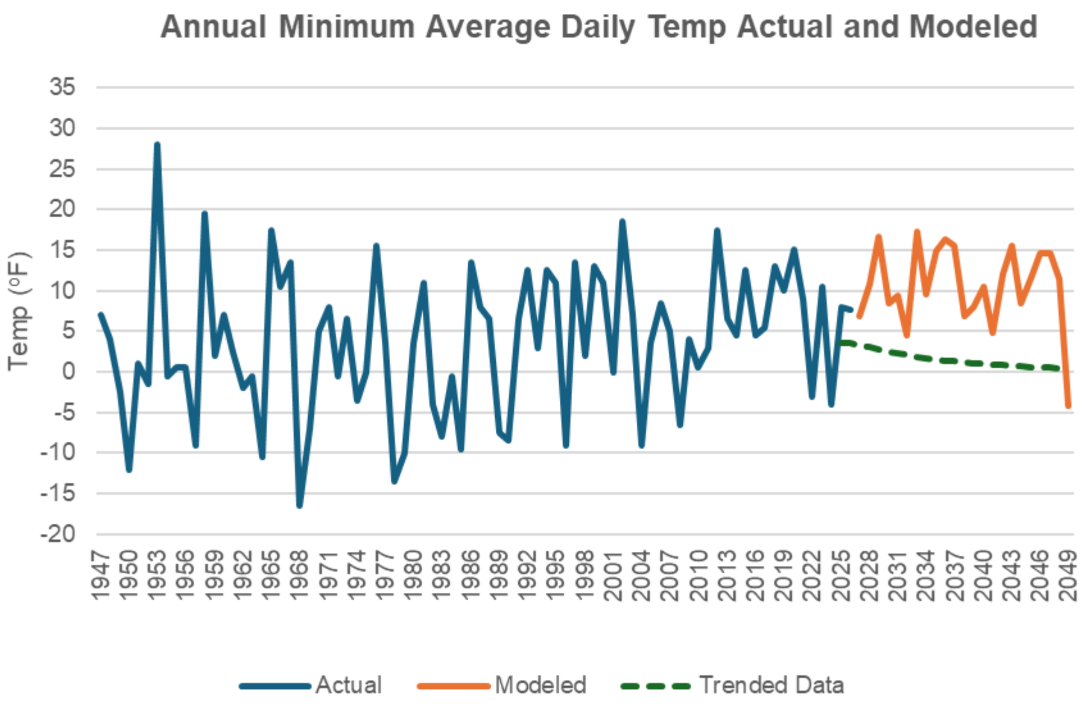
- Each chart depicts the actual annual min and max day along with the annual min and max day for each of the 18 climate scenarios used in the RMJOCII study.

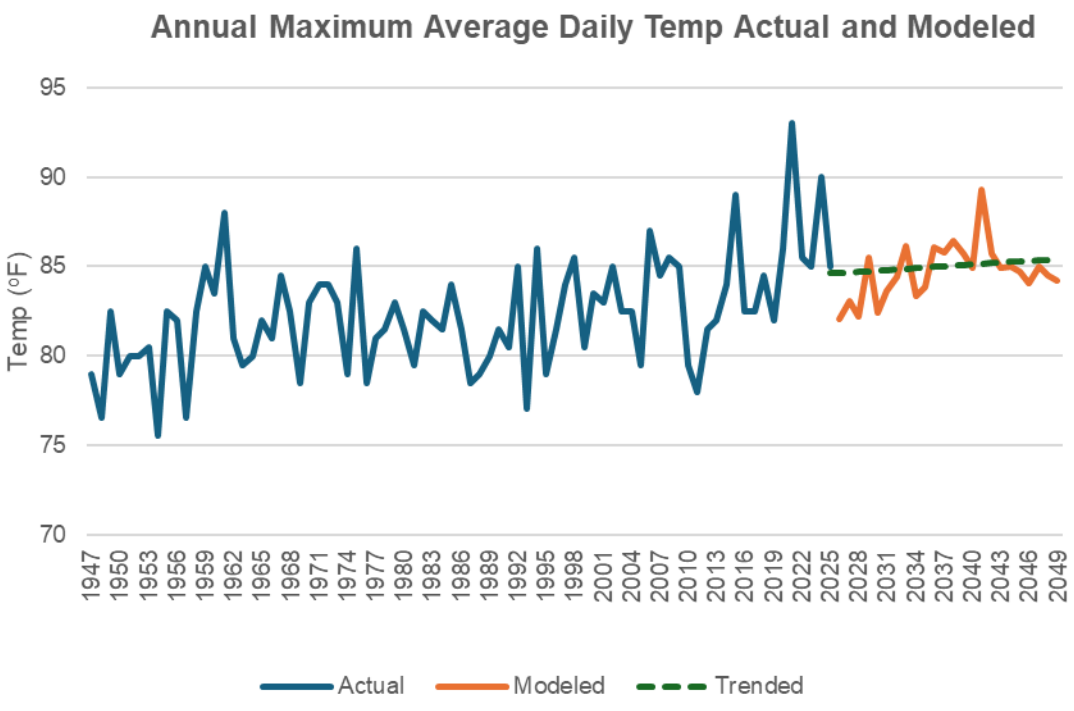
Peak Electric Load Forecasts – Temperature Data

- This IRP we are not using discrete modeled values in our peak load forecast, rather we are using rate of change over the forecast period 2025-2049.

- The process is:
  - The discrete modeled temperatures are input into a regression equation that calculates load.
  - For the period of 2025-2049 the rate of change of load is determined rather than the load values associated with the discrete temperature values. This establishes a monthly rate of change due to temperatures.
  - The starting point for the summer months is the 20-year average of actuals and for the winter months is 79-year average of actuals

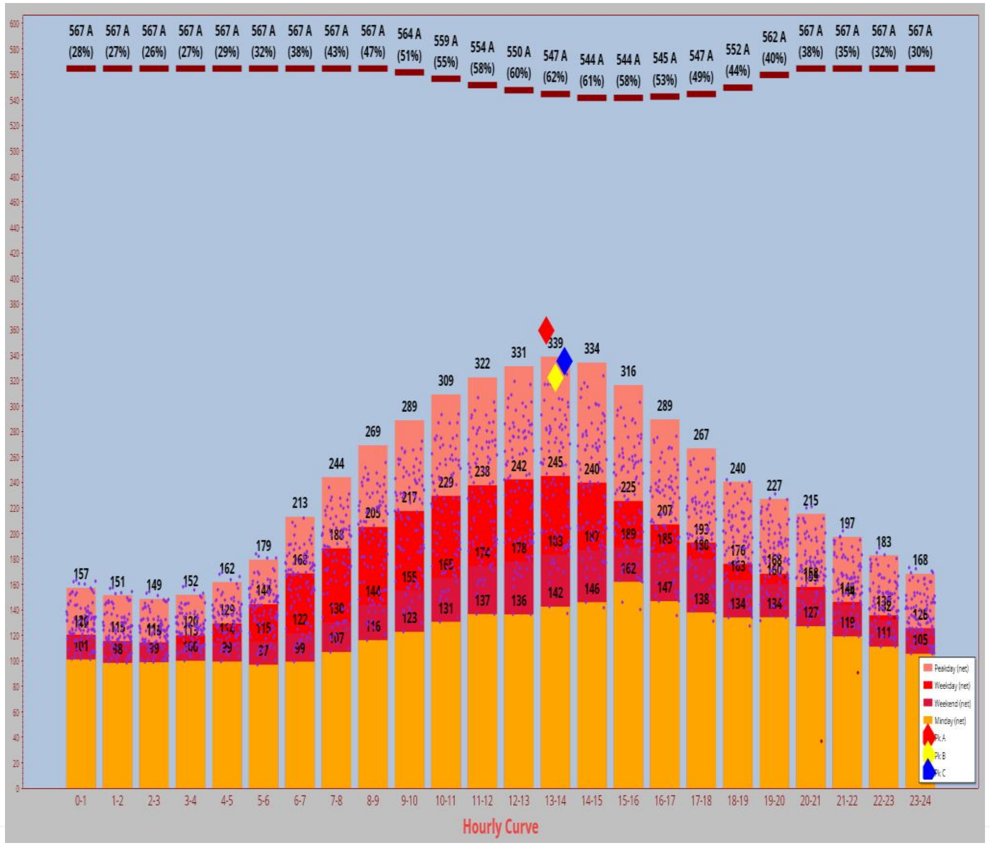
Peak Electric Load Forecasts – Temperature Data



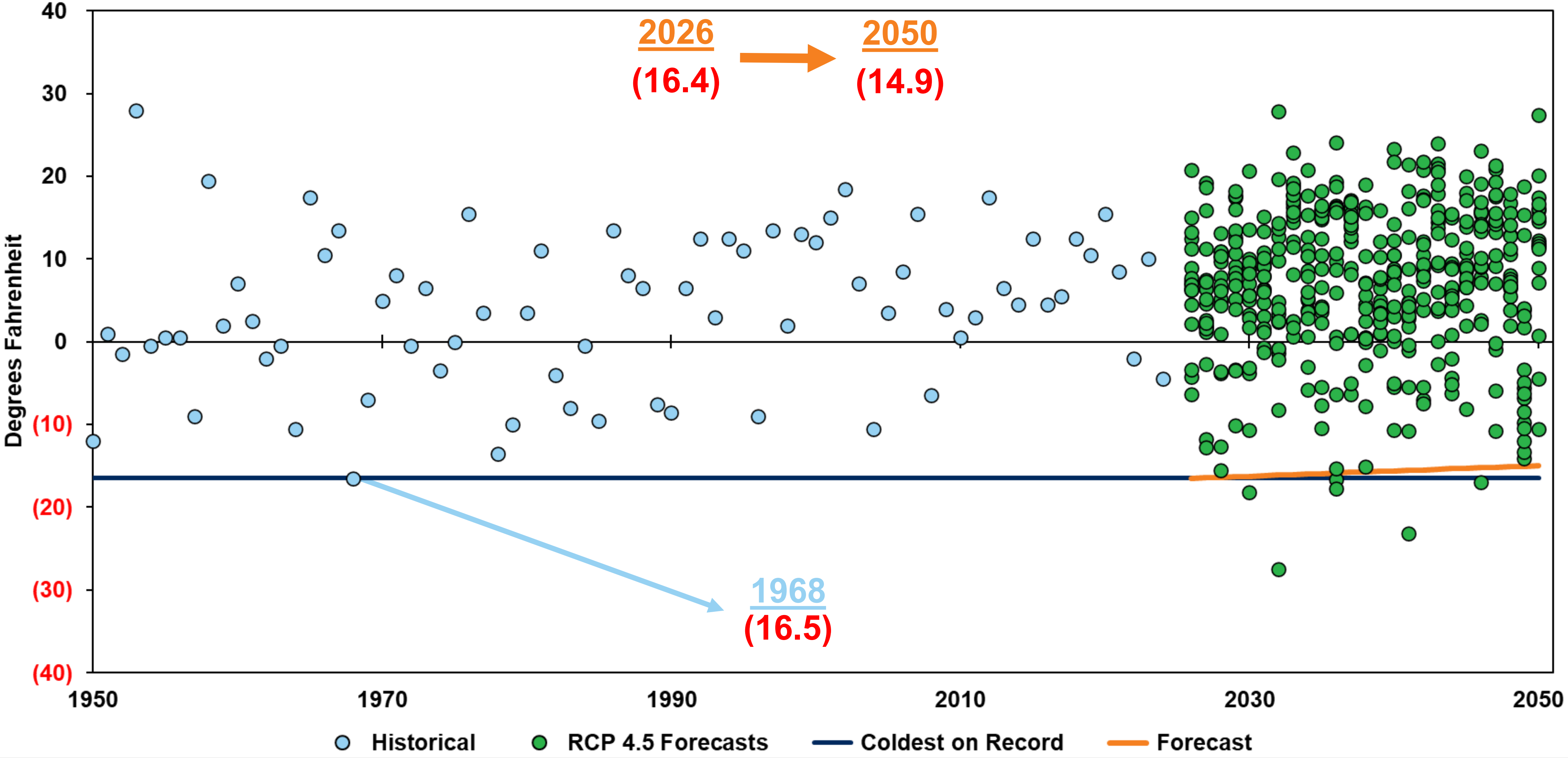


Temperature in Distribution System Planning

- Evaluate the linear relationship between load and temperature to form a 1 in 10 load for each of 570 transformers and feeders.
- Develop 24-hour curves to identify peaks
- Run power flow scenarios to identify if there are specific feeders with inadequate capacity.



Winter Peak Day – Spokane



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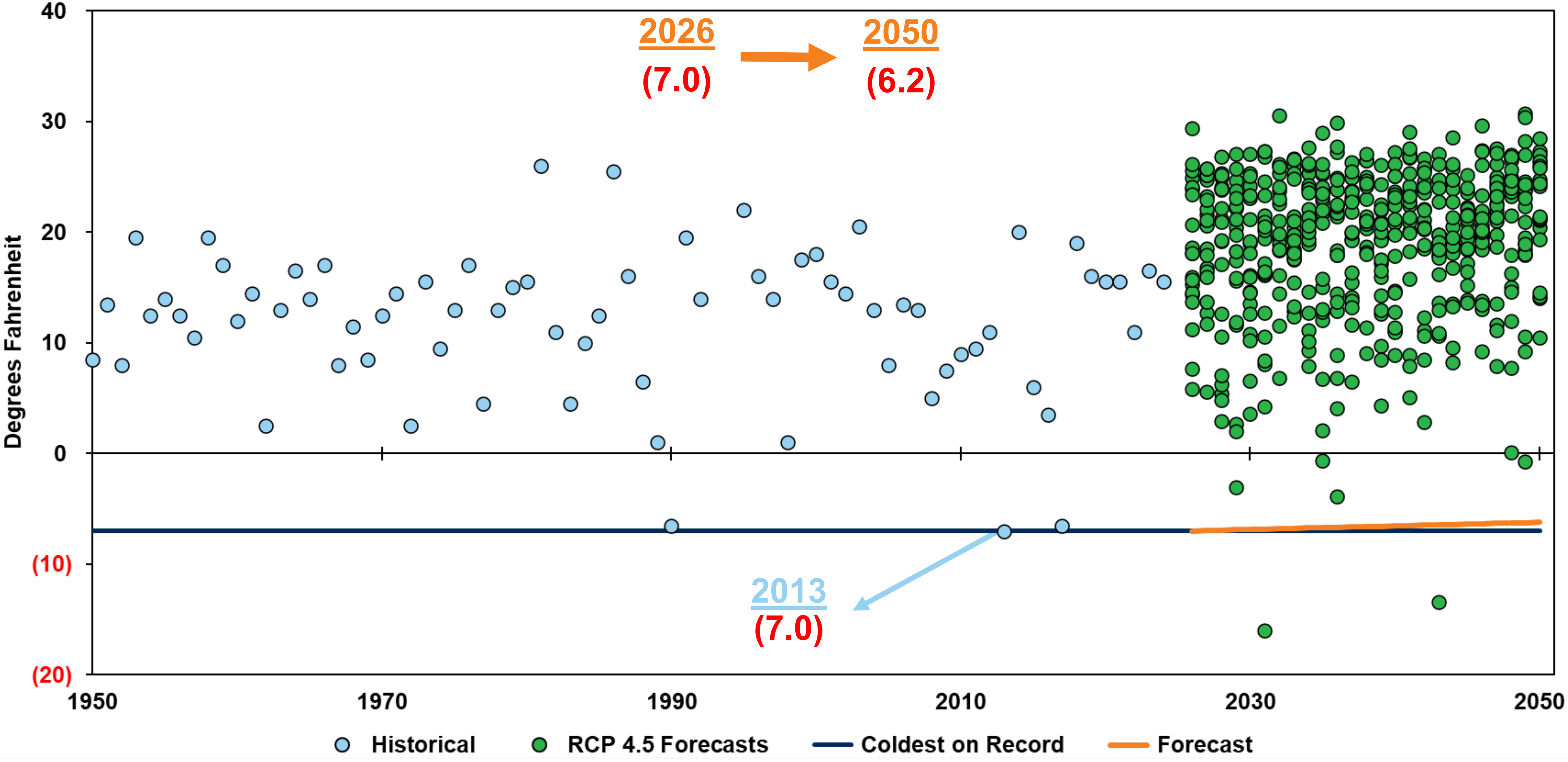
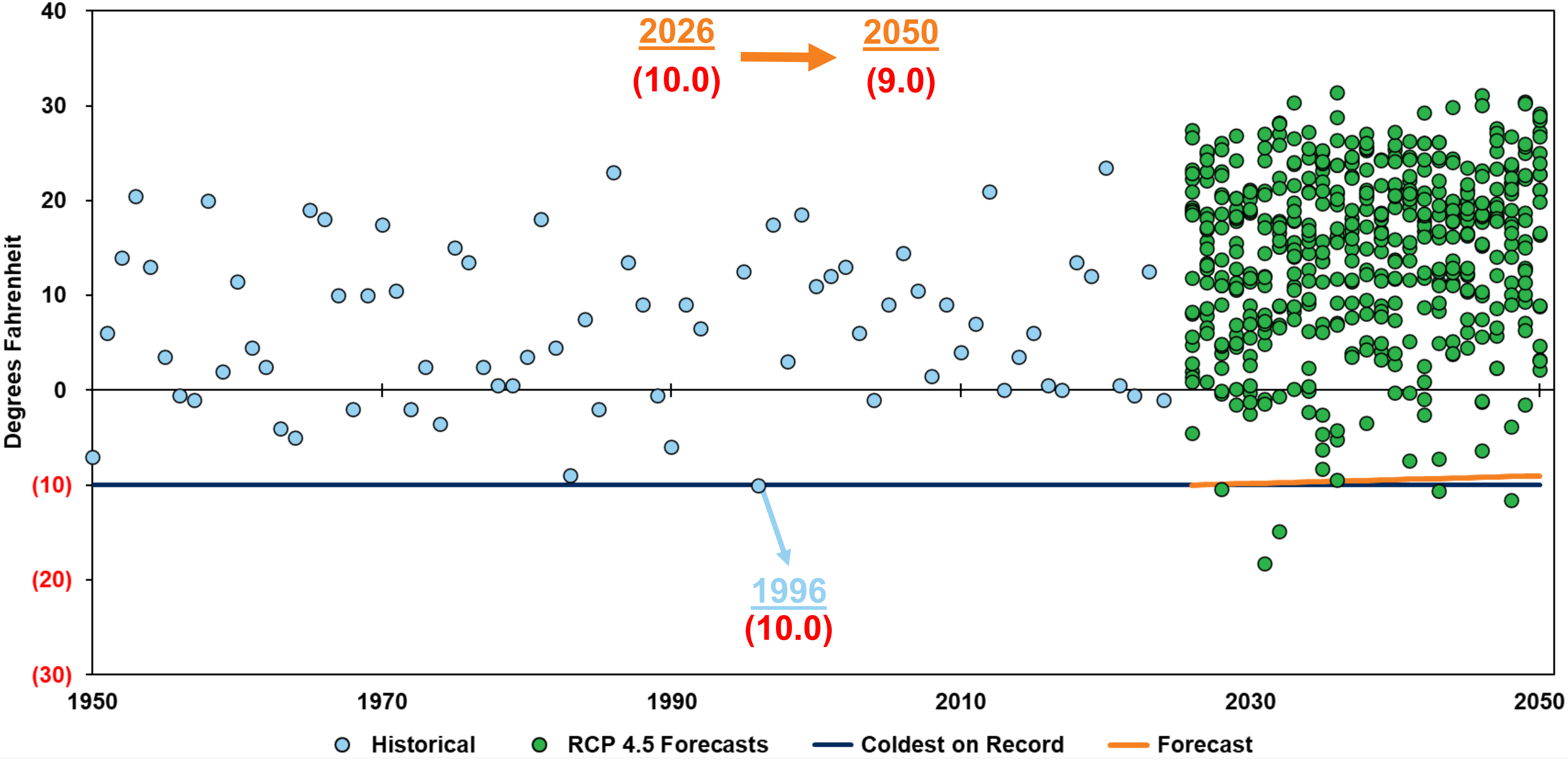
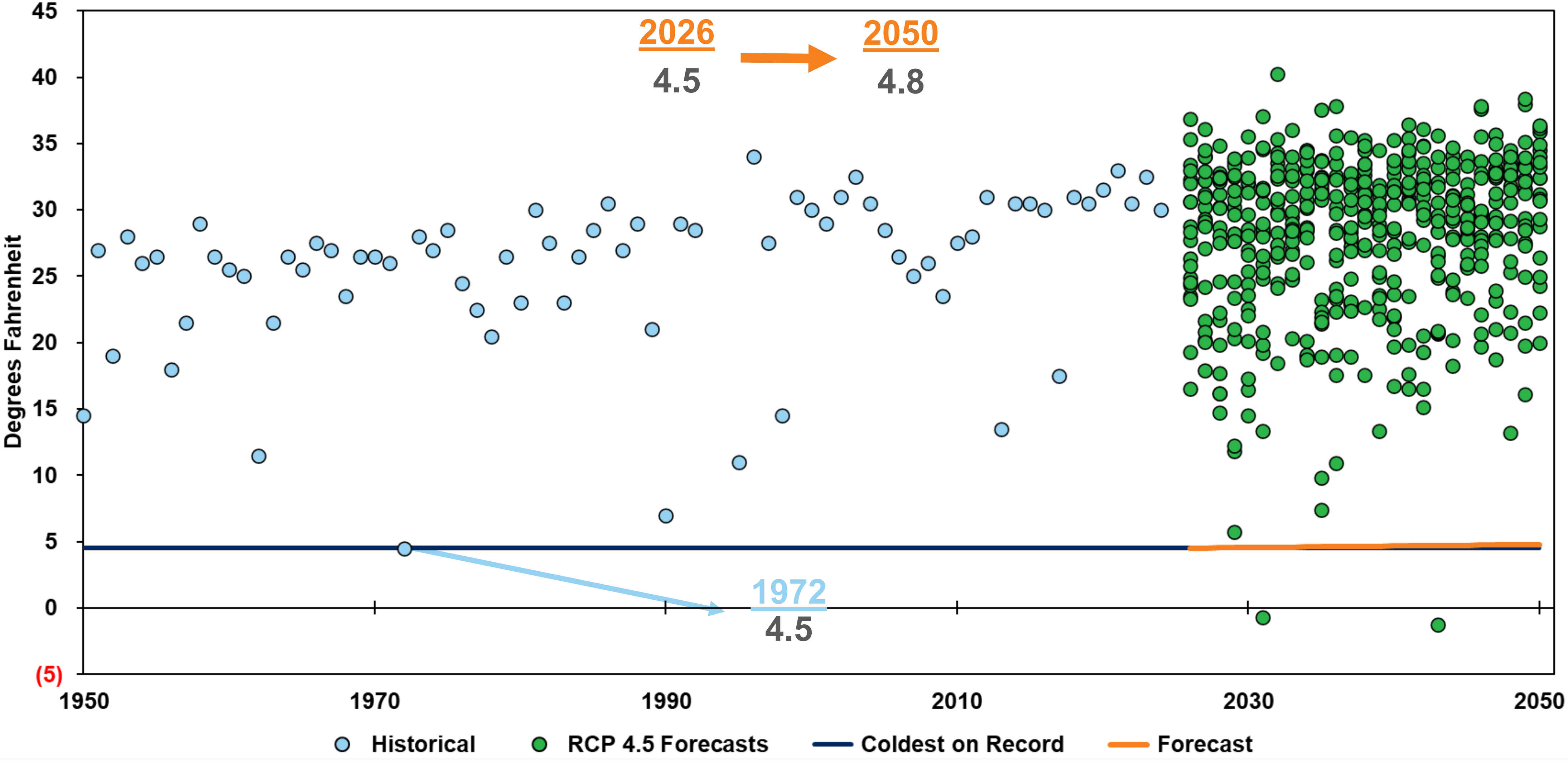
Winter Peak Day – Klamath Falls



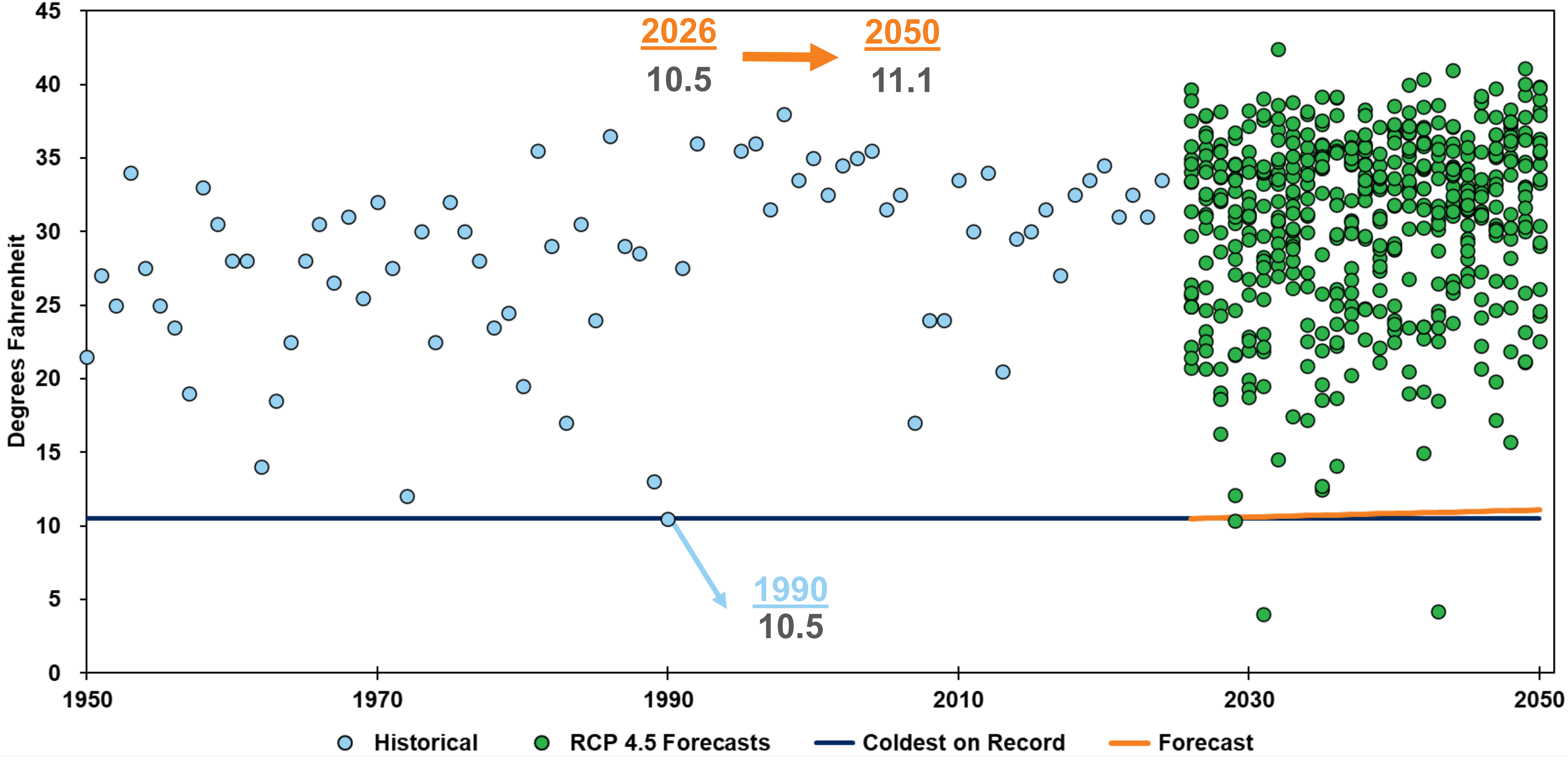
Winter Peak Day – La Grande



Winter Peak Day – Medford



Winter Peak Day – Roseburg



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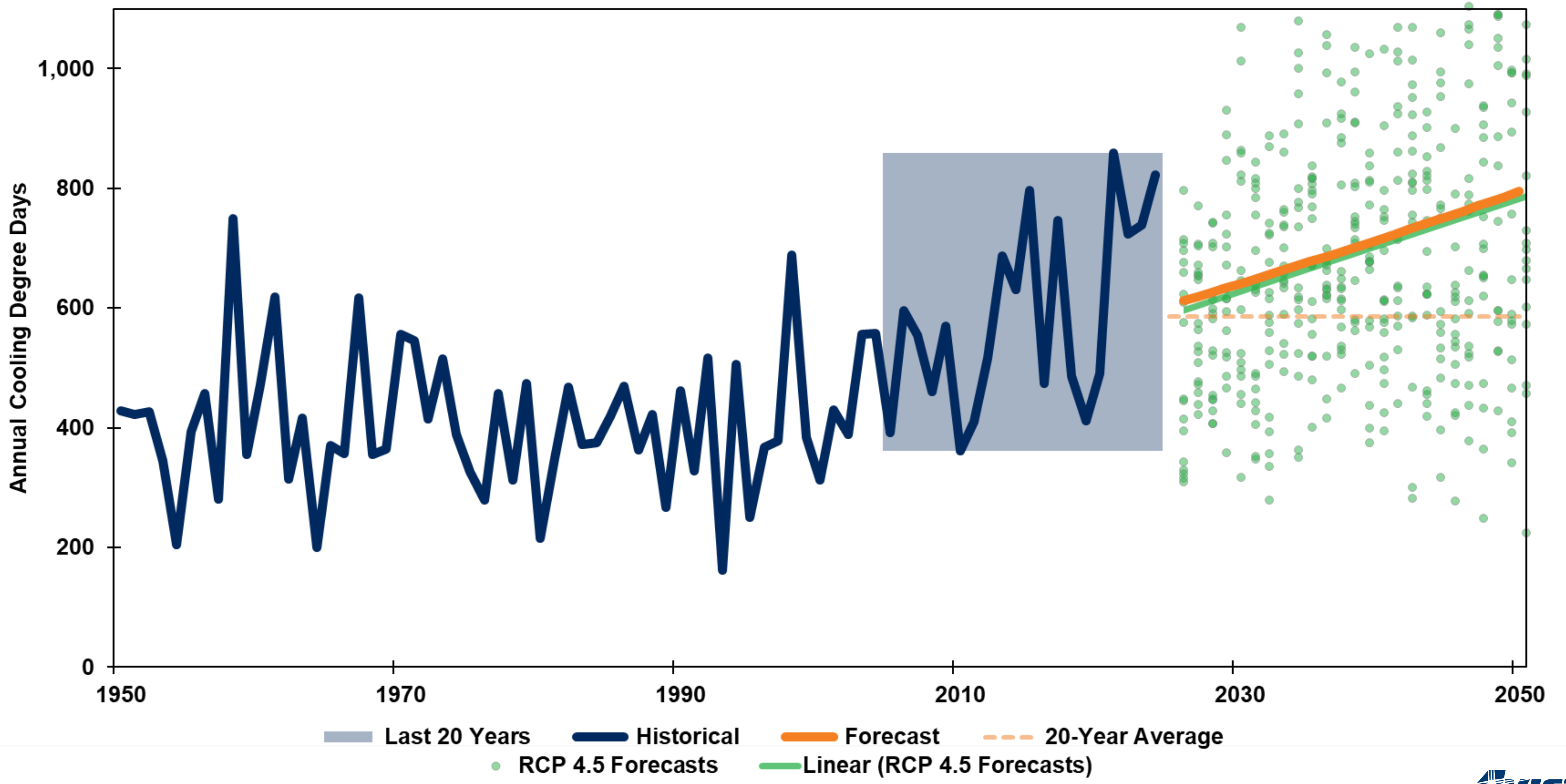
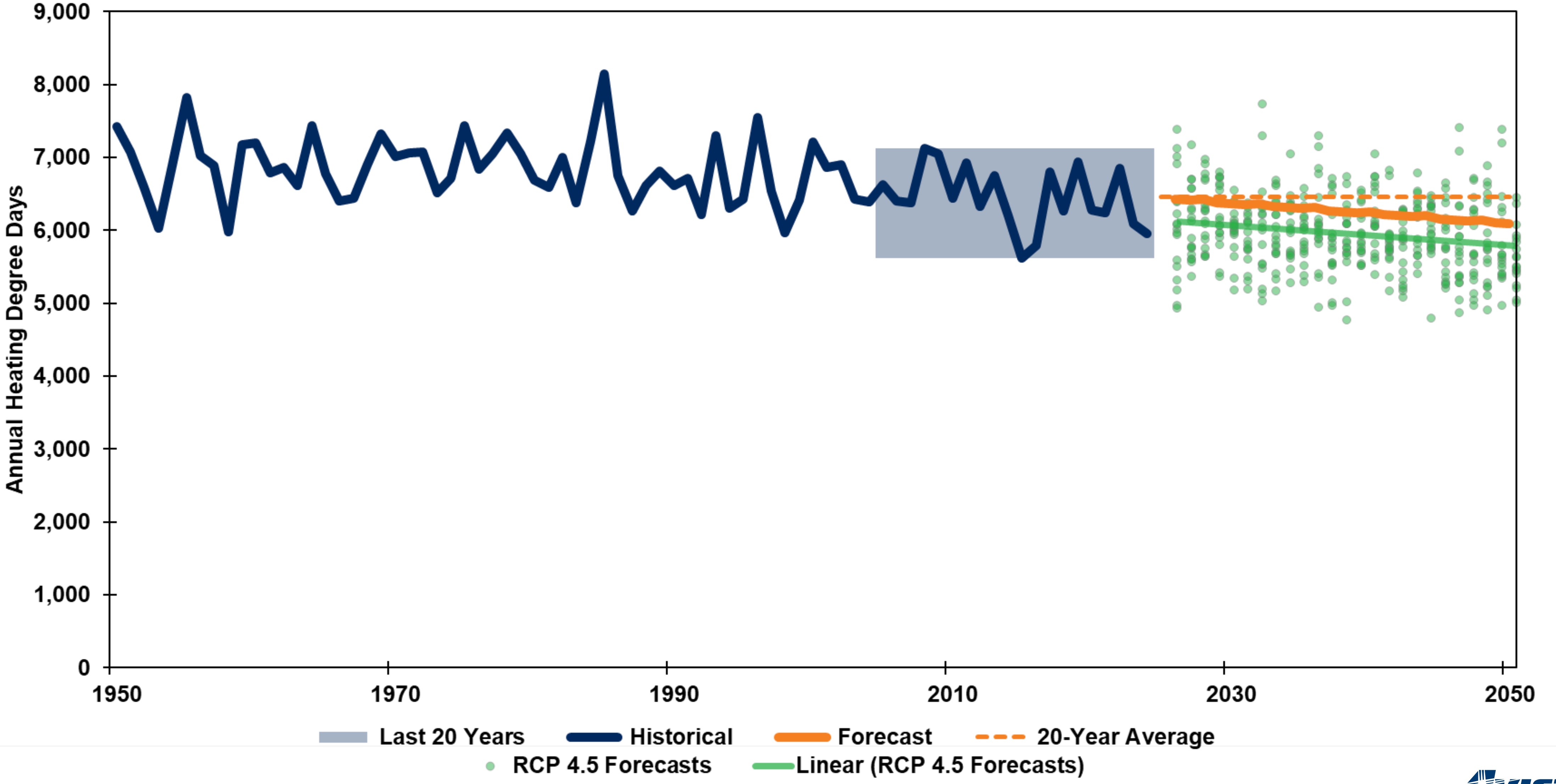
Temperatures – Annual Growth Rate

Month	Spokane	Klamath Falls	La Grande	Medford	Roseburg
January	0.11%	0.10%	0.13%	0.08%	0.07%
February	0.22%	0.14%	0.17%	0.10%	0.10%
March	0.17%	0.09%	0.11%	0.07%	0.07%
April	0.03%	0.10%	0.07%	0.08%	0.08%
May	0.10%	0.09%	0.08%	0.08%	0.09%
June	0.11%	0.08%	0.08%	0.07%	0.07%
July	0.12%	0.10%	0.11%	0.09%	0.10%
August	0.11%	0.09%	0.11%	0.08%	0.08%
September	0.15%	0.10%	0.10%	0.08%	0.08%
October	0.12%	0.12%	0.13%	0.10%	0.10%
November	0.03%	0.13%	0.13%	0.11%	0.11%
December	0.18%	0.21%	0.26%	0.16%	0.14%

Annual Cooling Degree Days – Spokane



Annual Heating Degree Days – Spokane



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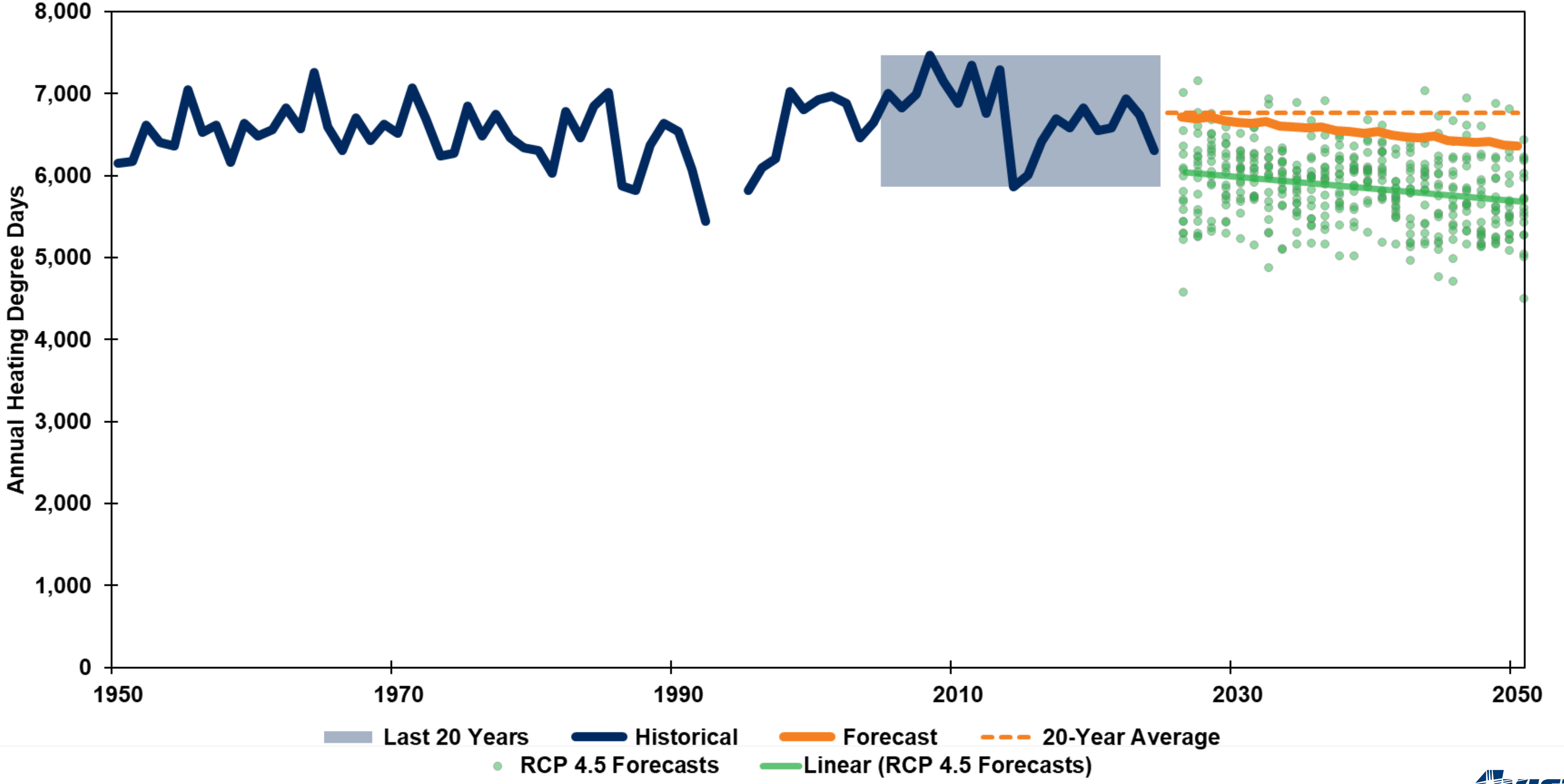
Annual Heating Degree Days – Klamath Falls



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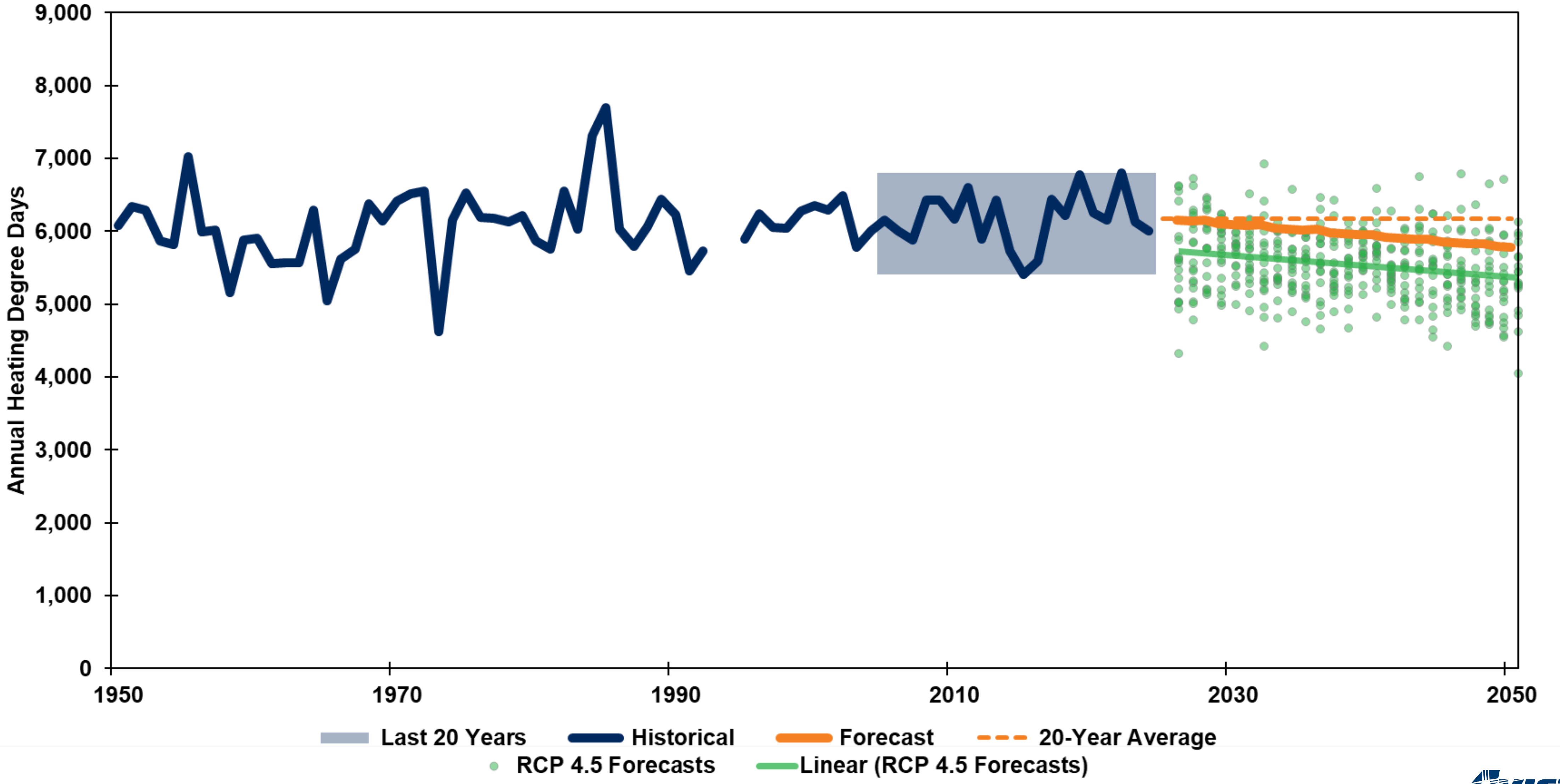
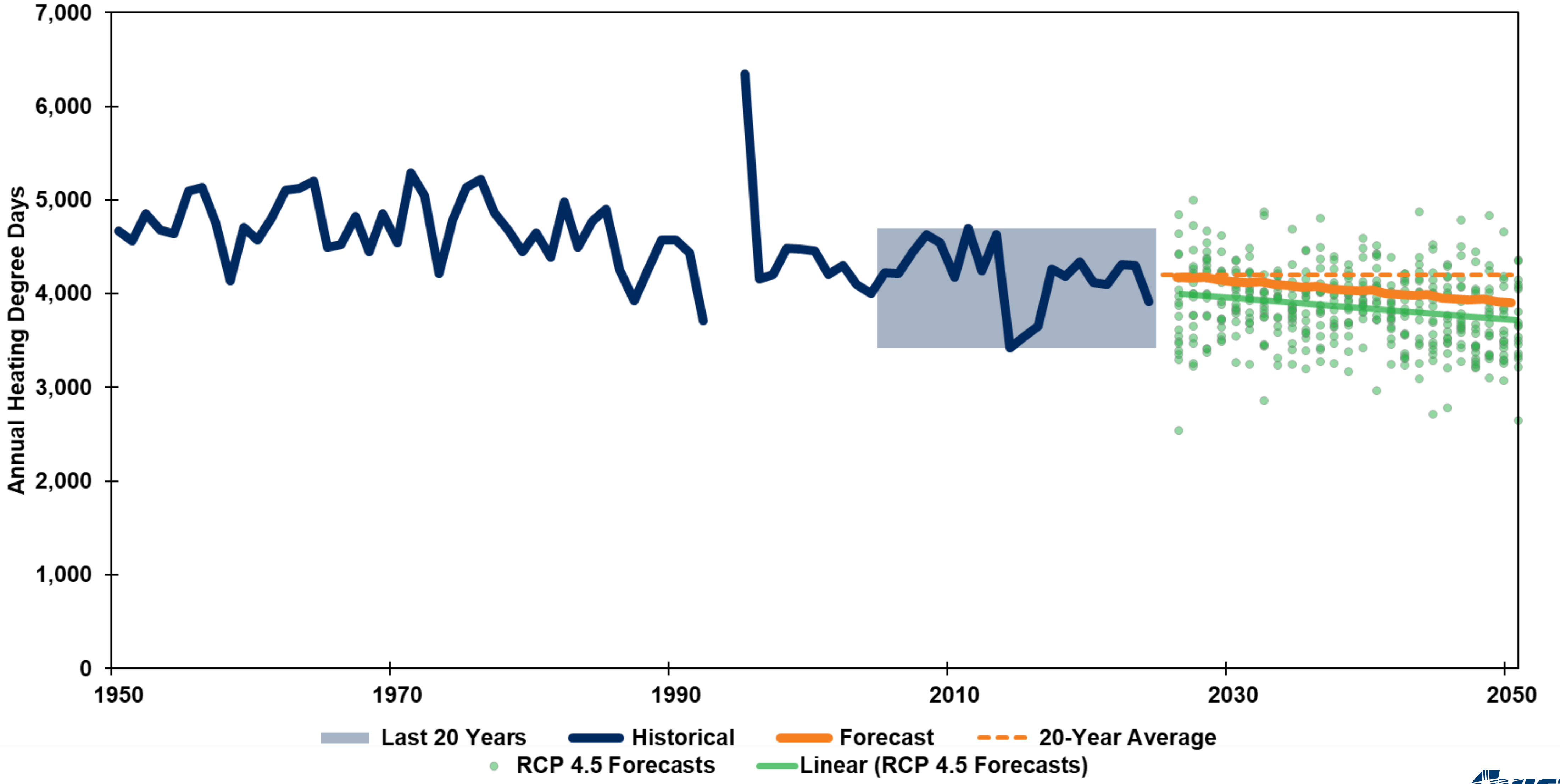
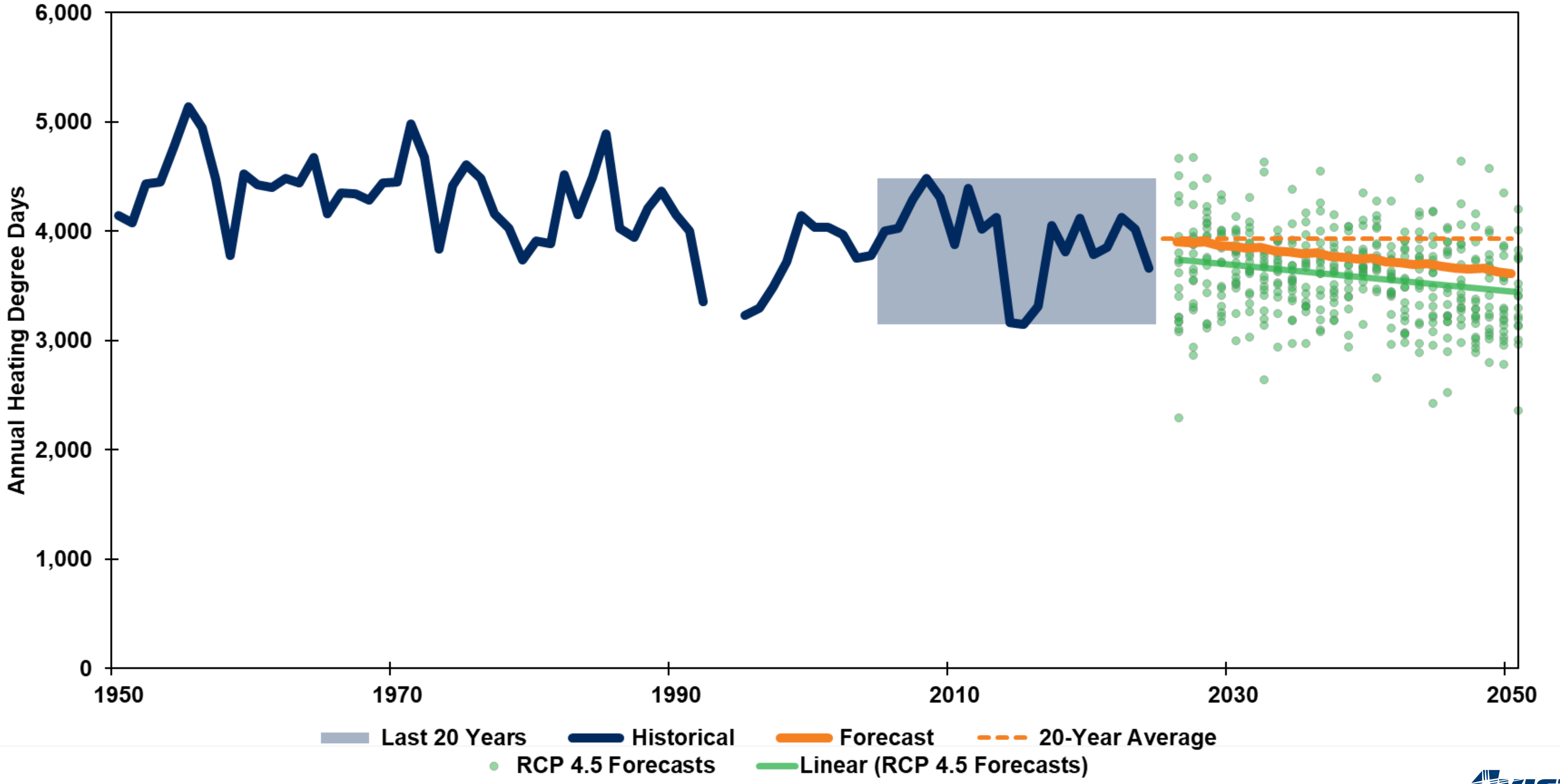
Annual Heating Degree Days – La Grande



Annual Heating Degree Days – Medford



Annual Heating Degree Days – Roseburg



IRP Climate Change Approach Summary

- Using RCP 4.5
  - Description by Intergovernmental Panel on Climate Change (IPCC)
    - RCP2.6 – stringent mitigation scenario
    - RCP4.5 & RCP6.0 – intermediate scenarios
    - RCP8.5 – very high GHG emissions
  - RCP4.5 & RCP6.0 are similar in IRP planning horizon
  - Regional recognition that resource adequacy issues are more challenging during cold periods.
- Hydrogeneration – Using actuals from 1995 to 2025 and modeled generation for 2026 to 2049
- Peak Load Forecast – Utilizing rate of change of forecasted temperatures impact on load rather than discrete modeled values for each year.

Washington Non-Pipe Analysis

TAC 3 – November 20, 2025

Terrence Browne, Principal Gas Planning Engineer
Michael Brutocao, Natural Gas Planning Manager

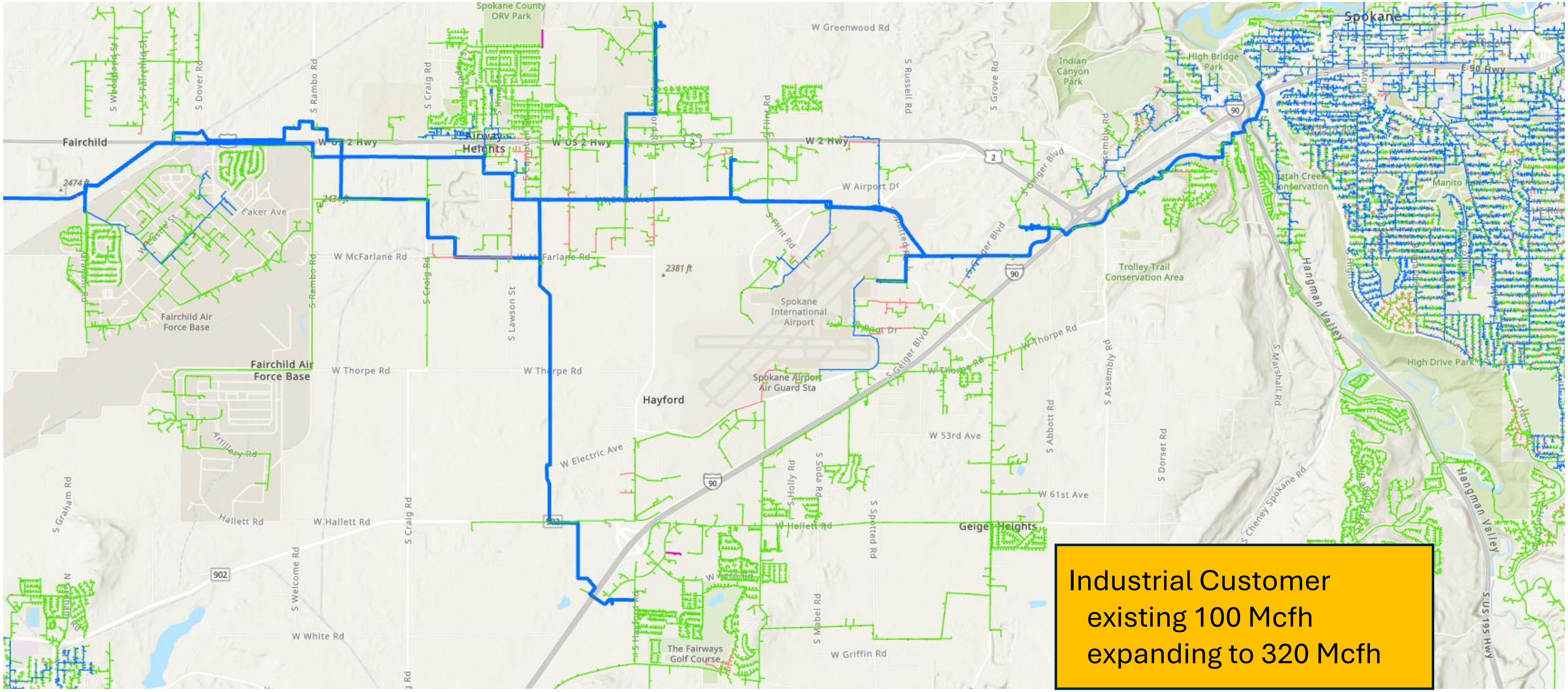
[1]UE-24006 & UE-24007 – Corrected Final Order 08 - Avista

"As such, the Commission orders Avista to conduct two NPA analyses on natural gas distribution projects related to customer growth for any potential projects that exceed $500,000 using the criteria otherwise adopted above. The Commission orders the Company to submit these analyses in a compliance filing for this docket no later than December 31, 2025."

– Paragraph 312 (December 23, 2024)

[1] https://apiproxy.utc.wa.gov/cases/GetDocument?docID=1682&year=2024&docketNumber=240006

Airway Heights, Spokane WA



Industrial Customer
existing 100 Mcfh
expanding to 320 Mcfh

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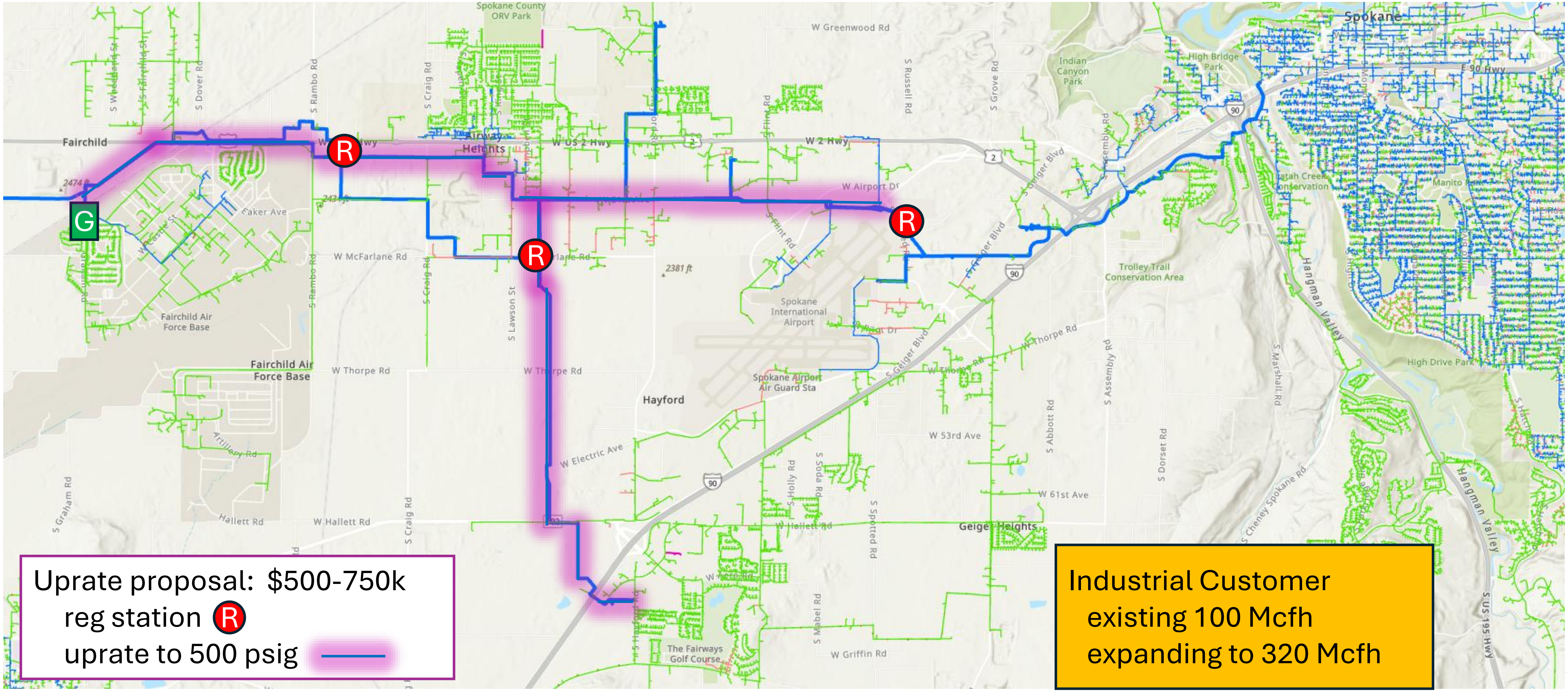
Airway Heights, Spokane WA



Uprate proposal: $500-750k

reg station R

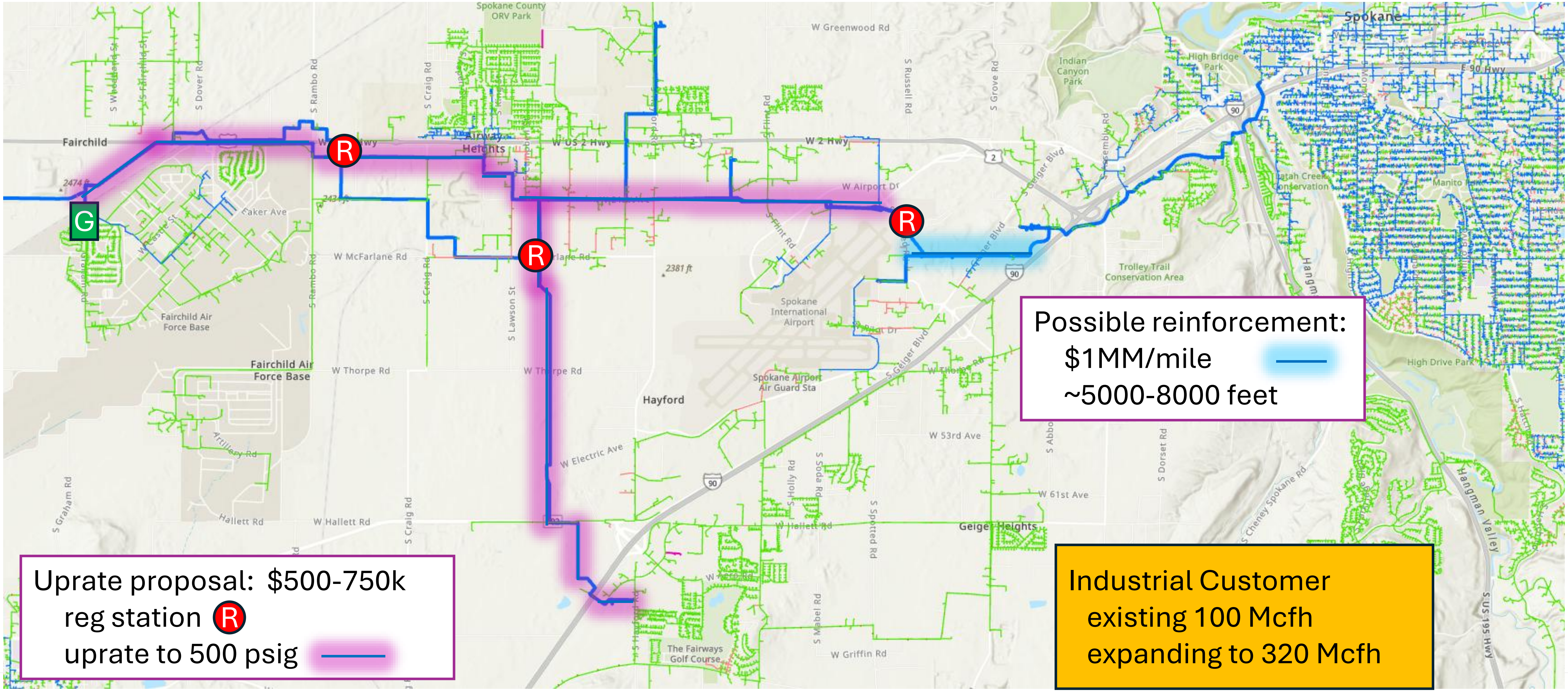
uprate to 500 psig

Industrial Customer

existing 100 Mcfh

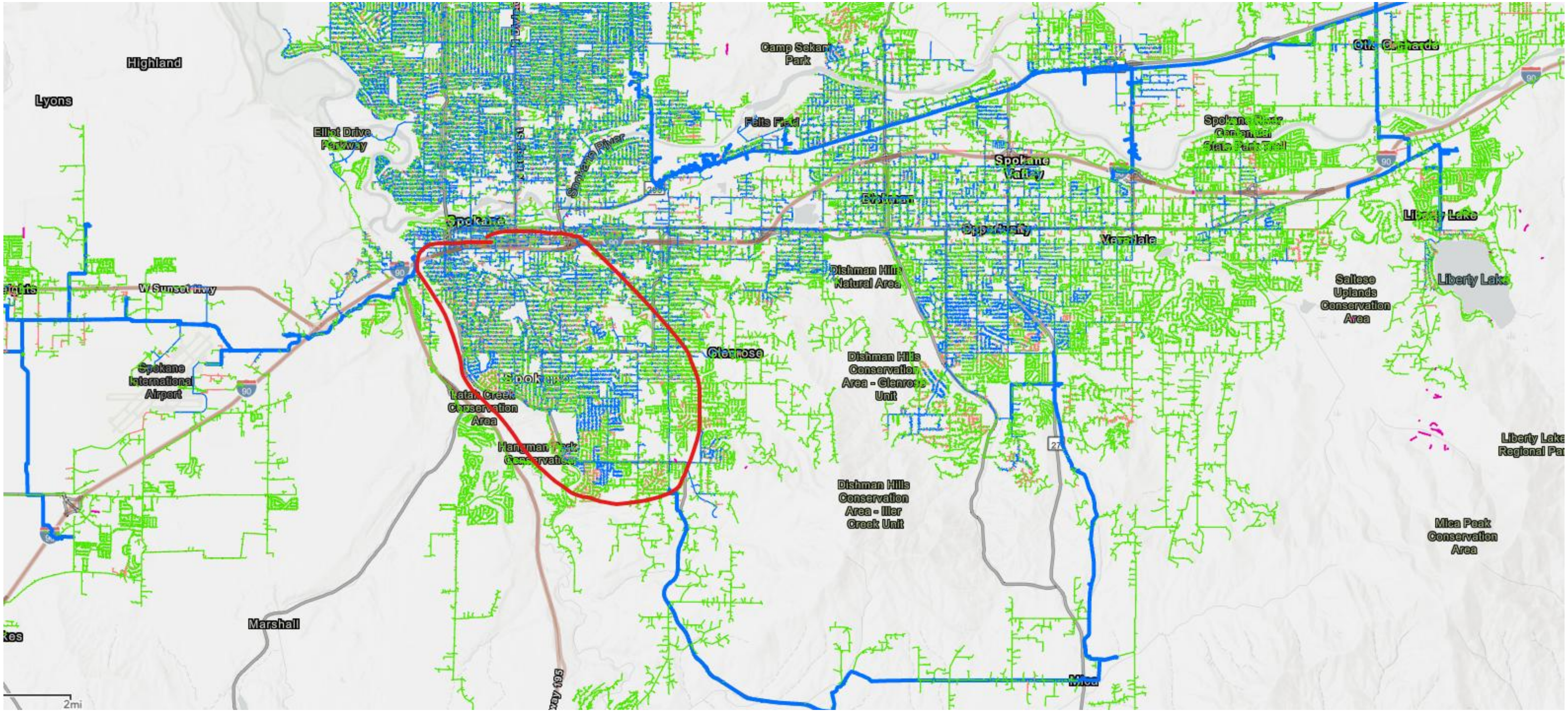
expanding to 320 Mcfh

Airway Heights, Spokane WA



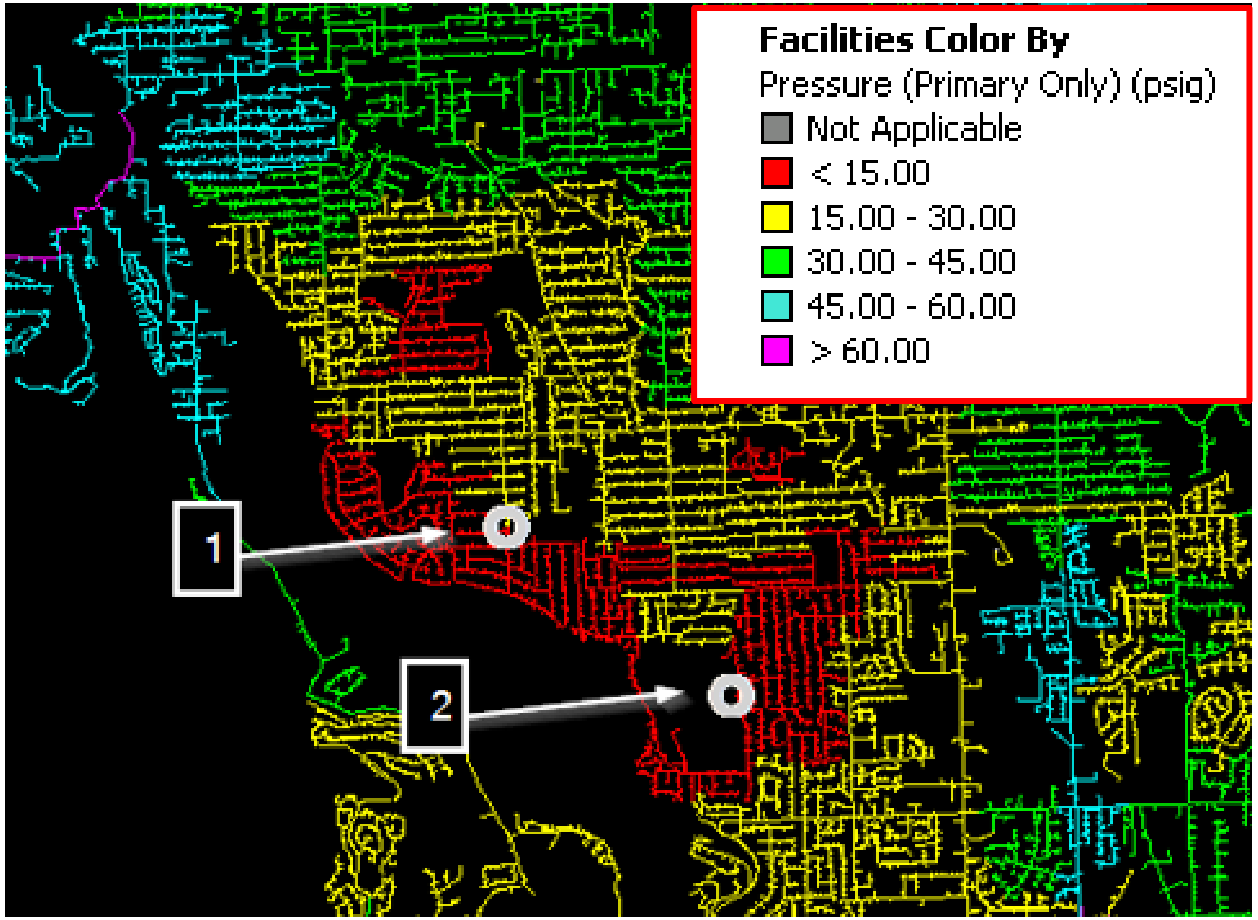
AVISTA

South Hill, Spokane WA

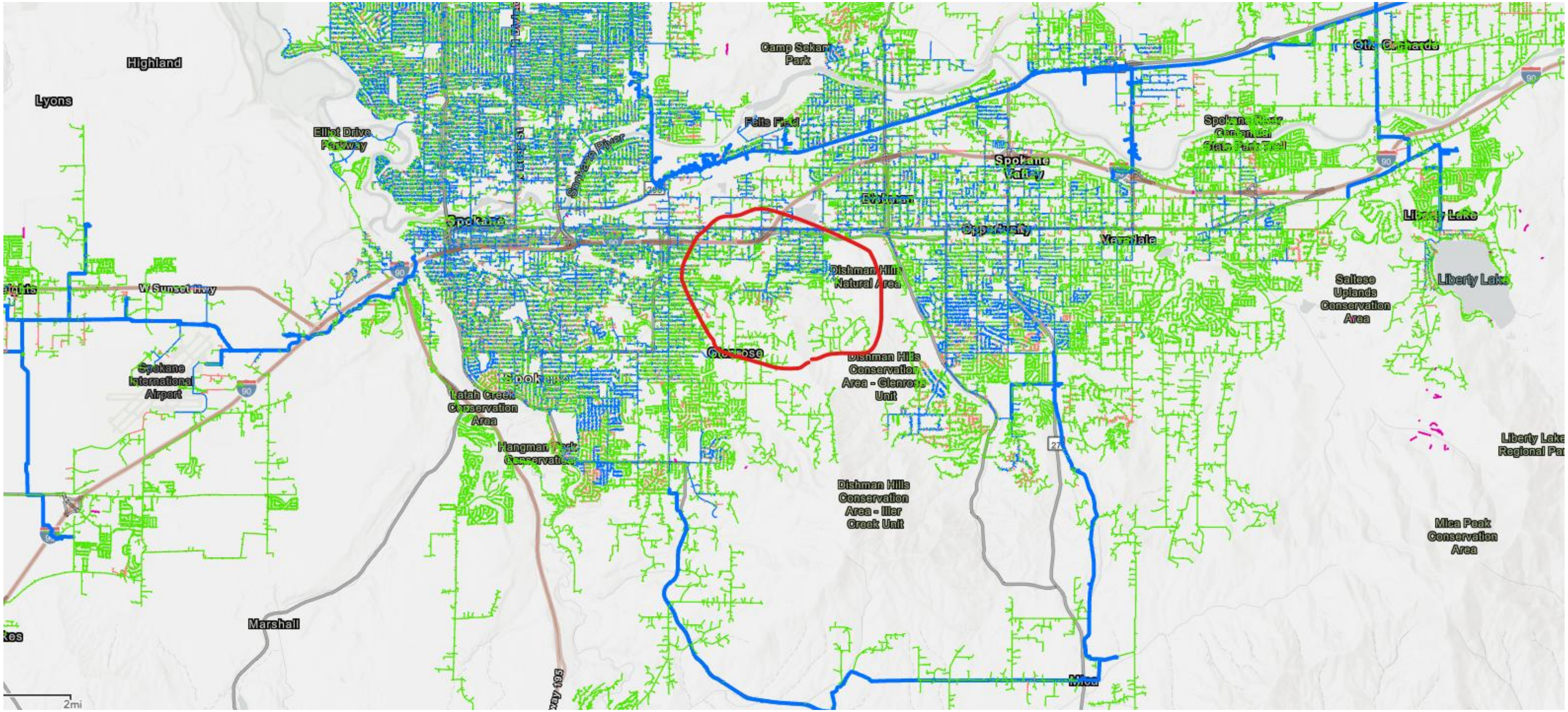


South Hill, Spokane WA

- Rationale: approximately 1700 customers at risk
- Desired reduction: approximately 260 therms/hour
- Cost of pipeline reinforcements: $250,000
- Recommended CNG injection sites shown (#1 and #2)



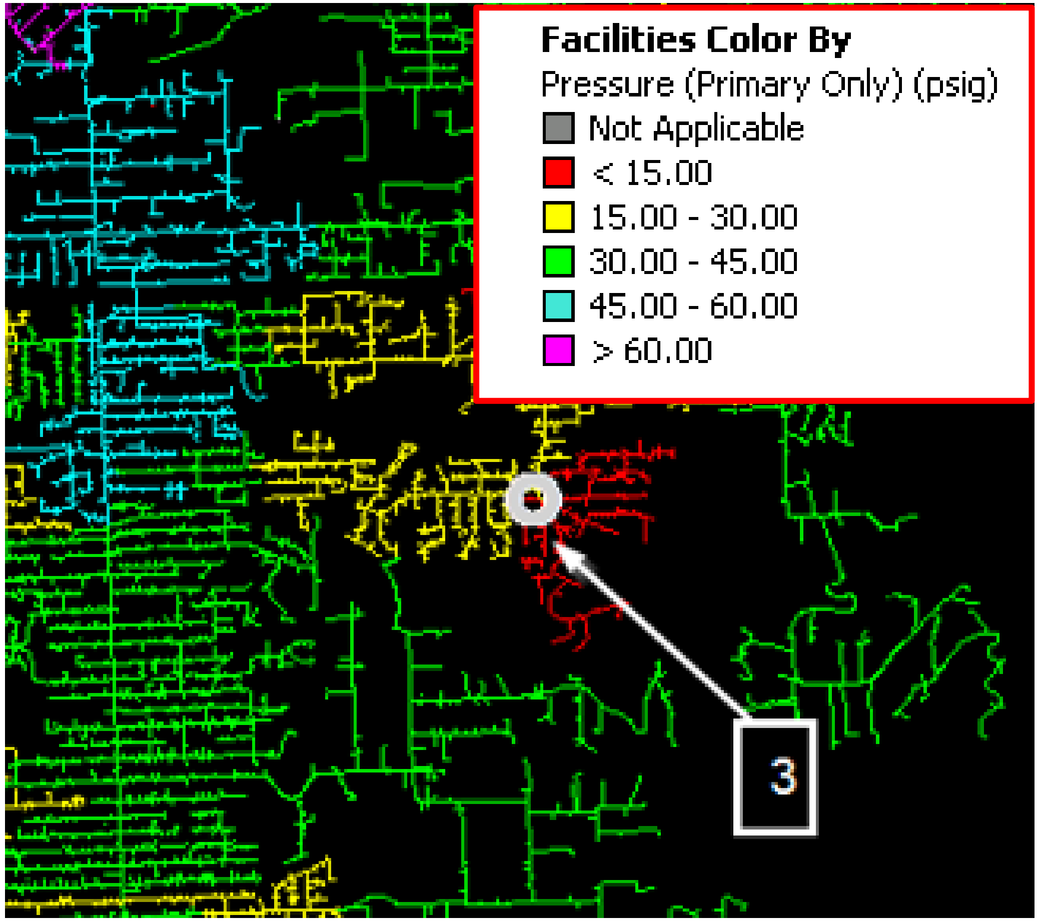
Dishman Mica, Spokane WA



AVISTA

Dishman Mica, Spokane WA

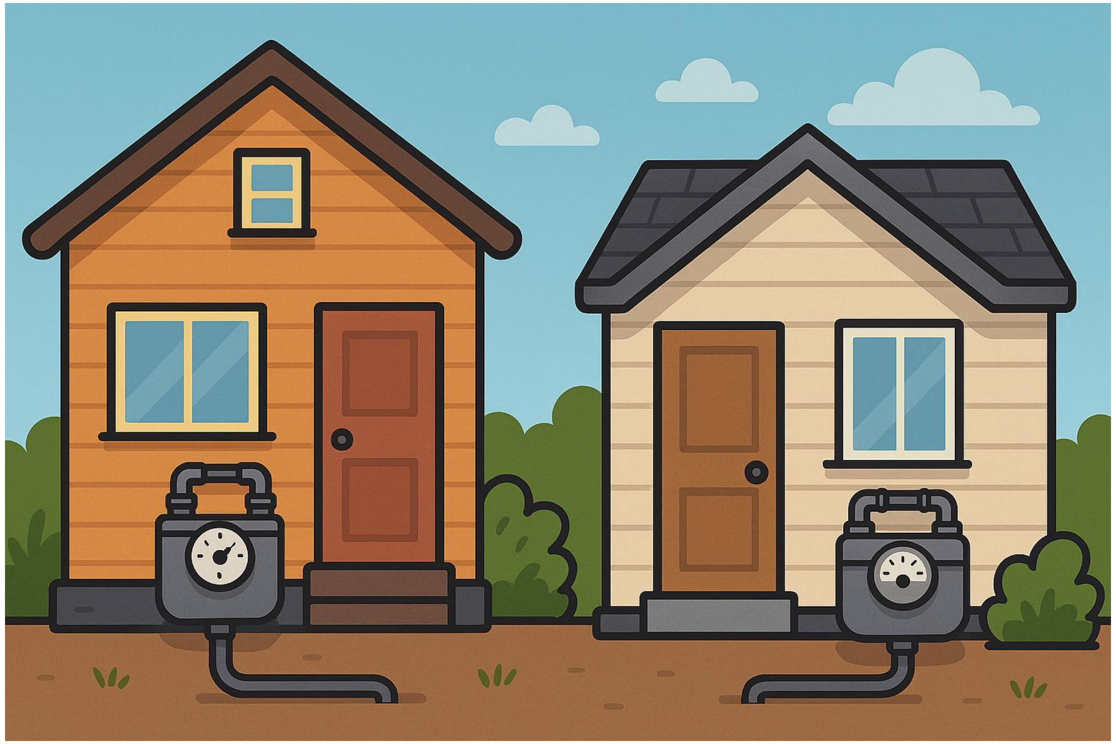
- Rationale: approximately 240 customers at risk
- Desired reduction: approximately 40 therms/hour
- Cost of pipeline reinforcements: $30,000 to $50,000
- Recommended CNG injection site shown (#3)



AVISTA

CNG Deployment

Strategic locations…



…helping low pressure areas

Avista Non-Pipeline Alternative Analysis

November 20, 2025

CADMUS AVISTA

Agenda

Non-Pipeline Alternative Overview

Scenario Definitions

Cost Assumptions

Results

Non-Pipe Alternative (NPA) Overview

Two at-risk areas with the coldest temperatures to maintain minimum delivery pressure of 15 psig.

South Hill area
Spokane, Washington

Customers: ~21,900 total, ~1,700 at risk

Constraint: 258.9 therms/hour
1,036 therms per 4-hr event

Expansion cost: $250,000

Dishman Mica area
Spokane, Washington

Customers: ~3,300 total, ~ 240 at risk

Constraint: 38.5 therms/hour
154 therms per 4-hr event

Expansion cost: $30K-$50K

Design NPA Study Objectives

- Develop gas demand reduction scenarios
- Technologies: conservation, gas to electric, demand response
- Peak Period: Winter 6 a.m. to 10 a.m.
- Reduction within 4 years

NPA Approach

Area Selection Data	Building Stock Analysis	NPA Impact Characterization	NPA Cost Analysis
• Customer sales and counts • Peak distribution constraints • Reinforcement costs • Projected constraint timeline	• Segment and end-use load disaggregation • End-use space heating and water heating loads using CPA and customer sales data	• Retrofit savings calculations • End-use hourly load shape analysis • Peak hour identification • Assign adoption and ramp rates • Bundles	• Incentive and program costs • Lost revenue • Utility avoided costs • Assume early replacement for existing equipment

↓

Scenario Analysis

NPA Scenarios

Baseline

Measure adoption ramp rates from the gas energy efficiency study (Council ramp rates) and moderate electrification adoption assumptions and demand response program participation assumptions.
Incentives = full installation cost

Accelerated

Increase the baseline scenario with faster Council ramp rates. Increase measure and program administrative costs to reflect higher costs to accelerate adoption

Least Cost

Optimize conservation, electrification, and demand response to keep gas demand under Avista's projected area capacity constraint. Adjust measure and program incentive costs according to the capacity reduction and minimize cost

Scenarios Inputs

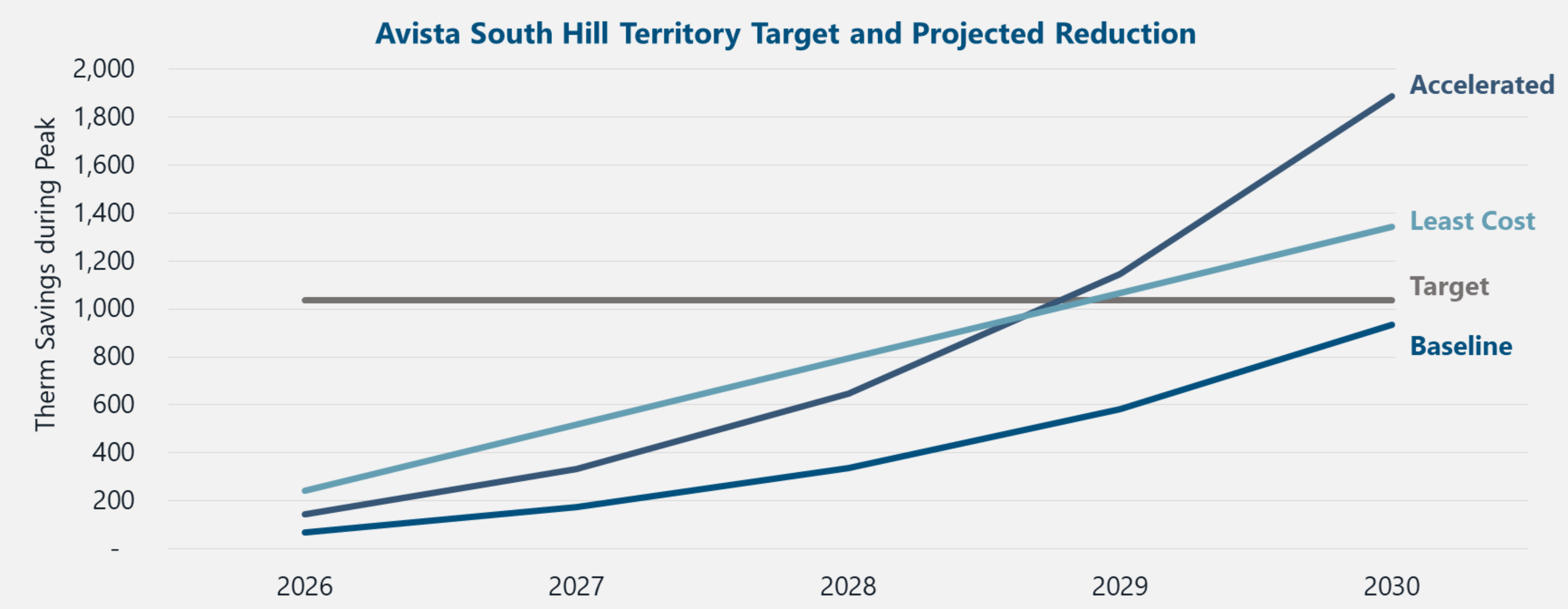
	Baseline	Accelerated	Least Cost
EE Ramp Rate:	LO/Retro1Slow (slowest ramp rate)	LO/Retro3Slow (slightly accelerated ramp rate)	Removed
EE Max Applicability:	85%	85%	Removed
DR Only Ramp Rate:	10% per year	20% per year	Optimized ramp rate for each area
DR Only Max Applicability:	18% (Res) 9.5% (Com)	18% (Res) 9.5% (Com)	18% (Res) 9.5% (Com)
Program Costs/ Admin Multiplier:	1.0	1.2	1.4
Incentive Cost Multiplier:	1.0	1.05	1.1

Cost Assumptions

Measure Costs	Incentives set at full measure installation costs. Demand response measure costs reflect equipment and incentive estimates based on the Council Draft 9th Plan workbooks
Program/ Administration Costs	Program setup assumes 0.5 FTE per territory, per sector. O&M and marketing costs are assigned per participant (informed by Avista's 2023 Annual Conservation Report)
Avoided Utility Cost	Net impacts of additional avoided utility costs for increased electric loads and decreased gas delivery cost. Avoided electric utility cost = $42/MWh ($2026). Decreased gas delivery cost at wholesale gas rate
Lost Revenue	Net impacts of additional electric sales and reduced gas sales. Calculated annually using current Avista retail electric and gas rates
Expansion Costs	Costs of alternate solution: reinforcement of existing gas distribution system ($250,000 South Hill, $30,000-$50,000 Dishman Mica)

Results

South Hill



AVISTA CADMUS

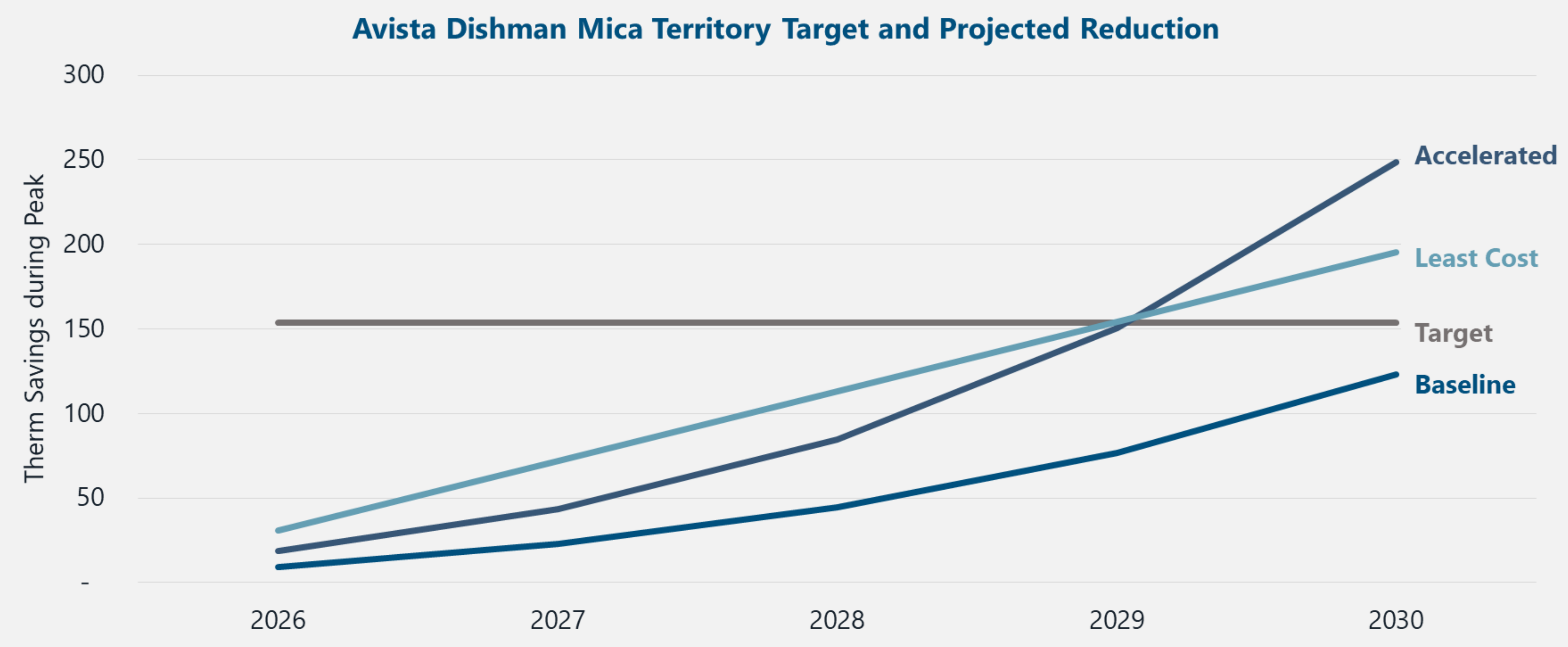
South Hill

Target Year	2029
Target Period	Winter 6 a.m. to 10 a.m.
Target Therms (4-hour total)	1,036
Expansion Cost	$250,000

Target Year Impacts	Baseline	Accelerated	Least Cost
NPA Achievement	582	1,148	1,068
NPA Acquisition Cost	$5,980,000	$12,300,000	$1,030,000
Net Commodity Impacts	$73,400	$143,000	n/a
Net Revenue Impacts*	$(221,000)	$(430,000)	n/a

**Includes energy revenue only (does not include capacity)*

Dishman Mica



AVISTA CADMUS

Dishman Mica

Target Year	2029
Target Period	Winter 6 a.m. to 10 a.m.
Target Therms (4-hour total)	154
Expansion Cost	$30,000-$50,000

Target Year Impacts	Baseline	Accelerated	Least Cost
NPA Achievement	76	151	154
NPA Acquisition Cost	$1,060,000	$2,070,000	$351,000
Net Commodity Impacts	$9,300	$18,200	n/a
Net Revenue Impacts*	$(28,000)	$(55,000)	n/a

**Includes energy revenue only (does not include capacity)*

Thank You

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Appendix: Additional Slides

NPA Measures: **Residential**

#	Measure Bundle	Measures Included
1	**Space and water heating electrification** (no efficiency or load control)	• Space heating electrification (CCHP) • Water heating electrification (HPWH)
2	**Load control only** (no efficiency measures)	• Space heating direct load control (DR) • Water heating direct load control (DR)
3	**Load control plus weatherization** (full weatherization)	• Space heating direct load control (DR) • Water heating direct load control (DR) • Attic insulation (EE) • Floor insulation (EE, single family only) • Wall insulation (EE, multifamily only)
4	**Load control plus weatherization and furnace upgrade** (full weatherization and furnace upgrade)	• Space heating direct load control (DR) • Water heating direct load control (DR) • Attic insulation (EE) • Floor insulation (EE, single family only) • Wall insulation (EE, multifamily only) • High-efficiency furnace upgrade (EE)
5	**Full weatherization** (no load control)	• Attic insulation (EE) • Floor insulation (EE, single family only) • Wall insulation (EE, multifamily only)

NPA Measures: **Commercial**

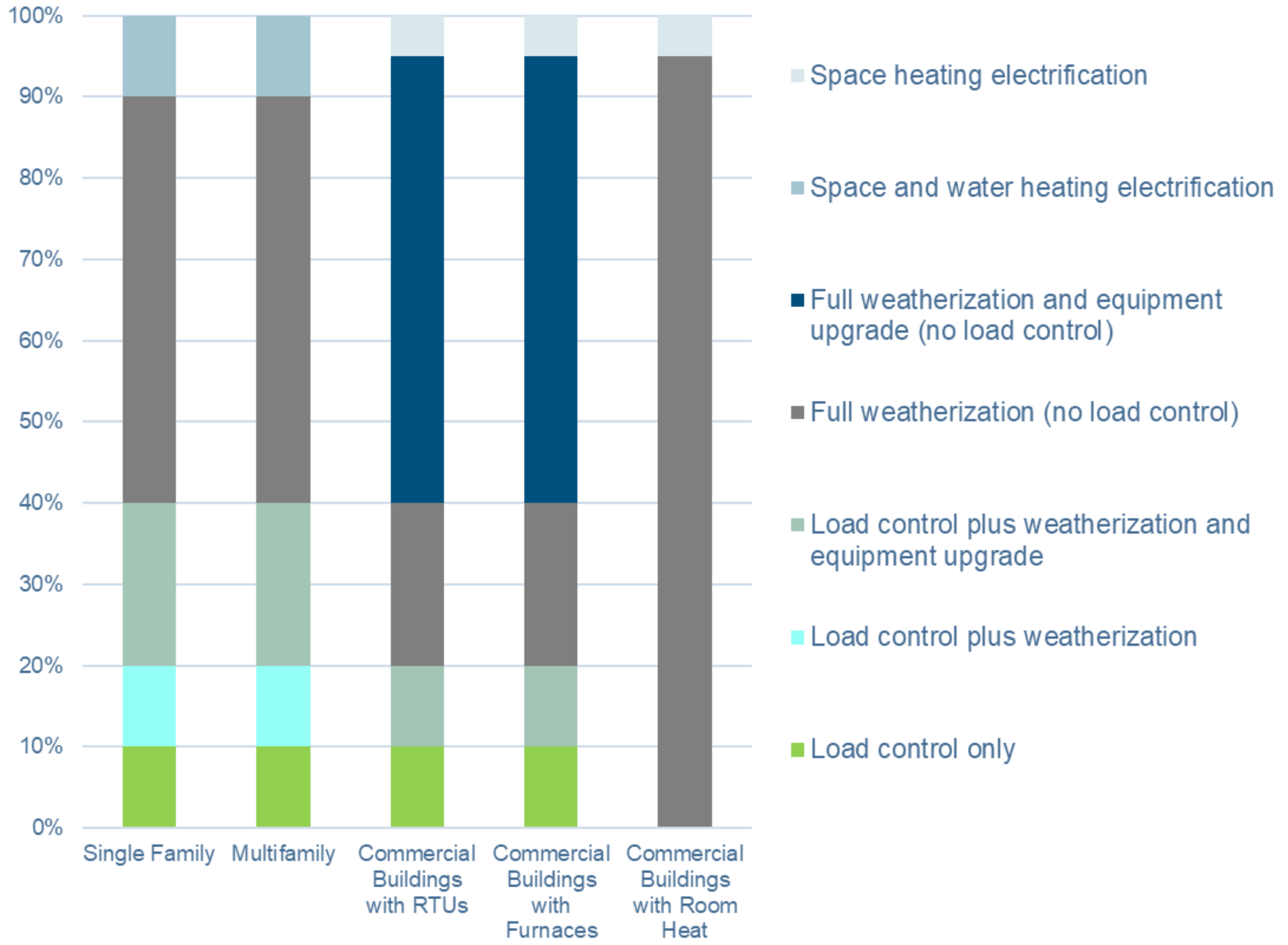
#	Measure Bundle	Measures Included
6	**Space heating electrification**	• Replacement of furnaces or RTUs with CCHPs (electrification, buildings with furnaces or RTUs only) • Replacement of room heat with PTHPs (electrification, buildings with room heat only)
7	**Load control only** (no efficiency measures)	• Space heating direct load control (DR)
8	**Load control, weatherization, and furnace, boiler, or RTU upgrade**	• Space heating direct load control (DR) • Wall insulation • Roof insulation • High-efficiency furnace upgrade (buildings with furnaces only) • High-efficiency RTU upgrade (buildings with RTUs only)
9	**Weatherization** (no load control)	• Wall insulation • Roof insulation
10	**Full weatherization and equipment upgrade** (no load control)	• Wall insulation • Roof insulation • High-efficiency furnace upgrade (buildings with furnaces only) • High-efficiency RTU upgrade (buildings with RTUs only)

Building Counts and End-Use Consumptions

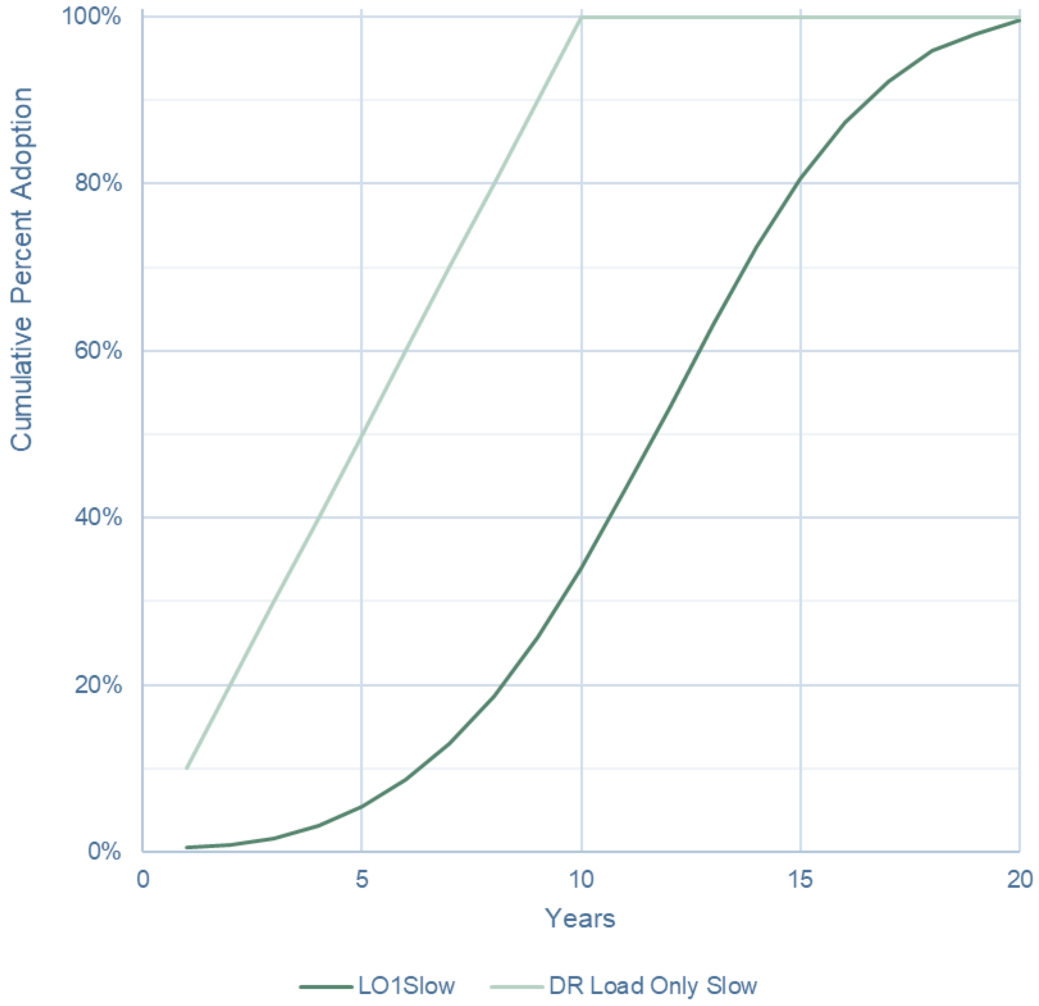
	South Hill					Dishman Mica				
	Residential		Commercial			Residential		Commercial		
	Single Family	Multi-family	Buildings with RTUs	Buildings with Furnaces	Buildings with Room Heat	Single Family	Multi-family	Buildings with RTUs	Buildings with Furnaces	Buildings with Room Heat
# Buildings with NG Space Heating	19,845	692	426	105	105	3,064	79	71	18	18
# Buildings with NG Water Heating	13,551	167	--	--	--	1,910	28	--	--	--
Average Annual NG Usage: Space Heating	625	441	10,157	9,443	6,482	533	489	6,831	6,175	4,239
Average Annual NG Usage: Water Heating	240	199	--	--	--	230	221	--	--	--

Bundle Share

Business as Usual



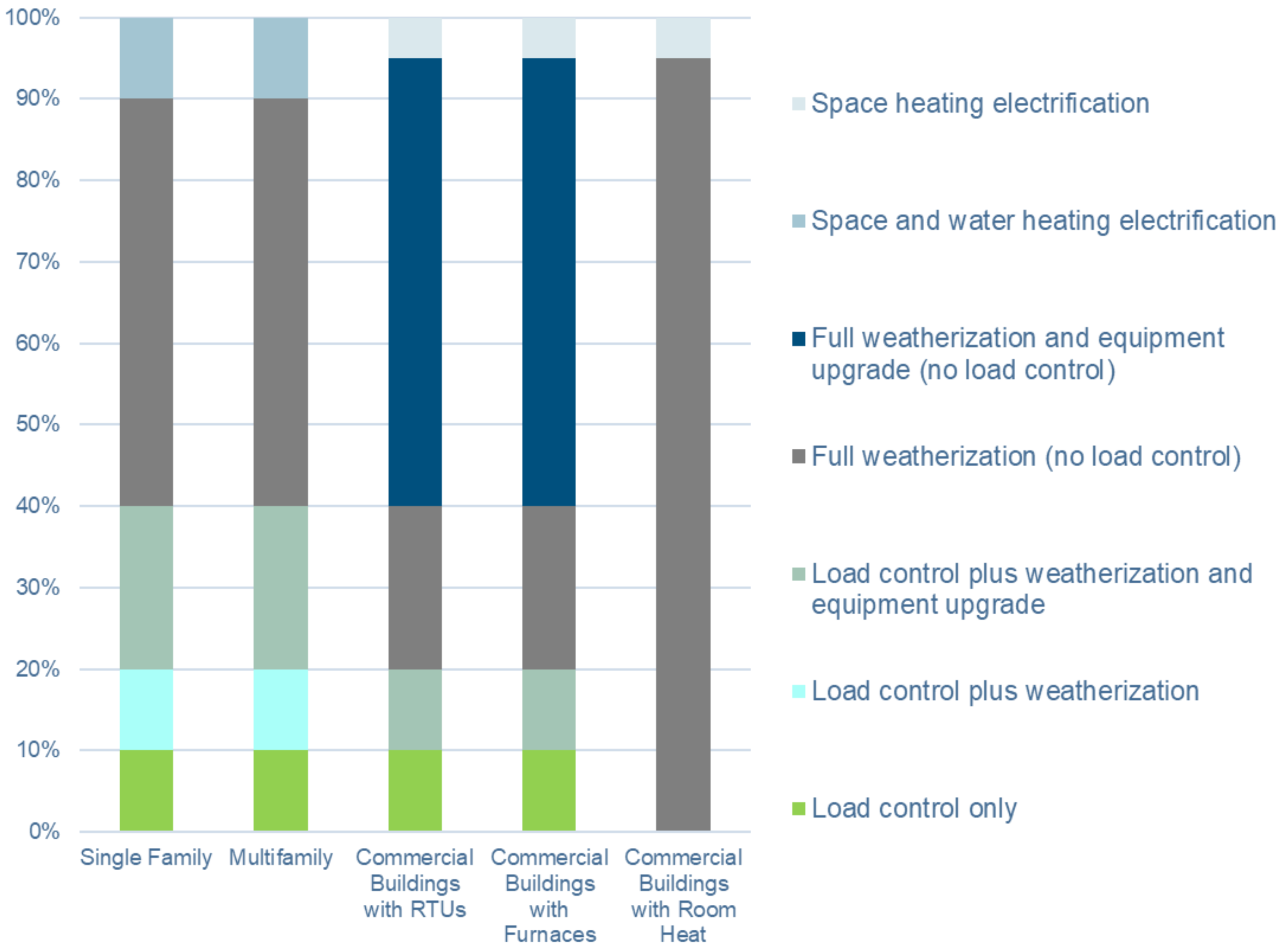
Ramp Rate



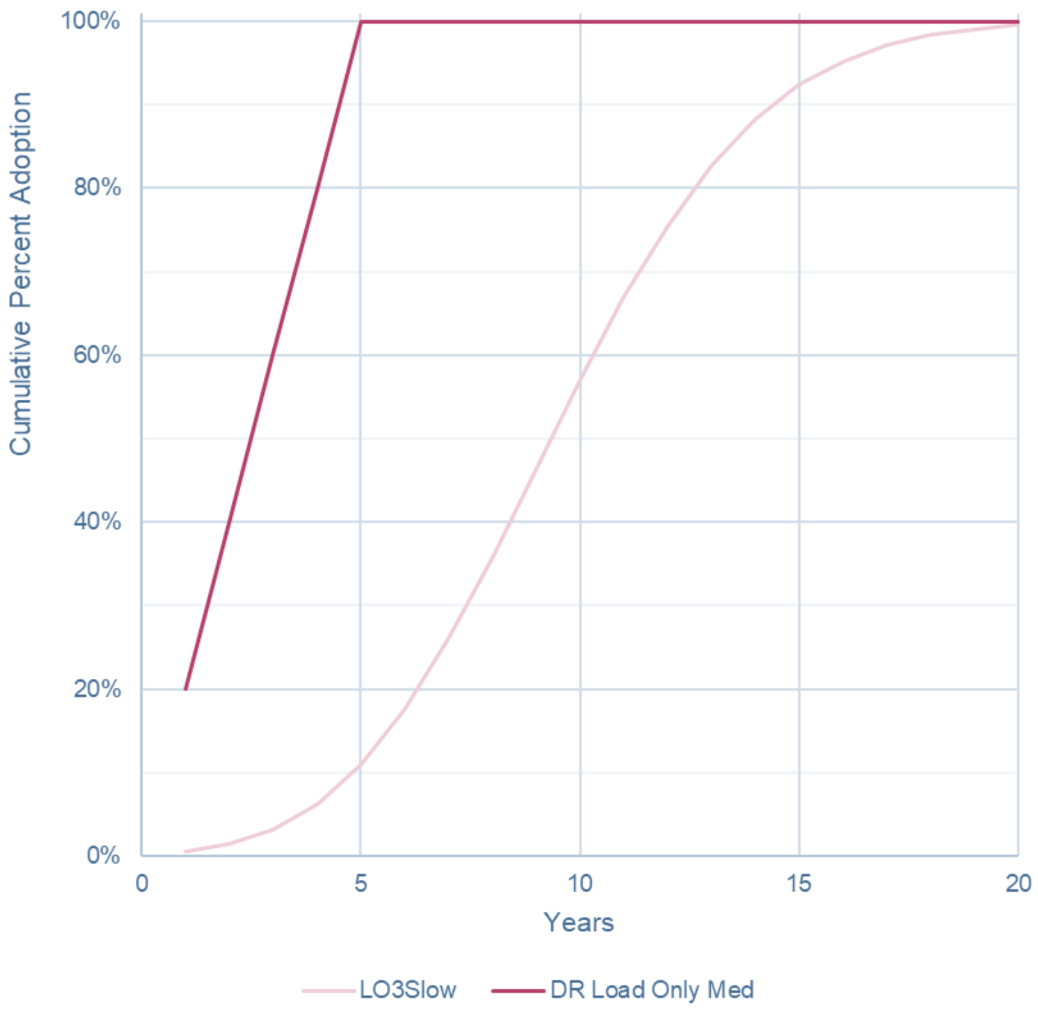
EE Max Applicability: 85%
DR Max Applicability: 9.5%-18%

Accelerated Adoption

Bundle Share



Ramp Rate

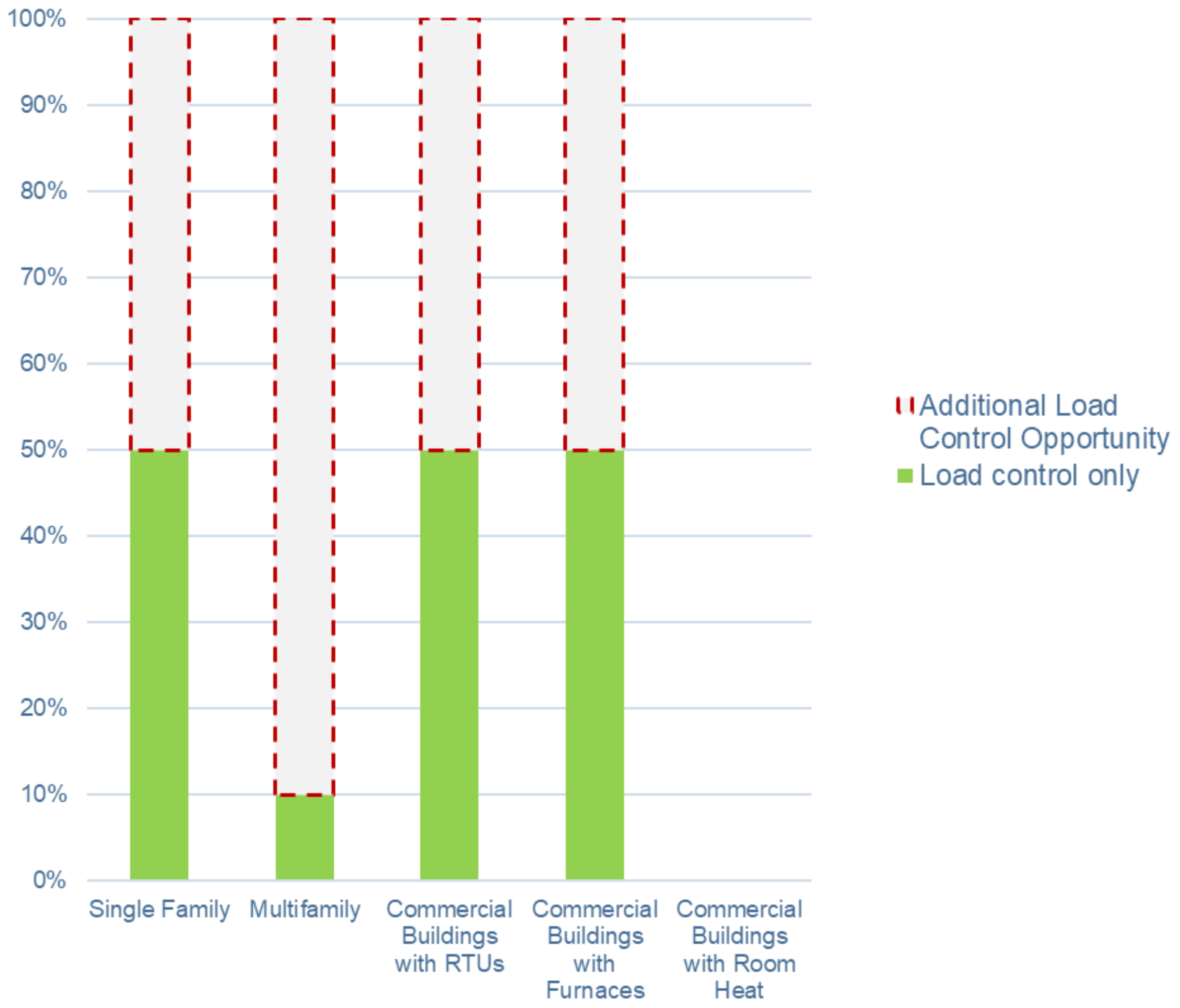


EE Max Applicability: 85%
DR Max Applicability: 9.5%-18%

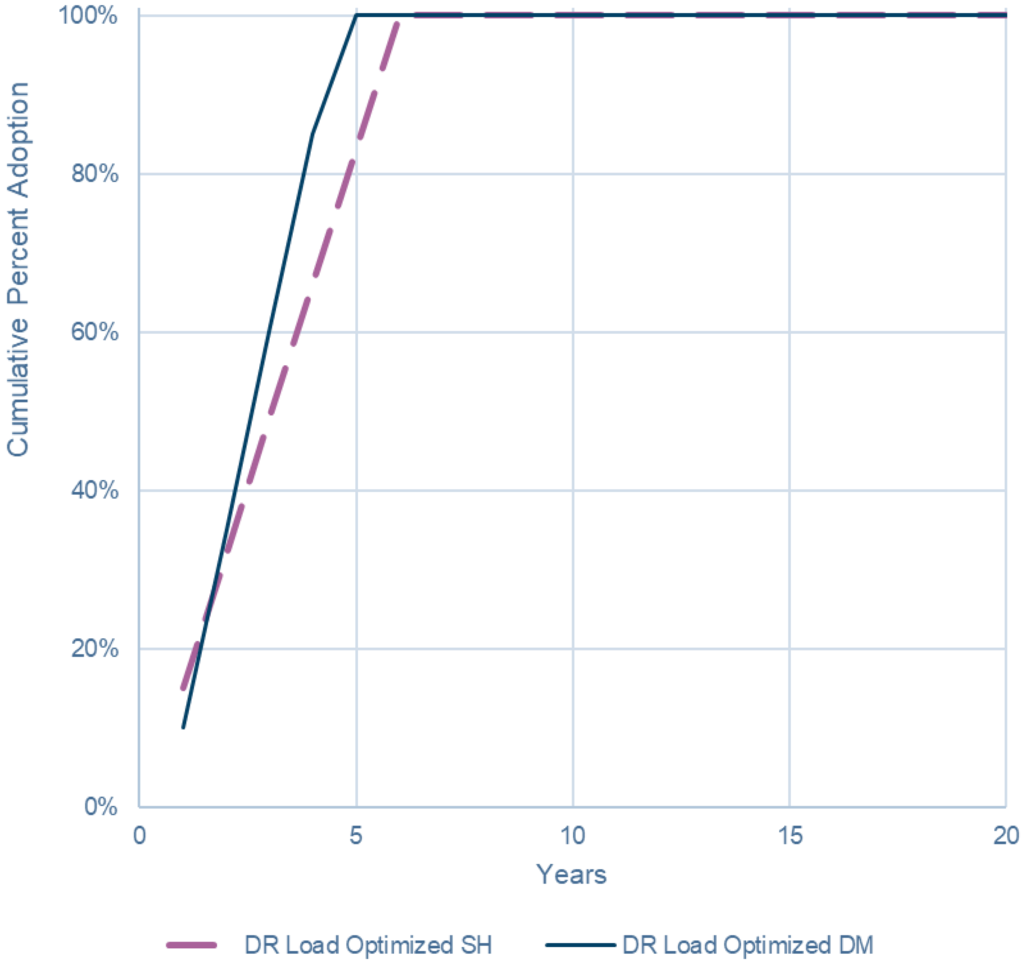
AVISTA CADMUS

Capacity Constrained

Bundle Share



Ramp Rate

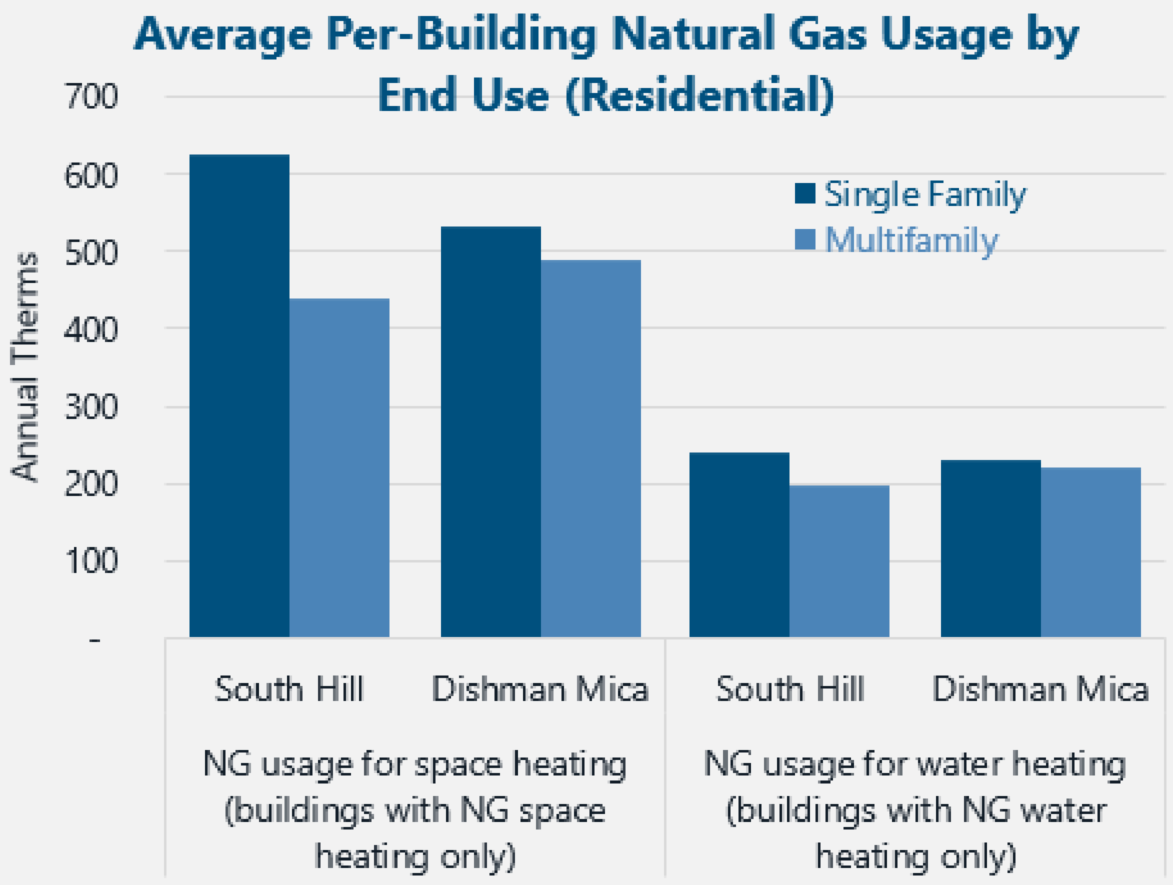


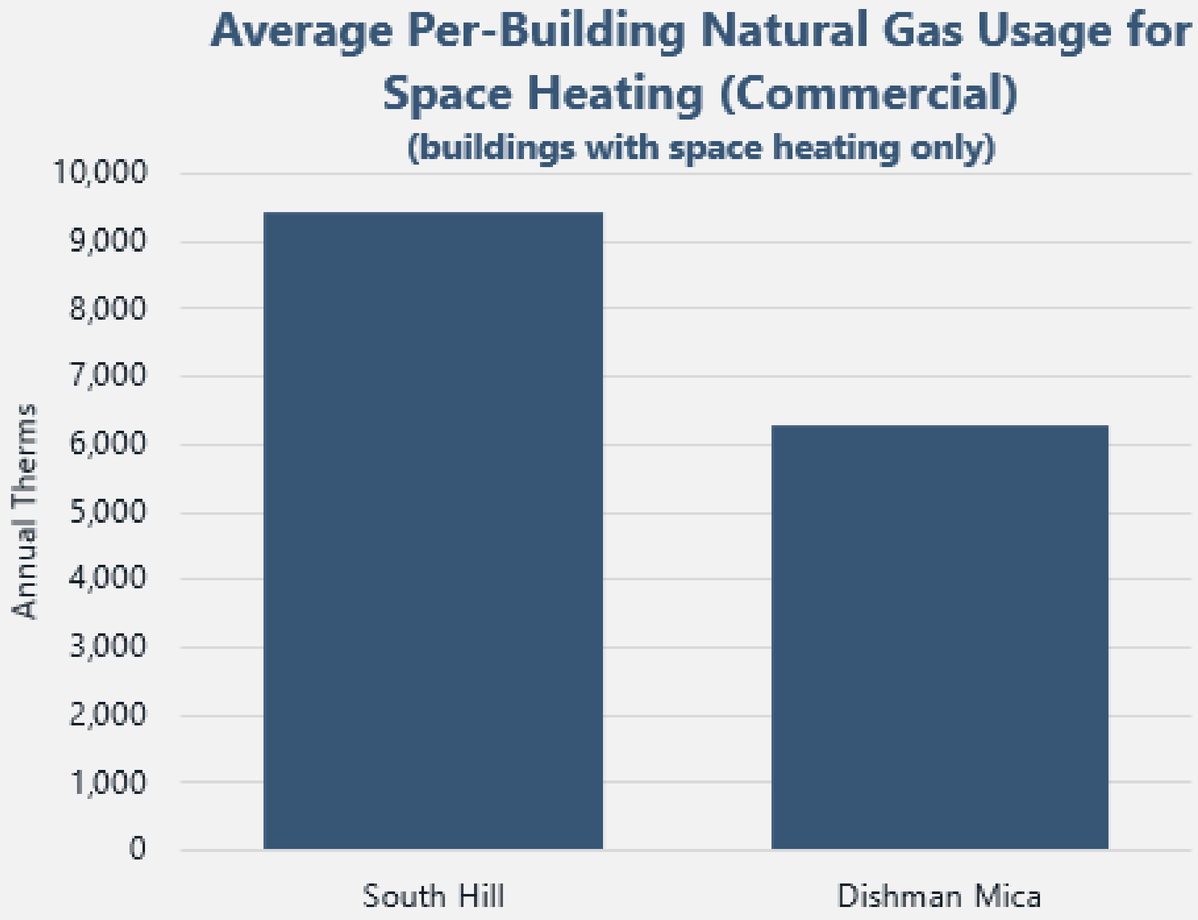
DR Max Applicability: 9.5%-18%

AVISTA CADMUS

Energy Use and End-Use Estimates

Resulting end-use consumption checked against total consumption by segment.





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Demand Response Assumptions: **Benchmark Summary**

Benchmarked data show savings from load control setpoint adjustments (typically 3 to 4 degrees) over 4- to 6-hour winter morning event period starting at 6 a.m. or 7 a.m.

Residential savings are typically 0.1 to 0.7 therms/event; C&I savings are 100+ therms/event.

Residential DR Reference	Event Length	Therms Shift per Event
Con Edison 2021/22 Winter DLC	4-6 Hours	0.1-0.53 therms
Con Edison 2019 Gas-Fired WH DLC	4 Hours	0.24 therms
Xcel Energy 2024 Heat Savers pilot	4 Hours	0.74 therms
KEDNY/KEDLI and NMPC territories National Grid 2024/5 BYOT	3 Hours	0.44-0.51 therms
National Grid 2022/2023	4 Hours	0.29 therms
Washington Gas Pilot 2022/2023	3.5 Hours	0.36 therms
Consumers Energy 2021/2022	5 Hours	0.12 therms
SoCalGas 2018/19 Smart Therm	4 Hours	0.03 therms

Measure Detail Assumptions: Residential

Measure	End Use	Building Type	NG Efficiency Gain	Baseline Equipment	Baseline Consumption – South Hill	Baseline Consumption – Dishman Mica
Load control only (no efficiency measures)	GasHeat - Heat Gas FAF	Single Family	n/a	Federal Standard 2016 Furnace - 80% AFUE	625 therms	533 therms
	GasWater Heat GT 50 Gal NG	Single Family	n/a	Standard 2015 and 2030 Condensing WH > 55 GAL - UEF 0.77	240 therms	230 therms
	GasHeat - Heat Gas FAF	Multifamily	n/a	Federal Standard 2016 Furnace - 80% AFUE	441 therms	489 therms
	GasWater Heat GT LE 50 Gal NG	Multifamily	n/a	Standard 2015 Storage WH ≤ 55 GAL - UEF 0.58	199 therms	221 therms
Load control plus weatherization (full weatherization)	GasHeat - Heat Gas FAF	Single Family	17.2%	Federal Standard 2016 Furnace - 80% AFUE	625 therms	533 therms
	GasWater Heat GT 50 Gal NG	Single Family	n/a	Standard 2015 and 2030 Condensing WH > 55 GAL - UEF 0.77	240 therms	230 therms
	GasHeat - Heat Gas FAF	Multifamily	22.3%	Federal Standard 2016 Furnace - 80% AFUE	441 therms	489 therms
	GasWater Heat GT LE 50 Gal NG	Multifamily	n/a	Standard 2015 Storage WH ≤ 55 GAL - UEF 0.58	199 therms	221 therms
Load control plus weatherization and furnace upgrade (full weatherization and furnace upgrade) - Space Heating	GasHeat - Heat Gas FAF	Single Family	26.4%	Federal Standard 2016 Furnace - 80% AFUE	625 therms	533 therms
	GasWater Heat GT 50 Gal NG	Single Family	n/a	Standard 2015 and 2030 Condensing WH > 55 GAL - UEF 0.77	240 therms	230 therms
	GasHeat - Heat Gas FAF	Multifamily	30.9%	Federal Standard 2016 Furnace - 80% AFUE	441 therms	489 therms
	GasWater Heat GT LE 50 Gal NG	Multifamily	n/a	Standard 2015 Storage WH ≤ 55 GAL - UEF 0.58	199 therms	221 therms
Space and water heating electrification (no efficiency or load control) - Space Heating	GasHeat - Heat Gas FAF	Single Family	n/a (100%)	Federal Standard 2016 Furnace - 80% AFUE	625 therms	533 therms
	GasWater Heat GT 50 Gal NG	Single Family	n/a (100%)	Standard 2015 and 2030 Condensing WH > 55 GAL - UEF 0.77	240 therms	230 therms
	GasHeat - Heat Gas FAF	Multifamily	n/a (100%)	Federal Standard 2016 Furnace - 80% AFUE	441 therms	489 therms
	GasWater Heat GT LE 50 Gal NG	Multifamily	n/a (100%)	Standard 2015 Storage WH ≤ 55 GAL - UEF 0.58	199 therms	221 therms
Full weatherization (no load control)	GasHeat - Heat Gas FAF	Single Family	17.2%	Federal Standard 2016 Furnace - 80% AFUE	625 therms	533 therms
	GasHeat - Heat Gas FAF	Multifamily	22.3%	Federal Standard 2016 Furnace - 80% AFUE	441 therms	489 therms

Measure Detail Assumptions: Commercial

Measure	End Use	Building Type	NG Efficiency Gain	Baseline Equipment	Baseline Consumption – South Hill	Baseline Consumption – Dishman Mica
Load control only (no efficiency measures)	Heat - Gas FAF	Commercial	n/a	Federal Standard 2016 Furnace - 80% AFUE	9,443 therms	6,175 therms
	Heat - Gas RTU	Commercial	n/a	Conventional Packaged Rooftop Unit - Et = 75%	10,157 therms	6,831 therms
Load control weatherization, and furnace, boiler, or RTU upgrade	Heat - Gas FAF	Commercial	26.4%	Federal Standard 2016 Furnace - 80% AFUE	9,443 therms	6,175 therms
	Heat - Gas RTU	Commercial	28.0%	Conventional Packaged Rooftop Unit - Et = 75%	10,157 therms	6,831 therms
	Heat Room - Gas	Commercial	13.7%	Standard Radiant Heater	6,482 therms	4,239 therms
Weatherization (no load control)	Heat - Gas FAF	Commercial	13.7%	Federal Standard 2016 Furnace - 80% AFUE	9,443 therms	6,175 therms
	Heat - Gas RTU	Commercial	13.7%	Conventional Packaged Rooftop Unit - Et = 75%	10,157 therms	6,831 therms
	Heat Room - Gas	Commercial	13.7%	Federal Standard 2016 Furnace - 80% AFUE	6,482 therms	4,239 therms
Full weatherization and equipment upgrade (no load control)	Heat - Gas FAF	Commercial	26.4%	Federal Standard 2016 Furnace - 80% AFUE	9,443 therms	6,175 therms
	Heat - Gas RTU	Commercial	28.0%	Conventional Packaged Rooftop Unit - Et = 75%	10,157 therms	6,831 therms
Space heating electrification	Heat - Gas FAF	Commercial	n/a (100%)	Federal Standard 2016 Furnace - 80% AFUE	9,443 therms	6,175 therms
	Heat - Gas RTU	Commercial	n/a (100%)	Conventional Packaged Rooftop Unit - Et = 75%	10,157 therms	6,831 therms
	Heat Room - Gas	Commercial	n/a (100%)	Standard Radiant Heater	6,482 therms	4,239 therms

Efficiency and Electrification Measure Assumptions

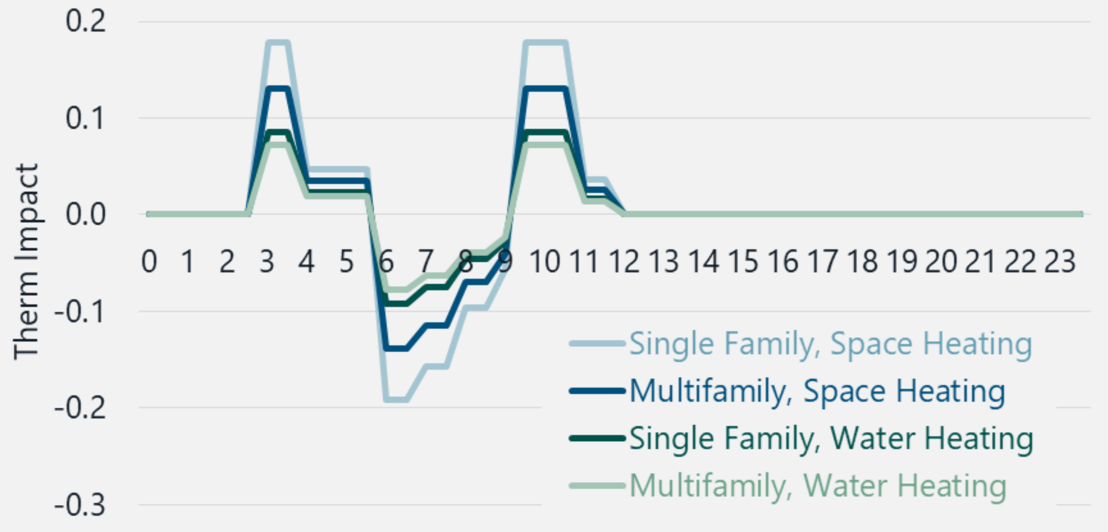
Measure Bundle	Efficiency Improvement for End-Use	Full Cost
Residential		
Space and water heating electrification	100% removal of gas end-use consumption (electric backup)	Space heating: $6,700-$18,700 Water heating: $2,300
Weatherization	17%-22%	$2,700-$5,600
Weatherization and furnace upgrade	26%-31%	$4,200-$9,900
Commercial		
Space heating electrification	100% removal of gas end-use consumption (electric backup)	$37,000-$48,000
Weatherization	14%	$35,000
Weatherization and space heating equipment upgrade	26%-28%	$40,000-$58,000

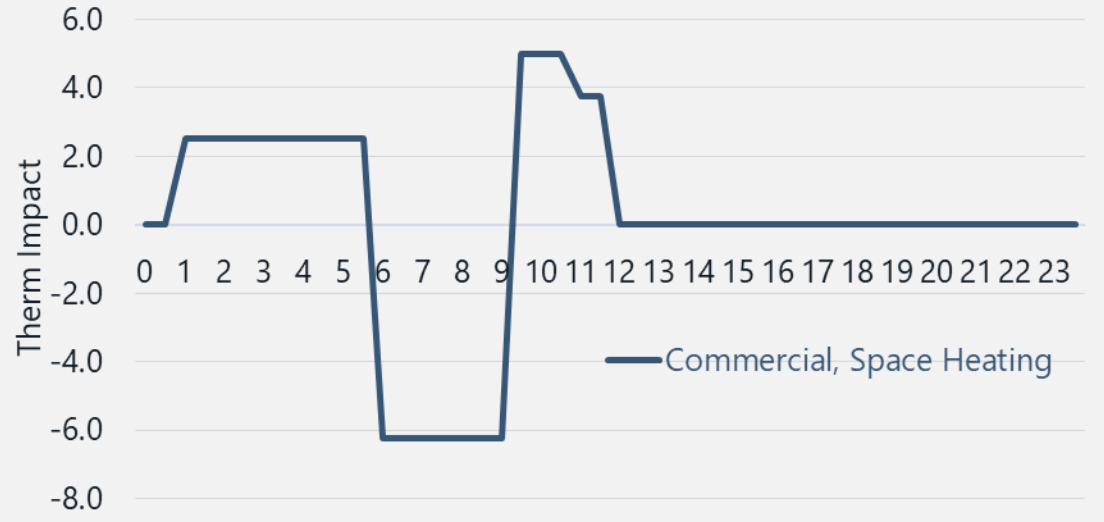
Demand Response Assumptions

	Space Heating			Water Heating	
	Single Family	Multifamily	Commercial	Single Family	Multifamily
Total Impact (therms/event)*	0.5	0.4	25	0.24	0.20
Event Hours	6 a.m. to 10 a.m.				

* The event is applied and then refined to avoid (1) event shift that exceeds end use demand in event hours and (2) negatives in any single hour's total end-use consumption.

Model assumes zero net savings.





Washington State Climate Commitment Act

TAC 3 – November 20, 2025

Janna Dubnicka, Clean Energy Policy & Implementation Manager

Climate Commitment Act Purpose & Application

[1]"The Climate Commitment Act (CCA) **caps and reduces greenhouse gas emissions** from Washington's largest emitting sources and industries, allowing businesses to find the most efficient path to lower carbon emissions. This powerful program works alongside other critical climate policies to help Washington achieve its commitment to **reducing greenhouse gas emissions by 95% by 2050**."

How does this rule apply to Avista?

- Natural Gas (Local Distribution Company)
- Electric Power Entity

Why does this rule apply to Avista?

- Emissions for each category meet or surpass the applicable threshold (>25k MT CO2e)

Source: [1] Washington State Department of Ecology

Climate Commitment Act Basics

- The statute requires the Washington Department of Ecology (Ecology) to set a programmatic *baseline for emissions* covered by the Cap-and-Invest Program
  - Based on 2015-2019 emissions baseline
  - Covered and opt-in entities for natural gas and electric
- Ecology must also set annual *allowance budgets* for GHG emissions from covered entities
  - Annual allowance budgets must decline annually to ensure emissions covered by the program reach the % reductions required for 2030, 2040, and 2050 in RCW 70A.45.020 (1 allowance for each 1 $MTCO_2e$).

Source: WAC 173-446-200; Washington State Department of Ecology (Ecology)

Climate Commitment Act Basics

- What is the emissions baseline (2015-2019) and how was it determined?
  - Prior to Cap-and-Invest, CCA and other recent landmark climate regulations, greenhouse gas reporting was (and is) required for specific entities:
    - 2012: required reporting for emitting specific sources including:
      - Exceedance of annual threshold (10,000 MT CO_2e)
      - Federally registered qualifying industry (i.e., Fuel Suppliers, Facilities)
        - 2023: Additional industries added including electric power entities
- *Why is this strategy impactful?*
  - For applicable entities, does that timeframe use reasonable data?
    - Ex. Normal hydro conditions? Hotter summer than expected?

Source: WAC 173-446-200; Washington Department of Ecology (Ecology)

CCA Primary Components

Cap

- Limits carbon across major sectors of the economy and any "opt-in" businesses
- Nearly 75% of Statewide emissions[1] (roughly 25% are exempt)

Reduce

- Drive towards emission goals with certainty
- By 2030: reduce emissions 45% below 1990 levels

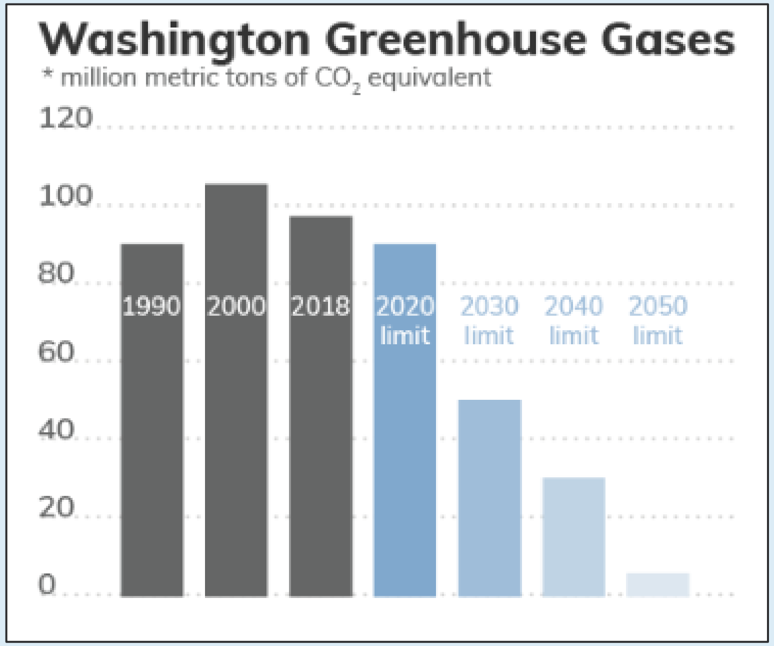
Invest

- Market-based approach. Revenue used for funding clean energy and environmental justice projects for overburdened communities

Comply

- Large emitters are enforceable and collectively must limit emissions, buy credits to meet requirements or pay for violation ($10,000/violation/day)

"…The provisions of the cap and invest program implemented by this chapter establish a declining cap on GHG emissions from covered entities consistent with the limits established in RCW 70A.45.020, and a program **to track, verify, and enforce compliance** with the cap through the use of compliance." *WAC 173-446-010(1)*



[1]Department of Ecology, Climate Commitment Act Cap-and-Invest Program Overview, 2022

The Basics of Cap and Invest

- The cap and invest program is a *trading* program.
- The commodities traded in the program are compliance instruments.
  - Two types of compliance instruments:
    - Allowance – may be given to specific industries based on their emissions either at no cost or purchased via other methods such as in an auction.
    - [1]Offset credits – each one worth 1 $MTCO_2e$ *(can only use for up to 8% compliance during first compliance period, including 3% for tribal projects)*
- [2]Allowances may be obtained by:
  - Direct distribution from Ecology – for utilities
  - Purchase at official auctions
  - Purchasing from other registered entities

Source: [1]WAC 173-446-500, WAC 173-446-080, 200

Auction Basics

- [1]Quarterly Auctions
  - Held by Ecology on a third-party platform
  - Bids are submitted similarly to a silent auction
  - Qualified bidders may submit multiple bids at various price levels between the floor and ceiling price structure
- [2]Allowance Price Containment Reserve Auctions
  - Separate pool of allowances under the cap (2025: 3 million, 2026: 700k)
  - Conditional and triggered when:
    - Quarterly auction prices reach certain threshold
    - New entities enter program (+ additional circumstances)
    - At least once a year- prior to Nov. 1

Source: [1]WAC 173-446-300, [2]WAC 173-446-340; RCW 70A.65.150

Historic Pricing

Program Auction Pricing (cost per 1 MT CO2e)					
Year	Auction	Floor	Ceiling	Settling	APCR Price
2023	Q1	$ 22.20	$ 81.47	$ 48.50	$ 51.90
	Q2			$ 56.01	
	Q3			$ 63.03	
	Q4			$ 51.89	
2024					
	Q1	$ 24.02	$ 88.15	$ 25.76	$ 56.16
	Q2			$ 29.92	
	Q3			$ 29.88	
	Q4			$ 40.26	
2025					
	Q1	$ 25.85	$ 94.85	$ 50.00	$ 60.43
	Q2			$ 58.51	
	Q3			$ 64.30	

Price caps are a compliance tool to meet programmatic emissions reductions goals

Floor: price for all allowances below which bids at auction are not eligible to be accepted.

Price Ceiling Unit: compliance instrument unit issued at a fixed price by Ecology to limit price increases and funding further investments in GHG reductions.

Settlement: price announced by Ecology at the conclusion of each auction that all successful bidders pay for each allowance.

Source: Washington State Ecology Annual and Quarterly Auction Summaries for 2023-2025

Electric

Ecology grants free (no-cost) allowances covering Washington share of electric portfolio emissions and administrative costs.

Why are allowances free? Because the Clean Energy Transformation Act (CETA) regulates electric utility path to de-carbonization.

- **Jurisdictional Allocation:**
  - **Washington (approximately 65% of portfolio)**
    - Free allowances for all generation portfolio emissions serving Washington customers
    - Covered: regulated Washington based plants (Boulder); all generation, owned and purchased imported with a final delivery point in Washington as well as for cost burden
    - Annual allocation adjustment from forecast to actual emissions
  - **Idaho (approximately 35% of portfolio)**
    - No free allowances
    - Covered: regulated WA (owned) thermal plants (Boulder), all unspecified generation imported into and with a final delivery point in Washington (e.g., Mid-C sales)
- **Consignment Requirements** – None

Natural Gas

- No-cost allowances cannot be sold or traded to other entities. Must be used for compliance or consigned (sold) in quarterly auctions.
- Natural gas utilities are required to consign a portion of no-cost allowances under RCW 70A.65.130.

Year	Required level of consignment of no cost allowances (minimum)
2023	65 percent of allowances allocated for 2023
2024	70 percent of allowances allocated for 2024
2025	75 percent of allowances allocated for 2025
2026	80 percent of allowances allocated for 2026
2027	85 percent of allowances allocated for 2027
2028	90 percent of allowances allocated for 2028
2029	95 percent of allowances allocated for 2029
2030, and every year thereafter	100 percent of allowances allocated for 2030 (and subsequent years)

Table Source: Natural gas utility consignment schedule (Allowance Consignment Guide, 2023. Publication 23-02-056)

Natural Gas Allowance Consignment Requirements

- **Consignment Revenues**:

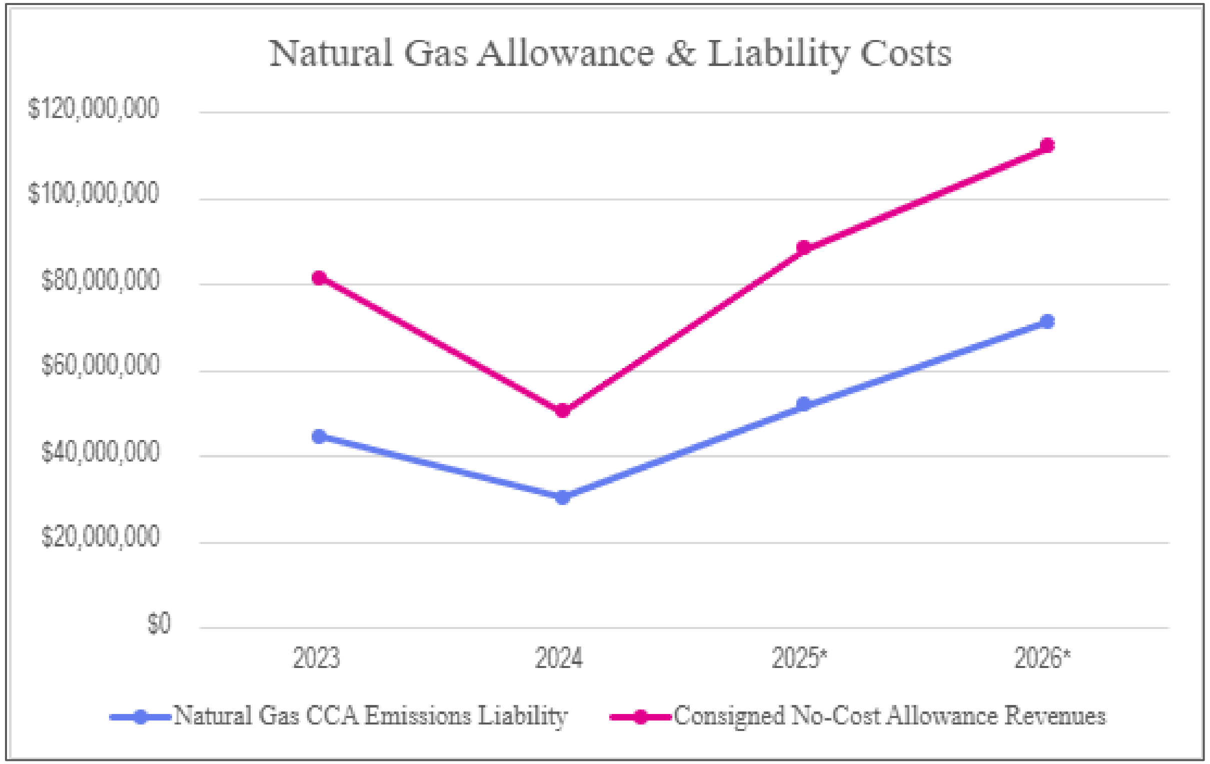
All revenues shall be used for the benefit of customers, as determined by the WUTC, including at a minimum eliminating any additional cost burden to low-income customers from the CCA.

- Revenues must be returned to customers
  - Non-volumetric credits on ratepayer utility bills (prioritizing low-income customers)
  - Minimize cost impacts on low-income, residential, and small business customers through actions that include, but are not limited to, weatherization, decarbonization, conservation and efficiency services, and bill assistance.
    - [1]Except for low-income customers, any "new customer" (after July 25, 2021), is not allowed to receive a bill credit.
- *The customer benefits provided must be in addition to existing requirements in statute, rule, or other legal requirements, as determined by the WUTC.*

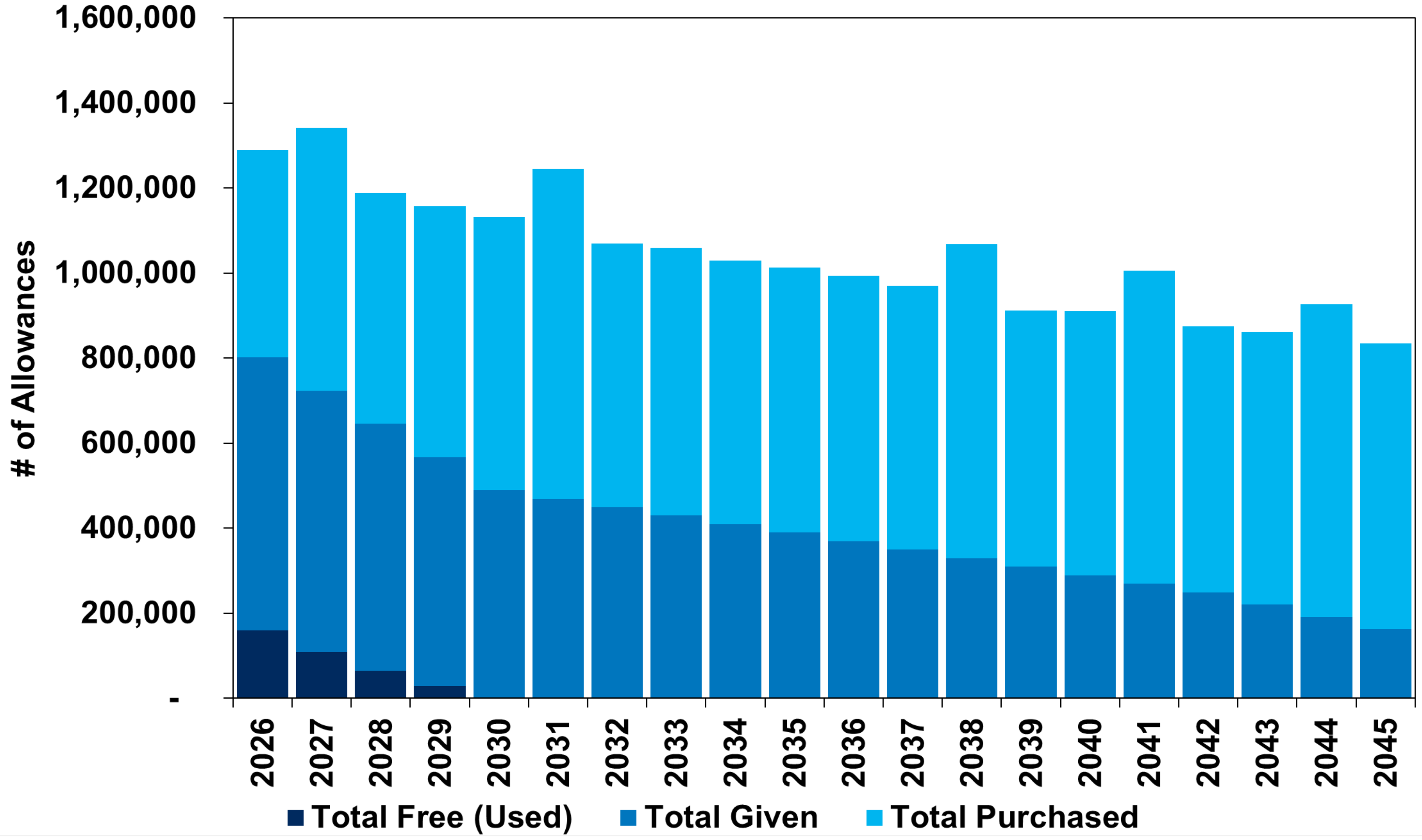
Source: [1]Allocation of allowances to natural gas utilities, RCW 70A.65.130

Natural Gas Allowance & Consignment Costs

Year	Natural Gas CCA Emissions Liability	Consigned No-Cost Allowance Revenues	Delta	Year-Over-Year Increase
2023	$44,443,884	$36,896,188	$7,547,696	-
2024	$30,385,861	$19,965,465	$10,420,396	38%
2025*	$51,925,536	$36,419,248	$15,506,288	49%
2026*	$71,272,856	$40,888,953	$30,383,903	96%



Expected Natural Gas Allowance Need



 Source: Avista 2025 Natural Gas Integrated Resource Plan

On the Horizon

- Linkage
  - Link with established markets in California and Quebec (2026-2027)
  - The most recent linkage agreement comment period ended in March of 2025. Ecology has stated another period will be available upon development of a new linkage agreement draft.

Image Source: Washington Department of Ecology, Linkage Process & Timeline. 12 November 2025. https://ecology.wa.gov/air-climate/climate-commitment-act/cap-and-invest/linkage.

On the Horizon

- Washington Ecology
  - October 2025: information public comment period for Cap-and-Invest Program Updates and Linkage Rulemaking
  - Cap-and-Invest Allocation Workshop (11/13)
    - Seeking comments on increasing percentage requirements for allowance consignment
    - Changes to mitigation of administrative costs

- Washington Utility Commission
  - December: public meeting to address non-volumetric customer benefits under RCW 70A.65.130(2), percentage of a customer's CCA charge related to consignment of no-cost allowances, handling additional reserves of consignment revenue

Image Source: Washington Department of Ecology, Linkage Process & Timeline. 12 November 2025. https://ecology.wa.gov/air-climate/climate-commitment-act/cap-and-invest/linkage.

AVISTA

Oregon Climate Protection Program

TAC 3 – November 20, 2025

Janna Dubnicka, Clean Energy Policy & Implementation Manager
Michael Brutocao, Natural Gas Planning Manager

Oregon Climate Policy

Oregon Department of Environmental Quality (ODEQ) actions:

- 2021: Initially adopted Climate Protection Program (CPP)
- 2023: Rule amendments; adopted language
- 2024: Revised and adopted CPP (OAR 340-273)
  - Program compliance to begin in 2026 for emissions year 2025 (Jan 1- Dec 31)
- 2026: [1]Anticipated Cap and Invest bill for upcoming legislative session (February)
  - Connect with other programs including Washington's Climate Commitment Act

State of Oregon Department of Environmental Quality

[1]VanderHart, D. (2025, May 22). "Oregon lawmakers are now considering a 'cap-and-trade' program to fund roads, wildfire prevention. Oregon Public Broadcasting. https://www.opb.org/article/2025/05/22/oregon-lawmakers-cap-and-trade-salem-pollution-greenhouse-gas-emissions-bridge/.

Present-Day Objectives

"The CPP establishes a declining cap, or limit, on greenhouse gas emissions from fossil fuels used throughout Oregon, including diesel, gasoline, and natural gas. The program is designed to reduce these emissions by 50% by 2035 and 90% by 2050"

How does this rule apply to Avista?

- Natural Gas
  - Supply delivered to customers for use in residential and commercial heating etc.

Source: Oregon Department of Environmental Quality (Oregon.gov/deq)

Climate Protection Program

OAR 340-273 Adopted November 22, 2024

Purpose: "….to **reduce greenhouse gas emissions** from sources in Oregon, achieve co-benefits from reduced emissions of other air contaminants, support a strong statewide economy, and **enhance public welfare for Oregon Communities**, particularly environmental justice communities disproportionately burdened by the effects of climate change and air contamination"

- Supports pollution reductions
- Enhances public welfare
- Provides regulated companies with compliance flexibility to manage costs
- Supports economic growth
- Prioritizes equity by reducing burdens for impacted communities

Climate Protection Program

How does Avista meet the objectives of the CPP?

- Compliance is based around CCI's or Community Climate Investments
- CCI's are expected to be made available to entities in early 2026
    - Credits are a single price
    - No auction or similar requirements as seen in Cap-and-Invest

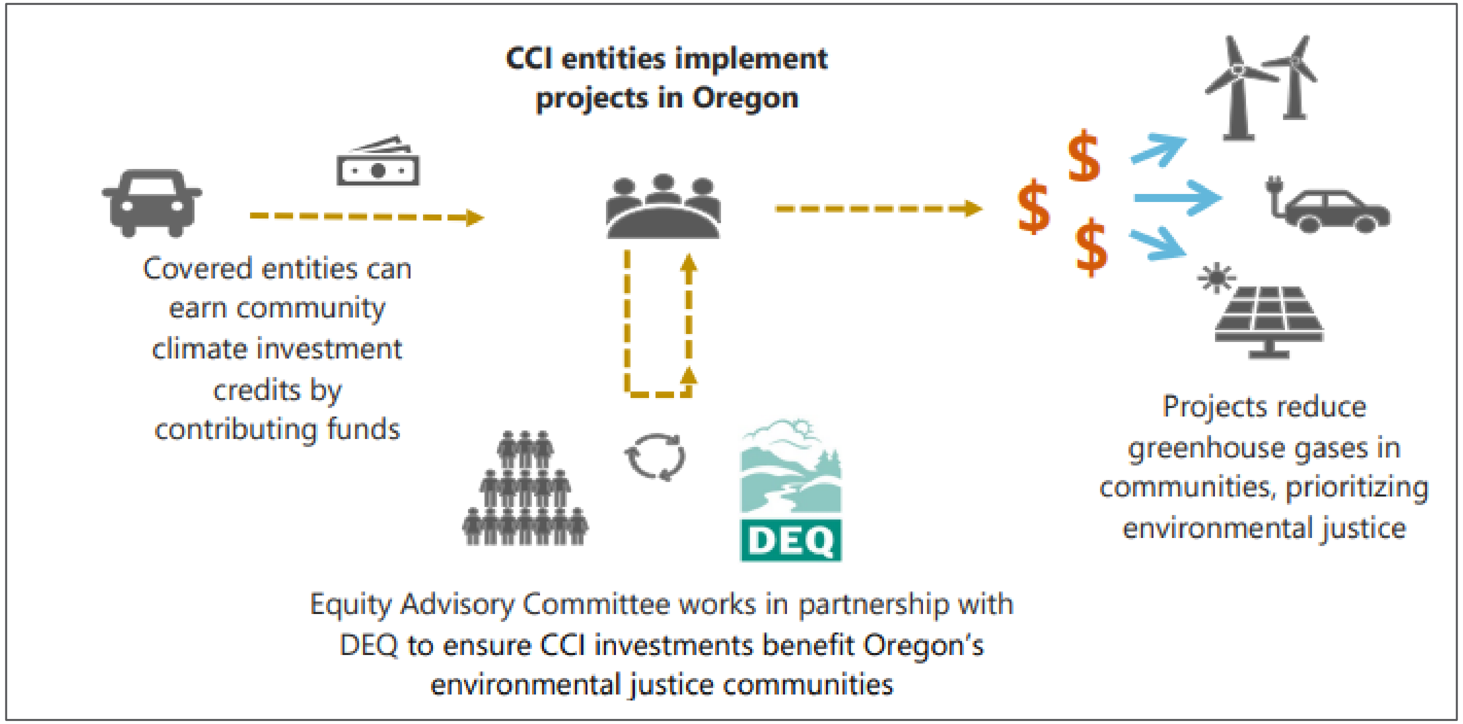


Image Source: ODEQ Climate Protection Program website

Climate Protection Program

How does a regulated entity meet their obligation requirements?

1. Reduce emissions profile

2. Purchase compliance instruments to bridge the gap between distribution totals

   • limited quantity distributed annually

3. Earn CCI credits by contributing funds to DEQ-approved CCI entities

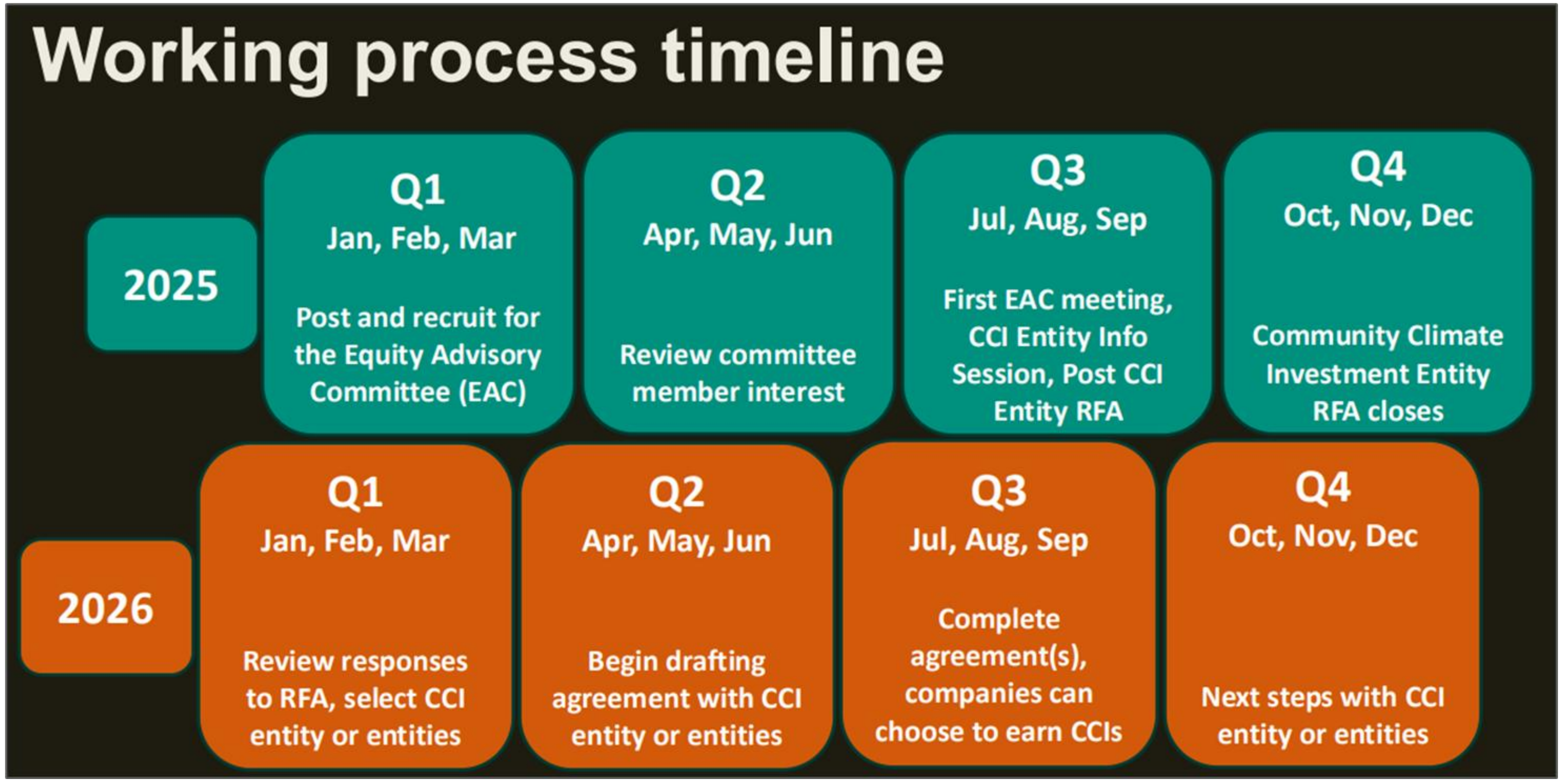
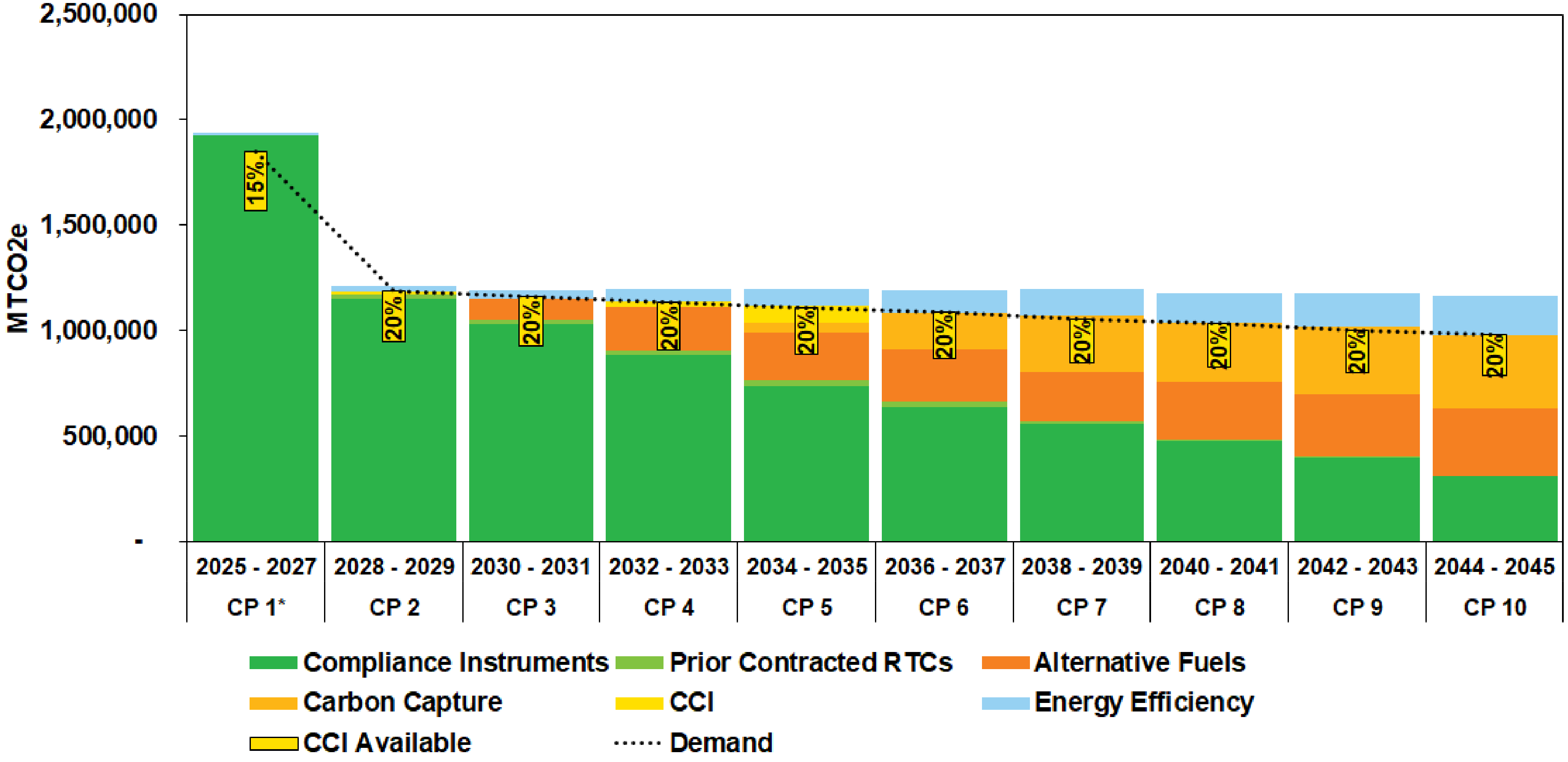


 Image Source: ODEQ Climate Protection Program website (Community Climate Investment Entity Info Session, 16 September, 2025)

CPP Compliance by Compliance Period



*CP 1 data consists of actual and forecasted emissions (2025) and 2025 Natural Gas IRP (2026-2027).

Natural Gas-Fired Heat Pump Technology

TAC 3 – November 20, 2025

Reuben Arts, Manager Energy Efficiency Engineering

How do Gas Heat Pumps (GHPs) Work?

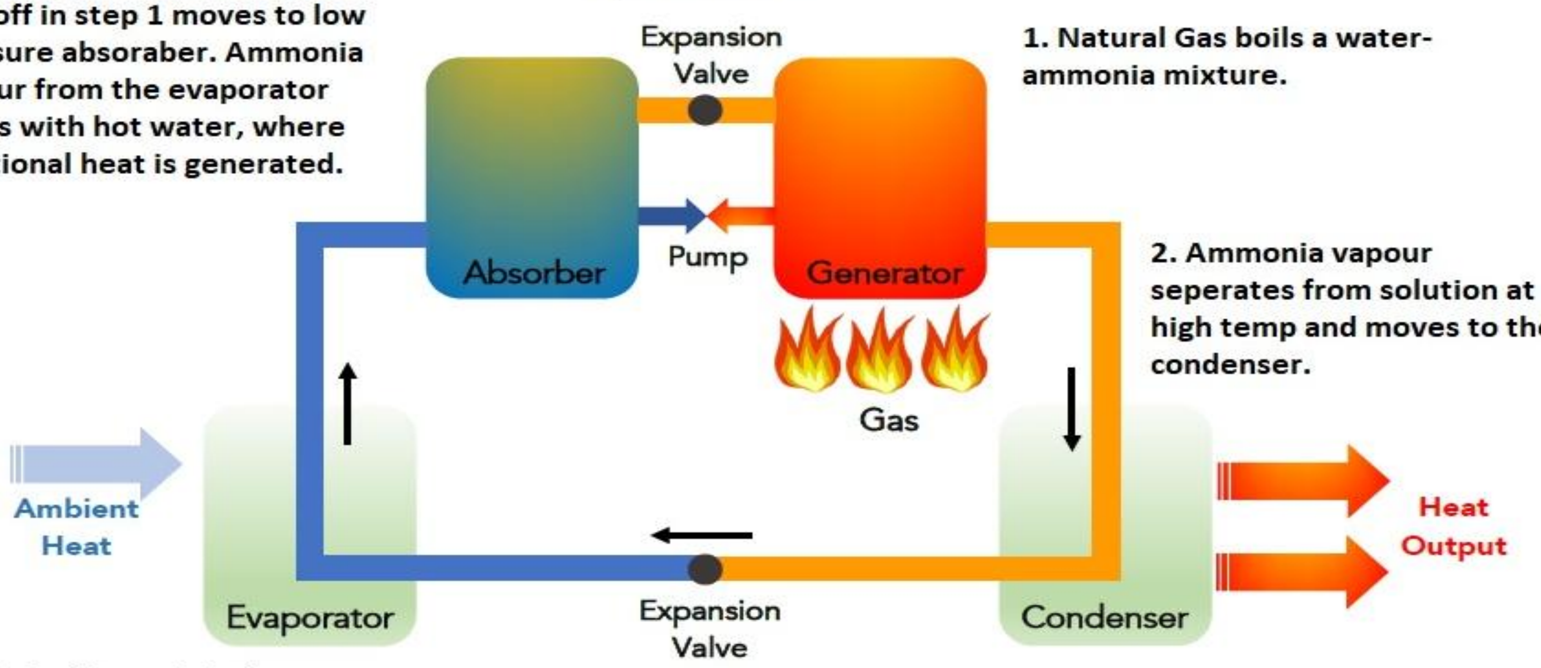
- Heat pumps in heating mode are effectively air conditioners running in reverse
  - Extracting heat from outdoors and moving it indoors
- There are Engine-driven GHPs and Gas Absorption GHPs.
  - Engine – driven GHPs use a natural gas engine in place of the electric motor a electric heat pump uses
  - Gas absorption GHPs replace the motor and compressor with a generator and absorber

Gas Absorption Heat Pump Basics

7. The water-ammonia mixture is then transferred to the generator and the cycle restarts.

6. In parallel, hot water remaining from the refrigerant boil-off in step 1 moves to low pressure absoraber. Ammonia vapour from the evaporator mixes with hot water, where additional heat is generated.

1. Natural Gas boils a water-ammonia mixture.



2. Ammonia vapour seperates from solution at high temp and moves to the condenser.

5. Ambient air is drawn across the evaporator by a fan. As ammonia evaporates, heat is drawn from this "outside" air.

4. Ammonia condenses as heat is exchanged and then moves to the evaporator through an expansion valve, brining it back to a vapour state.

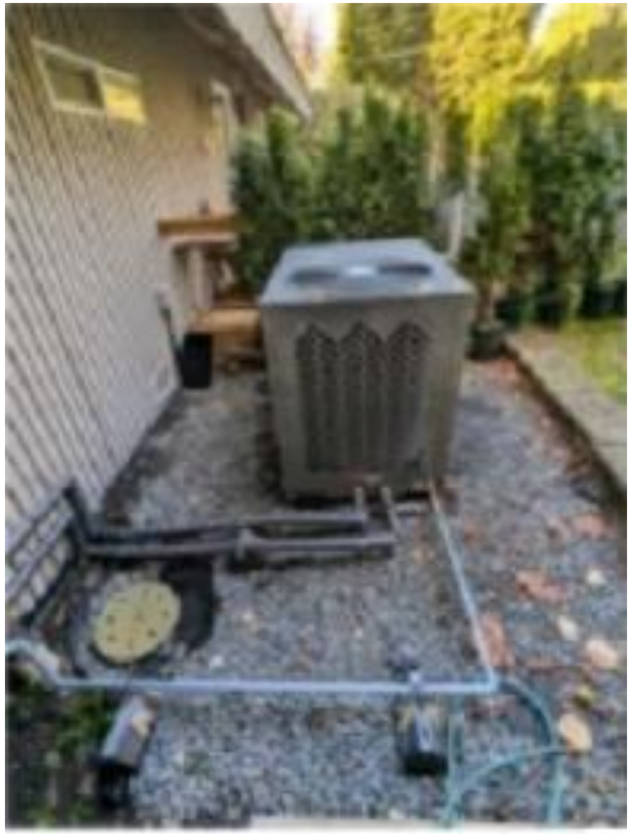
3. Ammonia vapour transfers heat to an external hot water system via a heat exchanger

Figure 1: A simplified schematic of the GAHP operating in heating mode

Gas Absorption Gas Heat Pumps for Residential

Ongoing Pilots – Residential

- Residential GAHP Pilot
  - 3 single-family homes implemented the Anesi Gas Absorption Heat Pump
    - Each unit is 80,000 BTU/hr (~23 kW)
    - Supply up to 140 °F hot water
    - Manufacturer reported efficiency of 141% AFUE
  - Applications:
    - Space heating and domestic hot water



Avista Take Aways from Fortis Pilot

- Prices are coming down but remain high for the moment ($30k range for combined HVAC and Water Heater)
  - The price remains high due in part to long install times (up to 3 days)
  - Training for technicians remains an issue
  - The unit itself is very heavy (500lbs)
  - The unit is loud (as most HP's are), leading to siting issues
- ANESI Stone Mountain remains the leading manufacture in this space. They have only one size unit – 80k Btu – with only one form factor.
- While COP's are technically feasible in the 1.4 range, 1 to 1.3 is more likely and highly contingent on home size, shell and climate zone.
- ANESI has a 40k Btu unit in production that may be more cost effective

Bottom Line

- Residential Gas Heat Pump technology is proven, and it reduces green house gas emissions compared to the most efficient natural gas furnaces and hot water heaters.

- The adoption of this technology is hampered by the high capital cost and lack of a cooling feature.

- The market for this technology is expected to improve as more vendors enter this space, training and install times improve, unit size and form factor options increase.

- There is a large GTI pilot, started in 2025, with the goal of 75 units installed nationwide. This pilot is expected to expand to include 40k Btu GHP's when they become available. Avista is evaluating participation.