Energy Smart
Industrial

Utility Focus Group Meeting

February 11, 2025

FACILITATOR:

Eric Mullendore
Commercial & Industrial Sector Lead
Energy Efficiency
Bonneville Power Administration

Attendees

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Name:	Company:
Arend, Mike	Columbia River PUD
Bird, Jason	Idaho Falls Power
Caldera, Jackie	Umatilla Electric Coop
Curtiss, Billy	Eugene Water & Elect Board
DeSalvo, Charlie	Columbia Rural Elect Assn
Frechette, Aaron	Clark Public Utilities
Froehlich, Lori	Clark Public Utilities
Frost, Robert	Benton PUD
Goodman, Graham	Seattle City Light
Habersetzer, Rainee	Lewis PUD
Hansen, Danielle	Centralia City Light
Harris, David	Springfield Utility Board
Hull, Joe	Eugene Water & Elect Board
Johnson, Kim	Okanogan PUD
Kinnaman, Dan	Grays Harbor PUD
Langdon, Jennifer	Cowlitz PUD
Lewis, Kelsey	Snohomish PUD
Lopez, Maurilio	Franklin PUD
Mapes, Terry	Benton PUD
Neff, Brandy	PNGC Power
Perry, Ryan	Tillamook PUD
Timmerman, Katie	Benton PUD

Name:	Company:
Amundson, Todd	Ind Eng Tech Lead, BPA
Bernacki, Jeff	ESIP, Cascade Energy
Chiu, Mike	COTR Liaison, BPA
Griffith, Henry	ESIP, Cascade Energy
Jackson-Gistelli, Richard	ESI Wastewater Spec., Cascade Energy
Kostich, Bill	ESIP, Cascade Energy
Kust, Ming	Marketing Liaison, BPA
Landwehr, Victoria	ESIP, Cascade Energy
Lang, Brice	EER Liaison, BPA
Layton, Shelley	Program Specialist, Cascade Energy
Martin, Steve	ESI Operations Mgr., Cascade Energy
Mullendore, Eric	Comm & Ind Sector Lead, BPA
Rogers, Austin	ESIP, Cascade Energy
Sauter, Jimmy	ESIP, Cascade Energy
Schroeder, Jacob	Energy Mgmt Prog. Mgr.
Shartel, William	Program Specialist, BPA
Simon, Tony	Custom Project Prog. Mgr.
Sullivan, Mariah	Industrial Engineer, BPA
Wood, Jennifer	Industrial Prog. Mgr, BPA

Agenda

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1. Welcome		**11:00 – 11:05**
Opening and Safety Moment	*Eric Mullendore*	
2. ESI & BPA Updates		**11:05 – 11:35**
ESI Program Updates	*Steve Martin*	
BPA Updates	*Jennifer Wood*	
Wastewater Segment Update	*Richard Jackson-Gistelli*	
3. UFG Open Forum		**11:35 – 11:50**
Project Spotlight - Arclin	*David Harris (SUB), Jeff Bernacki*	
Open Forum	*Utility Focus Group*	
4. Wrap-up and Reminders	*Jennifer Wood*	**Remaining Time**

Safety Moment - Winter Edition: Carbon Monoxide Safety

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What is Carbon Monoxide (CO)?

- Colorless, odorless, and tasteless gas
- Produced by burning fuel (e.g., natural gas, wood, coal)

Source: https://mmia.net/slip-fallprevention/

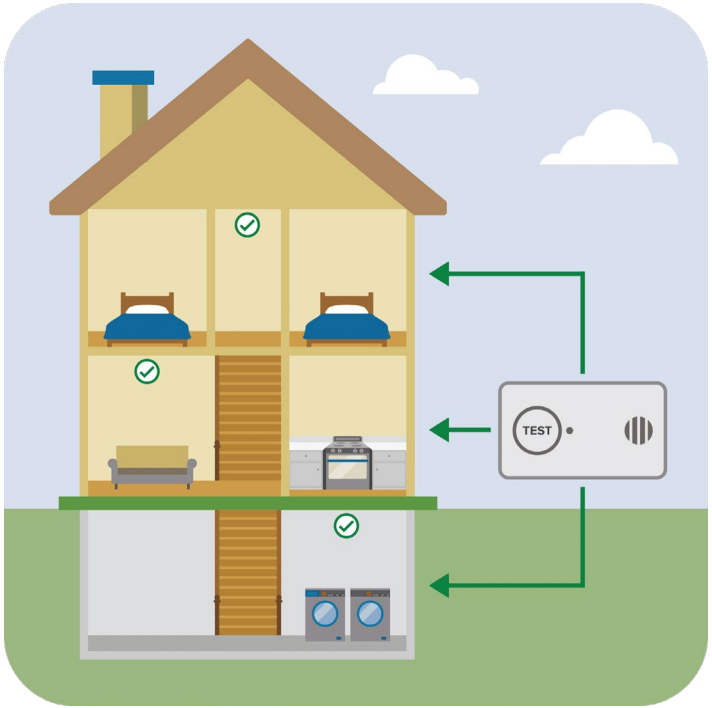
Symptoms of CO Exposure

- ❑ Headache
- ❑ Dizziness
- ❑ Nausea/Vomiting
- ❑ Confusion
- ❑ Chest pain

Source: https://mmia.net/slip-fallprevention/

Prevention Tips

- Install CO detectors in your home
- Regularly inspect and maintain fuel-burning appliances
- Ensure proper ventilation in areas with fuel-burning devices
- Never use portable generators indoors or in enclosed spaces



Source: https://mmia.net/slip-fallprevention/

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ESI Program Updates

Steve Martin – ESI Operations Manager

ESI Program Update – Q2 Areas of Focus

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Prepare to finish the biennium strong

Build next year's pipeline

Manage cost-effectiveness (B/C)

Option 1 Custom Projects: >140 Projects to Close

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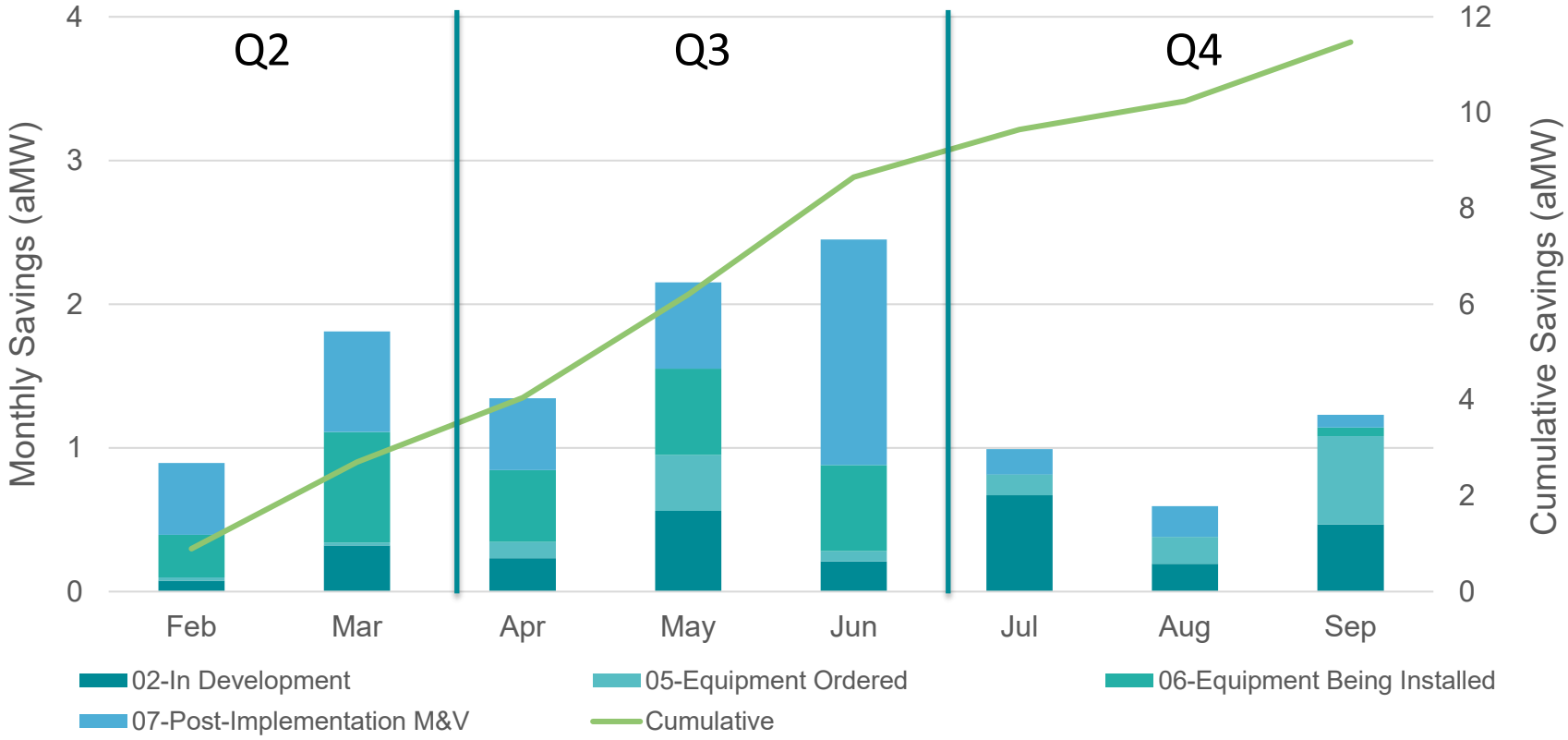

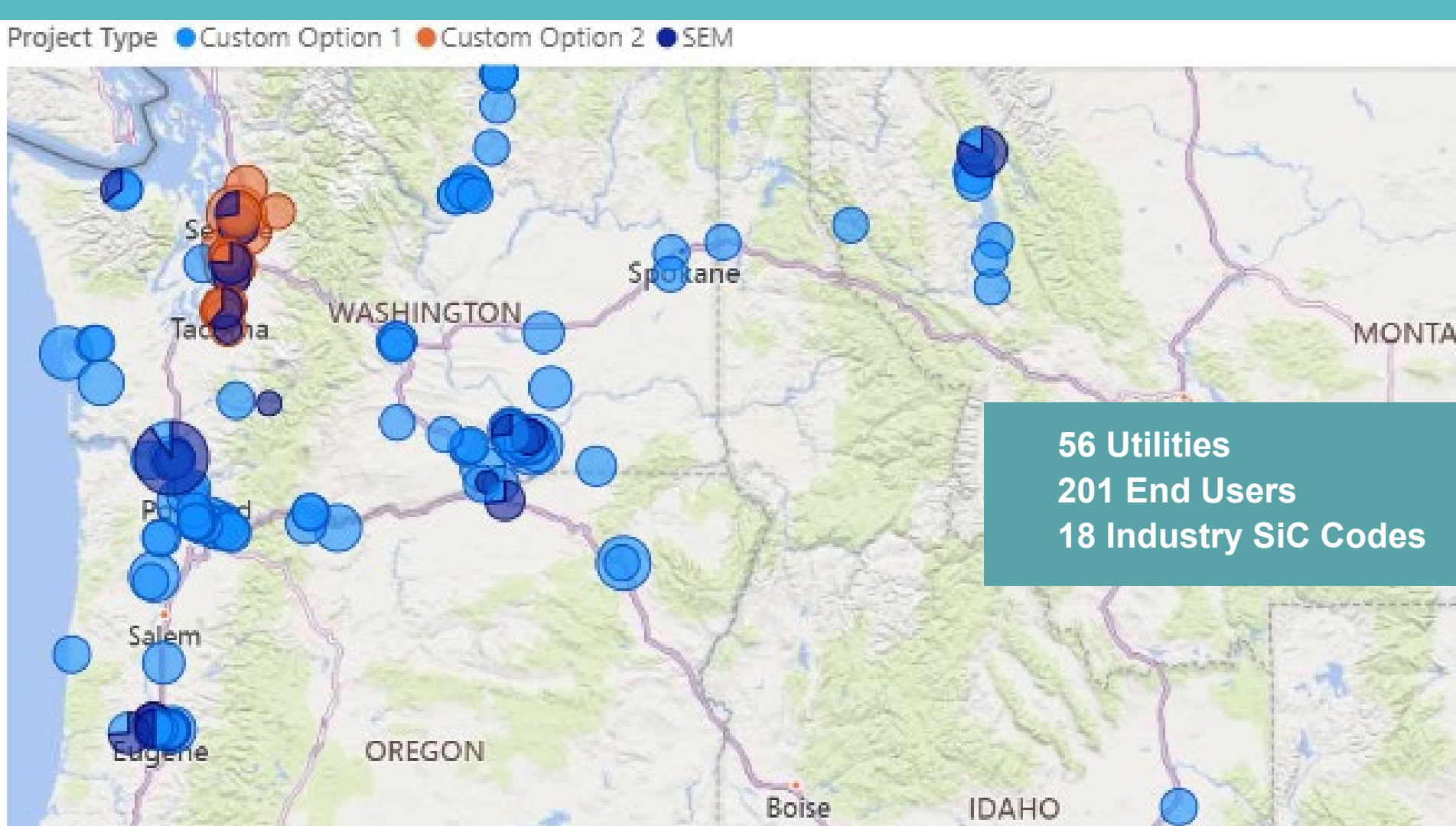
Project Type
Custom Option 1
Custom Option 2
SEM
WASHINGTON
Spokane
Salem
OREGON
Boise
IDAHO
56 Utilities
201 End Users
18 Industry SiC Codes

FY2025 Forecasted Range – All Measures

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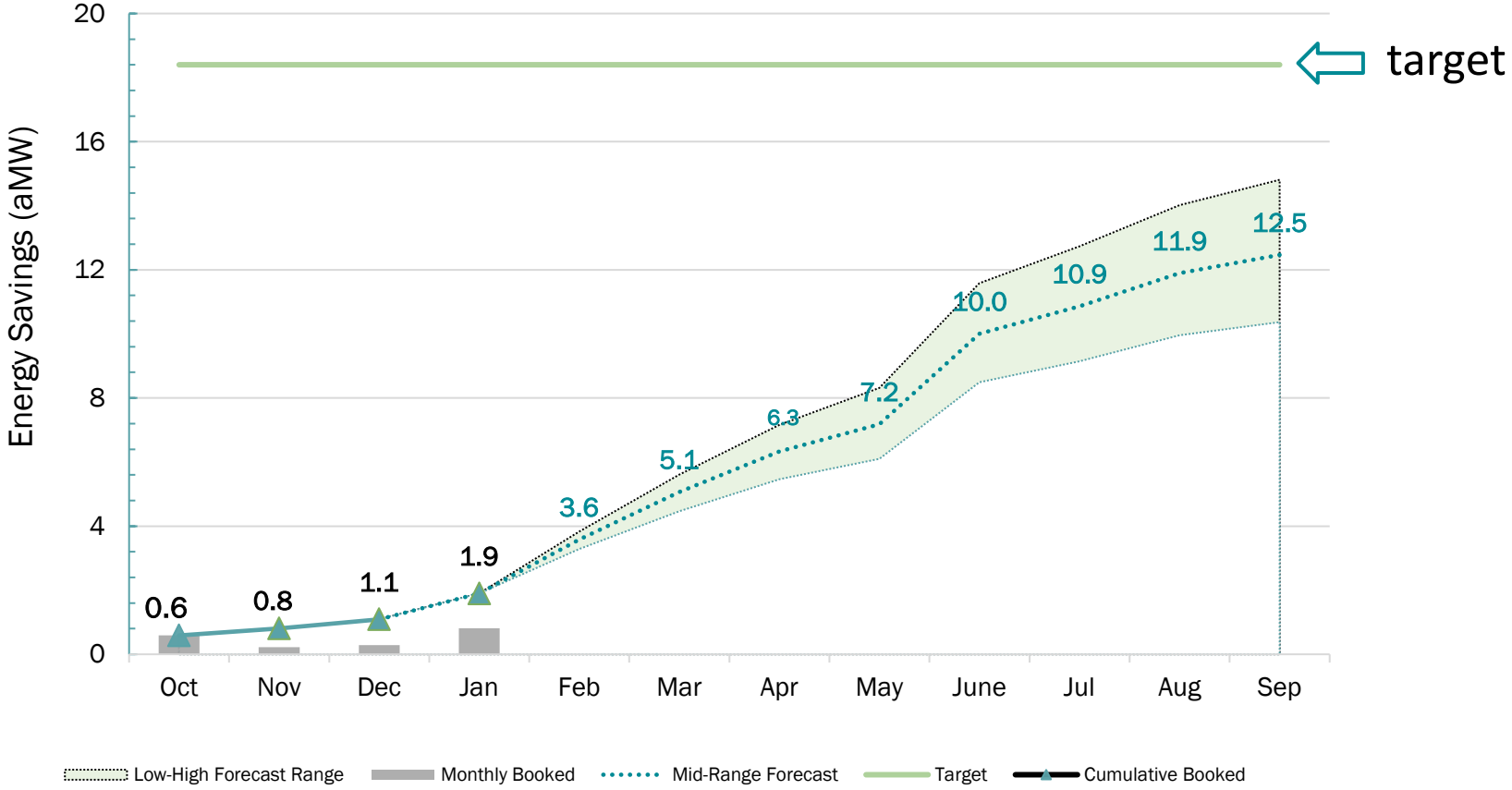

Energy Project Managers

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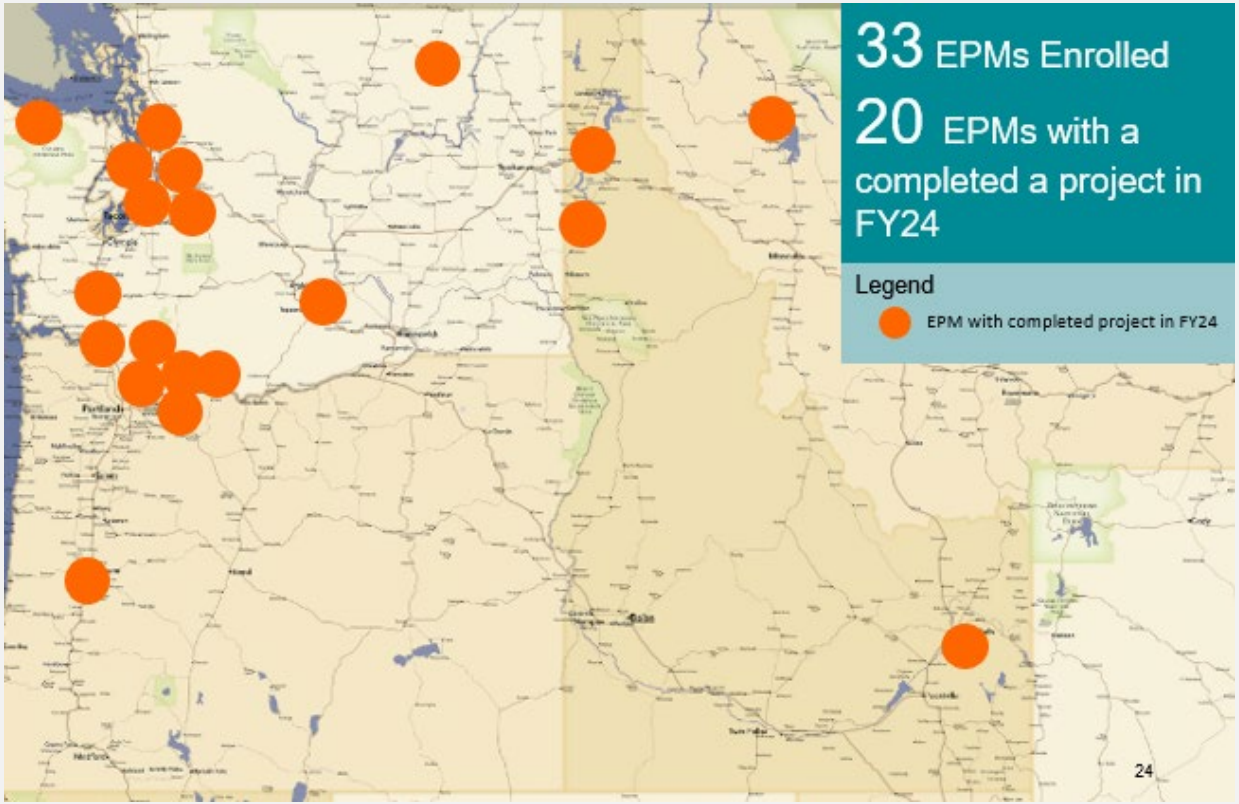

3 new EPMs are enrolling in February!

Key Strategies to Build the FY2026 Pipeline

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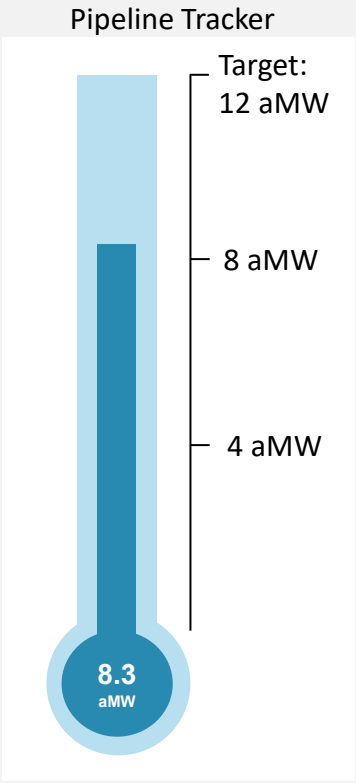
Site visits	**Target >175 site visits per quarter** **Offer value every visit**
Secure commitments for pre-purchase projects	**Refresh project economics** **Ensure studies have reached the decision maker**
Engage vendors and distributors	**Ensure vendors and distributors know about ESI, and hear about successful projects**



A Data Center Resource for Utilities

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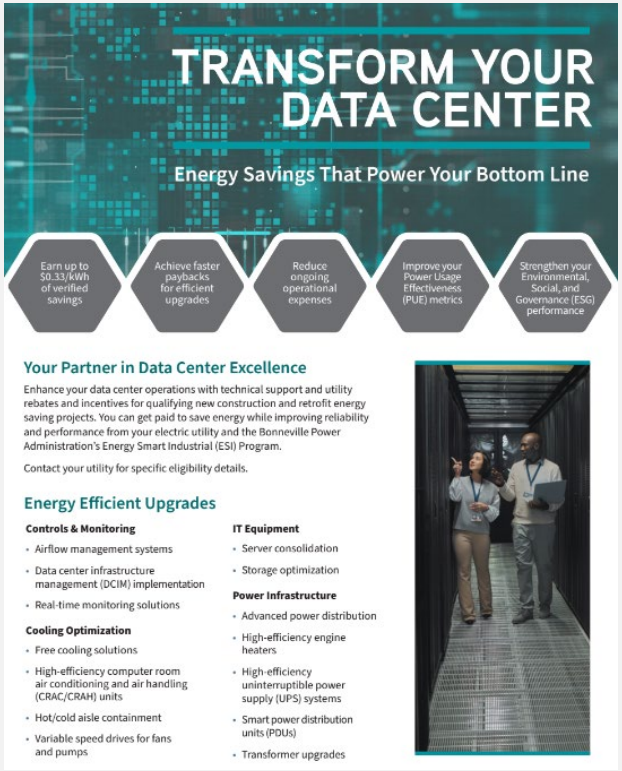
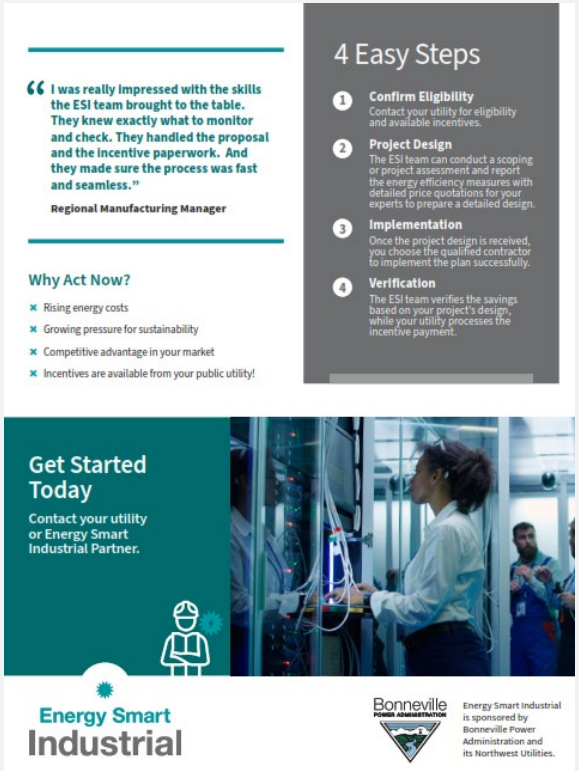
Coming soon, by utility request!





Managing Cost Effectiveness - The B/C Ratio

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- IM Definition of B/C: The total benefits over the life of the project, divided by the installation costs.

- Note:
  - If project savings are 200,000 kWh or less, no cost-effectiveness screening is applied
  - If project savings are more than 200,000 kWh, then:
    - The CPP or CR must demonstrate a B/C >0.5

B/C Trend – Option 1 Custom Projects

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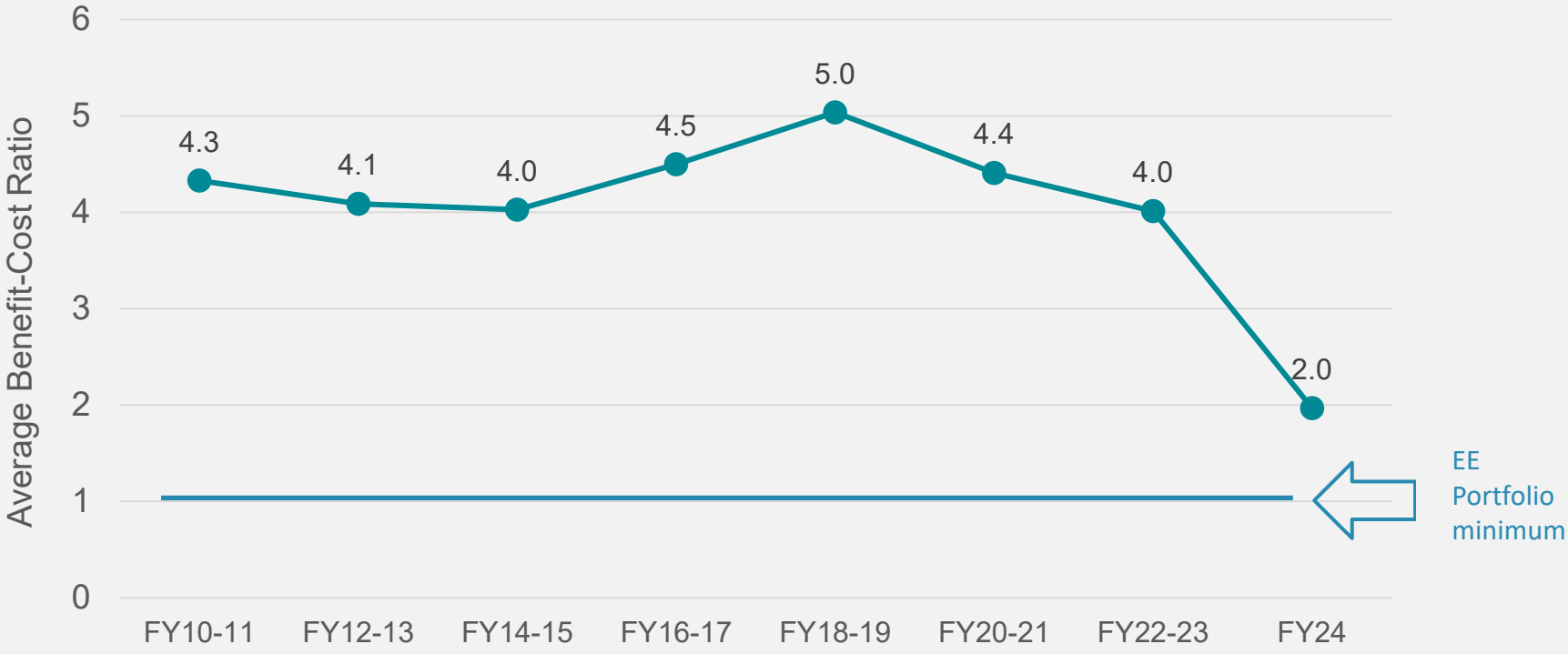

B/C Equation

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$$\frac{B}{C} = \frac{Total\ Benefits\ over\ the\ Lifetime\ of\ the\ Project}{Installation\ Costs}$$

Recent B/C Challenges

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NW Power Council 2021PP Avoided Cost assumptions are lower

$$\frac{B}{C} = \frac{NPV_{ML}[Verified\ Energy\ Savings + \text{NEIs} + O\&M\ Cost\ Savings]}{Installation\ Costs}$$

Capital equipment are higher

But Solutions Exist!
First, Select the Right Measure Life

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$$\frac{B}{C} = \frac{NPV_{ML}\left[Verified\ Energy\ Savings + \text{NEIs} + O\&M\ Cost\ Change\right]}{Installation\ Costs}$$

- Ensure the measure life is representative of typical useful life for the application
- If the project involves new durable equipment, consider a 15-year ML

Next, Consider Non-Energy Impacts

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- Non-Energy Impacts (NEIs) are any cost (positive or negative) that directly result from a measure that are not in categories of installation cost or changes in O&M. In BEETS, they are referred to as Non-Energy Benefits (NEBs)
- Common examples: Changes in water consumption, natural gas consumption, product yield, or productivity

$$\frac{B}{C} = \frac{NPV_{ML}[Verified\ Energy\ Savings + NEIs - O\&M\ Cost\ Change]}{Installation\ Costs}$$

And Finally, Capture O&M Cost Changes

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- Operations and Maintenance (O&M) Cost Changes refer to ongoing and periodic incremental costs required to operate and maintain measure-affected equipment over the life of the measure.
- Common examples: Lower preventative maintenance costs, lower consumables costs

$$\frac{B}{C} = \frac{NPV_{ML}[Verified\ Energy\ Savings + NEIs - O\&M\ Cost\ Changes]}{Installation\ Costs}$$

BPA's Custom Project Documentation Guide

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Key sections pertaining to B/C Equation

- Section 4 – Eligible Project Costs
- Section 7 – O&M Costs
- Section 8 – Non-Energy Impacts

ESI Program Update – Q2 Areas of Focus

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Prepare to finish the biennium strong

>29 aMW

Build the pipeline

>12 aMW for FY26

Manage cost-effectiveness (B/C)

B/C > 2.0

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BPA Updates

Jennifer Wood – Industrial Program Manager

Implementation Manual Mid-Cycle Updates

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- **10.3.2.1 Strategic Energy Management Legacy** will expire on **9/30/2025**
- **Proposed changes to be effective 10/1/2025**:
  - **10.3.3 Performance Tracking Systems**
    - Consolidating the Performance Tracking Systems measures into one
    - Combining WTP to $25,000 per two-year performance period
    - Expiring Annual Maintenance measure RefNo on 9/30/2025
  - **10.4.1 Variable Frequency Drive for Fans on Potato and Onion Storage Facilities**
    - Adding the clarification that multiple fans may be included on one submittal.
    - Adding a maximum horsepower (HP) threshold requirement that each VFD controlled fan motor is less than or equal to 250 HP.
    - Will consolidate existing UES measures to one RefNo; the quantity reported will be *total horsepower of qualifying fan motor(s)*.
    - Will return Payment language to previous IMs: $200 per HP and add clarification on how to calculate the payment.

IM Mid-Cycle Changes, cont'd

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- **Corrections, effective 4/1/2025**
  - **8.7.6 VFD for Pumps (BPA-Qualified)** adding clarification that multiple pumps may be included in a single submittal with no limit on total *variable frequency drive horsepower* (HP) installed. Updating Pre-conditions to clarify that individual qualifying *pump motor* HP will not exceed 100 HP.
- **Proposed Commercial changes to be effective 10/1/2025**:
  - **8.6.2 Efficient Refrigeration Fan Motors** will remove fan blade size requirement for walk-ins.
  - **8.7.5 Efficient Pumps** will add alternative install verification documentation requirement and remove 'Make, model and installed cost' requirements.
  - **8.7.6 VFD for Pumps** will add alternative install verification documentation requirement and remove 'Make, model and installed cost' requirements.

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Wastewater Segment Update

Richard Jackson–Gistelli, ESI Water/Wastewater Sector Specialist

ESI & Water/Wastewater Savings
A Look Back and Ahead

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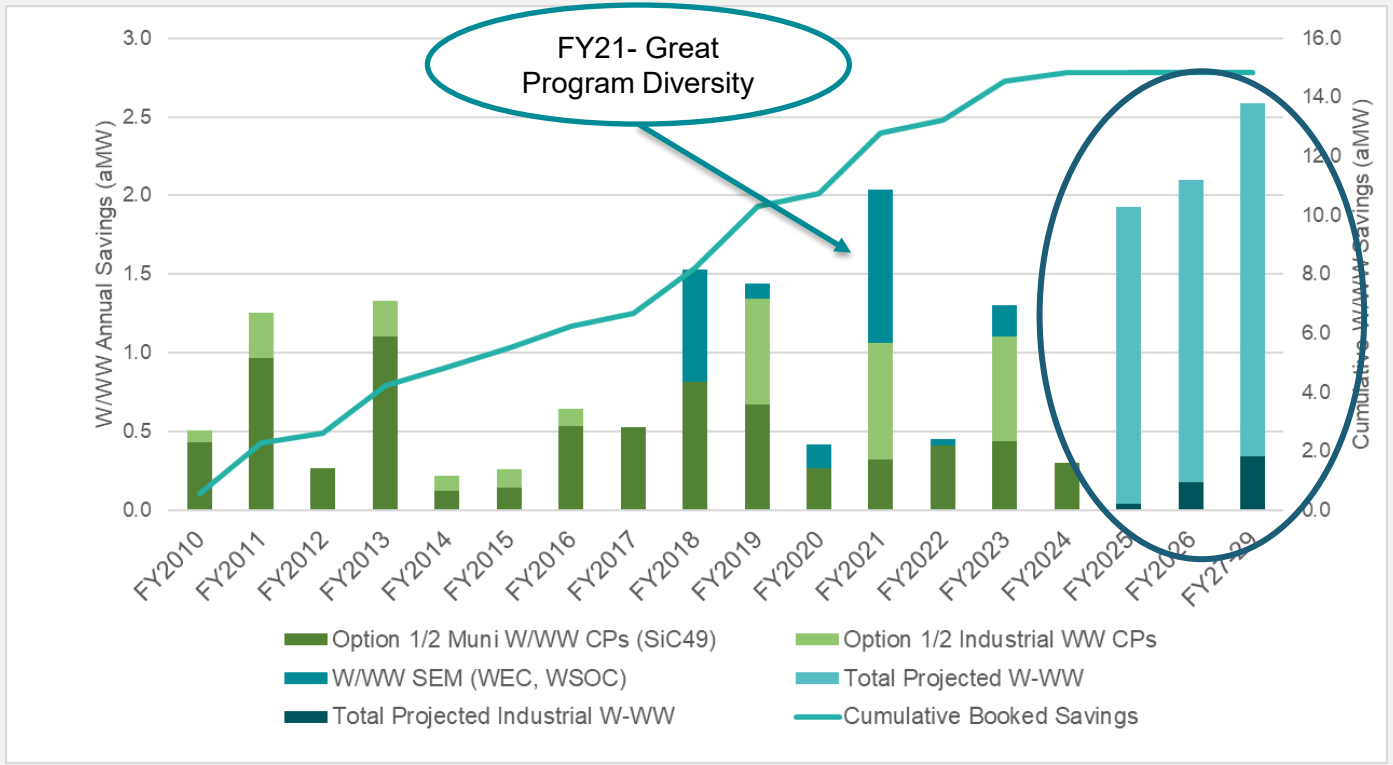

Highlights: Okanogan County

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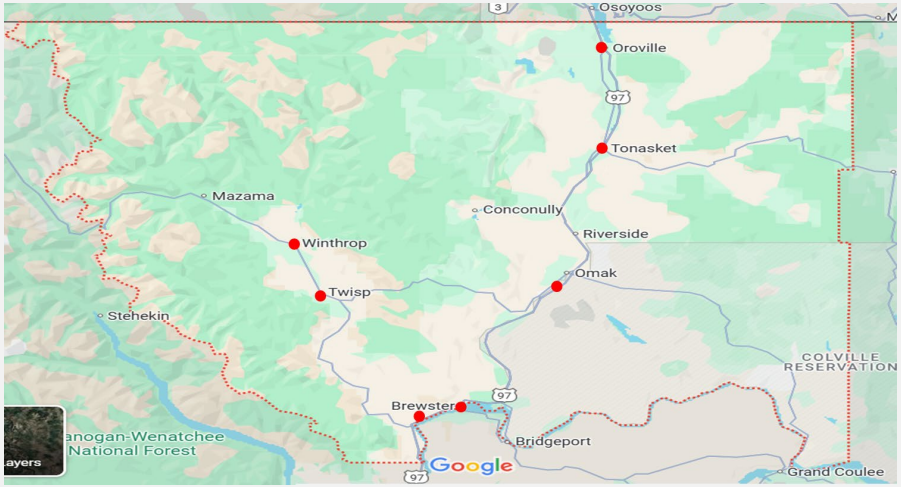
7 WWTPs in 4 Days

- Small to medium projects in every plant
- 1 Plant going through full upgrade
- Great utility-plant staff engagement
- Tallying opportunities



Highlights: Oregon Coast

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Four WWTPs Visited:

- Florence, Port Orford, Brookings, and Gold Beach
- Florence: 310,000 kWh savings scoped
- Brookings: 400,000 kWh savings scoped

Two Water Treatment Plants Visited:

- Port Orford and Gold Beach
- Gold Beach replaced 75 hp pumps with 15 hp pumps

W/WW Projects Estimated to Complete in 2025

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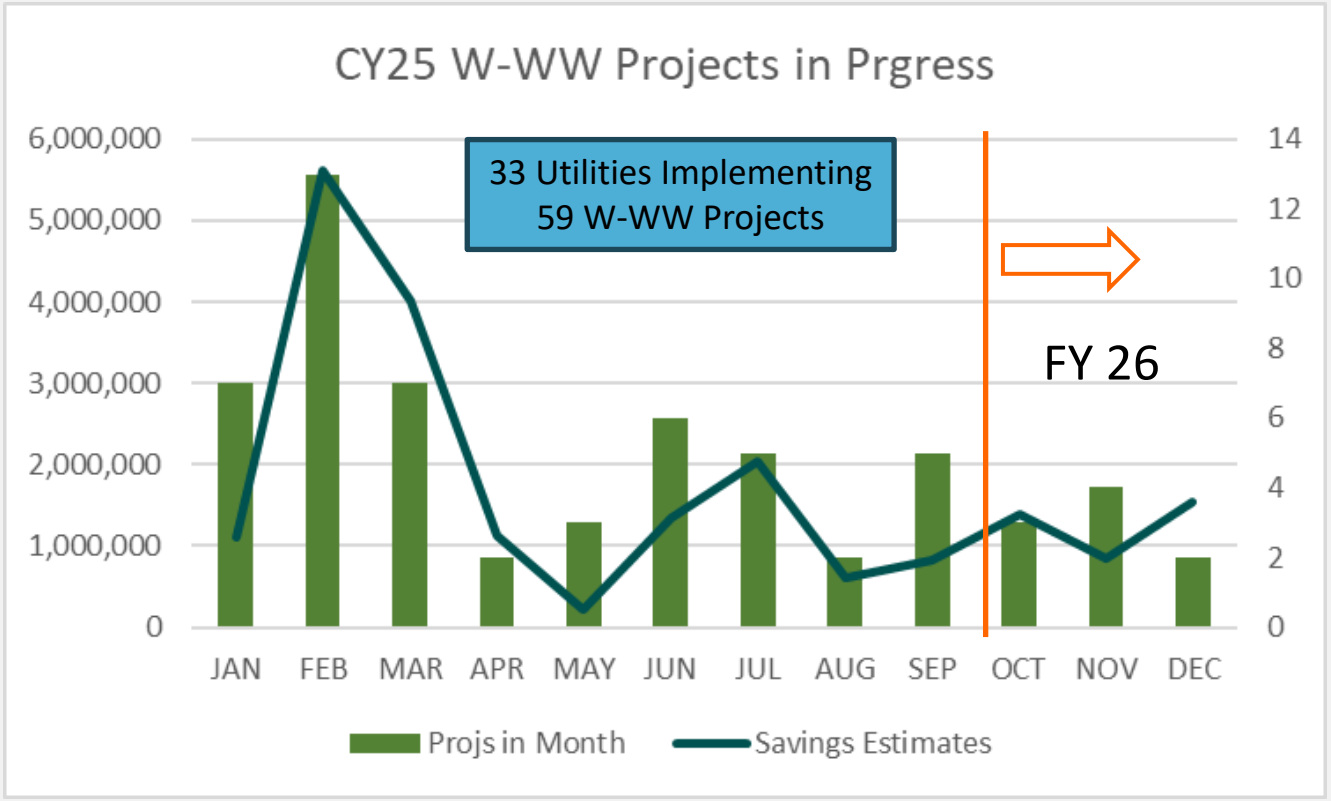

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Project Spotlight – Arclin

David Harris – Springfield Utility Board
Jeff Bernacki – Energy Smart Industrial Partner (ESIP)

Arclin Springfield - Overview

- Springfield plant does resin manufacturing
  - Produce formaldehyde from methanol
  - ~50 different resins
    - 5-6 resins make up 95% of products
- Process Equipment
  - Large reactors
  - Boilers
  - Cooling Towers
- Energy Efficiency
  - Enrolled in SEM since June ‘24
  - Bi-weekly Energy Team Meetings
  - Energy Champion: Mike McKendry

Arclin Springfield – Compressed Air Leak Sweep

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SEM Energy Savings

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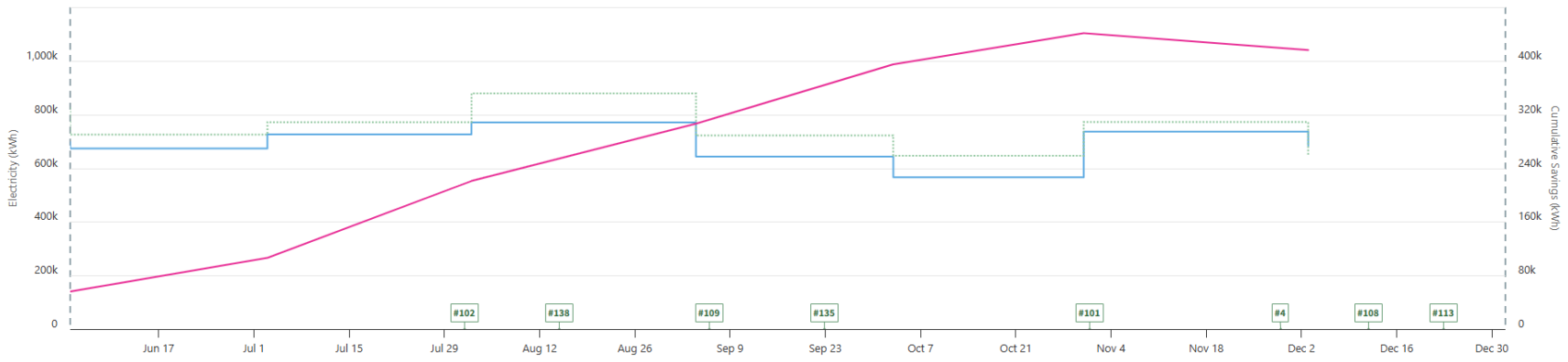
Arclin Springfield

2024-06-04 to 2025-01-01

	Electricity	Avoided Cost	Avoided Emissions
Total Savings ⓘ Based on available data in Savings Range	8.1% 415,936 kWh	$22,045	288 $MTCO_2e$
Separate Claims ⓘ Acquired from outside Energy Program	1.0% 51,632 kWh	$2,736	36 $MTCO_2e$
Program Savings Savings from Energy Program	7.1% 364,304 kWh	$19,308	252 $MTCO_2e$

More details

Expected vs. Actual kWh and Cumulative Savings (Bill Period)



Engagement Takeaways & Future Work

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- **Great SEM Performance!**
- **Identified one large leak that was repaired**
  - Leak sweep indicated the site is doing a good job of keeping leaks to a minimum
- **Establishing Mike McKendry as the energy champion**
  - Potential EPM?
- **The site is installing PTS for better energy monitoring**
- **New capital projects are being considered**
  - Working through budget approval with management
    - Regenerative Thermal Oxidizer to Scrubber Upgrade
    - HVAC Heat Pump
    - Compressed Air, Pump VFDs

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Utility Focus Group Open Forum

- What topics are on YOUR mind that you'd like to share?
- Any follow-up Q&A on materials presented earlier?

Wrap-up and Reminders

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- **EE Webinar: 2024-2025 RP IM April Mid-Cycle Updates**
  - Thursday, March 27, 2025, at 10:00-11:30 PDT
- **Next Utility Focus Group Call**
  - ~~Tuesday, May 13, 2025, 11:00-12:00 PDT~~
  - 2/13/25 NOTE: Q3 meeting will need to be rescheduled – please watch for and respond to a survey emailed from Jennifer Wood – and share your availability.

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Thank you!

For more information, contact:

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