Cost-effectiveness & Evaluation Advisory Committee (CEAC)

Northwest Energy Efficiency Alliance

April 23, 2026



CLASSIFICATION LEVEL: PUBLIC

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Agenda

TIME	TOPIC
10:00AM	Welcome/Agenda Review/Announcements
10:15	Market Transformation Framework
10:55AM	Market Story: Luminaire Level Lighting Control
11:05AM	Market Transformation Value
11:35AM	Market Story: Retail Product Portfolio
11:55AM	LUNCH
12:55PM	Market Transformation Costs and Benefits
1:25PM	MRE Update
1:35PM	Key Inputs and Assumption Updates
2:05PM	2025 Market Progress and Portfolio Overview
2:30PM	Market Story: Reduced Wattage Lamp Replacement
2:40PM	Market Story: Extended Motor Products (Pumps)
2:50PM	Market Story: Heat Pump Water Heaters
3:05PM	WRAP UP

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Introductions & Ice Breaker (In-chat)

- Name
- Organization
- Favorite Childhood Toy



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Efficiency Exchange 2026 (EFX26)

neea.org/EFX

EFX26 In-person Conference

May 5-6 in Boise, ID

Preconference tours and networking on May 4



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New MAP Manager



Elizabeth Daykin

Elizabeth has 20 years of experience in energy efficiency and analytics. She previously served as COO at Cadeo (now part of Resource Innovations), where she helped build and scale the firm's operational and analytic capabilities. Before that, she led large-scale analytics projects as a Consulting Director at Corios, supported program planning and research at BPA, and conducted planning and cost effectiveness analyses as a Senior Associate at Cadmus.

Outside of work, Elizabeth enjoys hiking with her dogs, volunteering, learning German, playing card & board games, and making people wince at karaoke nights.

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Funder Portal, Materials, and Timing

Funder Portal *NEEA SharePoint*	
	Energy Savings Report *Updated Q1/Q2, upon request*
	• Annual Savings Report • Customized Workbook
	Guidelines and Data Sources *Updated in April*
	• Estimation Approaches & Data Sources • NEEA Guidelines
	Methodologies *Updated in April*
	• Methodology Documentation

If you need an account or need technical support, please contact Chris Clark (CClark@neea.org)

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Market Transformation Framework

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Question to answer today

- **What** is market transformation?
- **Why** do market transformation?
- **Where** does market transformation take place?
- **How** is market transformation achieved in the Northwest?

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***What** is Market Transformation?*

*The **strategic process** of **intervening in a market** to create **lasting change***

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***What** is Market Transformation… to NEEA?*

The strategic process of intervening in a market to create lasting change in market behavior ***by removing identified barriers and/or exploiting opportunities to accelerate the adoption of all cost-effective energy efficiency as a matter of standard practice.***

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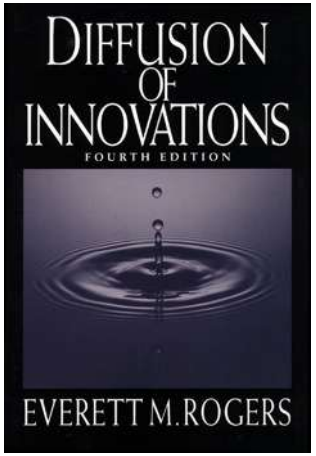
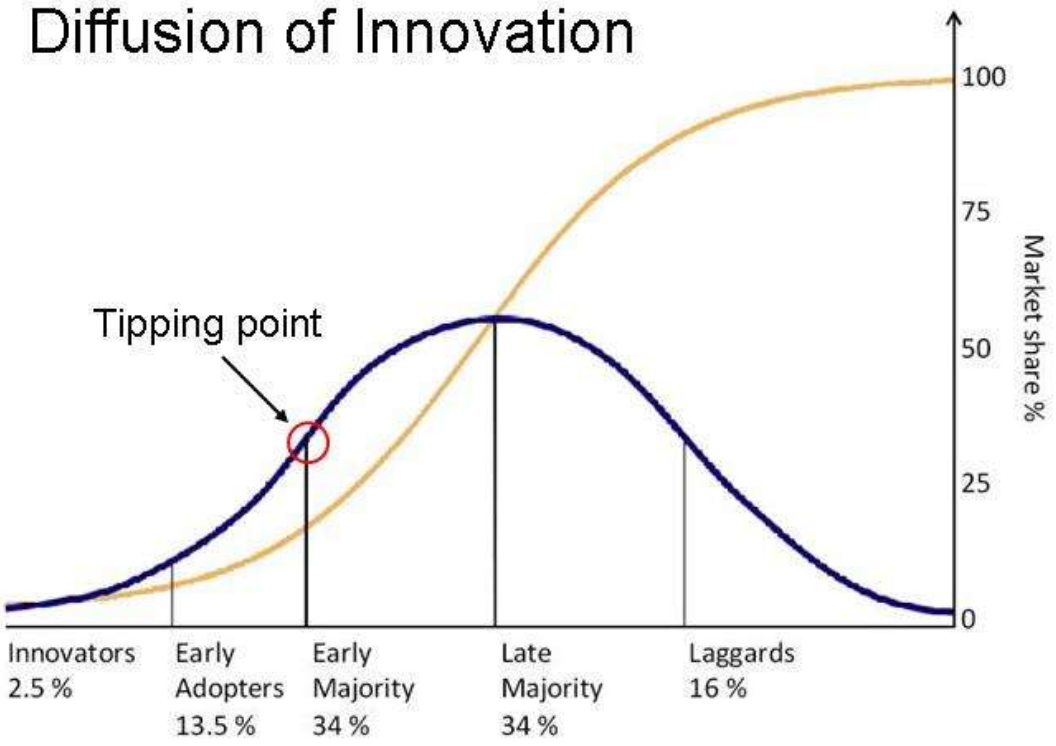
Market Transformation and Diffusion of Innovation





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__Why__ do market transformation?

NEEA Purpose

NEEA is an alliance of utilities that **pool resources** and **share risks** to **transform the market for energy efficiency** to the benefit of consumers in the Northwest.

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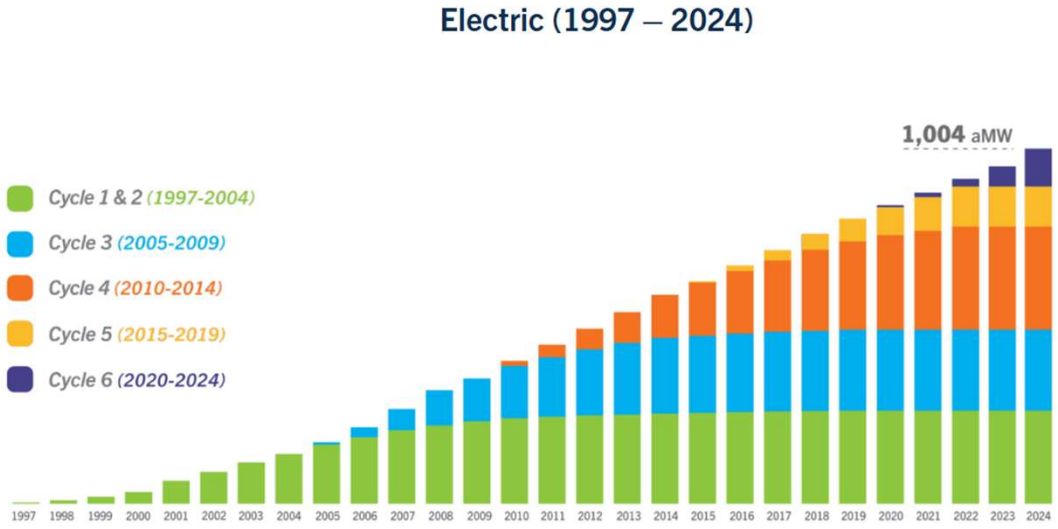
Why do market transformation?

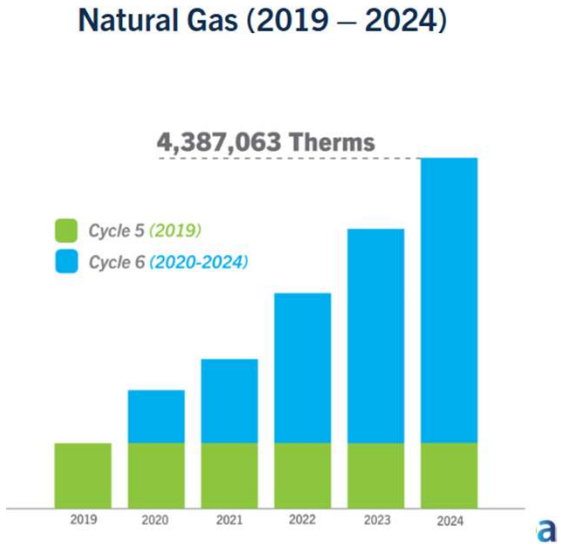
NEEA Purpose

NEEA is an alliance of utilities that **pool resources** and **share risks** to **transform the market for energy efficiency** to the benefit of consumers in the Northwest.

And also because…

Co-created Savings 1997 – 2024





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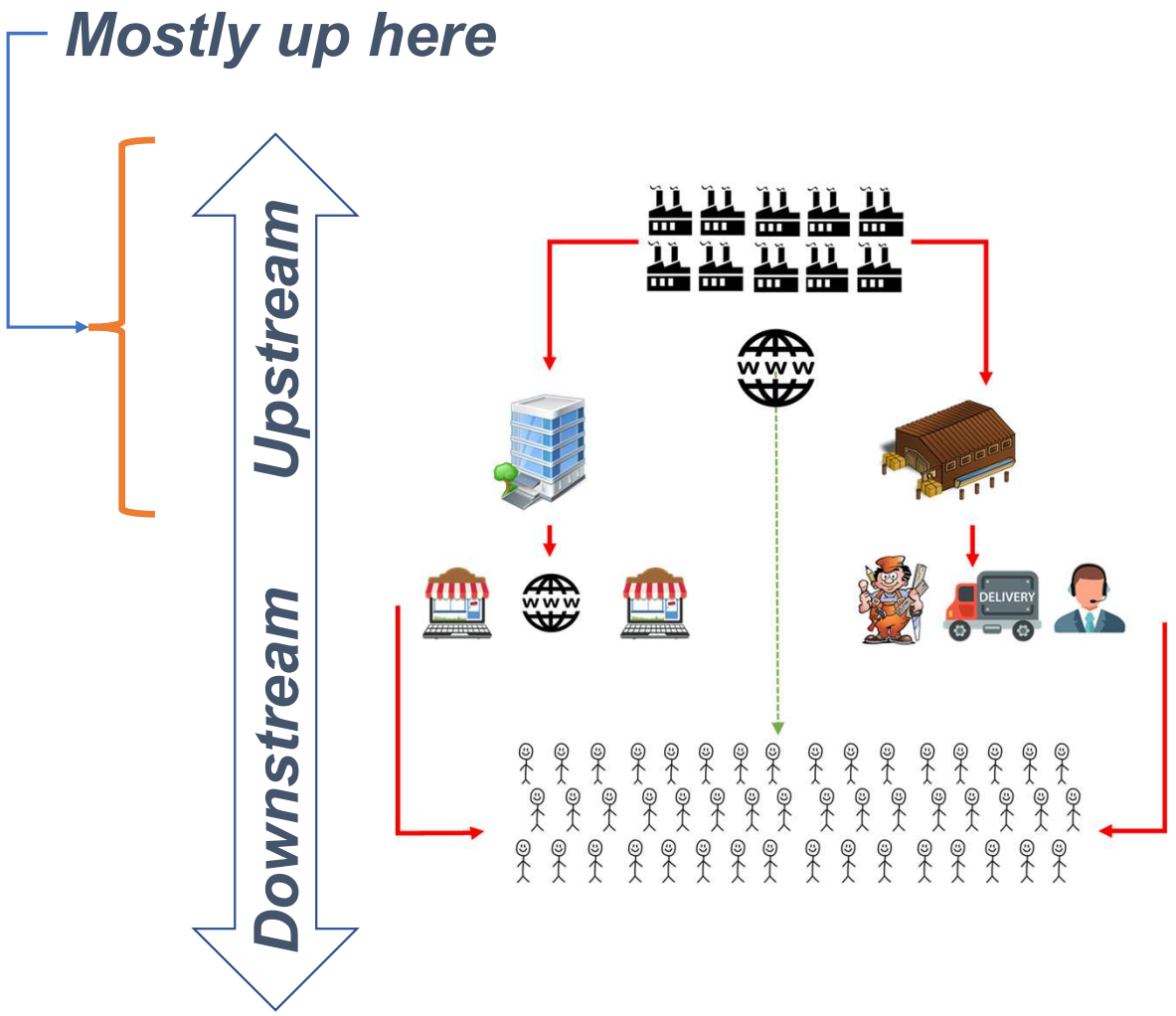
***Where** does market transformation take place?*



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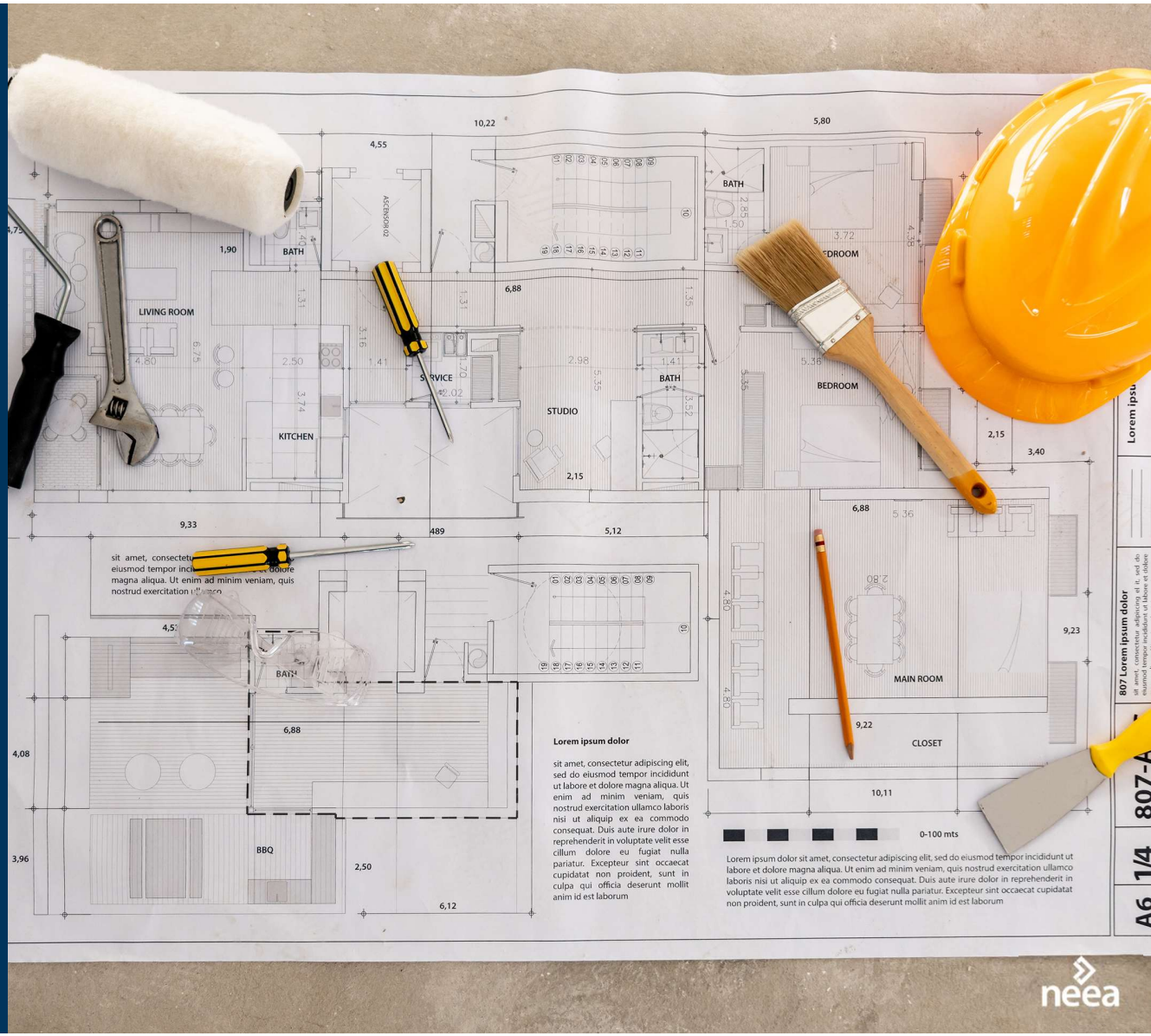
***How** is market transformation achieved in the Northwest?*



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Implementing Market Transformation Step by Step

Step Zero:

Market Characterization & Baseline

Step One:

Barriers and Opportunities

Step Two:

Design Interventions / Establish Metrics

Step Three:

Implementation, Evaluation, and Adaptive Management

Initiative Lifecycle



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Step Zero:

Market Characterization & Baseline

Step One:

Barriers and Opportunities

Step Two:

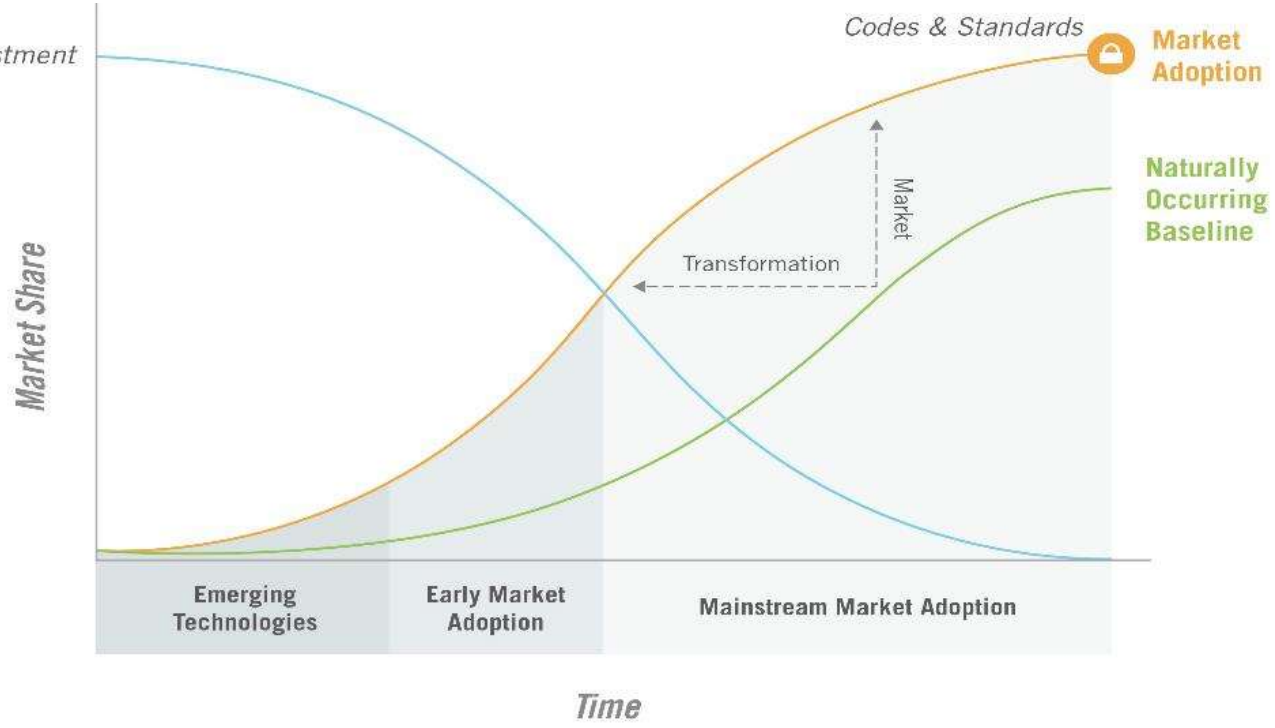
Design Interventions / Establish Metrics

Step Three:

Implementation, Evaluation, and Adaptive Management

Key Objectives

- Market Characterization
- Baseline Development:
  - Pre-intervention Market Conditions
  - Forecast



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Step Zero:

Market Characterization & Baseline

Step One:

Barriers and Opportunities

Step Two:

Design Interventions / Establish Metrics

Step Three:

Implementation, Evaluation, and Adaptive Management



Availability?

Supply chain?

Awareness?

Confusion?

Price?



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Step Zero:

Market Characterization & Baseline

Step One:

Barriers and Opportunities

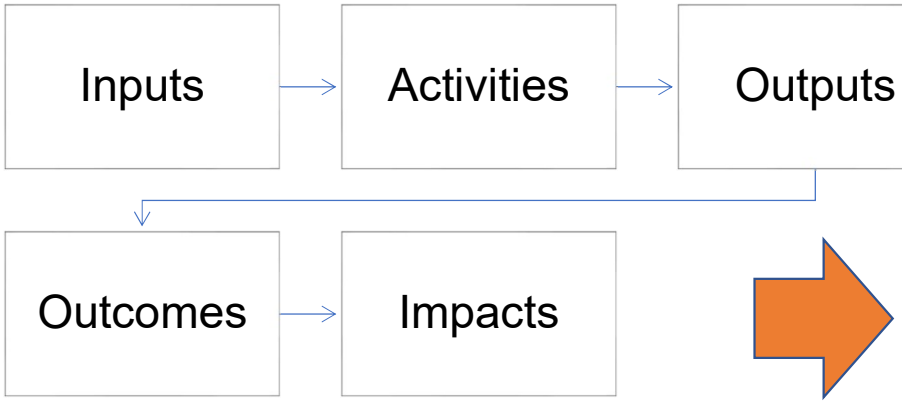
Step Two:

Design Interventions / Establish Metrics

Step Three:

Implementation, Evaluation, and Adaptive Management

Logic Model



Key Objectives

- Develop Market Progress Indicators

Market Progress Indicators



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Examples: Outcome →

Logic Model Outcome	Installers choose the efficient approach	Manufacturers have commercialized products available in the market	ENERGY STAR adopts the specification
Market Progress Indicator (MPI)	• Trained installers report installing more of the efficient product than in previous years. • The general population of installers install the efficient product more than in previous years. • Distributor sales of the efficient product increases year-over-year	• The number of manufacturers that have commercially available products increases or does not decline year over year. • Categorizing manufacturers by market share into low, medium and high, the number of high-volume manufacturers that offer the product increases, or does not decline, year over year	• ENERGY STAR adopts the specification

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Step Zero:

Market Characterization & Baseline

Step One:

Barriers and Opportunities

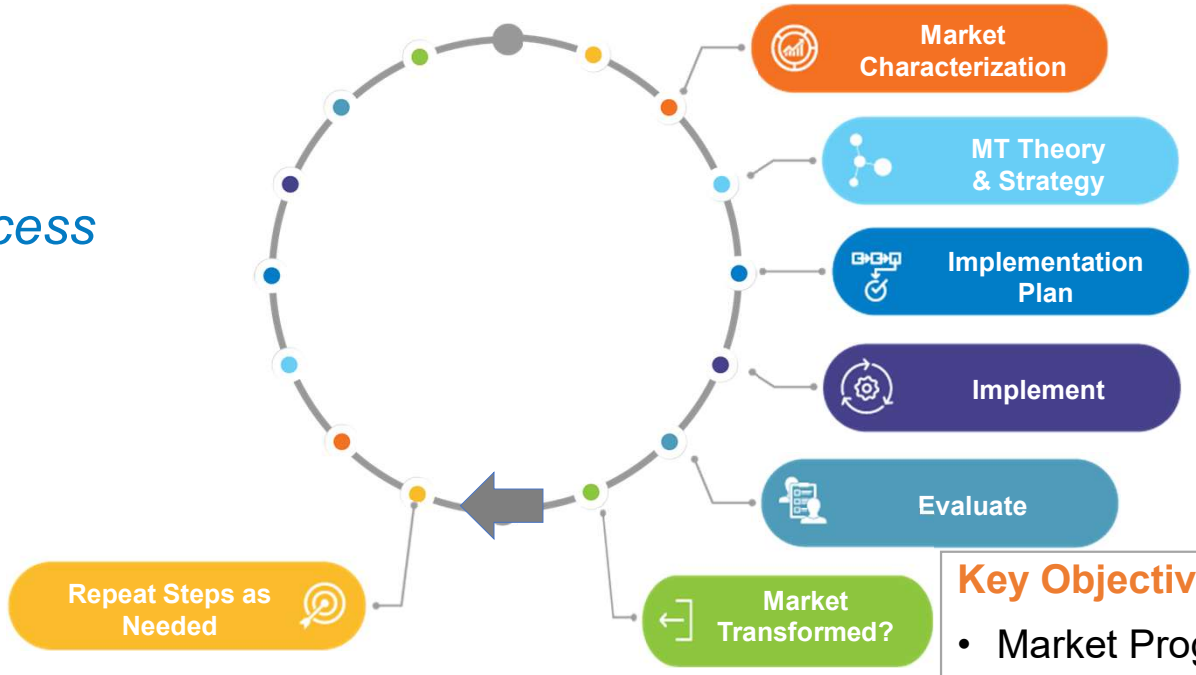
Step Two:

Design Interventions / Establish Metrics

Step Three:

Implementation, Evaluation, and Adaptive Management

Implementation:
A continuous improvement process



Key Objectives

- Market Progress Evaluations
- Long-term Monitoring and Tracking Reports

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Questions?



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Luminaire Level Lighting Controls: 2025 Market Story

Zdanna King & Kathryn Bae

NEEA

4/23/2026



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LLLC Program: Market Transformation Goal

To create a market where LLLC are the standard practice for commercial buildings in the Northwest (including new construction, major renovations, and lighting retrofits).



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NEEA's LLLC Program

NEEA works with manufacturers and their sales channels, as well as professional organizations to overcome barriers (lack of skilled trade allies, value proposition, high first cost, and product readiness)

2016
Market Characterization

2019
LLLC program advances into market development

2021
LLLC MPER #1

2023
LLLC MPER #2

2025
LLLC MPER #3



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NEEA's LLLC Program: Market Actor Trends from MPER 3

Notable increases in 5 MPIs

- Almost all lighting professionals were aware of (94%) and could bid on LLLC projects (89%).
- 4 out of 5 (83%) of lighting installers noted it was easier to install than other NLC.
- More lighting designers/specifiers are writing LLLC into project plans (67%) and recommending LLLC to clients (73%).

1 MPI decreased

- Half of installation companies reported having had formal training in LLLC (47%), compared with ¾ in the last MPER.

Other MPIs remained stable, some at high levels and some with room to grow.

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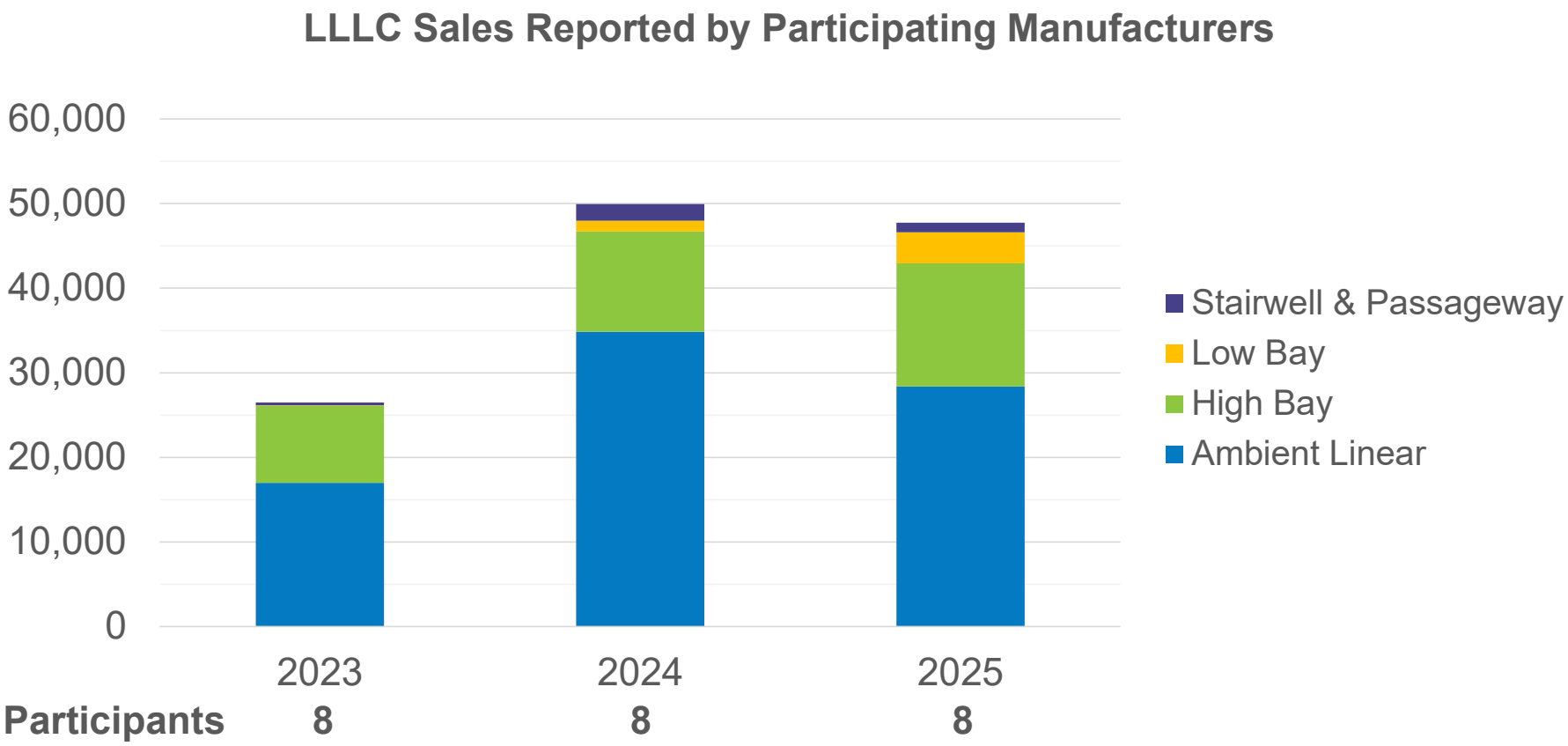
LLLC Sales Stabilizing at Elevated Levels



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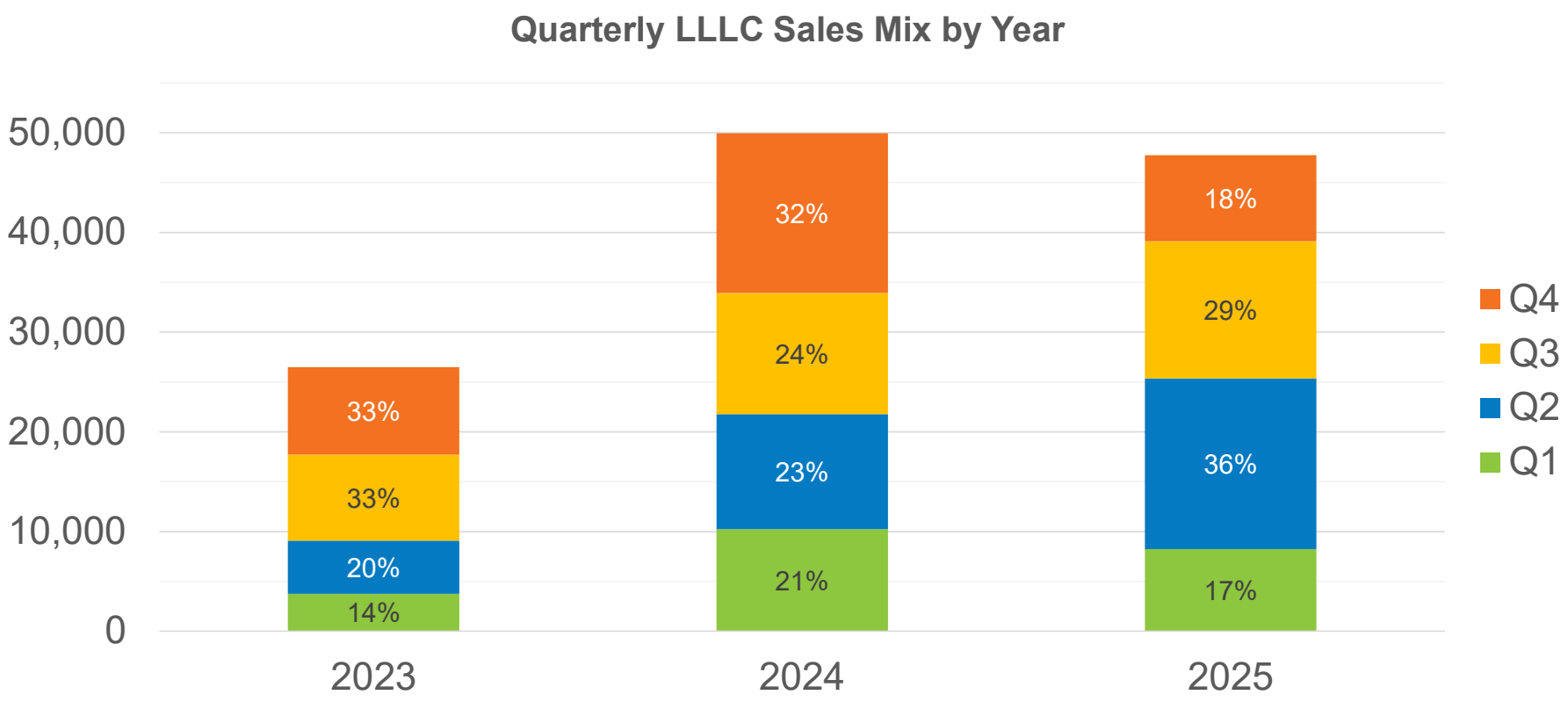
Quarterly Sales Mix Shifted in 2025



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Market Transformation Value

Objectives

- Provide background context so committee members understand the savings values in funder savings reports and NEEA's corporate-level reporting.

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Evaluation Supports Savings Reporting



Savings are important, but not how progress is measured



Progress is measured through evaluation of logic model



Evaluation enables savings reporting at the market level

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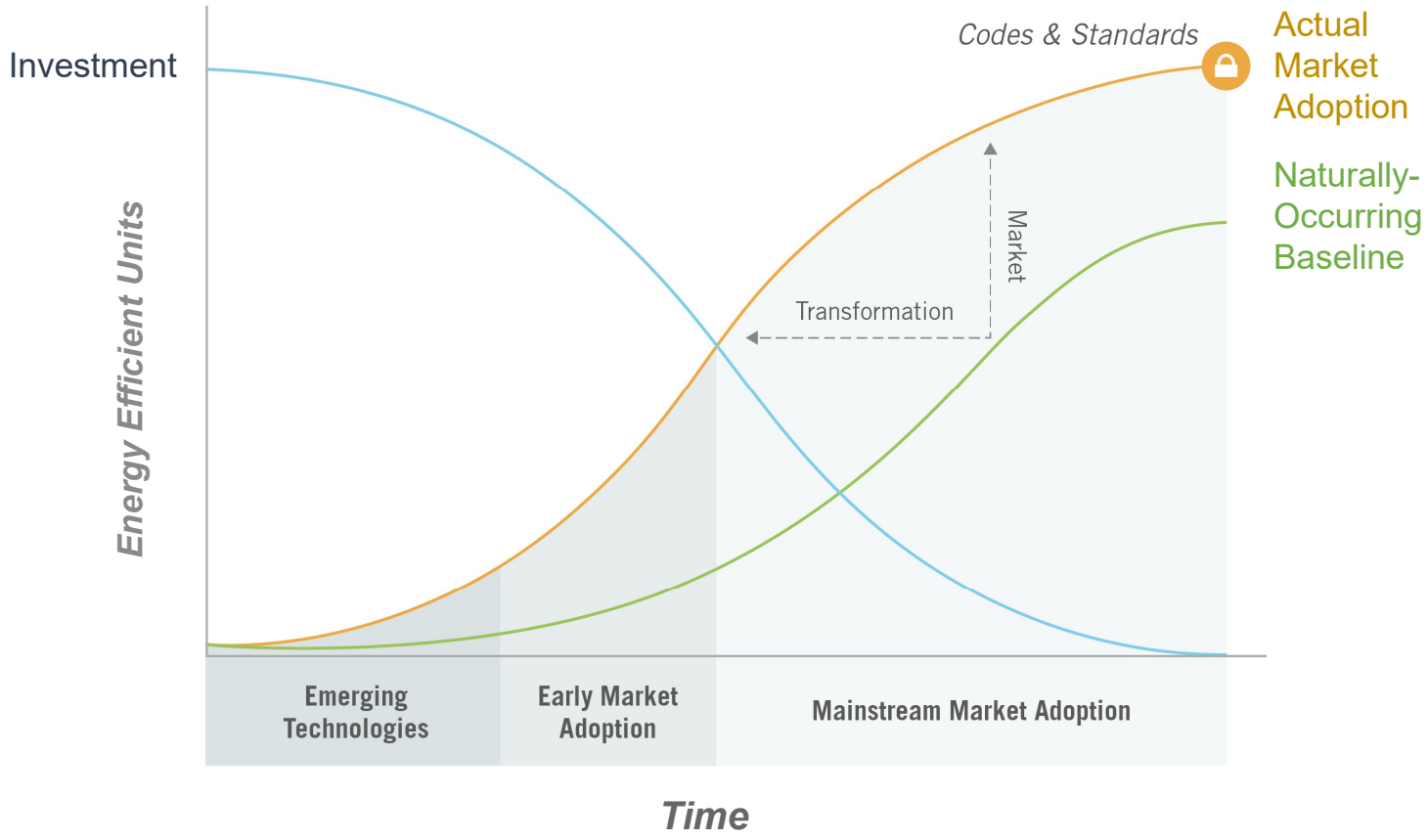
Market Transformation



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Market Transformation Baseline

Definition	• Market adoption and/or energy use forecast without market intervention
Purpose and Importance	• To track the progress of Market Transformation efforts
Development	• Based on program logic and definitions • Rationale developed internally • Third party reviewed

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Generic Approach

Steps

1) Define Measure(s)

2) Define Target Market(s)

3) Estimate Pre-intervention Baseline Market Share

4) List Baseline Activities and Drivers

5) Create Baseline Forecast

6) Verify the Baseline is Reasonable

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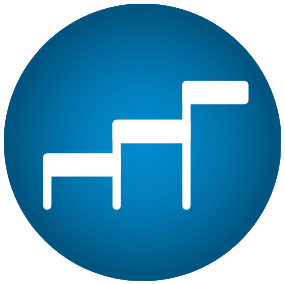
Reporting Energy Savings

Two different baseline methodologies:



MARKET TRANSFORMATION APPROACH

Uses the Naturally Occurring Baseline



POWER PLAN APPROACH

Uses a Frozen Efficiency Baseline

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Calculating Reportable Savings

Fundamental approach:



TOTAL REGIONAL SAVINGS

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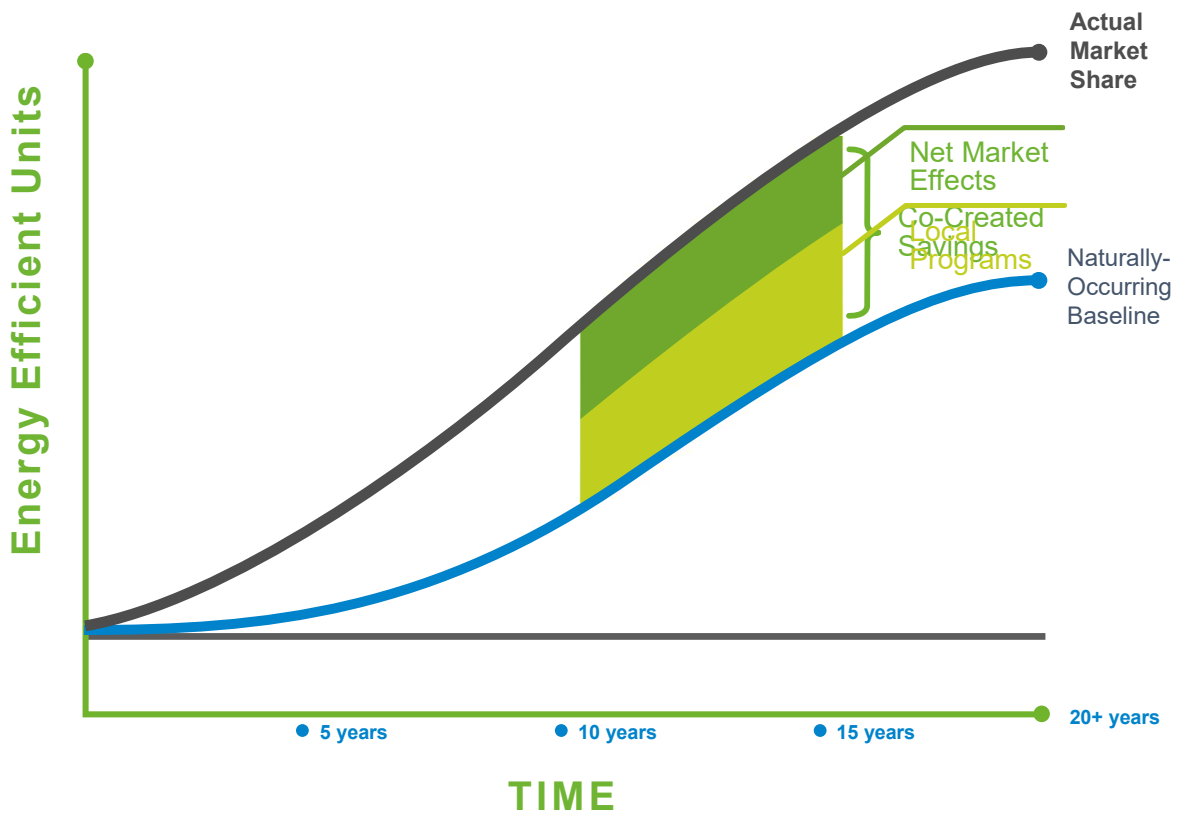
Market Transformation Approach



Purpose:
Report savings associated with market transformation

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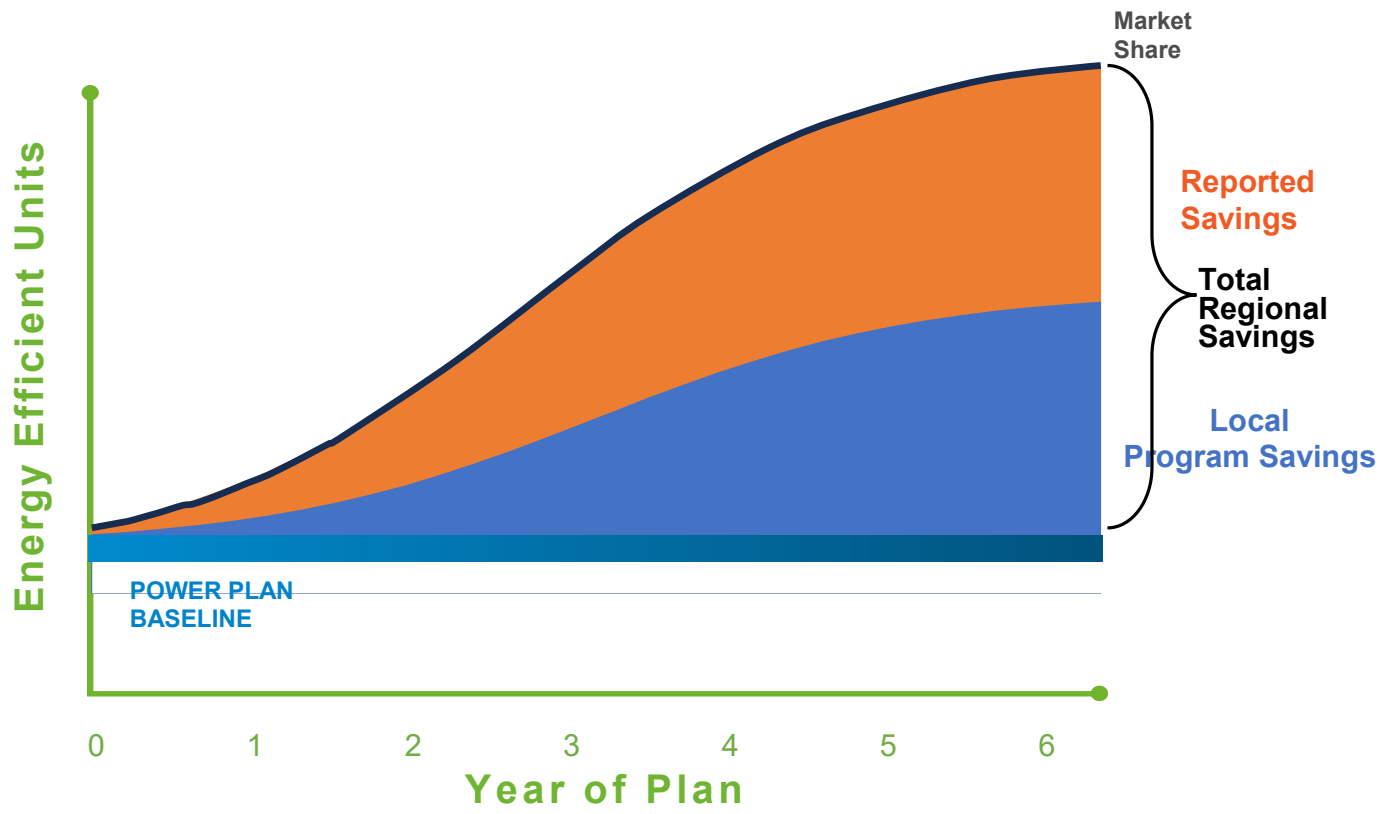
Power Plan Baseline



Purpose:
Report savings against Power Plan baseline

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Other Value Metrics

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Additional Value Metrics

- Cost Effectiveness
- Avoided Greenhouse Gas Emissions
- Coincident Peak Load Reduction

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Key Takeaways

- Evaluation process enables Market Transformation savings reporting
- Market baseline tells the story of transformation
- Market Transformation and Power Plan methods not comparable
- We work with each funder to suit their reporting needs where possible

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Retail Product Portfolio: 2025 Market Story

Zdanna King & Ryan Brown

NEEA

4/23/2026



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NEEA's Retail Product Portfolio program

Long-term Objective: Manufacturers build energy efficiency into product designs for consumer goods

RPP Interventions
Emerging technology
Midstream incentives
Measurement and compliance
Specification advancement
Standards

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NEEA's Retail Product Portfolio timeline



2016
NEEA joins national ESRPP program

2021
NEEA facilitates national ESRPP program

2021
RPP MPER #1
Focus on 2020 program year

2023
RPP MPER #2
Focus on 2021 program year

2026
RPP MPER #3
Focus on 2022-2024 program years

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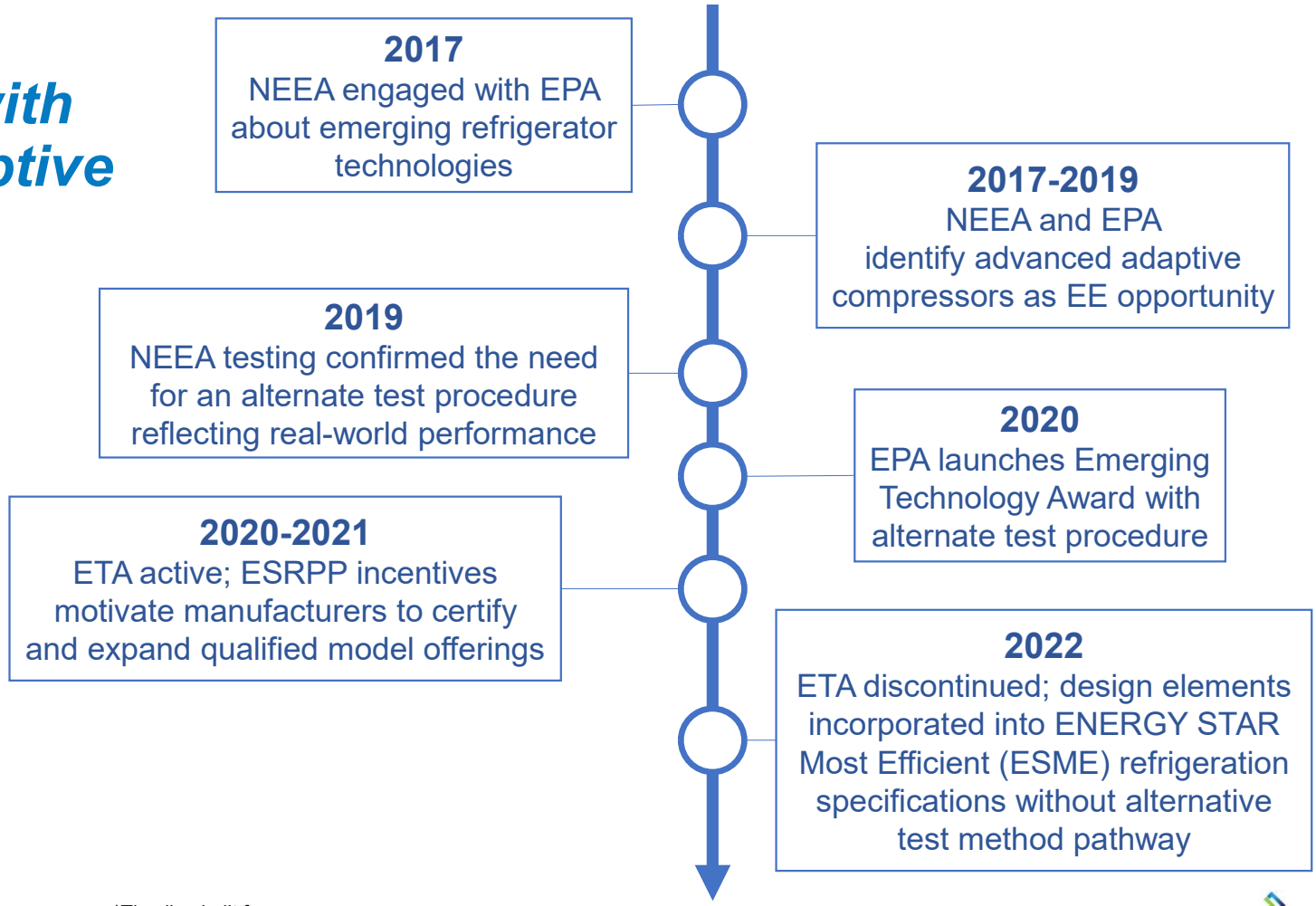
Influencing Refrigerators with Advanced Adaptive Compressors



*Timeline built from:
Refrigerator and Freezer Influence Assessment and Baseline Review - Northwest Energy Efficiency Alliance (NEEA)

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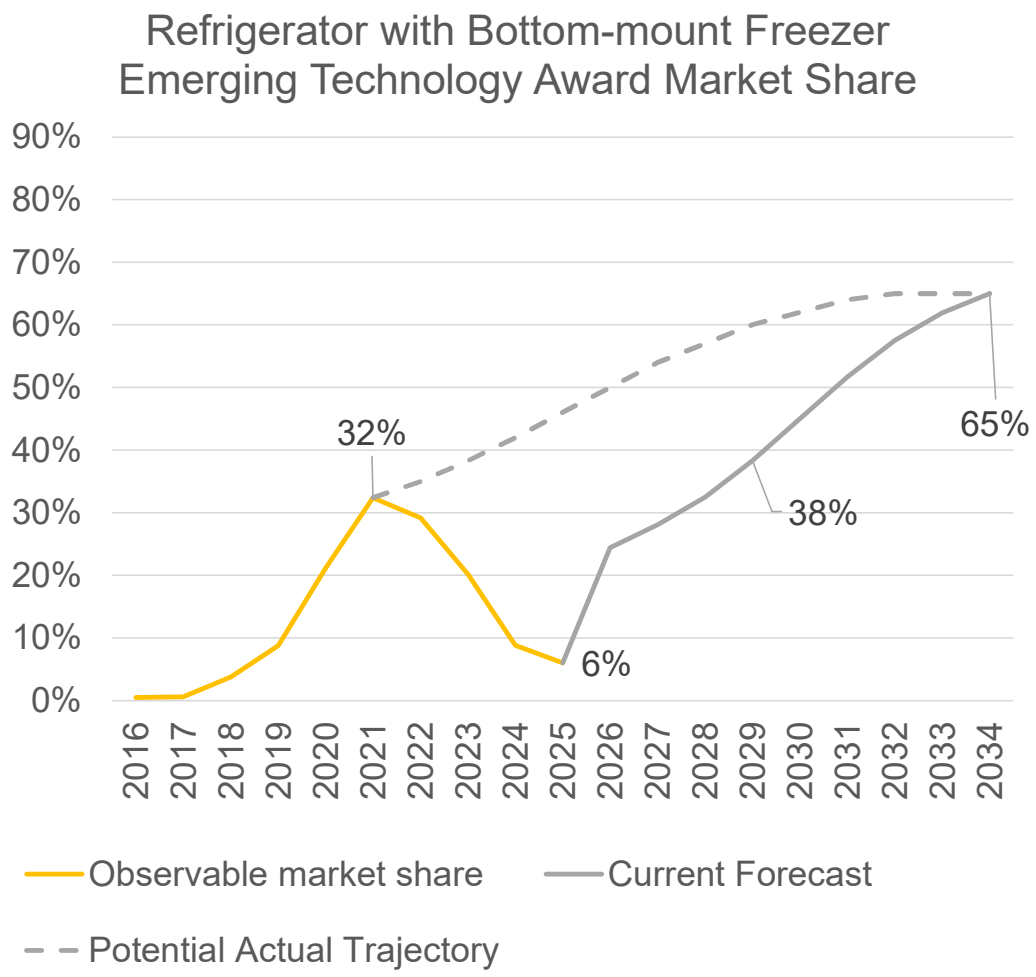
Emerging Technology Award Market Share Decline since 2021



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2026 Refrigerator Test Procedure Project

Phase 1: Lab testing to identify NEEA-recommended test procedure	Balancing test burden with results that value real world performance of advanced adaptive compressors
Phase 2: Larger, targeted lab test sample to begin recapturing market share	Outreach to manufacturers to understand likely product lines to test Utilize market data to hone sample
Phase 3 (TBD): Build out list with additional product testing	Ideally this will be manufacturer-funded but could come from other partners
Phase 4 (TBD): Rebates offered using the ESRPP Advanced Adaptive Compressor Refrigerator list	

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Lunch

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Market Transformation Costs and Benefits

Objectives

- Committee is informed on NEEA's approach and has opportunity to ask questions.

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Purpose of Cost Benefit Analyses

Assess the total **societal impact** of transforming a market to ensure that the regional investment is an appropriate use of funds for the long term. NEEA considers **all incremental quantifiable costs and benefits** of the total regional savings achieved through transformation, **regardless of who accrues them**.

Ultimately, NEEA, as a regional organization, is attempting to answer the question:

“will benefits of the resource exceed its costs from the perspective of society as a whole?”

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Purpose

NEEA has three levels of cost-effectiveness analysis.



Measure Application Level

View of a single measure

Inform Program Strategy



Program Level

Aggregated across measures in Program

Screen Programs



Portfolio Level

Aggregated across programs in Market Development Phase

Meet Business Plan Requirement

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Core Principles

- Alignment with NW Power and Conservation Council
- Regional-level analysis
- Market transformation approach
- Full supply chain scope
- Symmetry of costs and benefits
- Transparency
- Hard-to-quantify impacts



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The Tool

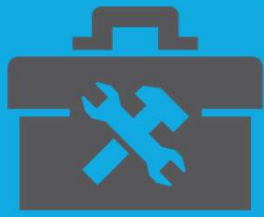
Northwest Power and Conservation Council

Regional Technical Forum

ProCost

- Council's tool
  - Regional perspective
  - Life-cycle view of costs and benefits
- ProCost computes
  - Regional cost-effectiveness
  - Levelized cost of savings ($/kWh)
  - Many additional cost, savings, and carbon parameters

ProCost | Regional Technical Forum (nwcouncil.org)



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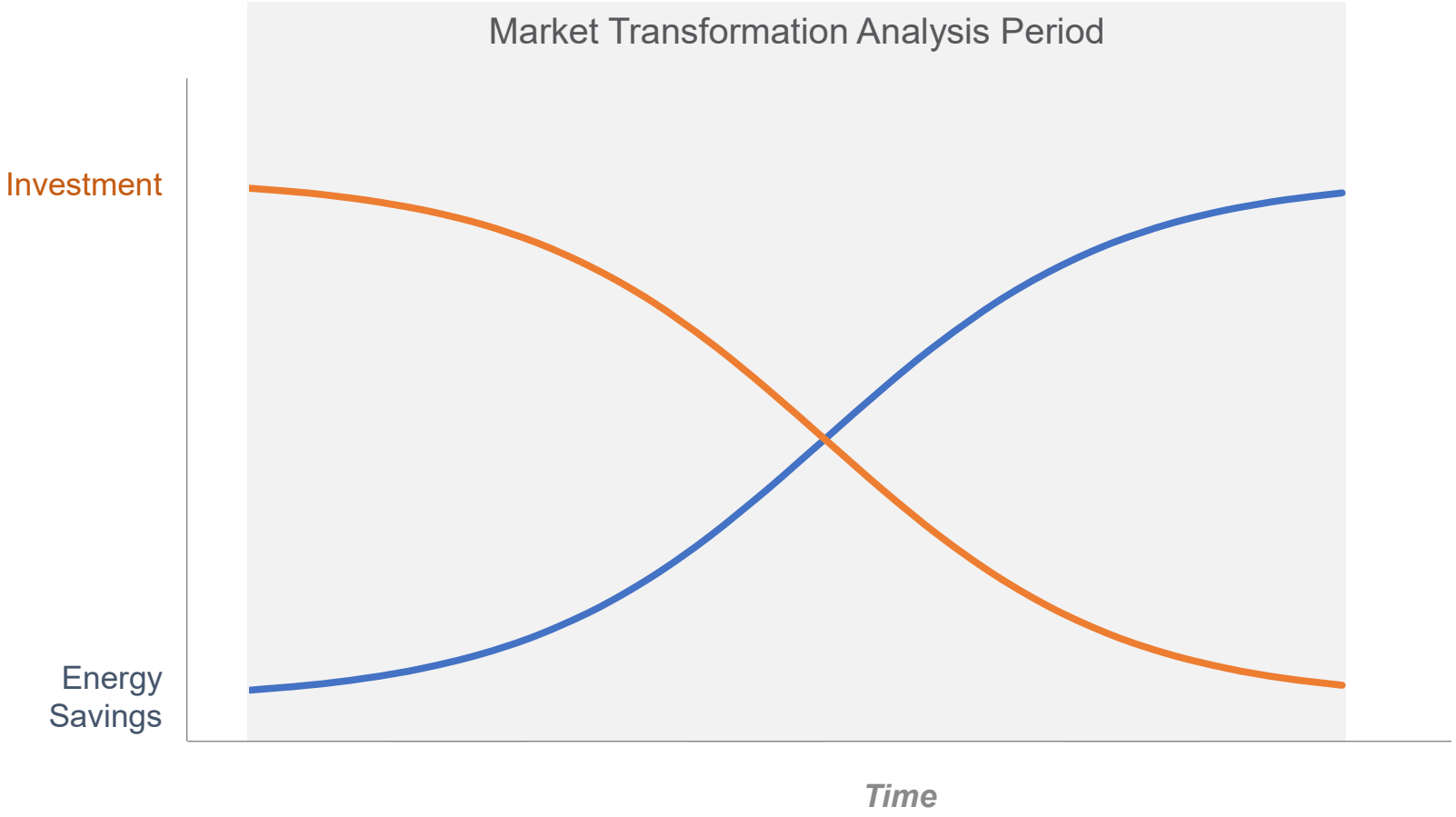
Purpose of 20 year time-frame



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Program Key Assumptions

- Application of Key Assumptions to Benefit Cost Ratio
  - Incremental Costs
  - Measure Life
  - Savings Rate
  - Efficient Units
  - Non-Energy Benefits

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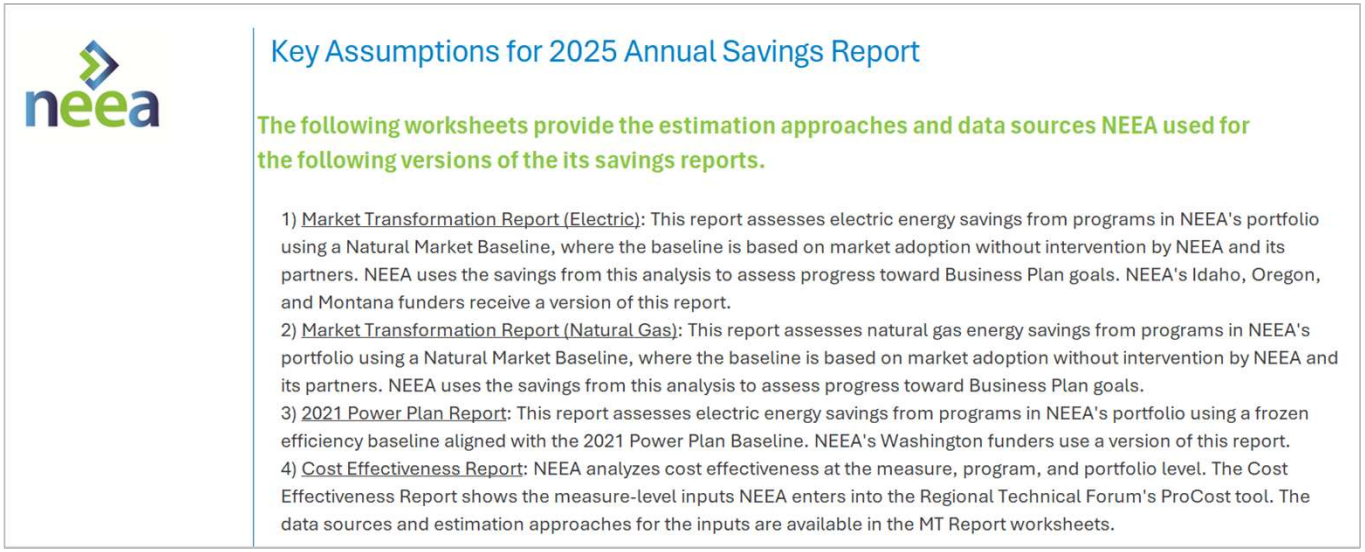
Measure Level Calculation Inputs

- Key Assumptions for 2025 Annual Savings Report spreadsheet will be sent out with the meeting notes
  - **Portfolio BCR** tab includes inputs used for all measures in the portfolio calculation and notes about changes



Key Assumptions for 2025 Annual Savings Report

The following worksheets provide the estimation approaches and data sources NEEA used for the following versions of the its savings reports.

1) Market Transformation Report (Electric): This report assesses electric energy savings from programs in NEEA's portfolio using a Natural Market Baseline, where the baseline is based on market adoption without intervention by NEEA and its partners. NEEA uses the savings from this analysis to assess progress toward Business Plan goals. NEEA's Idaho, Oregon, and Montana funders receive a version of this report.
2) Market Transformation Report (Natural Gas): This report assesses natural gas energy savings from programs in NEEA's portfolio using a Natural Market Baseline, where the baseline is based on market adoption without intervention by NEEA and its partners. NEEA uses the savings from this analysis to assess progress toward Business Plan goals.
3) 2021 Power Plan Report: This report assesses electric energy savings from programs in NEEA's portfolio using a frozen efficiency baseline aligned with the 2021 Power Plan Baseline. NEEA's Washington funders use a version of this report.
4) Cost Effectiveness Report: NEEA analyzes cost effectiveness at the measure, program, and portfolio level. The Cost Effectiveness Report shows the measure-level inputs NEEA enters into the Regional Technical Forum's ProCost tool. The data sources and estimation approaches for the inputs are available in the MT Report worksheets.

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Aggregating Results to the Portfolio



Benefits

All NEEA costs included (admin, stock assessments, research, etc.)

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Electric Portfolio Benefit-Cost Ratio is 2.03



- *20-year stream of benefits and costs to the region from programs in Market Development*
- *Includes all of NEEA Cycle 7 Budget.*

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Gas portfolio

- NEEA's gas portfolio is still in development
- The ERTU program has a Benefit-Cost Ratio of 1.1

Total Program BCR: 1.1

	Component	BCR
Tier	Tier 1	1.1
	Tier 2 (CGF / ERV)	1.2
Modeled Building Type	Grocery	1.2
	Retail	1.0
	Strip Mall	1.5
	1 Floor Medium Office	1.3
Heating Zone	Heating Zone 1	1.1
	Heating Zone 2	1.5
	Heating Zone 3	1.9

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Questions?

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Q1 2026 MRE Newsletter Highlights



Four recently-published reports:

- Agricultural Pumps Market Research
- Fan Manufacturer Representative and Specifier Market Research
- Codes Market Progress Evaluation Report (MPER) #6
- Idaho Commercial Code Compliance Evaluation

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Q1 2026 MRE Newsletter Highlights

Details on 6 baseline and key assumption reviews for:

- Advanced Performance Dedicated Outdoor Air Systems (DOAS)
- Luminaire Level Lighting Control (LLLC)
- Fans
- Televisions
- High-Performance Clothes Dryers
- Heat Pump Water Heaters

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Key Inputs and Assumptions Update

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Input Development and Review Process



Develop Inputs

NEEA staff develops Key Assumptions in alignment with the region through:

- Internal analysis
- External studies
- Regional Technical Forum



Validate Assumptions

NEEA staff commissions 3rd party evaluations for new Key Assumptions and for changes to Key Assumptions used in the reporting of savings.



Report Key Assumptions

NEEA staff reviews new and updated Key Assumptions with CEAC every quarter. Additionally, NEEA staff will highlight any Key Assumptions that may warrant updating and solicit input from the committee for better data to inform a Key Assumption.



Post Key Assumptions

Full set of regional key assumptions used for reporting is made available on NEEA Funder Portal.

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Q2 Key Inputs Updates

In the meeting packet:

- Residential New Construction
- XMP Pumps
- Heat Pump Water Heaters
- High Performance HVAC
- Indirect Gas Savings

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2021 Washington State Energy Code - Commercial
Savings Rate and Fuel Mix Key Assumption

Will Gehrke

Senior Market Analyst, NEEA



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Purpose

WSEC 2021

- Explain how savings for 2021 WSEC were modeled by PNNL.
- Describe how modeled results informed NEEA savings rates.
- Highlight market assumption used for Washington commercial code fuel mix, which impacts savings rates.

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WSEC 2021 – Building Energy Use

- Conducted by PNNL – EnergyPlus
- Difference of energy consumption between 2018 WSEC and 2021 WSEC by:
  - Building Type
  - Climate Zone
  - Fuel Type
- Used to calculate a per square foot energy savings for commercial new construction.

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Commercial Prototype Building Models

- Offices (Small, Medium, Large)
- Retail (Stand-Alone, Strip Mall)
- Education (Primary, Secondary School)
- Healthcare (Outpatient, Hospital)
- Hotels (Small, Large)
- Warehouse
- Full-Service Restaurant
- Mid- and High-Rise Multifamily

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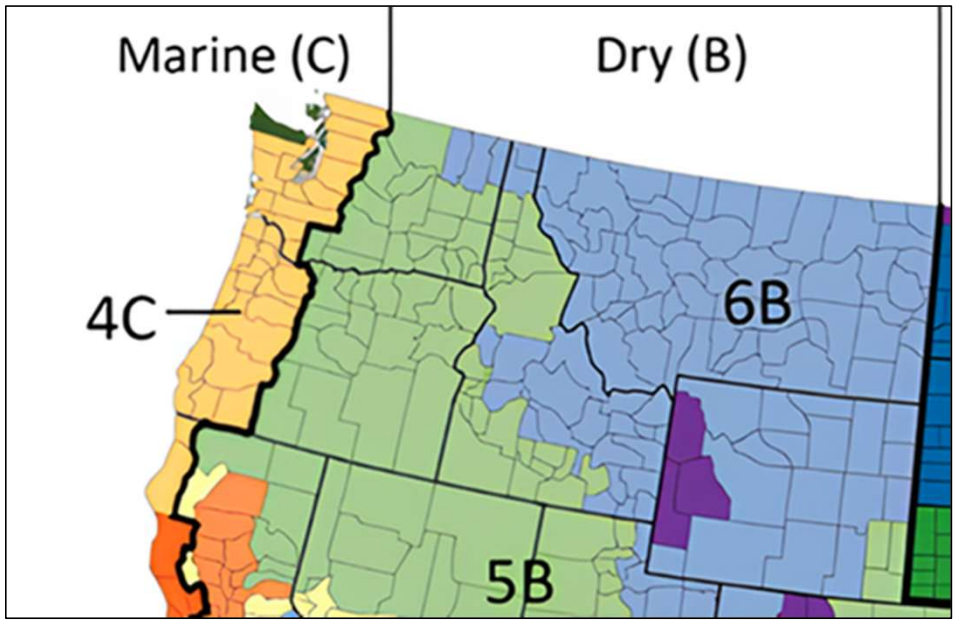
Washington Climate Zones

- 4C – Mixed Marine - Western Washington
- 5B – Cool Dry – Eastern Washington



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Fuel Mix – Electric Primary

- 2021 Code Compliance Path
  - HVAC cannot be provided by electric resistance or fossil fuel combustion appliances.
  - More than 50% of water heating must be provided by electric heat pump water heating system.
  - Requires additional energy efficiency measures (points-based system).

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Fuel Mix – Fossil Fuel Compliance Path

- Electric Resistance Heat and Natural Gas/Propane for water heating and HVAC.
- Requires electrification readiness in new HVAC and water heating appliances.
- Requires additional energy efficiency measures beyond electric primary.

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Fuel Mix Assumption

- PNNL modeled electric primary and natural gas primary buildings for 2021 code.
- NEEA is using 100% electric primary when calculating savings rates as placeholder assumption until evidence of code-compliant fossil fuel commercial construction can be found in market.
  - Will be revisited until more market data becomes available.

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Conclusion

- Modeled savings for 2021 WSEC commercial new construction vary by building type, climate zone, and compliance fuel path.
- Because fuel mix materially affects modeled savings, NEEA must make an explicit market assumption when calculating savings rates.
- Until market evidence shows code-compliant natural gas commercial construction under WSEC 2021, NEEA assumes 100% electric-primary construction for savings reporting.

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Thank You!

Will Gehrke

Senior Market Analyst, NEEA

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RPP Key Assumptions Updates

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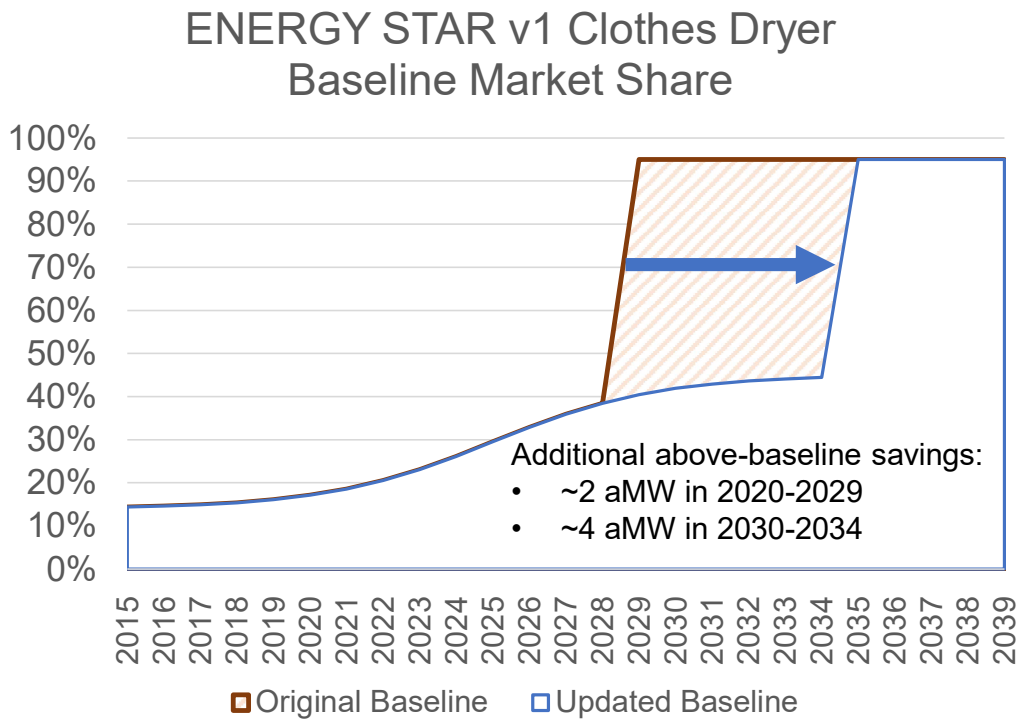
ENERGY STAR Clothes Dryers Naturally-Occurring Baseline

- Cadmus Reviewed NEEA's Baseline
  - Original allowed for 1 standard rulemaking cycle
  - Rule finalized in 2024 with compliance date in 2028
  - Applying same rationale to current timeframe



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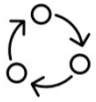
ENERGY STAR v9 Televisions Key Assumption Review



Data Pipeline

- In-house data pipeline developed in 2025. Two key elements were reviewed:
  - Treatment of sales data with suppressed model numbers
  - Metric used for on-mode power
- Reviewer supported NEEA's approach with some recommendations for improvement



Sources and Methods

- Reviewer recommended NEEA continue to use current sources and methods for:
  - UES calculations
  - Average wattage estimates
  - Measure life (7 yrs)
  - Hours of Use (5.2 hrs/day)

TRC conducted the review in Q1 2026

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Stretch Break

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2025 Market Progress and Portfolio Overview

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Agenda

01	**Portfolio Context** [Reduced Wattage Lamp Replacement (RWLR) Market Story]
02	**2025 Savings Results** [Pumps Market Story]
03	**Other Metrics for 2025**
04	**Cycle 7 Considerations** [HPWH Market Story]

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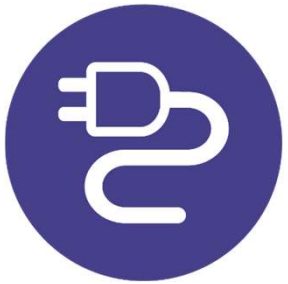
Executive Summary



Natural Gas portfolio is…

- Reporting savings primarily for codes and standards, yet…
- Advancing voluntary programs that can deliver in 2025-2029



Electric portfolio is…

- Finishing the year slightly above what we expected in initial 2025 forecasts, and…
- Continuing to pursue efforts to accelerate and expand the existing portfolio while managing external changes

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Portfolio Context

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Gas Market Transformation Portfolio

Portfolio diversification with new programs and concepts in development

Scanning / Concept Development	Program Development	Market Development	Market Diffusion
Additional Emerging Market and Technology Opportunities Gas High-Efficiency DOAS	Advanced Commercial Water Heaters Dual-Fuel HVAC	**Efficient Rooftop Units (Advanced Performance Rooftop Units)** – natural gas **Indirect Savings – XMP Pumps** – commercial, water heating **Indirect Savings – XMP Pumps** – residential, water heating ***Codes & Standards*** **Residential & Commercial Codes** – dual fuel **Residential & Commercial Standards** – dual fuel	**Indirect Savings – Manufactured Homes** – envelope measures

Level of Program Maturity

Programs reporting energy savings in 2025 are in bold

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Electric Market Transformation Portfolio

Scanning / Concept Development	Program Development	Market Development	Market Diffusion
Additional Emerging Market and Technology Opportunities	Extended Motor Products / Fans High Performance Windows	**Heat Pump Water Heater** **Luminaire Level Lighting Control** **Retail Product Portfolio** **Extended Motor Products / Pumps** **High Performance HVAC (Advanced Performance DOAS)** Advanced Heat Pump ***Codes & Standards*** **New Construction: Residential & Commercial Codes** **Products: Residential & Non-Residential Standards**	Reduced Wattage Lamp Replacement (Monitoring Complete) **Ductless Heat Pumps** **Efficient Homes** **Strategic Energy Management** **Manufactured Homes**

Level of Program Maturity

Programs reporting energy savings in 2025 are in bold

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Electric Market Transformation Portfolio

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Additional Emerging Market and Technology Opportunities	Extended Motor Products / Fans High Performance Windows	Heat Pump Water Heater Luminaire Level Lighting Control Retail Product Portfolio Extended Motor Products / Pumps High Performance HVAC Advanced Heat Pump *Codes & Standards* New Construction: Residential & Commercial Codes Products: Residential & Non-Residential Standards	**Reduced Wattage Lamp Replacement (Monitoring Complete)** Ductless Heat Pumps Efficient Homes Strategic Energy Management Manufactured Homes

Level of Program Maturity

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Reduced Wattage Lamp Replacement (RWLR) Market Story

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Outline

- Monitoring Complete Criteria
- About RWLR Program
  - History
  - Sales trends
- RWLR: Monitoring Complete



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Criteria for Monitoring Complete



- Tracking ends if **both** apply:
  - Market transformed
  - Part of the Power Plan Baseline
- Or, tracking ends if **either** applies:
  - Data acquisition challenges
  - Shift in the market demand

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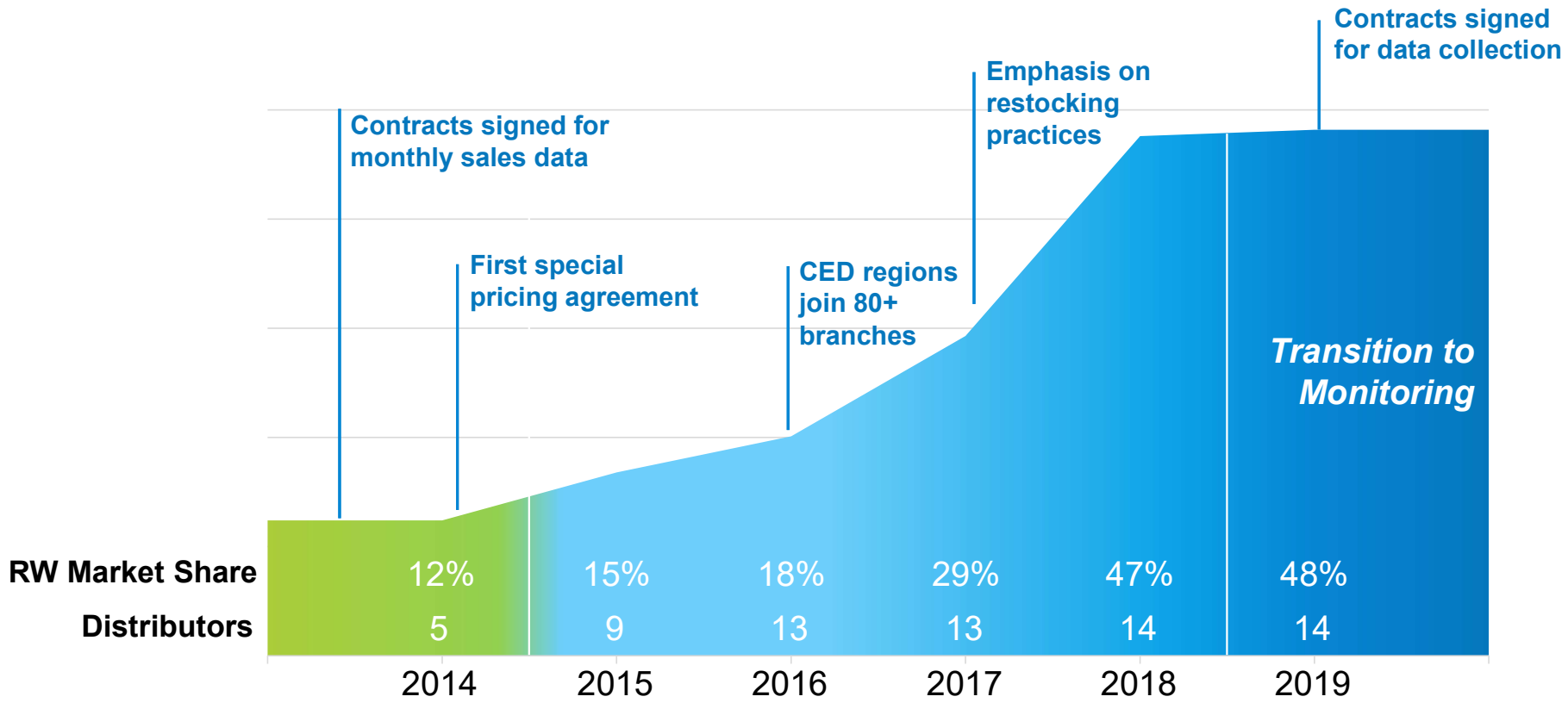
RWLR Program Timeline

Low wattage T8 lamps become standard product choice over 32W lamps



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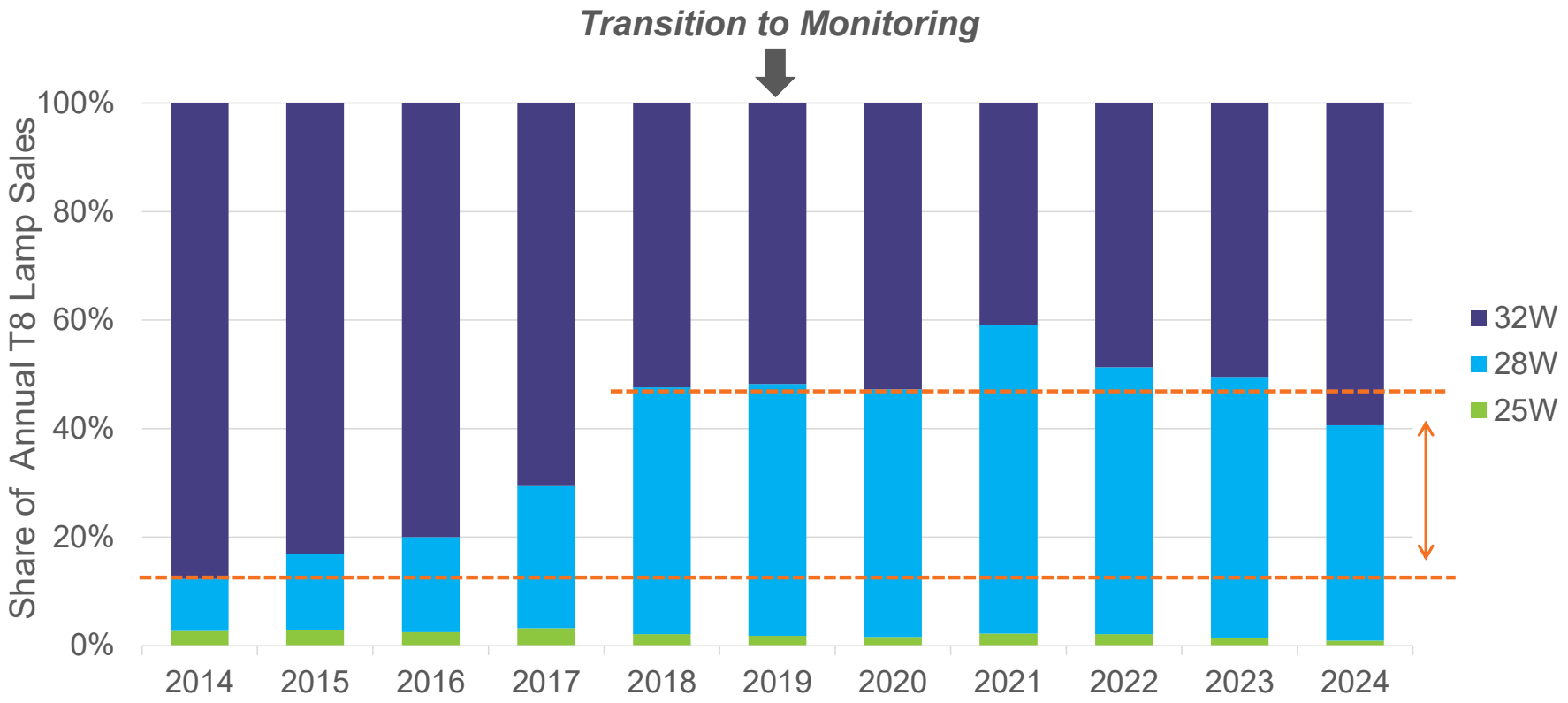
RWLR Participants: Sustaining the LW Market Share



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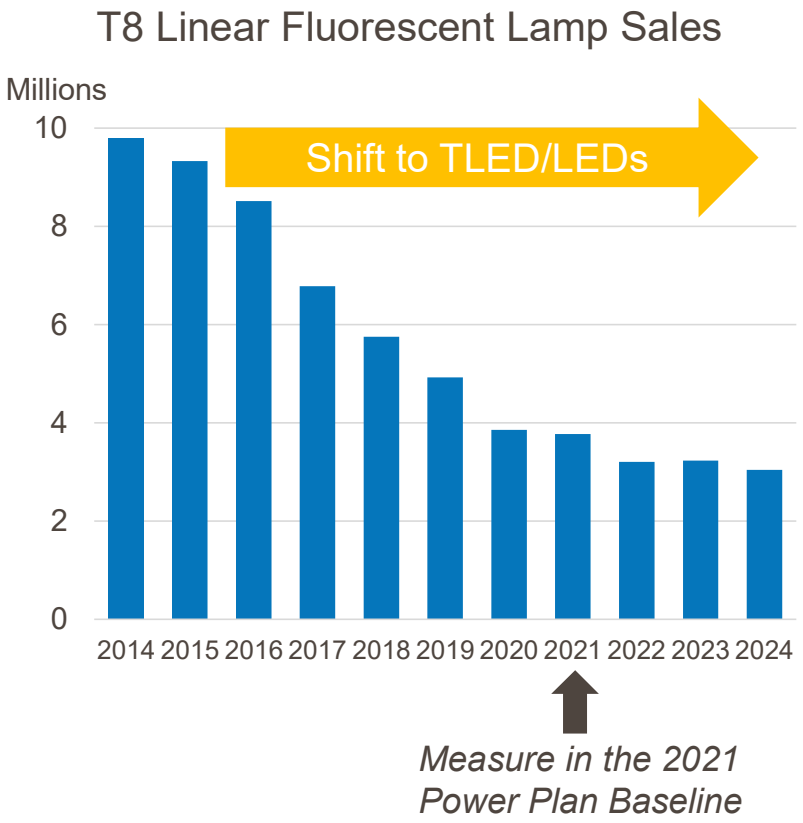
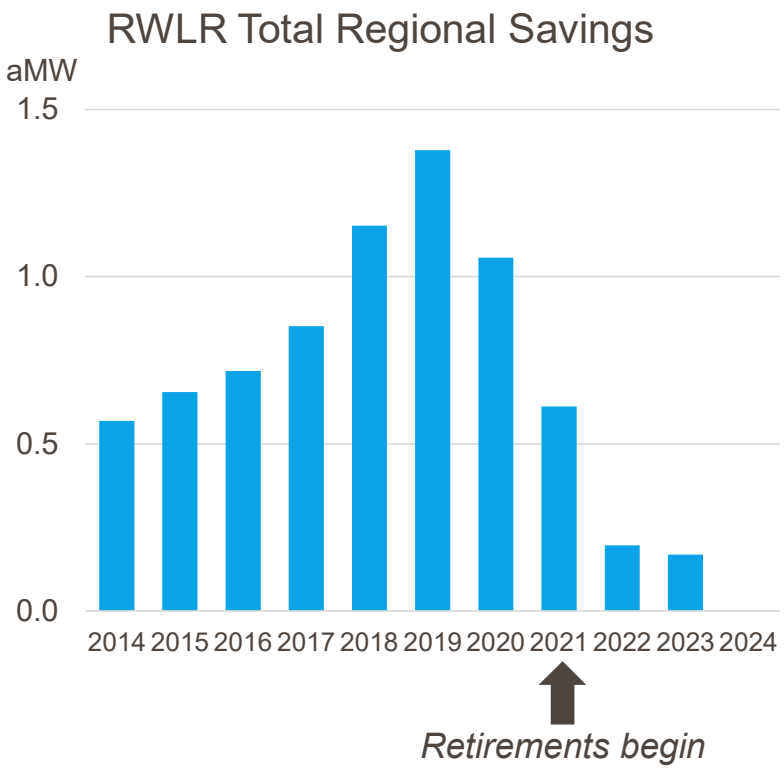
Shift in the T8 Linear Fluorescent Lamps Market





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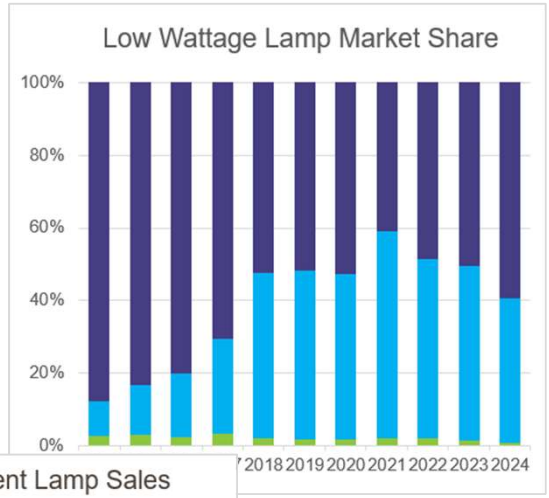
RWLR: Monitoring Complete

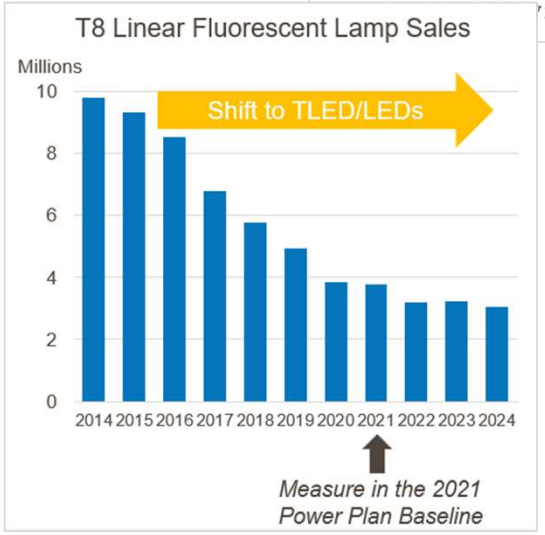
Tracking ends if **both** apply:

- ☐ Market transformed
- ☑ Part of the Power Plan Baseline

Or, tracking ends if **either** applies:

- ☐ Data acquisition challenges
- ☑ Shift in the market demand





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2025 Savings Results

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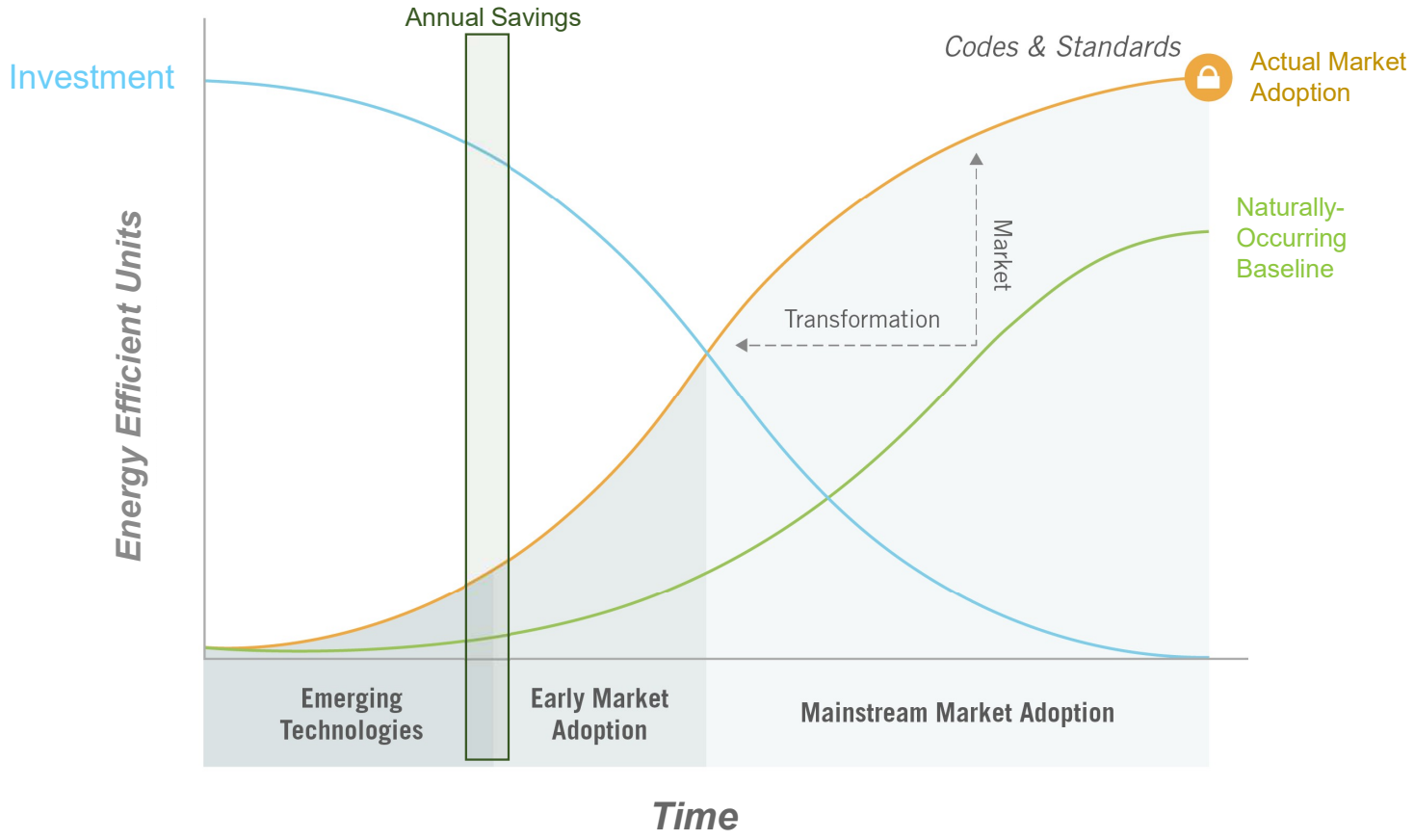
Annual savings capture just one moment from a 20-year market transformation lifecycle



Creating sustainable, long-term conditions through transformative mechanisms:

- Product Specifications
- Improved Test Procedures
- Code
- Standards
- Supply chain commitments
- Market infrastructure and capabilities

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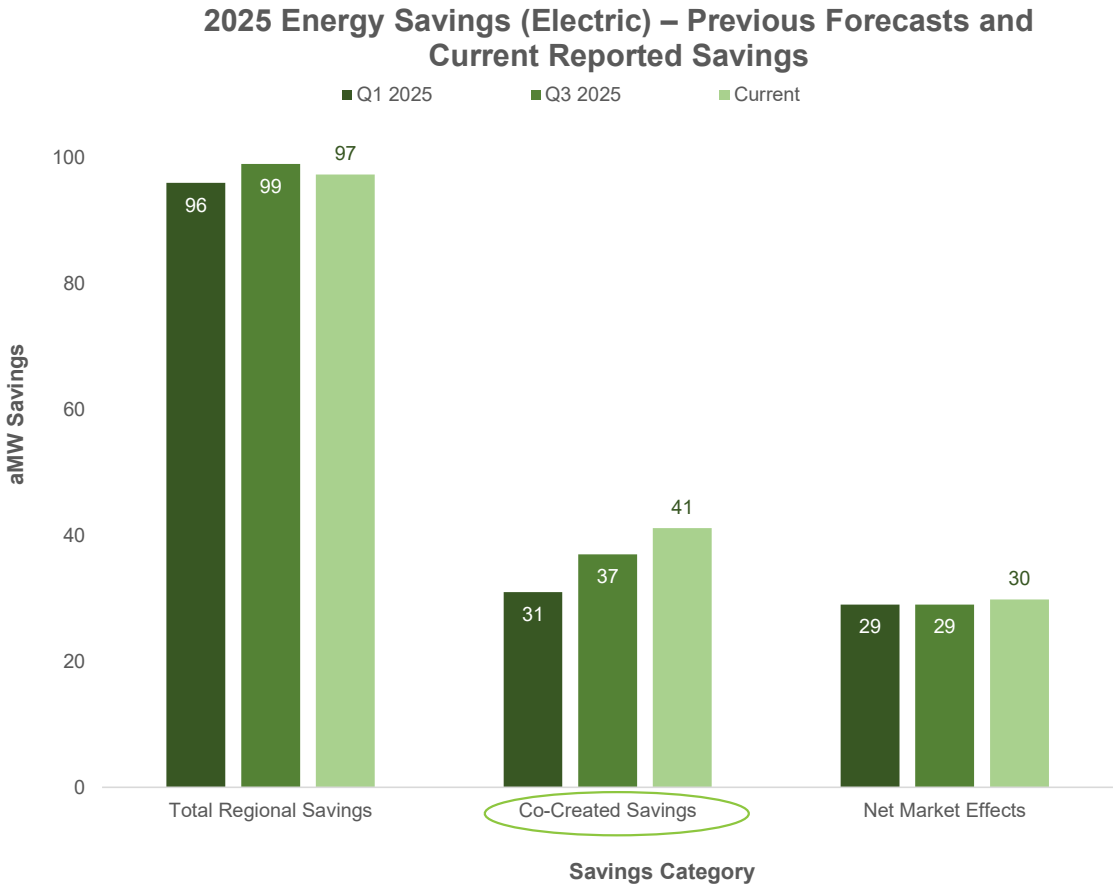
Electric Portfolio

The portfolio generated 41 aMW of co-created savings in 2025



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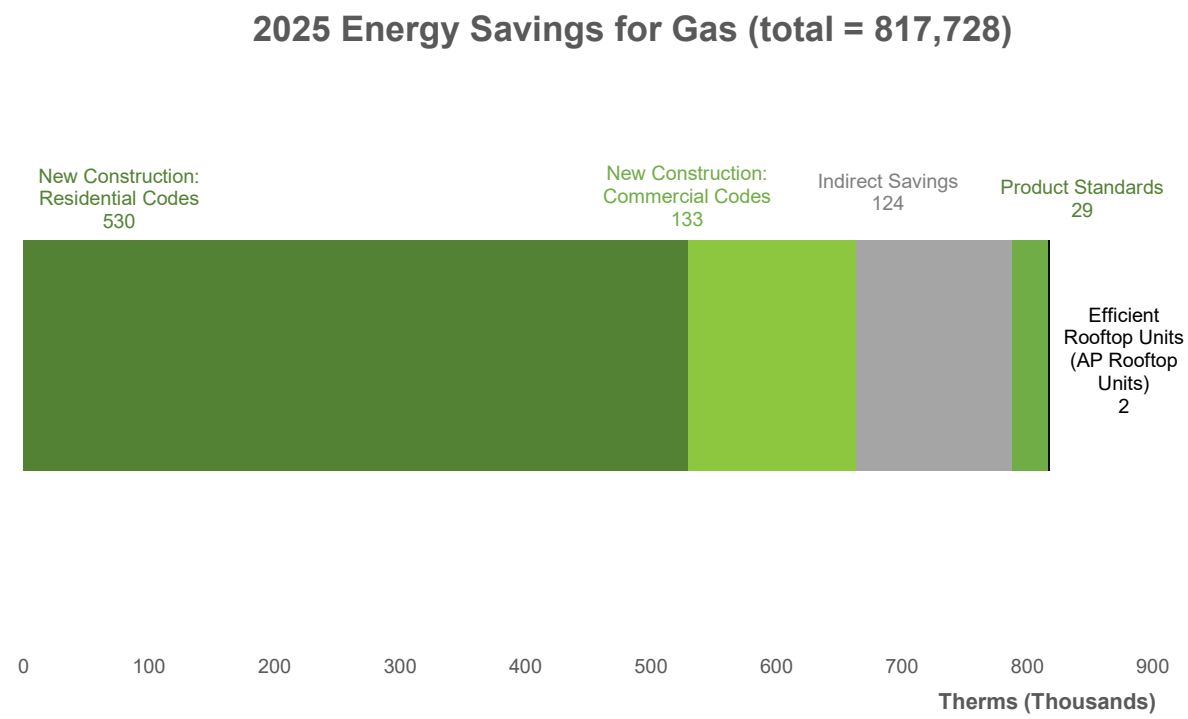
2025 Co-Created Therm Savings for Gas

- Residential and commercial codes are generating the majority of near-term savings
- While indirect savings, product standards, and efficient rooftop units account for the remaining savings



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Electric Market Transformation Portfolio

Scanning / Concept Development	Program Development	Market Development	Market Diffusion
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Level of Program Maturity

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XMP Pumps: 2025 Market Story

Chris Cardiel & Evan Hatteberg

NEEA

4/23/2026



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Extended Motor Products (XMP) – Pumps Program Overview

- Advanced to Program Development ILC phase in Q1 2018, followed by Market Development in Q2 2022
- Product focus is clean-water pumps and circulators
- Midstream-focused program, currently engaging with 10 regionally active manufacturer representative firms
- Strong partnership with Hydraulic Institute to support education, awareness, and influence throughout the market



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XMP – Pumps Product Focus

- Program is most active in commercial sector, with additional coverage in residential, industrial, and agricultural
- Smart pumps are a primary focus of program activities
- Incented products must:
  - Be covered by a DOE standard and/or voluntary efficiency rating
  - Not exceed 50 horsepower

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XMP – Pumps
Market Progress Indicators

- MPI I: Proportion of incented efficient commercial pumps and circulators relative to non-efficient units sold by participating manufacturers' reps increases or does not decrease year-over-year (YOY)
- MPI II: Among (1) distributors and (2) specifiers, (a) awareness and (b) use of ER Label increases YOY
- MPI III: Number of (a) participating OEMs and (b) certified labs increases YOY
- MPI IV: Market share of (a) efficient commercial pumps and circulators and (b) commercial smart pumps increases or does not decrease YOY
- MPI V: Among (1) contractors and (2) project owners, (a) awareness and (b) use of ER Label increases or does not decrease YOY
- MPI VI: (a) Average and (b) sales-weighted average efficiency of commercial pumps and circulators sold increases YOY (market-wide and by manufacturer)
- MPI VII: (a) NEEA's Codes and Standards team provides documentation to DOE to support increased federal performance standards for pumps, (b) federal performance standards increase, © relevant building energy codes increase or do not decrease, and (c) NEEA's role in increased standards is documented by a third party



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XMP – Pumps Recent Market Research & Evaluation Activity

- Market Progress Evaluation Report (MPER) #1 (Q4 2023–Q4 2024)
- Agricultural Pump Market Research (Q4 2024–Q4 2025)
- MPER #2 (kicked off Q4 2025)

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MRE Circulator Findings

- Program MPIs largely group pumps and circulators, offering an opportunity for complementary MAP insights

Year	All Units			Efficient Units		Smart Pumps	
	Pumps	Circs.	Total	Efficient Units Sold	Percent	Smart Pumps Sold	Percent
Participants (*n*=8)							
2022	2,999	18,231	21,230	5,523	26.0%	344	11.5%
2023	3,042	20,570	23,620	7,237	**30.6%** ↑	451	**14.8%** ↑
2024[1]	2,574	15,578	18,352	6,051	**33.0%** ↑	414	**16.1%** ↑
Total	8,623	54,579	63,202	18,811	29.8%	1,209	14.0%
Nonparticipants (*n*=5)							
2023-24	3,885	n/a	3,885	n/a	n/a	255	6.6%
Participants and Nonparticipants (*n*=13)							
Total	12,500	n/a	67,087	n/a	n/a	1,464	11.7%

[1] 2024 data is sales from January 1 to November 15, 2024.

[2] Data not available from nonparticipants because they could not report these numbers.



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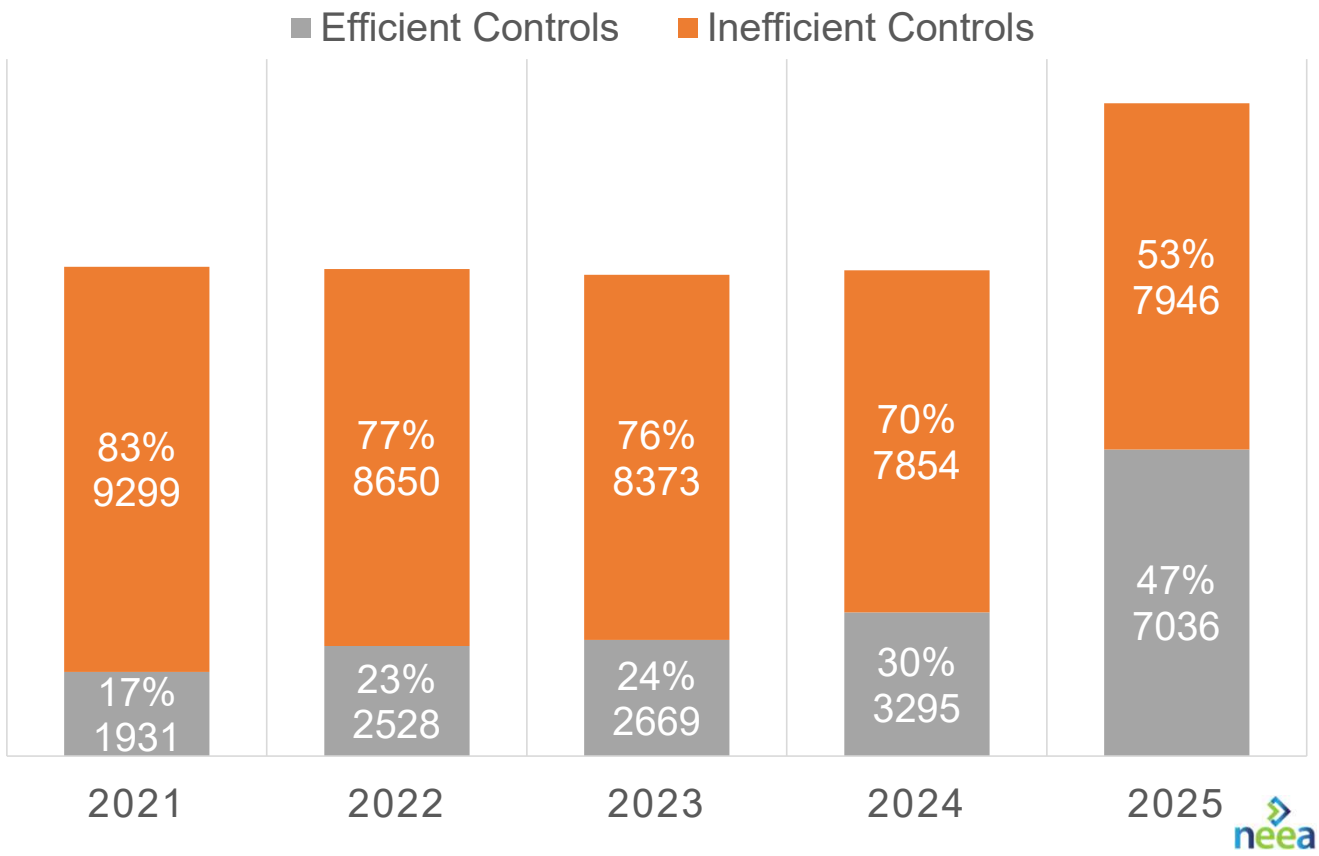
XMP – Pumps
Efficient DHW Circulator Controls



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XMP – Pumps
Efficient DHW Circulator Controls

- Change in market share was primarily driven by increase in qualifying market share for NEEA's existing partners
- Growing ECM motor market share has made the addition of controls more economical
- Manufacturer incentives further influenced the market trend



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Other Metrics for 2025: Peak and Avoided Emissions (Cost-effectiveness covered previously)

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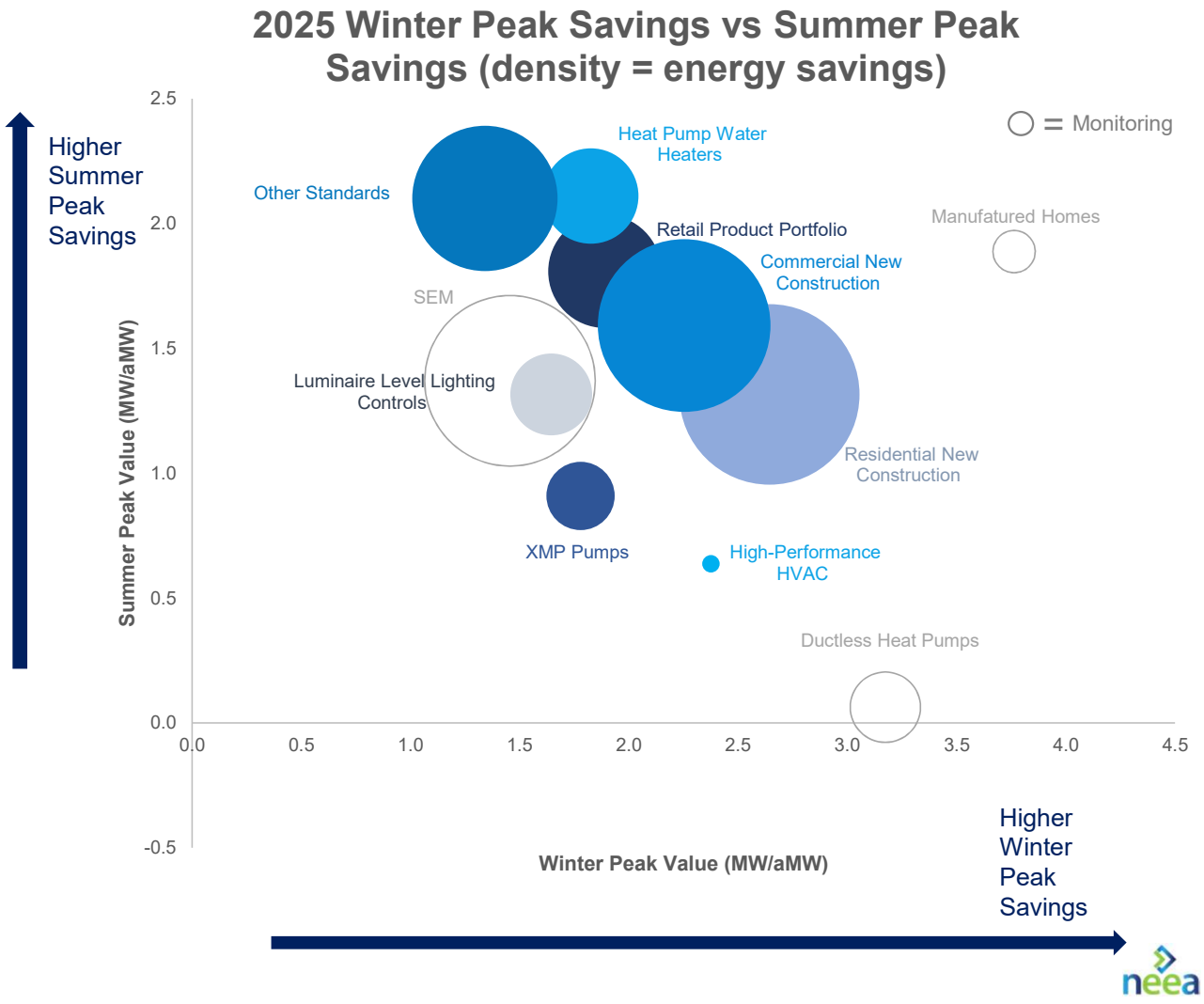
Peak Savings

Winter Peak Load Savings: 81.8 MW

Summer Peak Load Savings: 62.2 MW



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2025 Co-Created Avoided CO_2e Emissions are 184,000 Tons

*($13.6 million)**



Greenhouse gas emissions from **38,935 passenger vehicles per year**



CO2 emissions from **22,417 homes energy use per year**



Carbon sequestered by **167,433 acres of US forests in one year**

*Note: Avoided emissions are monetized using the social cost of carbon with 2.5% discount rate. For 2025 this represents $73.39/ton.

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C7 Overview

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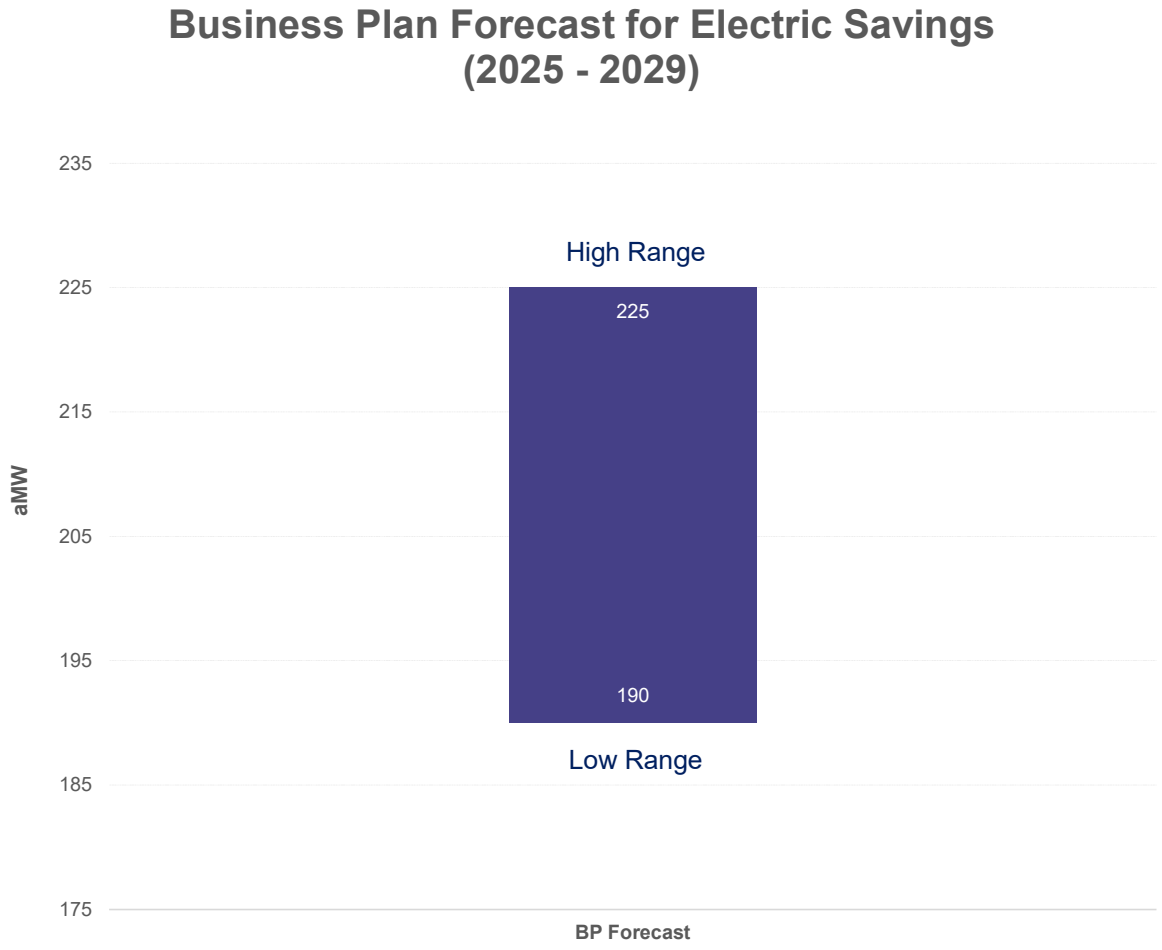
We remain within the business plan forecast – it is still too early in the cycle to update assumptions



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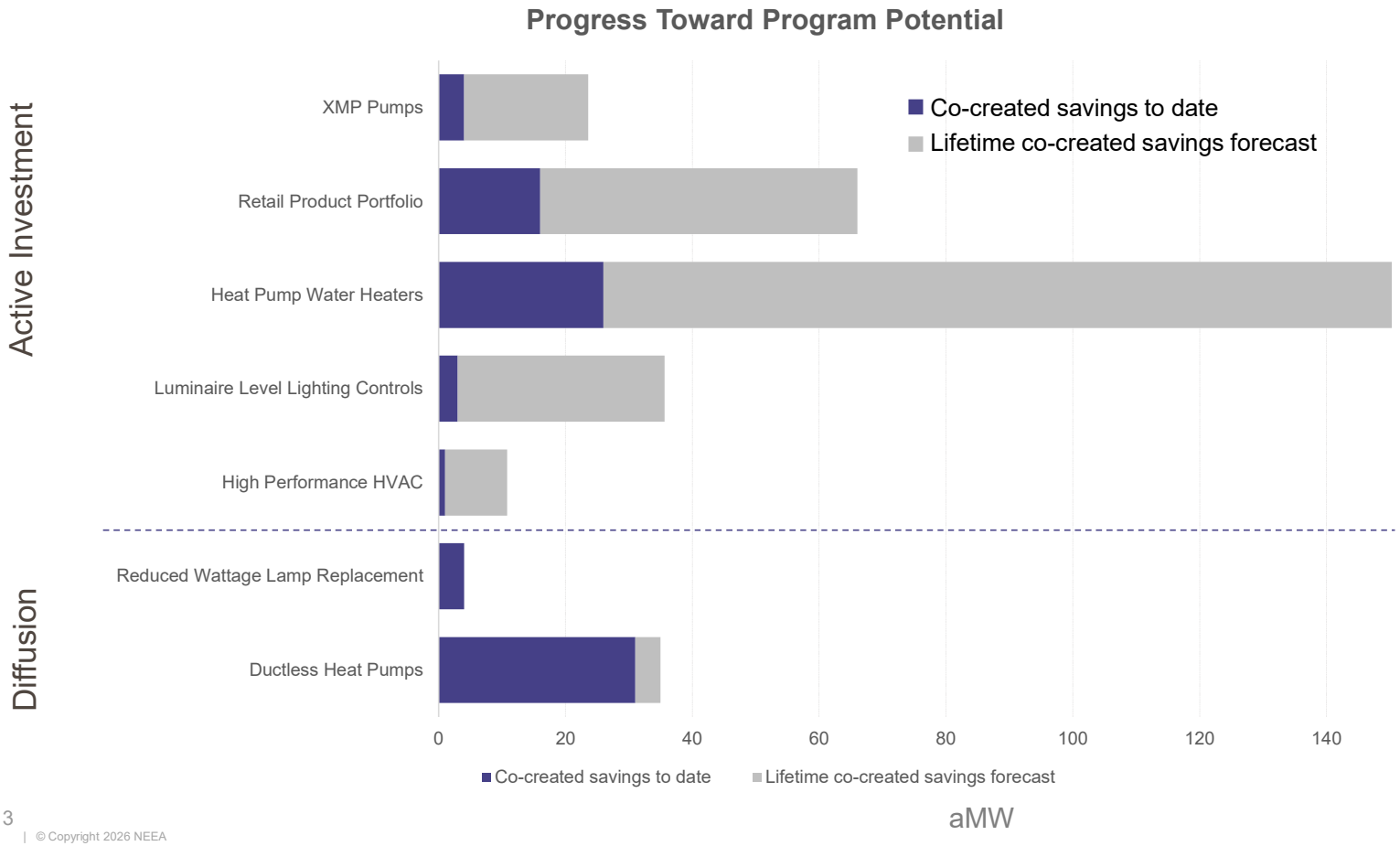
Majority of electric portfolio potential still ahead



- >400 aMW of total lifetime co-created savings forecasted
- 86 aMW savings achieved to date (<17%)

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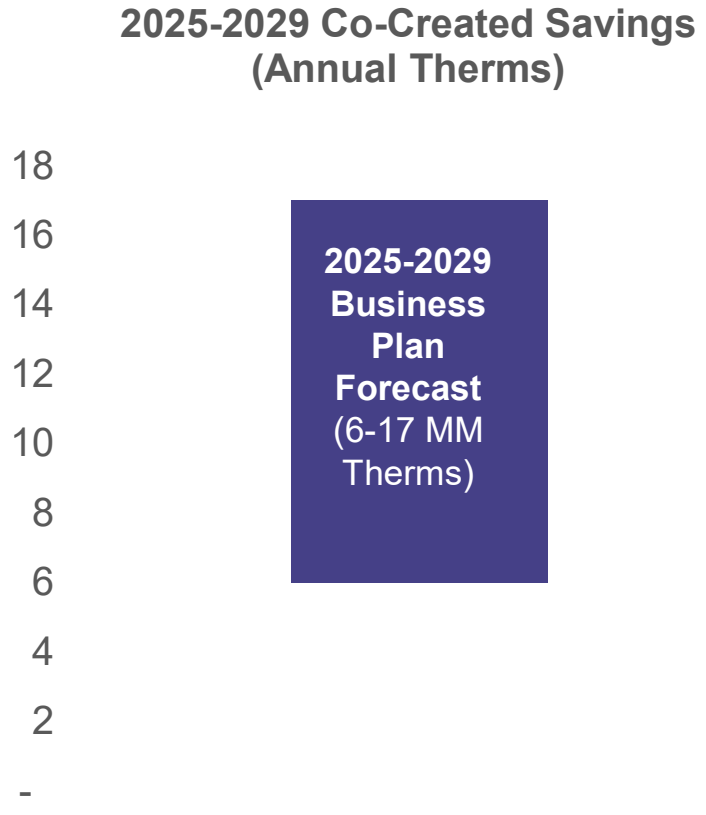
2025-2029 Gas Savings Forecast

- Too early in the cycle to update the C7 forecast
- Priority is advancing readied concepts
- Focus on dual-fuel, fuel-neutral and commercial opportunities



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Electric Market Transformation Portfolio

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Level of Program Maturity

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Heat Pump Water Heaters: 2025 Market Story

Anu Teja & Tim Runyan

NEEA

4/23/2026



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NEEA's HPWH Initiative

NEEA's HPWH Initiative works to transform the water heater market in the Northwest. To ensure that HPWH are the dominant and preferred technology.

Since 2012 it has tackled market challenges:

- Supply chain is resistant to install HPWHs compared to standard electric resistance tanks
- Existing products do not solve for all installation configurations
- Consumer lack of familiarity with efficient water heating technologies, especially in emergency replacement situations
- Federal testing procedures and specifications that lagged behind Advanced Water Heater Specification criteria

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Recent Focus of Activities

2022-2024

- Increases confidence and technical capability of HPWH installers in the Northwest.
- Leverages national and extra-regional partnerships to ensure market readiness for the 2029 federal standard.
- Engages stakeholders on reducing barriers to HPWH adoption

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The Rationale for MPERs

- Track a program's progress towards goals, using market progress indicators (MPIs)
- Provide the program with real time information for adaptive management
- Conducted annually or every 12-15 months
- Data informs inputs for market analysts (e.g., surveys with market actors etc.)



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Main Takeaways of MPER #8

- HPWH market share continues to grow in the region
- HPWH purchasers are satisfied and likely to recommend the product to others, but many installers remain skeptical
- Perception that HPWHs are more difficult to install or service can be a barrier to installers recommending HPWHs
- Installers need additional support before 2029; increasing training and customer education efforts can help

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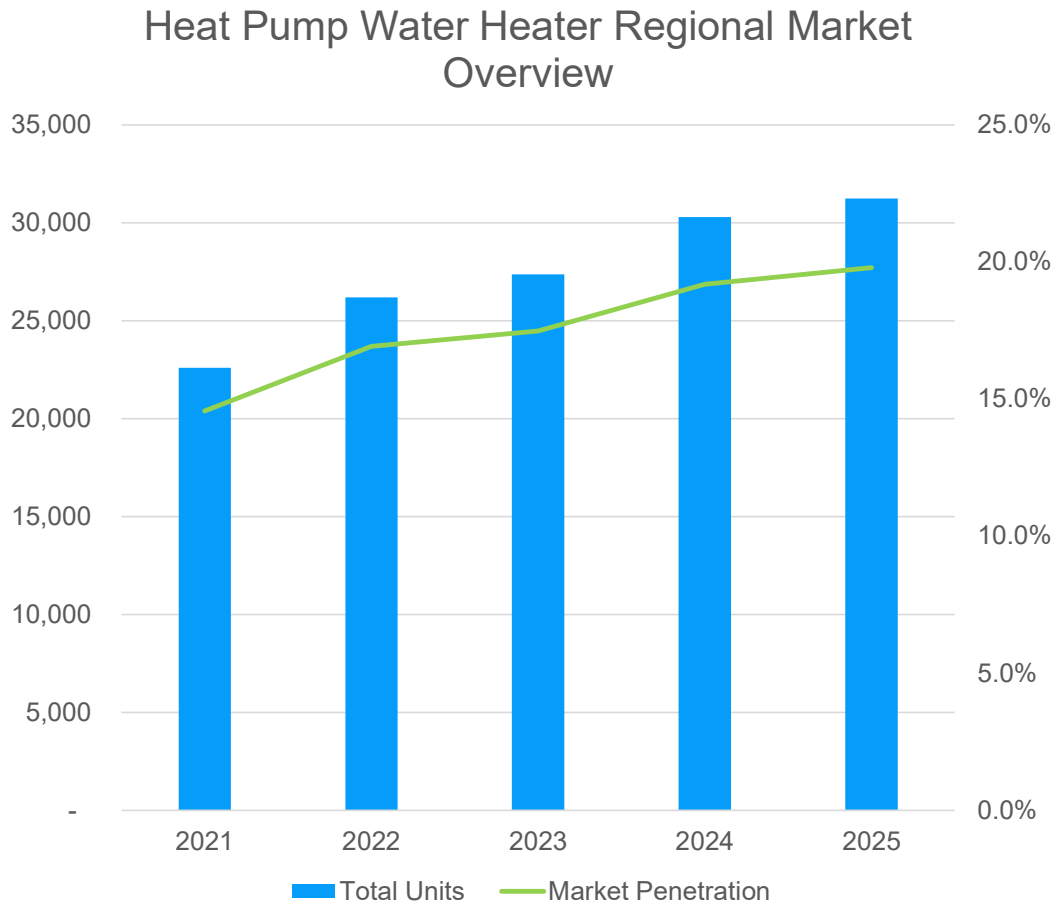
Northwest reaches 200,000 HPWH Sales

HPWHs currently account for 20% of annual electric water heater sales in the region

Annual HPWH market sales have increased by 27% between MPER 7 (2021) and MPER 8 (2025)



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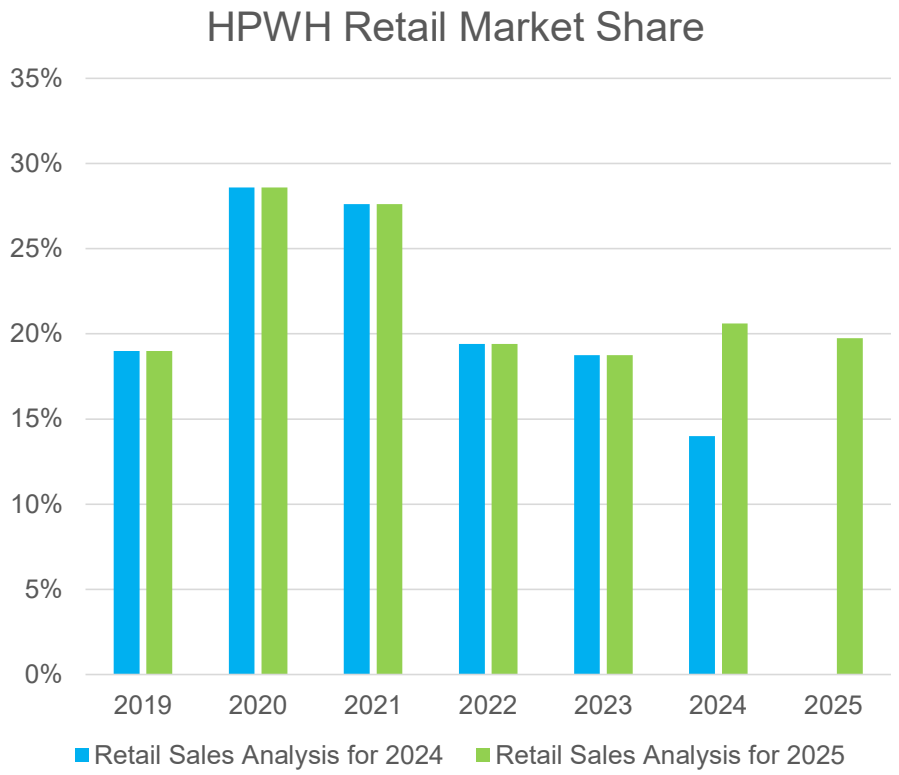
New Retail Sales Data Agreement

- In 2025 the HPWH program established data sharing agreement through RPP
- New data stream provides improved insight into retail sales market



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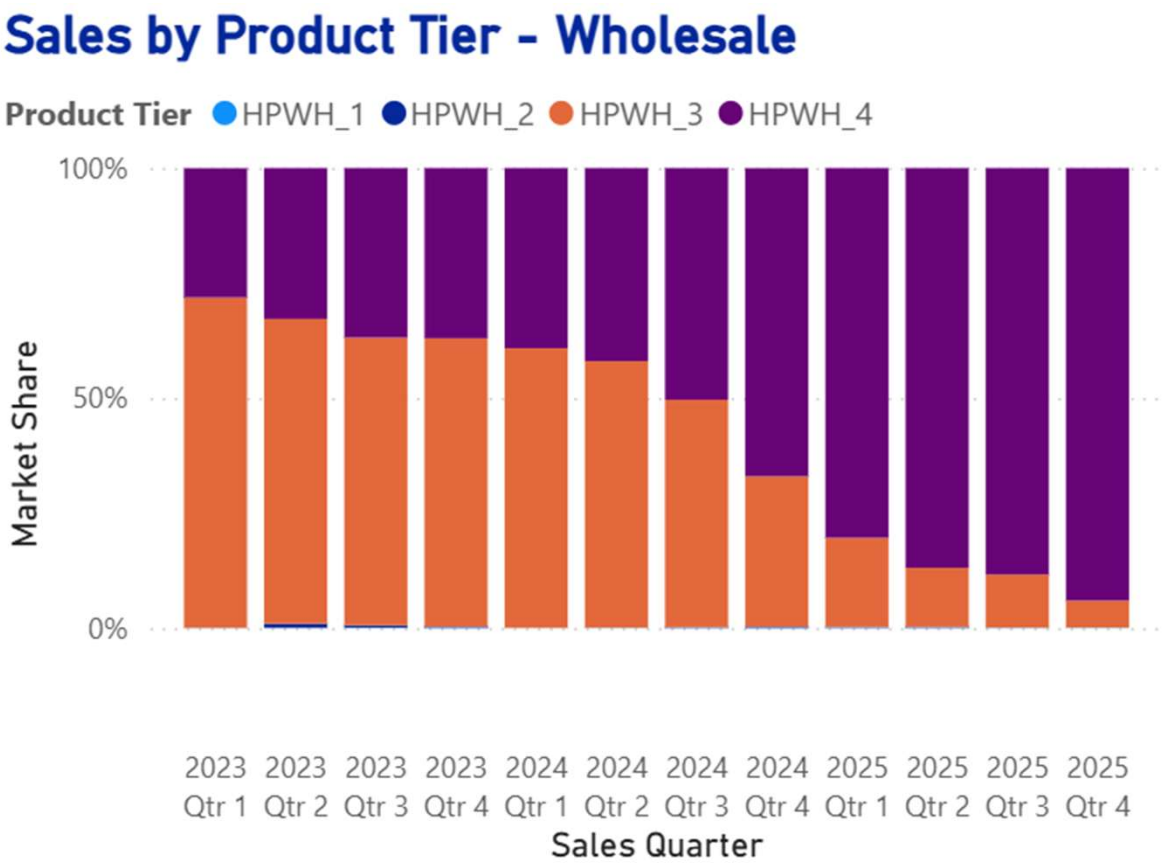
Market Efficiency Tier Shifts

- *Significant shift from Tier 3 to Tier 4 unit sales observed in 2025*
- *Currently estimated that ~95% of units sold in region have a Tier 4 efficiency level*
- *NEEA will continue to monitor these trends as new market entrants emerge leading up to the federal standard*



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Questions?

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Wrap-up

How was your experience?

- Public Comment?
- Upcoming Meeting: August 26th
- Feedback:
  - Overall
  - Agenda
  - Packet Materials
  - What went well?
  - What needs work?

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Thank You!



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