



*2025 Electric Integrated Resource Plan*  
**Technical Advisory Committee Meeting No. 11 Agenda**  
Tuesday, July 30, 2024  
Virtual Meeting – 8:30 am to 10:00 am PTZ

**Topic**

Introductions

Connected Communities Program Update

Avista – Spokane Tribe Energy Resiliency  
Partnership Update

Preferred Resource Strategy Results

Avoided Costs

Remaining TAC Schedule &amp; Scenario Planning

**Staff**

John Lyons

Kit Parker

Meghan Pinch

Planning Team

James Gall

James Gall

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# 2025 IRP TAC 11 Introductions

John Lyons, Ph.D.  
Technical Advisory Committee Meeting No. 11  
July 30, 2024

# Today's Agenda

Introductions, John Lyons

Connected Communities Program Update, Kit Parker

Avista – Spokane Tribe Energy Resiliency Partnership Update, Meghan Pinch

Preferred Resource Strategy Results, Planning Team

Avoided Costs, James Gall

Remaining TAC Schedule and Scenario Planning, James Gall

# Remaining 2025 Electric IRP TAC Schedule

- **TAC 12: August 13, 2024: 8:30 to 10:00 (PTZ) – Scheduled**
  - Preferred Resource Strategy Results (continued)
  - Portfolio Scenario Analysis (continued)
  - LOLP Study Results (continued)
  - QF Avoided Cost
- **Propose to extend TAC 12 meeting to 2.5 hours and move to:**
  - September 10, 2024, 9:00 am to 11:30 am (PTZ)
  - September 17, 2024, 9:00 am to 11:30 am (PTZ)
  - September 17, 2024, 1:00 pm to 3:30 pm (PTZ)
- **September 2, 2024- Draft IRP Released to TAC with the following chapters:**
  - Economic and Load Forecast
  - Long Term Position
  - Distributed Energy Resource Options
  - Supply Side Resource Options
  - Transmission Planning and Distribution
  - Preferred Resource Strategy
  - Washington Clean Energy Action Plan

# Remaining 2025 Electric IRP TAC Schedule

- **Virtual Public Meeting- Natural Gas & Electric IRP (September 2024)**
  - Recorded presentation
  - Daytime comment and question session (12pm to 1pm- PST)
  - Evening comment and question session (6pm to 7pm- PST)
- **October 1, 2024- Remainder of Draft IRP Released to TAC with the following chapters:**
  - Executive Summary
  - Introduction, Interested Party Involvement, and Process Changes
  - Existing Supply Resources
  - Market Analysis
  - Portfolio Scenarios
  - Action Plan



# Connected Communities

Kit Parker, Renewables Products and Services Manager

Technical Advisory Committee Meeting No. 11

July 30, 2024

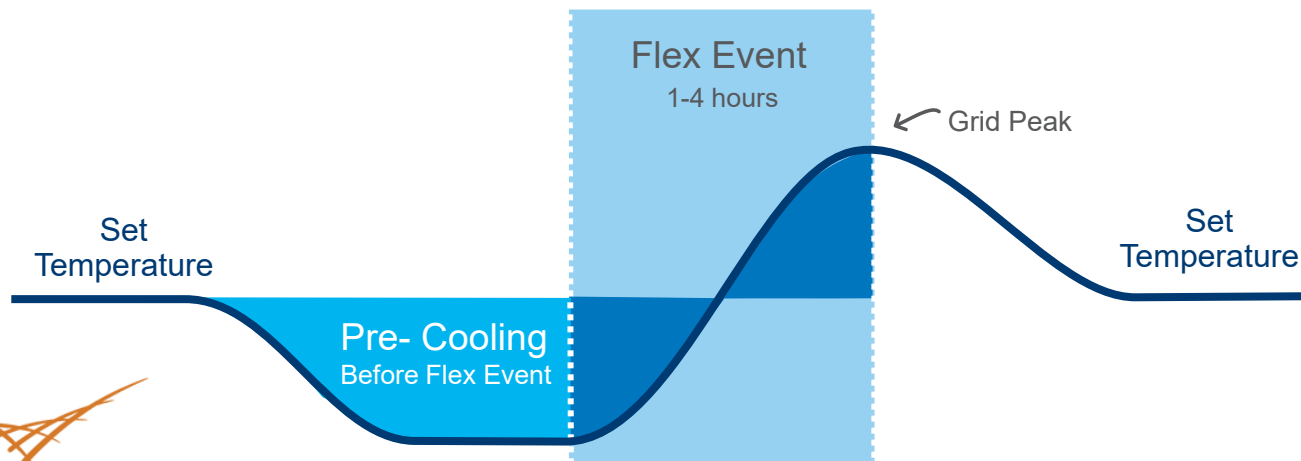




# Program Objectives

- Create flexible load
- Reduce energy costs
- Maintain occupant comfort
- Foster community-based solutions
- Develop scalable model

## During Program Flex Events



Shifting load to avoid grid peaks



# 75-125

## Buildings and Homes

50-75 Residential and 25-50 Commercial



# 1 - 2.25MW

## Flexible Load Created

Customer Thermostat

Remains within a comfortable  
1°– 4° F adjustment

**Load Shifting**

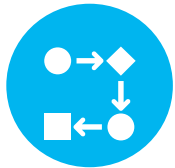
Moving energy use to  
another time in the  
day

# Project Timeline

## PROJECT PLANNING

Strategic planning and design for delivering demand flexibility and energy measures.

2023  
July



## PILOT ASSESSMENT

Enrollment of first participants and testing of planned energy measures

2025  
January



## TESTING PHASE

Completion of enrollment and analysis of preliminary testing from flex events

2025  
July



## ANALYZE & EVALUATE

Aggregation and examination of energy efficiency measures and grid service testing

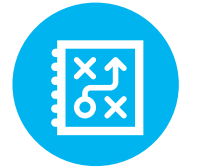
2026  
July



## REVIEW & PUBLISH

Finalization of a business model playbook allowing for program replication and management

2027  
July







**Spokane Tribe  
of Indians**



# Avista - Spokane Tribe Energy Resiliency Partnership Update

Meghan Pinch, Manager, Energy Efficiency Programs

Technical Advisory Committee Meeting No. 11

July 30, 2024

# Clean Energy Fund Grid Modernization Grant Award Overview

**Awarded project:** Financial support to design and engineer a clean and resilient energy storage project in partnership with the Spokane Tribe. The project will support increased energy resilience and energy sovereignty. Funding does not include construction of project.

**Project Funding:** \$480,000 in total (Avista to provide \$240,000 in-kind match to \$240,000 in funding from Department of Commerce).



Grid Modernization grants will support utilities across the state in building and integrating new technologies that support their clean energy transition plans.

# Spokane Tribe Grid Resiliency Station

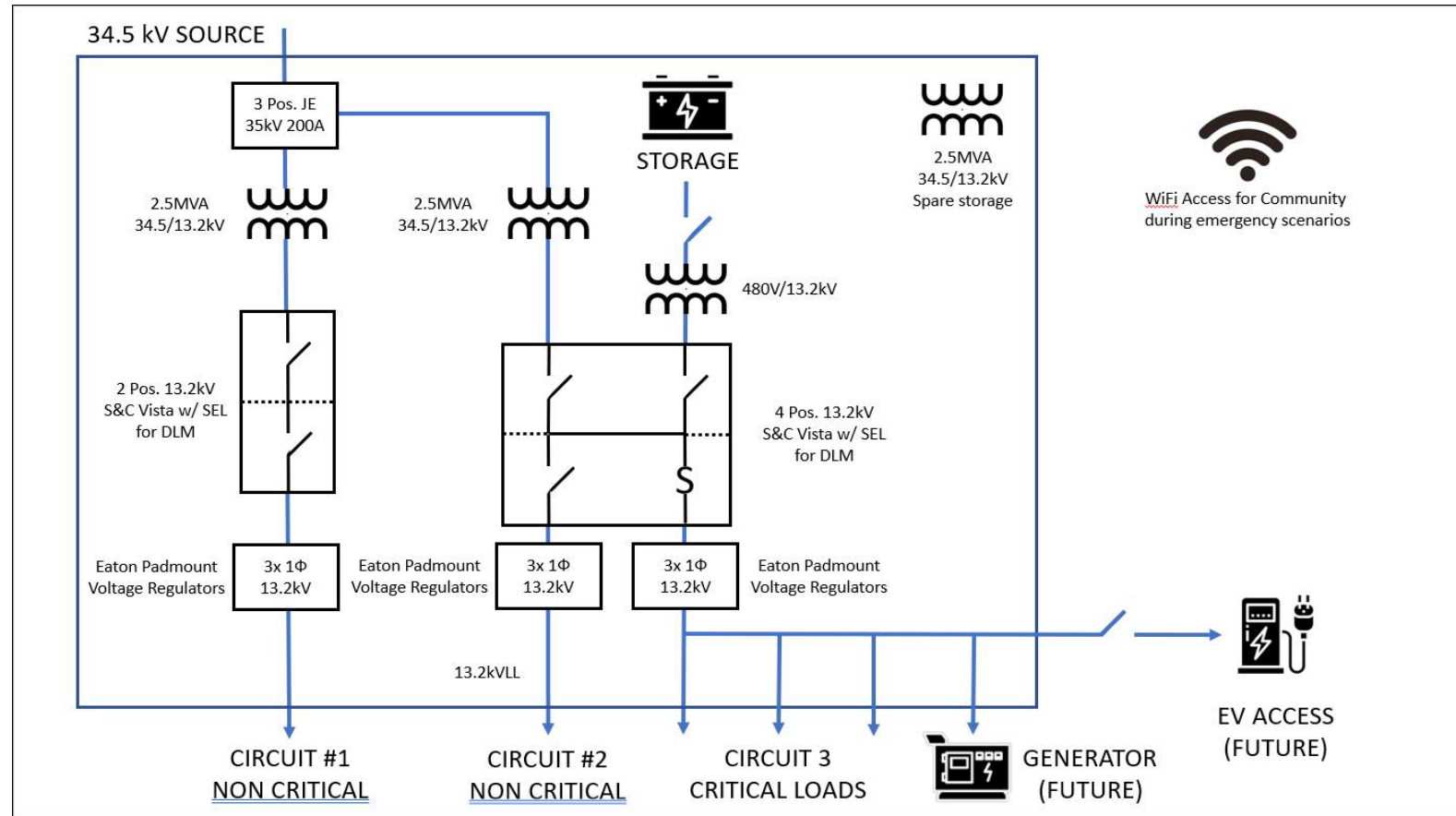
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“Switchable” platform that could enable power to be switched between three or more stepdown circuits in an emergency

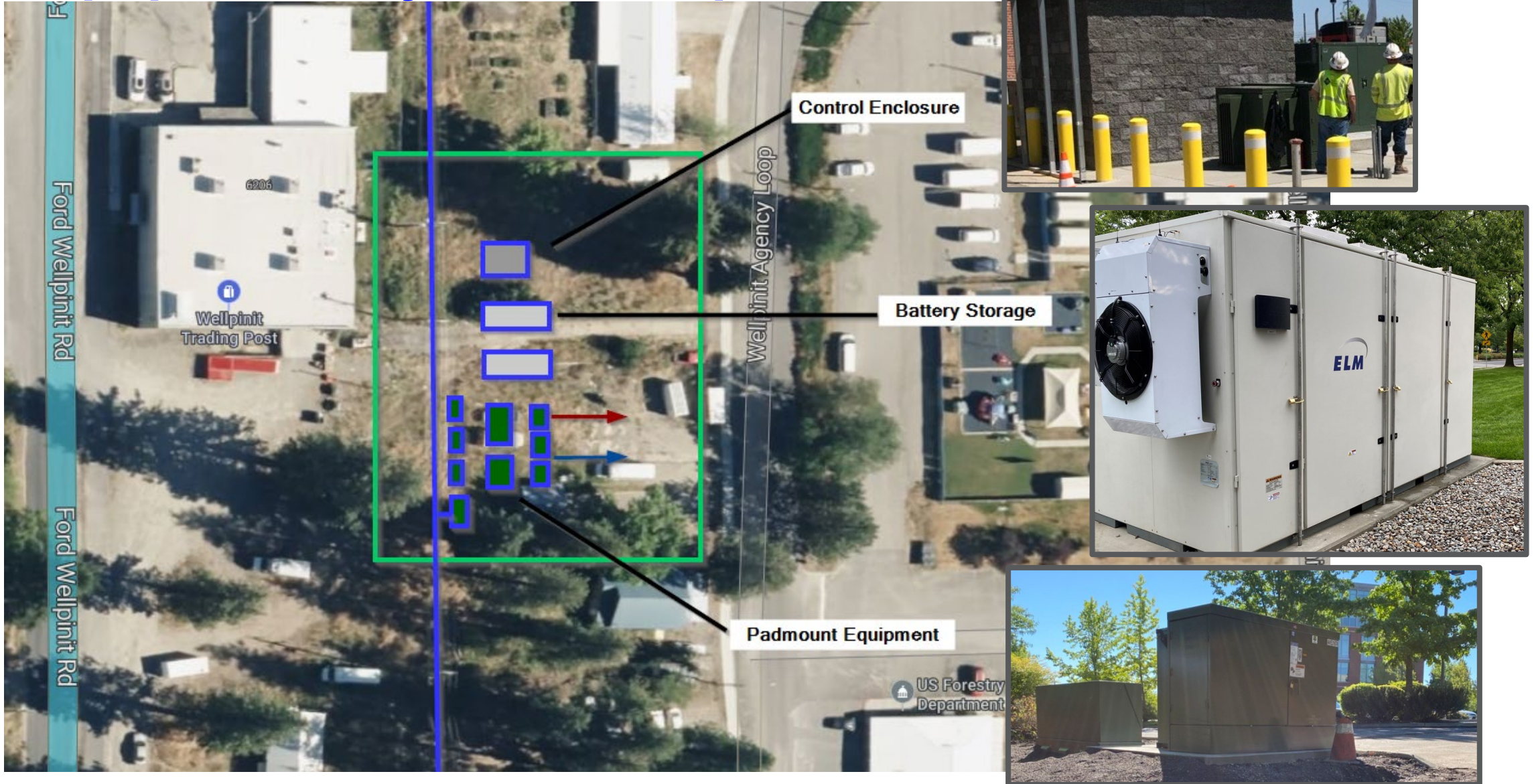
Would replace elevated building transformers currently behind post office / trading post

Would create a “critical loads” circuit to provide power to Tribal Admin building, Wynecoop Memorial Health Clinic, and Public Safety buildings during emergencies

Could leverage existing generation resources to sustain summer loads for up to 7 days



# Equipment Layout Concept DRAFT



## Recent Activities and Next Steps

- Avista provided technical assistance to the Tribe in applying for \$2.75 million from Department of Commerce Tribal Clean Energy Grant
- Additional funding been committed from a mix of federal formula Tribal DOE grants and Avista-provided funding
- Total project costs are expected to be around \$6.65 million
- Avista and the Spokane Tribe are considering applying for additional grant funding for additional scope items

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# 2025 Electric Integrated Resource Plan

## *Draft Preferred Resource Strategy*

James Gall  
Technical Advisory Committee Meeting No. 11  
July 30, 2024

# Preferred Resource Strategy (7/16/2024)

Nameplate MW	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
<b>Shared System Resource</b>																				
Mrkt/Trans	40	4	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wind	0	0	0	0	0	100	100	200	0	0	0	0	0	0	0	0	0	0	0	0
Storage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PtoG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nuclear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Biomass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
RNG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Washington</b>																				
Mrkt/Trans	0	0	0	0	0	0	0	0	0	0	0	50	0	0	50	50	50	50	0	50
Natural Gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Solar	0	1	1	1	1	1	101	1	1	1	1	1	1	1	1	1	1	1	200	5
Wind	0	0	0	200	200	100	0	0	0	0	0	0	0	0	0	140	0	120	0	200
Storage	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	104	62
PtoG	0	0	0	0	0	0	0	0	0	0	0	0	90	0	0	0	196	0	94	0
Nuclear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150
Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Biomass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RNG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Idaho</b>																				
Mrkt/Trans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas	0	0	0	0	99	0	0	0	0	0	0	90	0	0	0	0	124	0	0	0
Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Storage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0
PtoG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nuclear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Biomass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RNG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

# Revised Preferred Resource Strategy (2026-35)

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Total
<b>Washington (MW- Nameplate)</b>											
Market	25.8	2.5	6.4	-	-	-	-	-	-	-	34.6
Regional Transmission	-	-	-	-	-	-	-	198.4	-	-	198.4
Natural Gas	-	-	-	-	-	-	-	-	-	-	-
Solar	-	0.5	0.6	0.6	0.7	0.8	0.8	1.0	0.5	0.5	5.9
Wind	-	-	-	200.0	200.0	165.9	66.0	104.0	-	-	736.0
Storage	-	-	-	-	-	-	-	-	-	-	-
Power to Gas	-	-	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-	-	-	-	-
Biomass	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>25.8</b>	<b>3.0</b>	<b>6.9</b>	<b>200.6</b>	<b>200.7</b>	<b>166.7</b>	<b>66.8</b>	<b>303.4</b>	<b>0.5</b>	<b>0.5</b>	<b>974.9</b>
<i>Cumulative Demand-Side Management</i>											
Demand Response (MW)	0.5	1.4	3.0	4.9	7.2	8.7	9.4	10.2	11.1	12.4	
Energy Efficiency (aMW)	3.4	7.1	11.2	15.8	19.7	24.0	29.2	34.5	39.8	44.5	
<b>Idaho (MW- Nameplate)</b>											
Market	13.6	1.3	3.3	-	-	-	-	-	-	-	18.2
Regional Transmission	-	-	-	-	-	-	-	101.6	-	-	101.6
Natural Gas	-	-	-	-	90.2	-	-	-	-	-	90.2
Solar	-	-	-	-	-	-	-	-	-	-	-
Wind	-	-	-	-	-	34.1	34.0	53.3	-	-	121.4
Storage	-	-	-	-	-	-	-	-	-	-	-
Power to Gas	-	-	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-	-	-	-	-
Biomass	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>13.6</b>	<b>1.3</b>	<b>3.3</b>	<b>-</b>	<b>90.2</b>	<b>34.1</b>	<b>34.0</b>	<b>155.0</b>	<b>-</b>	<b>-</b>	<b>331.5</b>
<i>Cumulative Demand-Side Management</i>											
Demand Response (MW)	-	-	-	0.1	0.3	0.7	1.0	1.2	1.3	1.3	
Energy Efficiency (aMW)	1.2	2.6	4.1	5.9	7.2	8.6	10.5	12.6	14.5	16.3	
<b>Resource Reductions (MW)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>0</b>	<b>164.0</b>

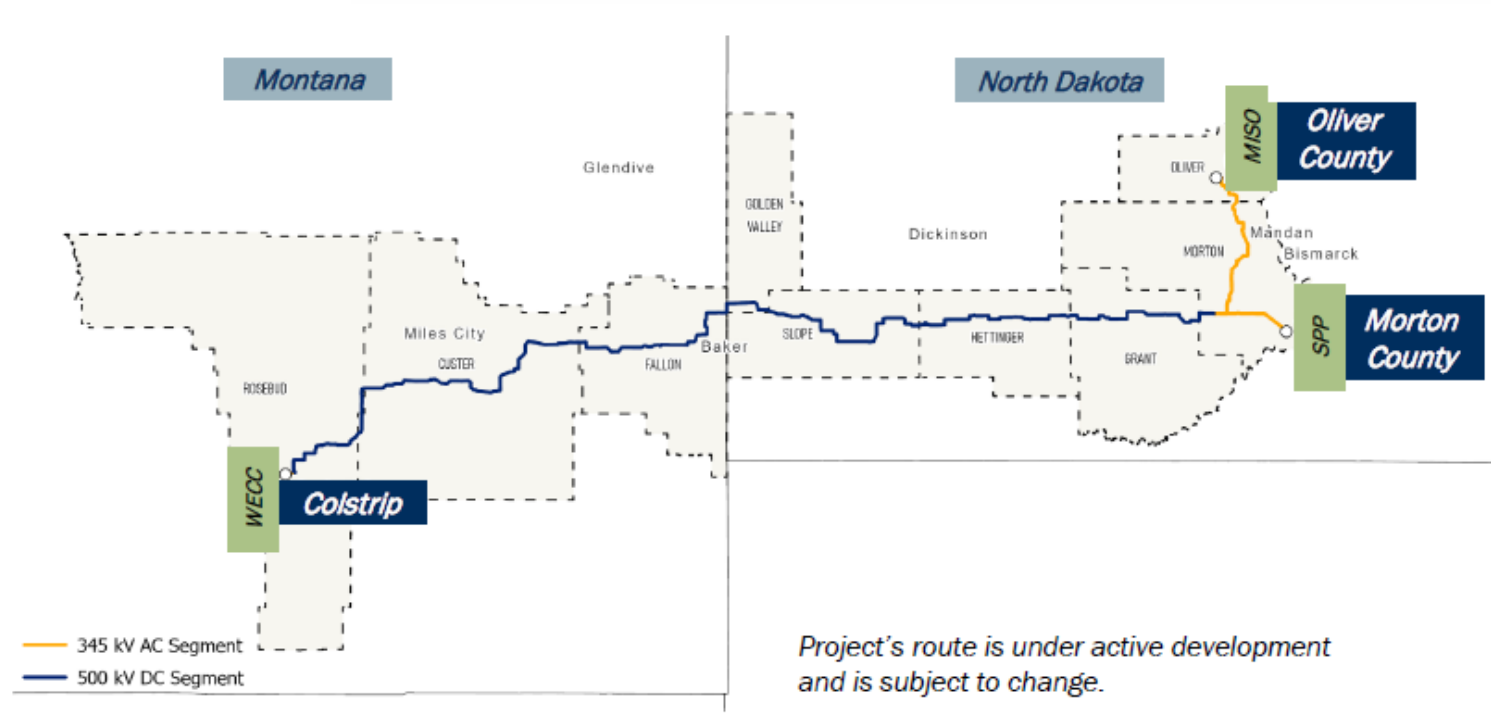
~78,000 MWh  
Biannual EE Target



# Revised Preferred Resource Strategy (2036-45)

	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	Total
<b>Washington (MW- Nameplate)</b>											
Market	-	-	-	-	-	-	-	-	-	-	-
Regional Transmission	-	-	-	-	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-	-	-	-	-
Solar	0.5	0.5	0.5	0.5	0.5	0.5	0.5	180.5	120.5	0.6	<b>305.1</b>
Wind	-	-	-	-	-	140.0	-	120.0	108.4	200.0	<b>568.4</b>
Storage	-	-	-	-	-	-	-	90.0	86.1	85.3	<b>261.4</b>
Power to Gas	-	-	-	-	90.2	-	209.8	-	-	94.3	<b>394.3</b>
Nuclear	-	-	-	-	-	-	-	-	-	100.0	<b>100.0</b>
Geothermal	-	-	-	-	-	-	-	-	-	20.0	<b>20.0</b>
Biomass	-	-	-	-	-	-	-	-	-	64.4	<b>64.4</b>
<b>Total</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>90.7</b>	<b>140.5</b>	<b>210.3</b>	<b>390.5</b>	<b>314.9</b>	<b>564.6</b>	<b>1,713.6</b>
<i>Cumulative Demand-Side Management</i>											
Demand Response (MW)	13.6	15.1	18.8	26.5	31.9	36.6	40.6	44.6	48.4	51.6	
Energy Efficiency (aMW)	49.1	53.5	57.6	61.1	64.4	67.6	70.0	72.7	75.2	77.3	
<b>Idaho (MW- Nameplate)</b>											
Market	-	-	-	-	-	-	-	-	-	-	-
Regional Transmission	-	-	-	-	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	90.2	-	94.9	-	-	-	<b>185.1</b>
Solar	-	-	-	-	-	-	-	-	-	-	-
Wind	-	-	-	-	-	-	-	-	-	-	-
Storage	-	-	-	-	-	-	-	-	-	-	-
Power to Gas	-	-	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-	-	-	-	-
Biomass	-	-	-	-	-	-	-	-	-	3.2	<b>3.2</b>
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>90.2</b>	<b>-</b>	<b>94.9</b>	<b>-</b>	<b>-</b>	<b>3.2</b>	
<i>Cumulative Demand-Side Management</i>											
Demand Response (MW)	1.4	1.4	1.7	2.1	2.5	2.9	3.7	5.8	8.7	10.6	
Energy Efficiency (aMW)	18.2	20.0	21.7	23.2	24.6	25.9	27.0	28.2	29.3	30.4	
<b>Resource Reductions (MW)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>36</b>	<b>140</b>	<b>282</b>	<b>105</b>	<b>0</b>	<b>390</b>	<b>973</b>

# North Plains Connector



At the 7/16/2024 TAC Meeting: 300 MW of this resource was selected between 2037-45. It was discussed this resource cannot be acquired in increments and not all benefits were modeled at this time

# Wind Selection Observations

- 850 MW of wind is selected between 2029-2033, this is a financially beneficial early action taking advantage of IRA benefits and low PPA prices.
  - If tax credits change or low priced PPA terms do not materialize, this selection will change.
  - Avista has limited transmission to integrate new wind in the service territory, if wind projects are exported off system, the PRS selection will reduce.
- Concerned with Montana Wind winter QCC could underestimate need for winter capability.
- Additional wind could be economic for Idaho customers, but the model allocates to Washington due to limited options to meet long-term CETA goals.

# Demand Response

Program	Customer Segment	Washington Start Year	WA	Idaho Start Year	ID
Electric Vehicle TOU	Commercial	2026	8.8	2029	0.7
Battery Energy Storage	All	2026	10.4	2035	1.5
Variable Peak Pricing	Large Commercial	2026	5.4	2029	1.7
Peak Time Rebate	Residential/Sm. Com.	2035	5.5	2040	4.0
Behavioral	Residential/Sm. Com.	2038	1.9	2043	1.0
Time of Use Rates	Residential/Sm. Com.	2038	2.5		n/a
Third Party Contracts	Large Commercial	2039	18.0	2044	3.1
CTA ERWH	Residential/Sm. Com.	2041	3.4		n/a
Central A/C	Residential/Sm. Com.	2043	5.2		n/a
<b>Total MW by 2045 (Highest of Summer/Winter)</b>			<b>61.2</b>		<b>12.0</b>

## Assumptions:

- Current industrial contract remains
- Idaho AMI by 2029
- Total savings assumes projects do not overlap into other programs
- Totals include ramped savings to 2045, based on the time period the program was selected

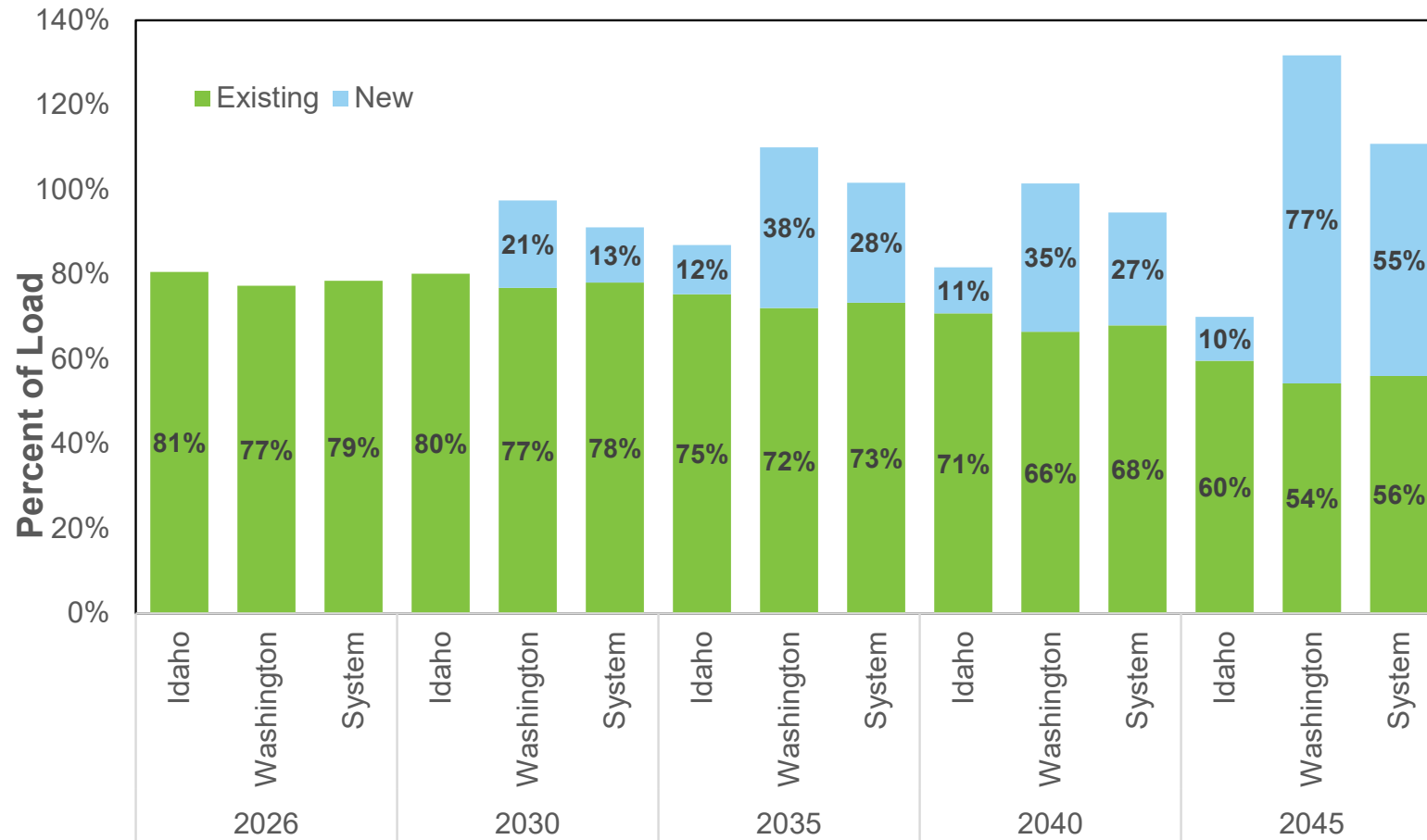
# Energy Efficiency Top Measure Types

Row	Measure	State	2035	Row	Measure	State	2035
1	Linear Lighting	WA	81.34	1	Linear Lighting	ID	43.34
2	Windows - High Efficiency (ENERGY STAR 7.0)	WA	27.98	2	High-Bay Lighting	ID	12.70
3	High-Bay Lighting	WA	25.00	3	Water Heater - Pipe Insulation	ID	7.90
4	Water Heater - Pipe Insulation	WA	18.13	4	Ducting - Repair and Sealing	ID	6.75
5	Ducting - Repair and Sealing	WA	17.70	5	Insulation - Ceiling Installation	ID	5.96
6	Ductless Mini Split Heat Pump	WA	17.11	6	Air-Source Heat Pump	ID	4.91
7	Air-Source Heat Pump	WA	16.05	7	Lodging - Guest Room Controls	ID	4.69
8	Water Heater (<= 55 Gal)	WA	13.69	8	Windows - Low-e Storm Addition	ID	4.34
9	Home Energy Reports	WA	10.43	9	Ventilation - Variable Speed Control	ID	4.27
10	Insulation - Ceiling Installation	WA	9.26	10	Home Energy Reports	ID	4.24
11	Ventilation - Variable Speed Control	WA	8.60	11	Grocery - Display Case - LED Lighting	ID	3.89
12	Advanced Industrial Motors	WA	7.81	12	Clothes Washer - CEE Tier 2	ID	3.60
13	Insulation - Wall Sheathing	WA	7.46	13	Fan System - Equipment Upgrade	ID	3.40
14	Windows - Low-e Storm Addition	WA	6.63	14	Refrigeration - High Efficiency Compressor	ID	3.24
15	Building Shell - Air Sealing (Infiltration Control)	WA	6.03	15	Kitchen Ventilation - Advanced Controls	ID	2.75
16	Kitchen Ventilation - Advanced Controls	WA	5.89	16	HVAC - Energy Recovery Ventilator	ID	2.66
17	Clothes Washer - CEE Tier 2	WA	5.70	17	Water Heater (<= 55 Gal)	ID	2.59
18	Strategic Energy Management	WA	5.38	18	General Service Lighting	ID	2.17
19	Insulation - Ceiling Upgrade	WA	5.16	19	Ventilation - Demand Controlled	ID	2.07
20	General Service Lighting	WA	4.90	20	Insulation - Ceiling Upgrade	ID	1.69
21	Pumping System - System Optimization	WA	4.89	21	Area Lighting	ID	1.68
22	HVAC - Energy Recovery Ventilator	WA	4.77	22	Water Heater - Faucet Aerators	ID	1.48
23	Fan System - Equipment Upgrade	WA	4.54	23	Furnace - Conversion to Air-Source Heat Pump	ID	1.32
24	Connected Thermostat - ENERGY STAR (1.0)	WA	4.49	24	Pumping System - System Optimization	ID	1.27
25	Refrigeration - High Efficiency Compressor	WA	3.98	25	Refrigeration - High Efficiency Evaporator Fan Motors	ID	1.26

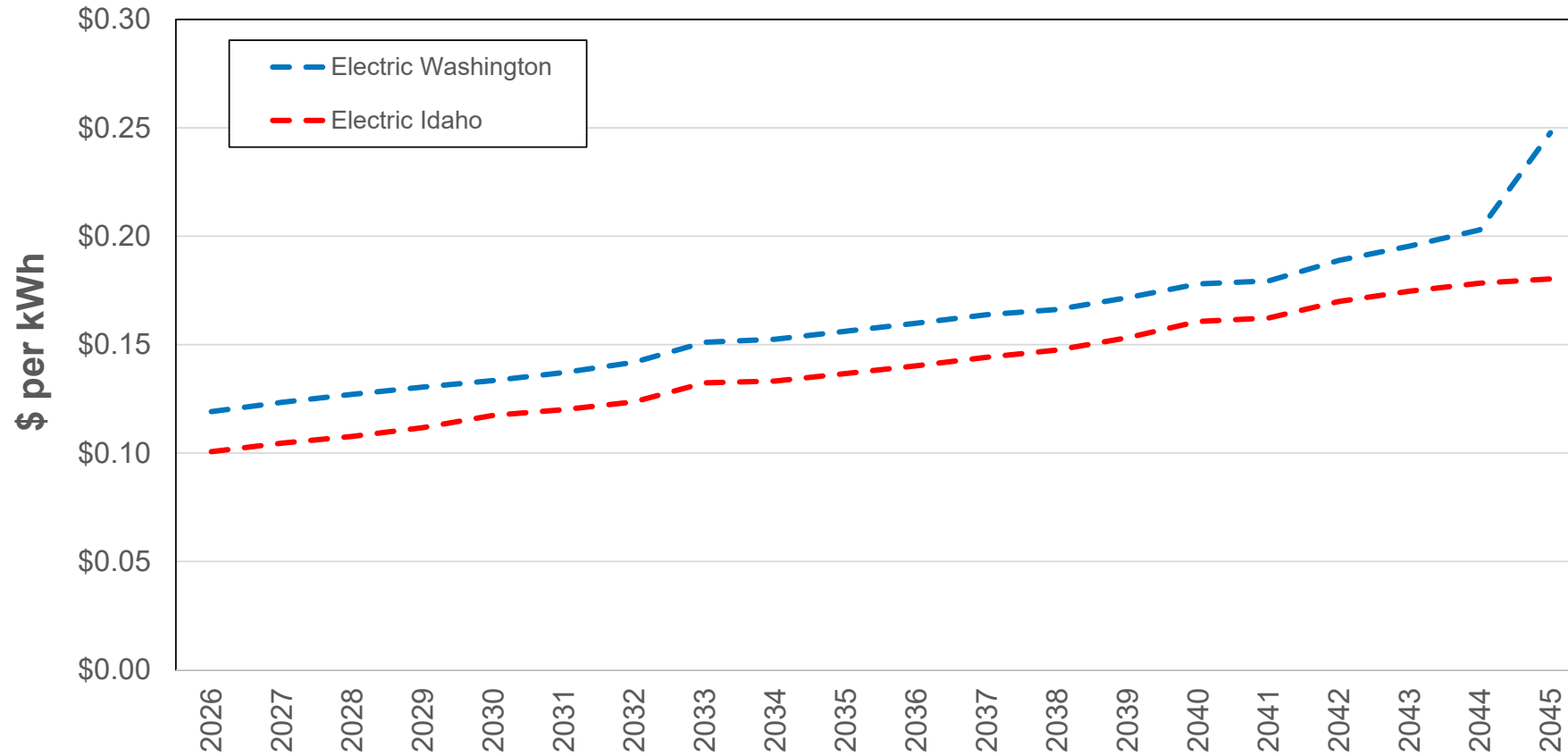
# Avista Transmission Considerations

- **Rathdrum Area:** New natural gas CTs begin in 2030, these are likely located in North Idaho, new transmission will be required, if projects continue to be sited in the area additional reinforcement is needed.
- **Off-System Imports:** Need to increase connections to markets/areas to reach additional wind to import by 2045.
- If within system renewables are exported off system, additional transmission within Avista BA will be needed.

# Clean Energy Forecast



# Average Energy Rate Forecast

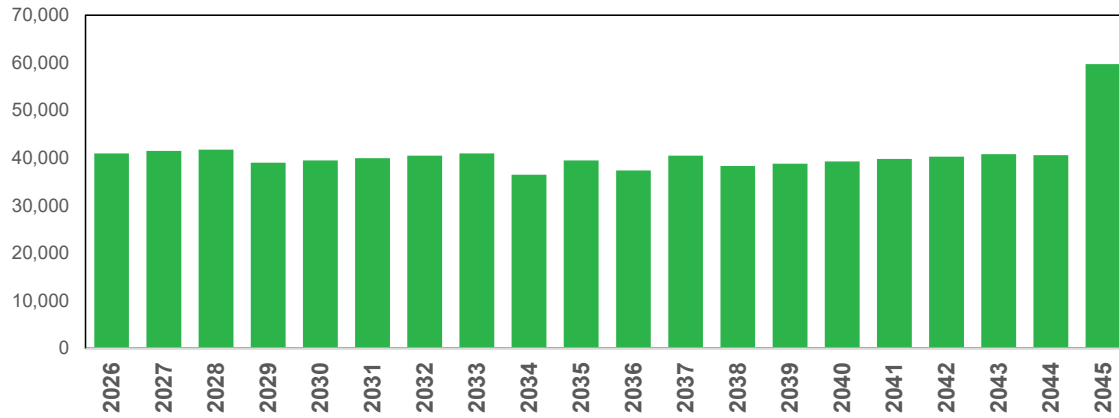


*Assumes non-modelled cost increase by 3.8% per year*

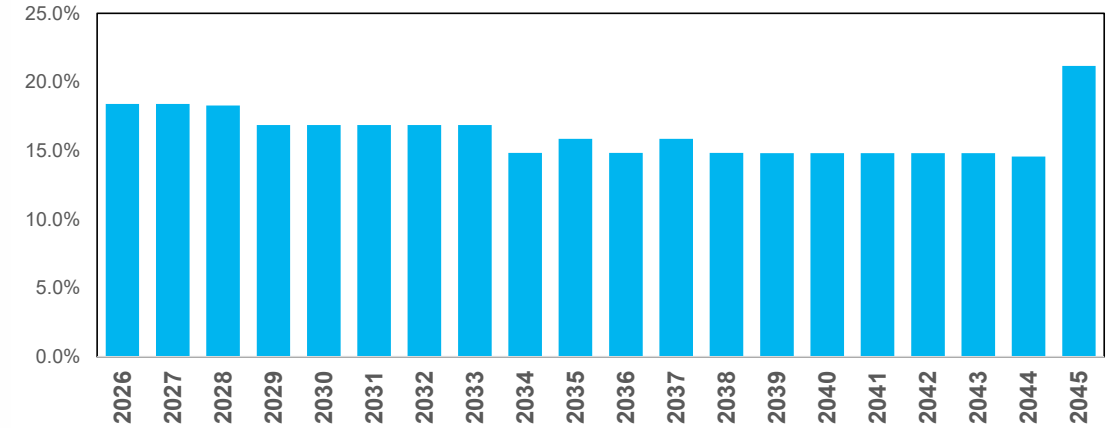


# Washington Energy Burden CBI

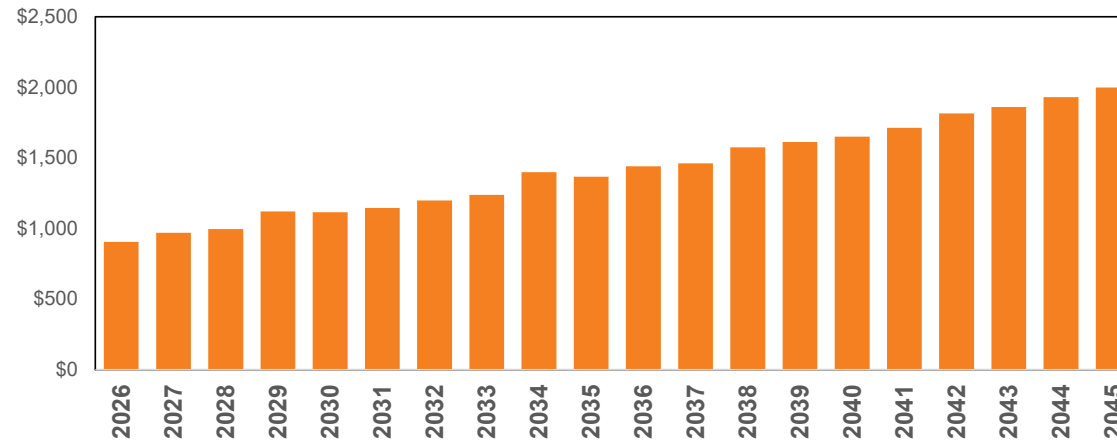
#2a: WA Customers with Excess Energy Burden (Before Energy Assistance)



#2b: Percent of WA Customers with Excess Energy Burden (Before Energy Assistance)

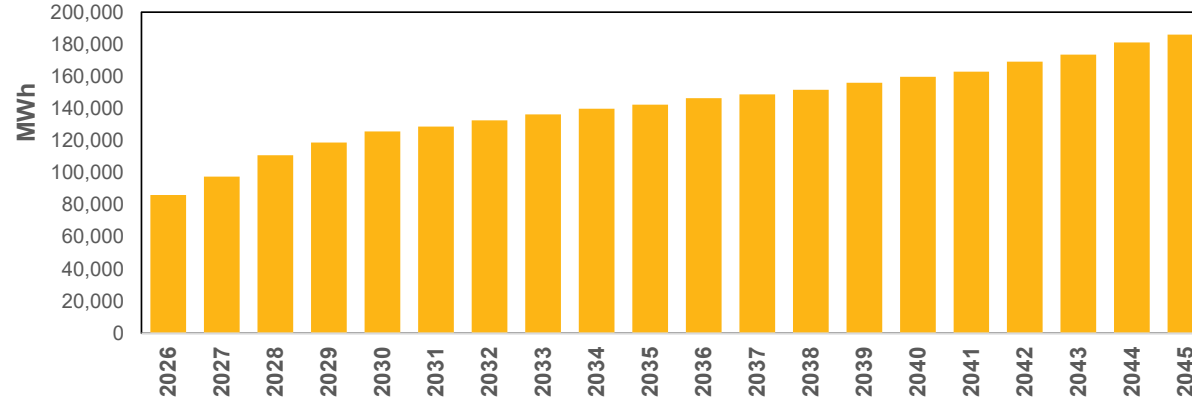


#2c: Average Excess Energy Burden (Before Energy Assistance)

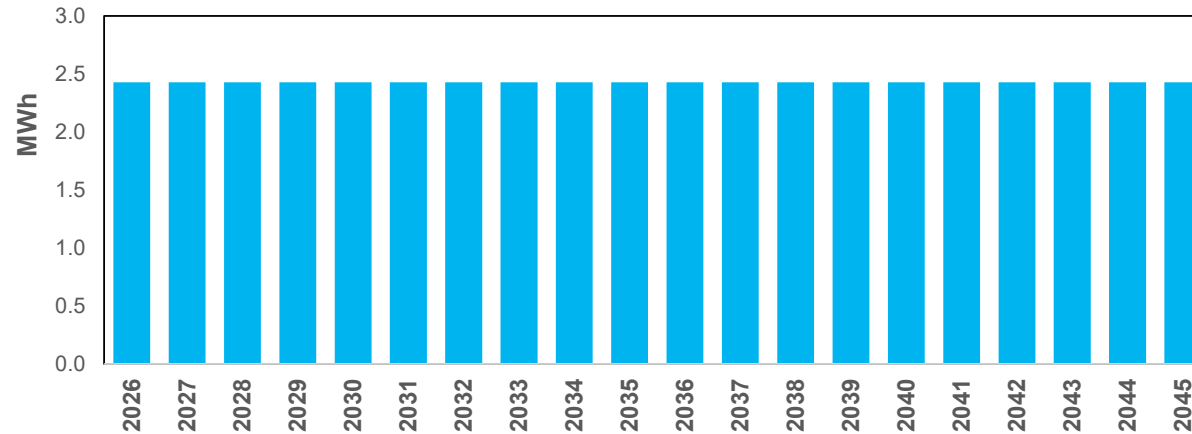


# DER Additions CBI

#5a: Total MWh of DER <5MW in Named Communities

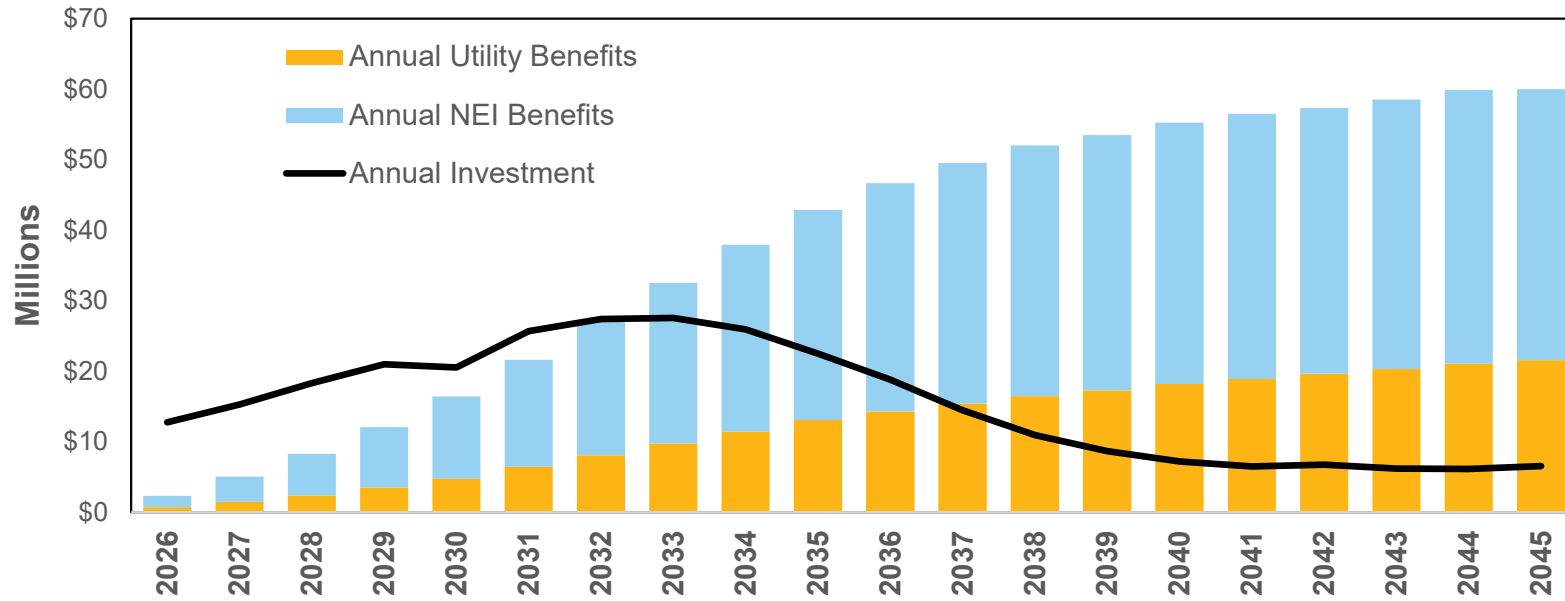


#5b: Total MWh Capability of DER Storage <5MW in Named Communities



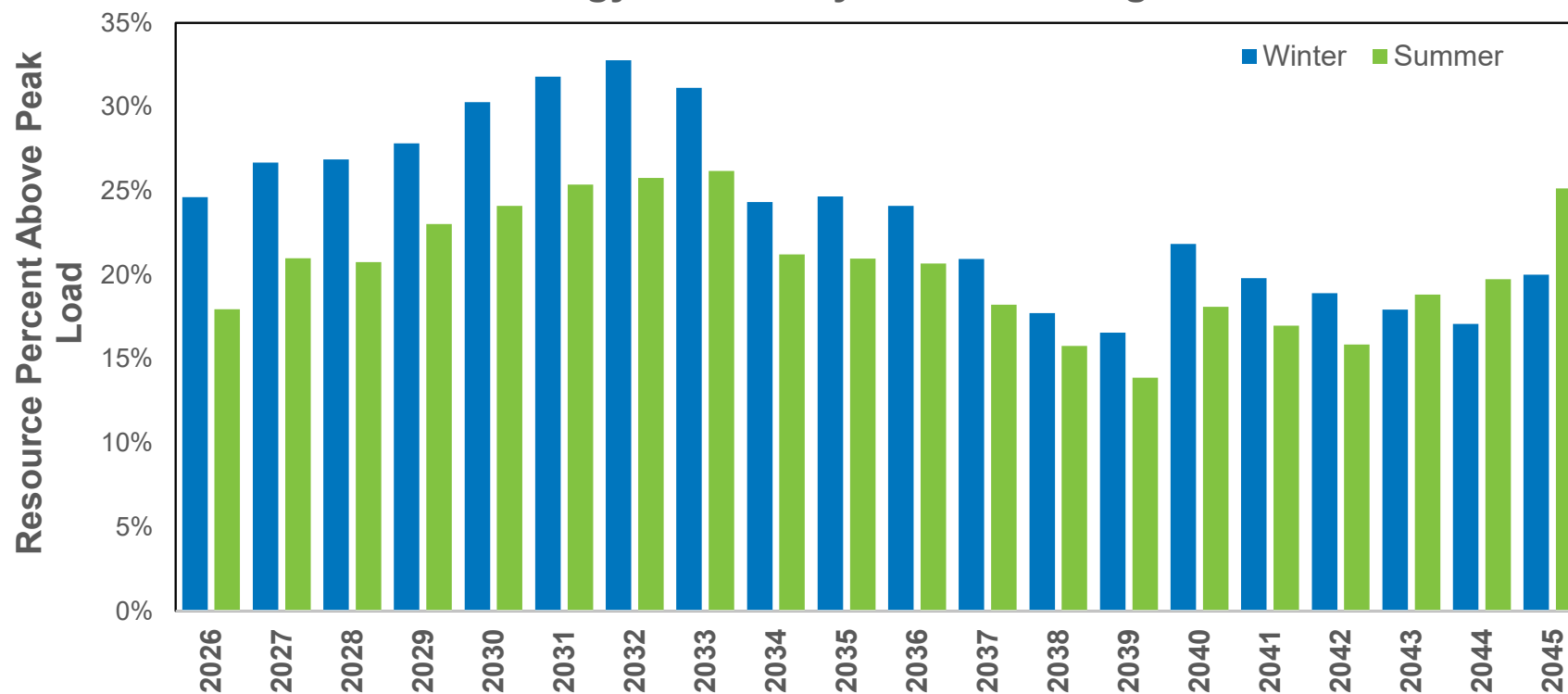
# WA Low Income/Named Community Investments CBI

### #6: Approximate Low Income/Named Community Investment and Benefits



# Reserve Margin CBI

## #7: Energy Availability- Reserve Margin

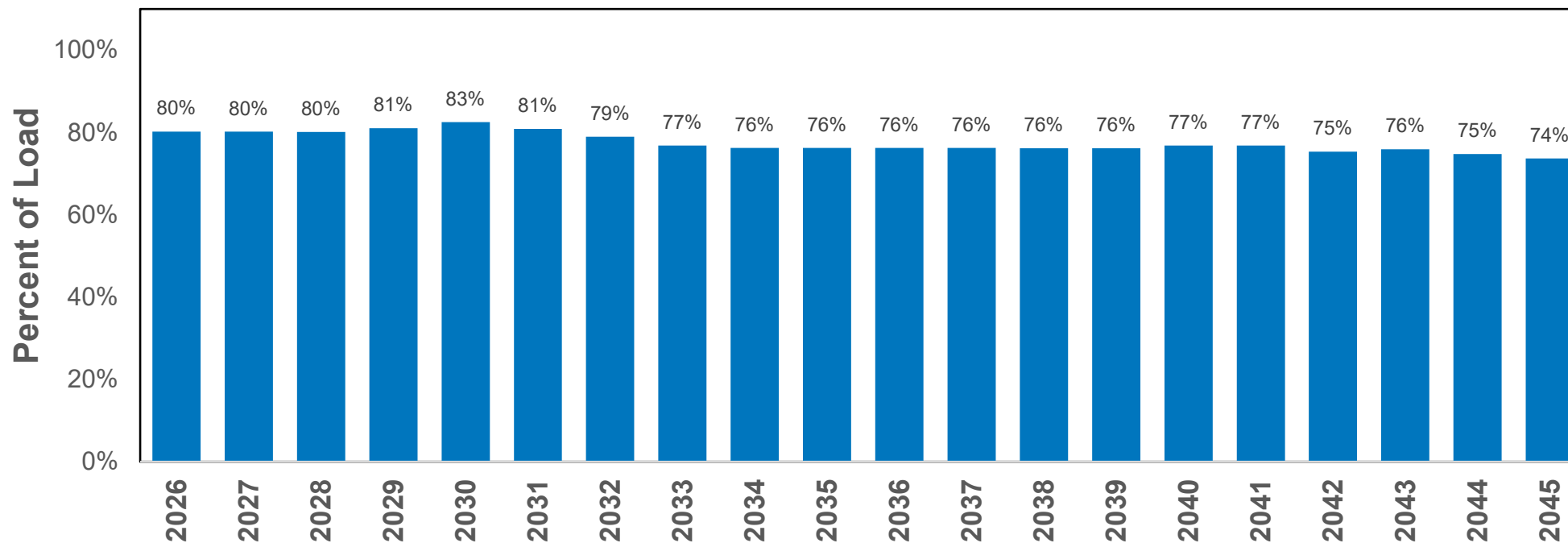


### Notes:

- Regional Transmission not included in Reserve Margin
- Demand Response reduced from peak load

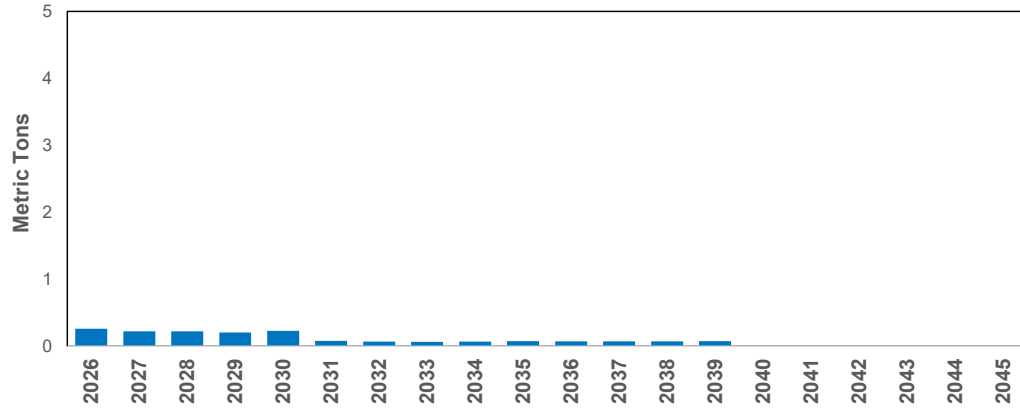
# Generation Location CBI

## #8: Generation in WA and/or Connected Transmission System (as a Percent of Generation)

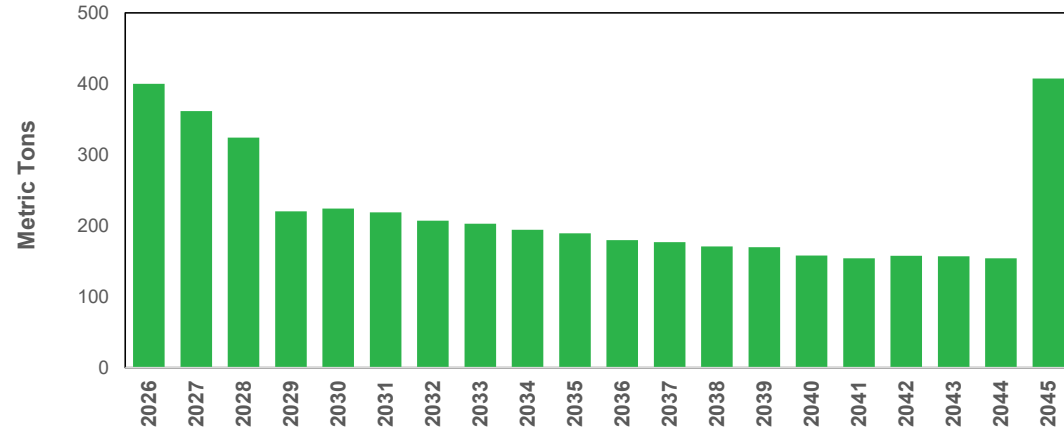


# Washington Air Emissions CBI

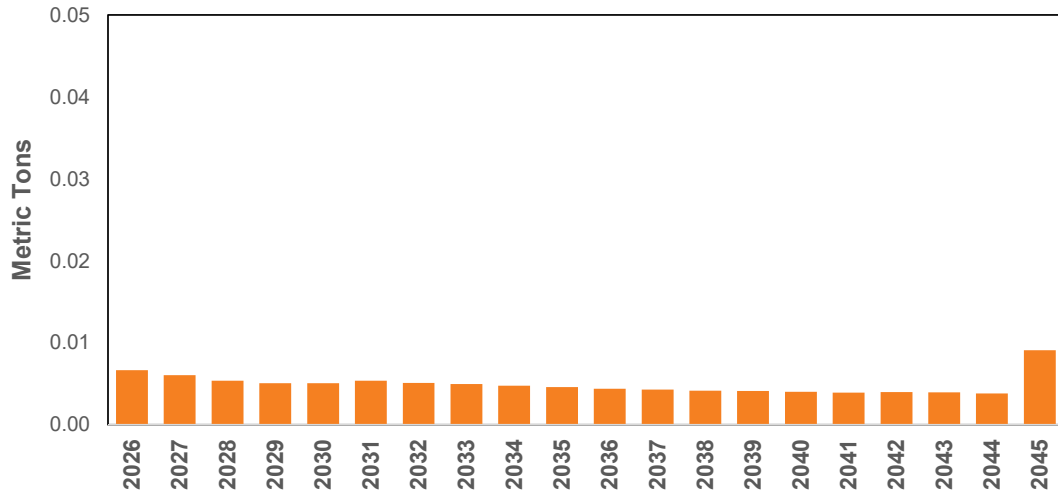
#9a: SO2



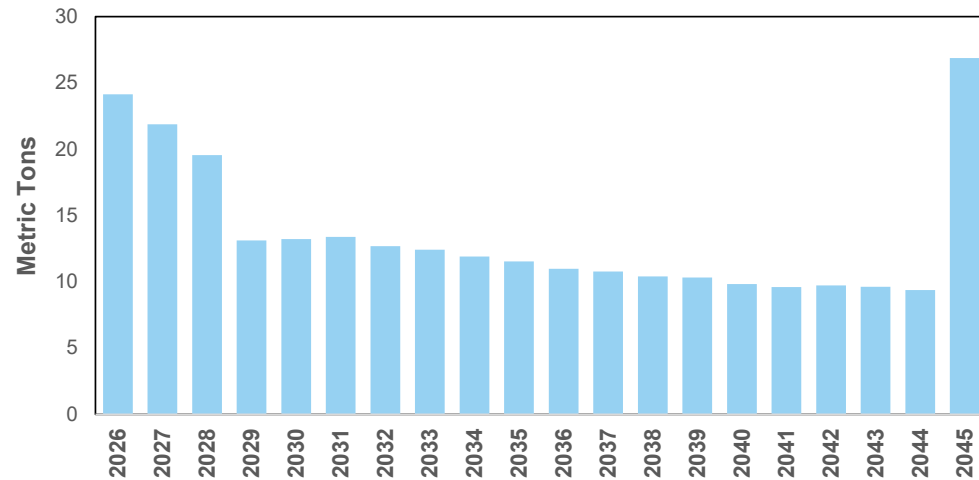
#9b: NOx



#9c: Mercury

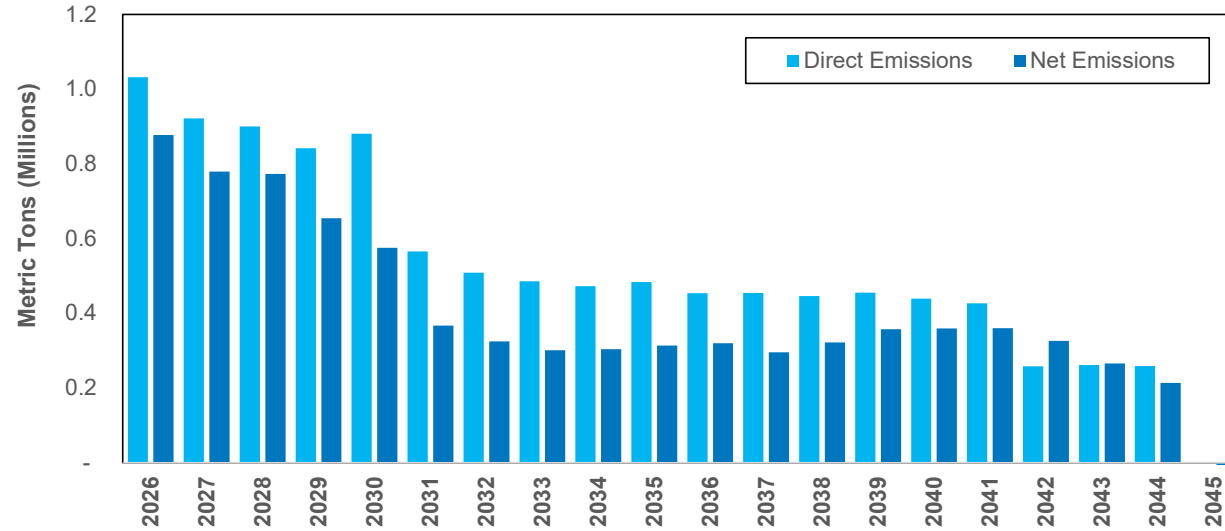


#9d: VOC

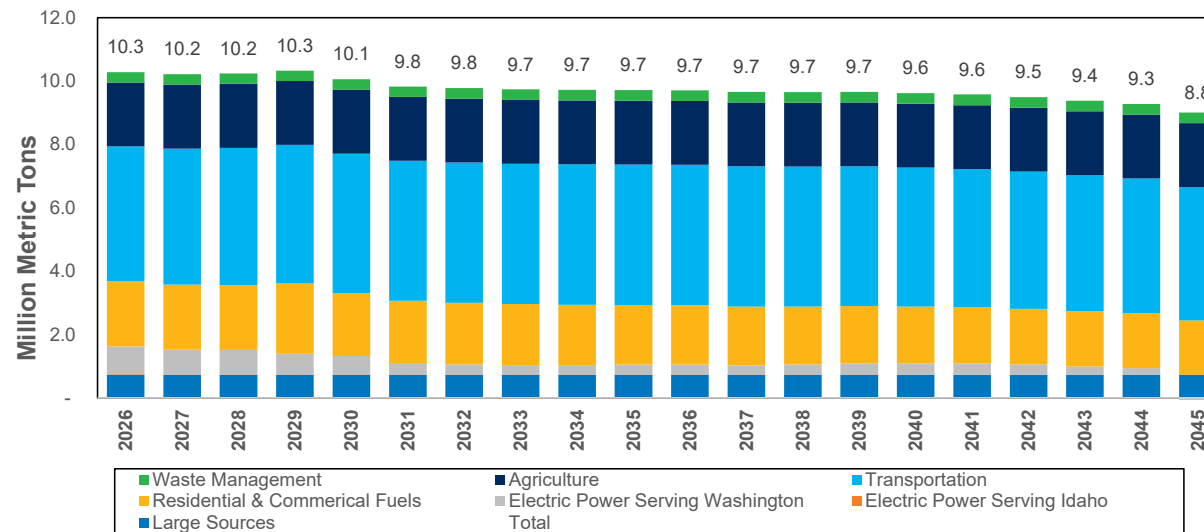


# WA Greenhouse Gas Emissions CBI

### #10a: Greenhouse Gas Emissions

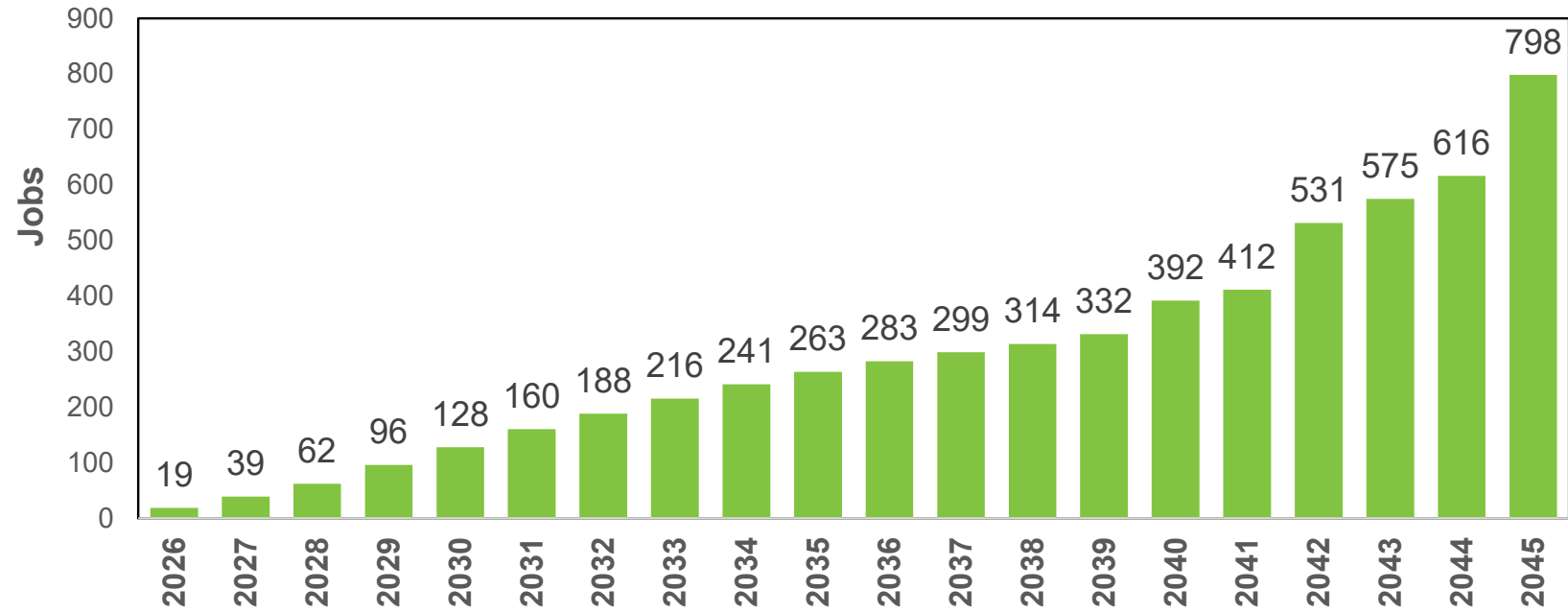


### #10b: Regional Greenhouse Gas Emissions



# Job Creation (Direct and Induced)

Jobs Created From Resource Selection

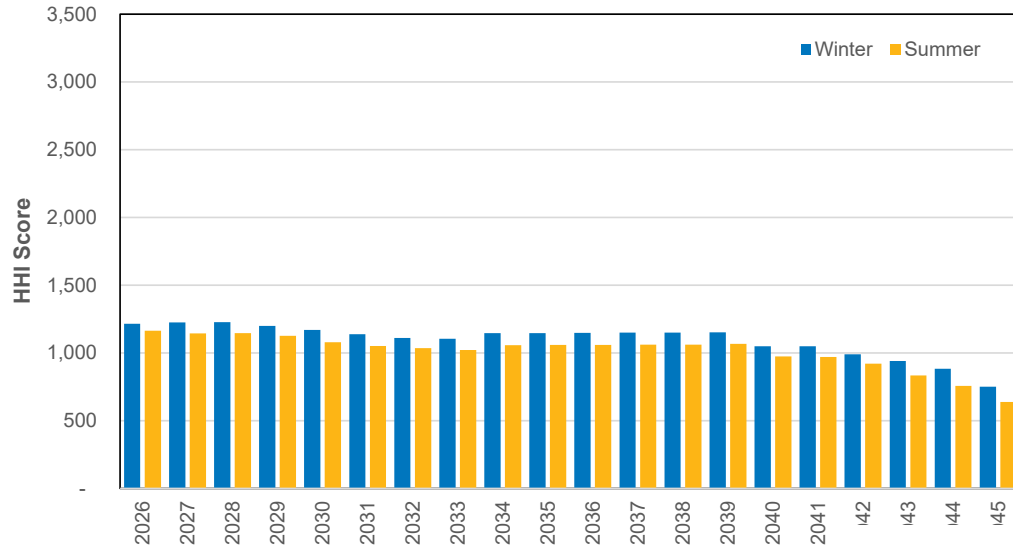


Job estimates based on spending to job relationship today using INPLAN

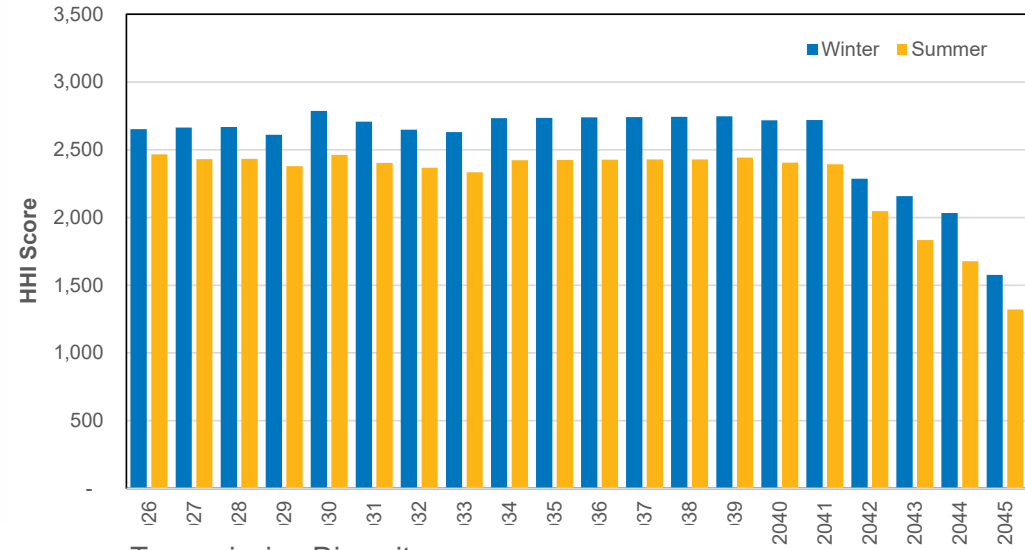


# Resource Diversity (Resource Resiliency Metrics)

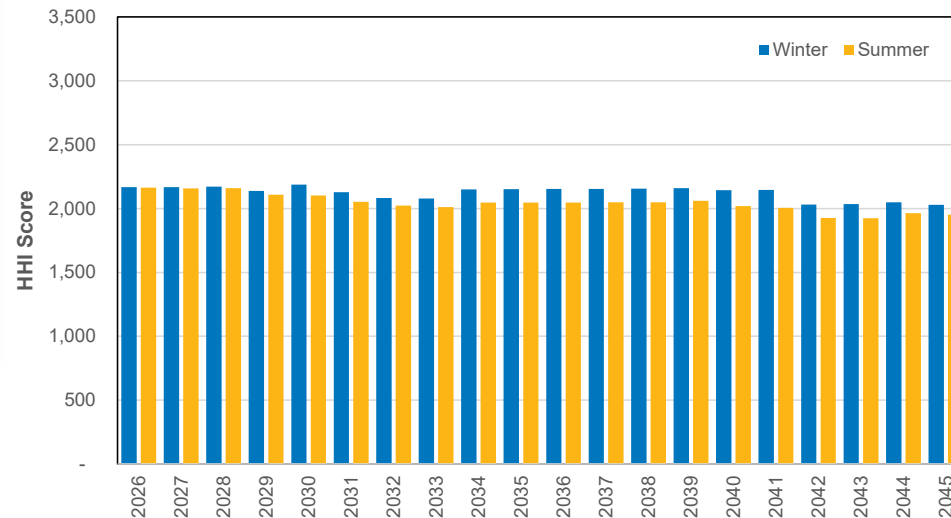
Facility Diversity



Fuel Diversity



Transmission Diversity



Score	Metric Meaning
<1,500	Competitive Marketplace
1,500-2,500	Moderately Concentrated
>2,500	Highly Concentrated

# Avoided Costs

Washington						Idaho					
Year	Flat Energy (\$/MWh)	On-Peak Energy (\$/MWh)	Off-Peak Energy (\$/MWh)	Capacity Premium (\$/kW-Yr)	Clean Capacity Premium (\$/kW-Yr)	Year	Flat Energy (\$/MWh)	On-Peak Energy (\$/MWh)	Off-Peak Energy (\$/MWh)	Capacity Premium (\$/kW-Yr)	Clean Capacity Premium (\$/kW-Yr)
2026	\$41.98	\$40.46	\$43.12	\$0.0	\$0.0	2026	\$41.61	\$40.42	\$42.50	\$0.0	\$0.0
2027	\$38.14	\$38.58	\$37.82	\$0.0	\$0.0	2027	\$37.88	\$38.70	\$37.26	\$0.0	\$0.0
2028	\$35.40	\$37.03	\$34.18	\$0.0	\$0.0	2028	\$35.13	\$37.19	\$33.57	\$0.0	\$0.0
2029	\$35.04	\$36.64	\$33.84	\$0.0	\$0.0	2029	\$34.57	\$36.64	\$33.01	\$0.0	\$0.0
2030	\$39.18	\$40.90	\$37.89	\$27.2	\$82.4	2030	\$38.56	\$40.85	\$36.84	\$27.2	\$0.0
2031	\$44.10	\$46.40	\$42.38	\$27.8	\$84.1	2031	\$43.00	\$45.74	\$40.96	\$27.8	\$0.0
2032	\$44.33	\$47.09	\$42.27	\$28.3	\$85.8	2032	\$42.74	\$45.92	\$40.36	\$28.3	\$0.0
2033	\$45.40	\$48.29	\$43.23	\$28.9	\$87.5	2033	\$43.82	\$47.20	\$41.29	\$28.9	\$0.0
2034	\$45.55	\$48.72	\$43.17	\$29.5	\$59.8	2034	\$43.92	\$47.54	\$41.19	\$29.5	\$0.0
2035	\$46.71	\$49.96	\$44.27	\$30.0	\$61.0	2035	\$44.93	\$48.59	\$42.18	\$30.0	\$0.0
2036	\$46.40	\$49.74	\$43.90	\$30.6	\$62.2	2036	\$44.50	\$48.21	\$41.72	\$30.6	\$0.0
2037	\$47.66	\$51.45	\$44.82	\$31.3	\$63.4	2037	\$45.69	\$49.82	\$42.61	\$31.3	\$0.0
2038	\$47.77	\$51.51	\$44.98	\$31.9	\$64.7	2038	\$45.66	\$49.68	\$42.64	\$31.9	\$0.0
2039	\$48.48	\$52.35	\$45.58	\$32.5	\$66.0	2039	\$46.29	\$50.42	\$43.19	\$32.5	\$0.0
2040	\$49.59	\$53.79	\$46.43	\$33.2	\$67.3	2040	\$47.28	\$51.69	\$43.96	\$33.2	\$0.0
2041	\$50.01	\$54.44	\$46.68	\$33.8	\$68.6	2041	\$47.66	\$52.29	\$44.19	\$33.8	\$0.0
2042	\$52.31	\$56.90	\$48.88	\$34.5	\$70.0	2042	\$49.92	\$54.68	\$46.35	\$34.5	\$0.0
2043	\$52.97	\$57.66	\$49.45	\$35.2	\$71.4	2043	\$50.52	\$55.38	\$46.88	\$35.2	\$0.0
2044	\$53.84	\$58.61	\$50.27	\$35.9	\$72.8	2044	\$51.24	\$56.12	\$47.58	\$35.9	\$0.0
2045	\$55.07	\$59.83	\$51.48	\$36.6	\$74.3	2045	\$52.39	\$57.26	\$48.71	\$36.6	\$0.0
<b>20 yr Levelized</b>	<b>\$44.13</b>	<b>\$46.60</b>	<b>\$42.27</b>	<b>\$21.28</b>	<b>\$49.93</b>	<b>20 yr Levelized</b>	<b>\$42.78</b>	<b>\$45.62</b>	<b>\$40.65</b>	<b>\$21.28</b>	<b>\$0.00</b>

Capacity Credit is lower due to margin from wind projects, CT capacity payment is ~\$90/kW-yr

# Portfolio Scenarios (includes changes)

Methodology	Load Scenarios	Resource Availability	Other
Alternative Lowest Reasonable Cost [only used for 2026-2029]	Low Growth	Clean Resource Portfolio by 2045	17% PRM (replaces lower WRAP PRM scenario)
Baseline Least Cost Portfolio [excludes CETA]	High Growth	500 MW Nuclear in 2030	30% PRM (replaces 0% LOLP scenario)
Minimal Viable CETA Target	RCP 8.5 Weather	Power to Gas Unavailable	Maximum Washington Customer Benefit
Maximum Viable CETA Target	80% Washington Building Electrification by 2045	<del>Nuclear Cost Sensitivity</del>	PRS w/ CCA repealed
<del>PRS Constrained to the 2% Cost Cap</del> (replaces unconstrained cost cap)	80% Washington Building Electrification by 2045 & High Transportation Electrification Scenario	<del>High QCC on Demand Response</del>	
	80% Washington Building Electrification by 2045 & High Transportation Electrification Scenario with RCP 8.5 Weather	<del>Regional Transmission not Available</del>	
	Extreme Building/Transportation Electrification for Washington & Idaho w/o new Natural Gas CTs	<del>Northeast Early Retirement</del>	
	Data Center in 2030	<del>On-System Wind Limited to 200 MW</del>	
		<del>No IRA Tax Incentives</del>	

\*\*Proposed Portfolio Changes in Red