

September 21, 2017

Commercial Advisory Committee



Topics for Today

10:00 – 10:15

Administrative/Housekeeping Items

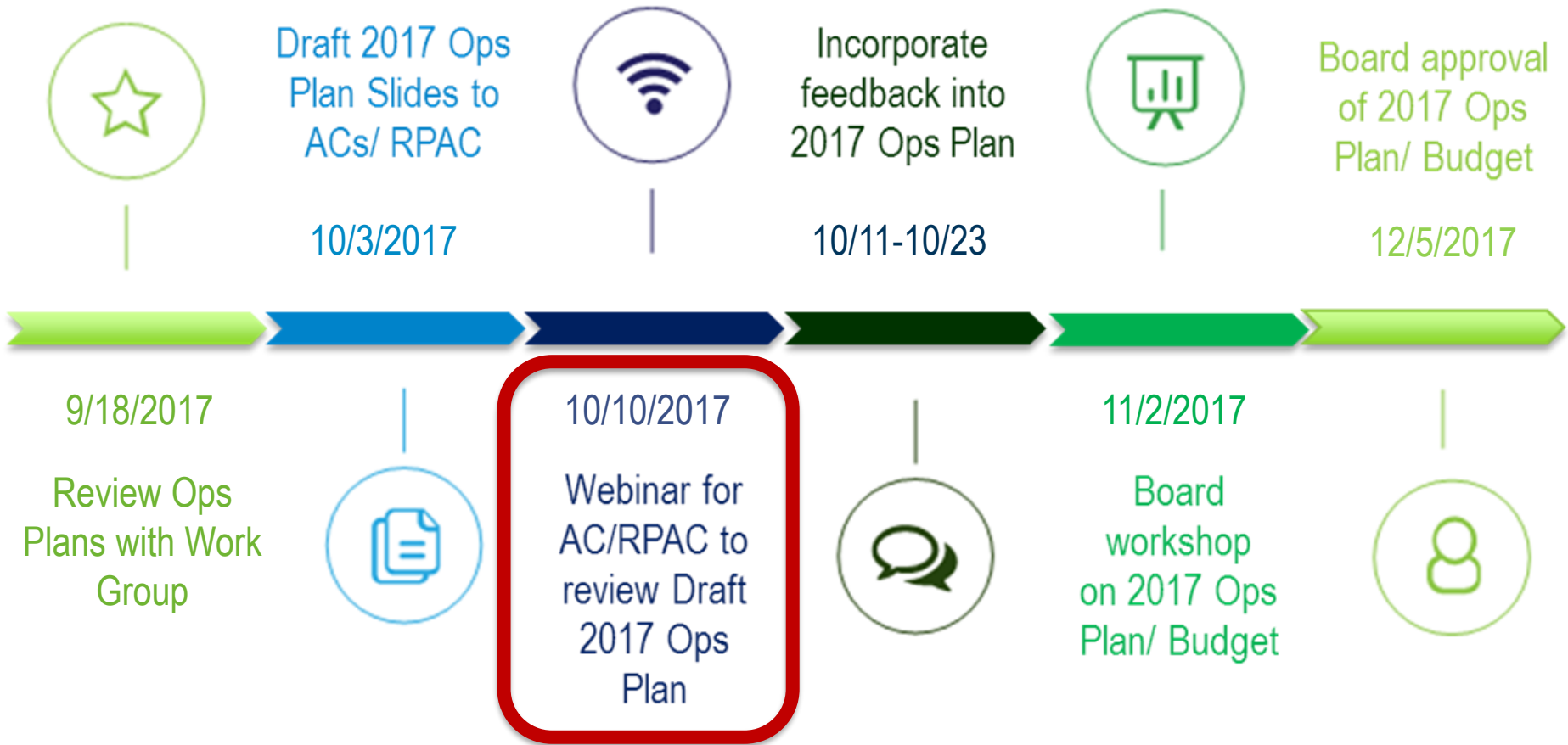
10:15 – 10:50

High level status update on Commercial Portfolio

10:50 – 11:40

Preview of Extended Motor Products for Q4 Initiative Start

Operations Planning Schedule



Commercial Team



Commercial / Industrial / Ag
Emily Moore
 Interim Sector Manager
 503-688-5422

Program Coordinator
Anne Swanson
 503-688-5446

Program Coordinator
 Open



Strategy Manager
Debbie Driscoll
 503-688-5487

- Commercial Strategy
- C+I Lighting Regional Strategic Market Plan



Sr. Program Manager
Christian Miner
 503-688-5498

- Commercial Real Estate
- Window Attachments



Portfolio Program Manager
Neil Grigsby
 503-688-5417

- Commercial Code Enhancement
- *New Homes*
- *Manufactured Homes*



Sr. Program Manager
Elaine Miller
 503-688-5461

- Reduced Wattage Lamp Replacement
- Lighting Distributor Platform



Program Manager
Maria Murphy
 503-688-5486

- Commercial HVAC - Very High Efficiency Dedicated Outside Air Systems

COMING SOON



Sr. Program Manager
Anne Curran
 503-688-5431

- Luminaire-Level Lighting Controls
- Top-Tier Trade Ally
- Lighting Resources



Program Manager
Warren Fish
 503-688-5402

- Extended Motor Products
- SEM Infrastructure
- Industrial Technical Training

COMING SOON

Commercial Portfolio Q3 2017 Update

Reduced Wattage
Lamp
Replacement



Luminaire Level
Lighting Controls



Top-Tier
Trade Ally



Commercial
Lighting Regional
Resources



Commercial
Real Estate



Commercial
Window
Attachments



Commercial Code
Enhancement







Strategic Energy
Management



Commercial Lighting Market

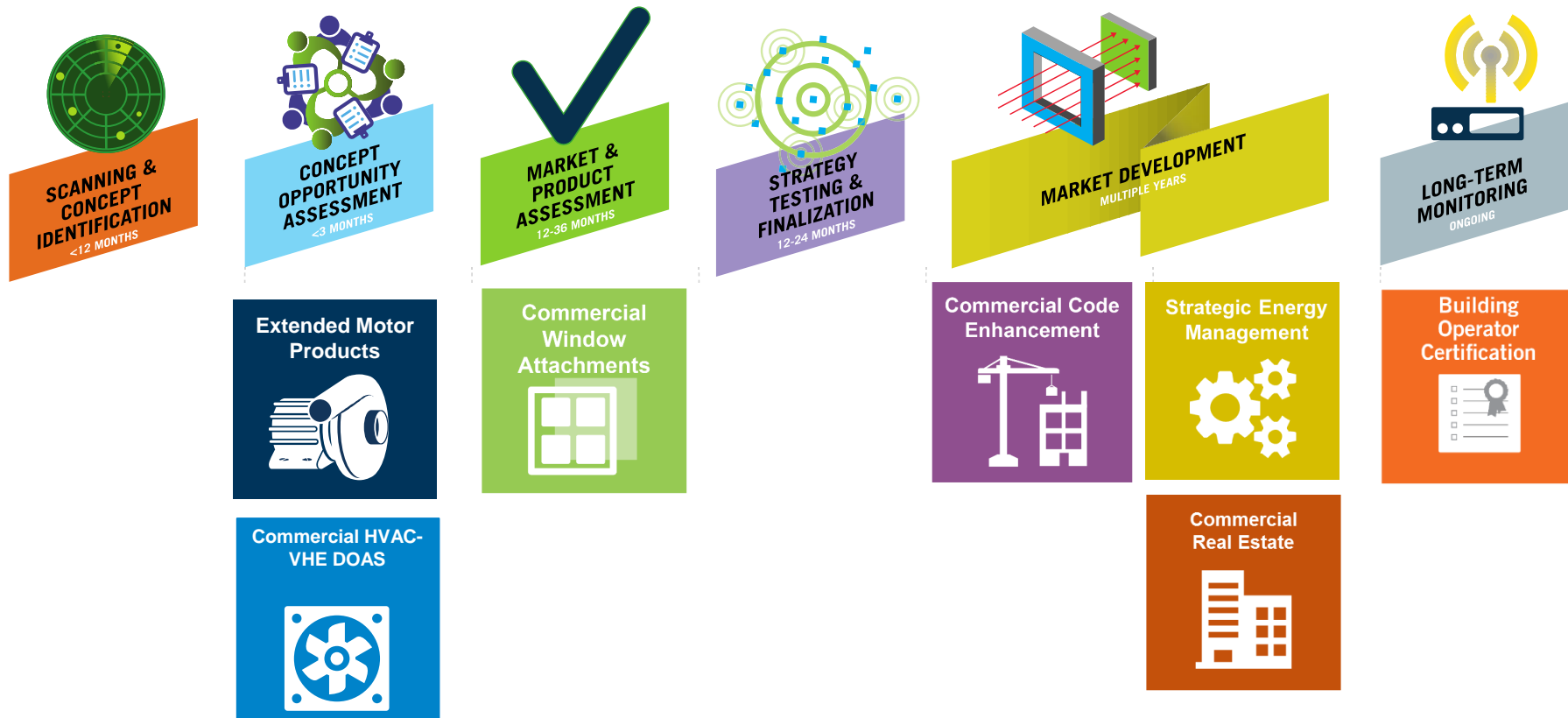
LIFECYCLE PHASES







Program	Q3 Update
 <p>Reduced Wattage Lamp Replacement</p>	<ul style="list-style-type: none"> • Touching 44% of overall lamp sales via 14 distributors (250+ branches) • 27% market penetration of low wattage lamps • Planning transition to LTMT in late 2018/early 2019 • Continuing focus in 2018 on leverage of the lighting distributor platform
 <p>Luminaire Level Lighting Controls</p>	<ul style="list-style-type: none"> • Seeing strong availability of qualified product • Initial LLLC-focused training well received by trade allies and Idaho Power • Growing interest from utilities in offering incentives • Planning to expand engagement with manufacturer reps, distributors, designers and specifiers
 <p>Top Tier Trade Ally Advanced Training</p>	<ul style="list-style-type: none"> • Grown to 89 individuals and 32 companies with designation • NXT Level 2 is designed and in development • Need utility engagement to bolster value proposition for trade allies
 <p>Commercial Lighting Resources</p>	<ul style="list-style-type: none"> • Staying the course

Commercial Building & New Construction Markets

LIFECYCLE PHASES



Program	Q3 Update
 <p data-bbox="79 154 189 192">Commercial Real Estate</p> <p data-bbox="247 147 739 187">Commercial Real Estate</p>	<ul data-bbox="794 147 1798 391" style="list-style-type: none"> • Engagement with 15 industry groups and 20 CRE firms, representing 66M SF in NW • Navigator tool is on track to launch in Q4 2017 • Continued Spark uptake, and included in City of Seattle Building Tune-Up Accelerator Program
 <p data-bbox="73 415 195 479">Commercial Window Attachments</p> <p data-bbox="247 422 693 462">Window Attachments</p>	<ul data-bbox="794 422 1831 615" style="list-style-type: none"> • Continued support and collaboration with AERC • Market Characterization and Baseline are complete • Provided SGS savings calculator to RTF to support RTF savings protocol
 <p data-bbox="54 694 218 739">Strategic Energy Management</p> <p data-bbox="247 694 581 832">Commercial and Industrial SEM Infrastructure</p>	<ul data-bbox="794 698 1846 936" style="list-style-type: none"> • Continued collaboration and uptake at SEMHub • Exploring evolution of NW SEM Collaborative due to national interest • Securing additional DOE grant dollars to raise awareness of 50001 Ready
 <p data-bbox="48 1029 214 1072">Commercial Code Enhancement</p> <p data-bbox="247 1018 614 1105">Commercial Code Enhancement</p>	<ul data-bbox="794 1018 1856 1262" style="list-style-type: none"> • Scale-up Approval in May 2017 • Focusing on 3-5 technologies and practices to support 2018 WA code proposals • State coordination process will kick off in Q4, aims to be complete by end of Q1 2018

New Initiatives

- Commercial HVAC - Very High Efficiency Dedicated Outside Air Systems (VHE DOAS)
- Extended Motor Products

ASK FOR FOLLOW-UP:

Who from your organization should engage on these efforts?

Possible Topics for Q4 CAC Meeting

- Extended Motor Products – Initiative Start review and prep for RPAC vote
- Commercial HVAC - VHE DOAS – Update and your input on program concept
- Commercial Real Estate – Update and your input on program activity
- ???

Discussion

- What questions do you have?
- Which programs do you feel you need more information on?
- Looking forward, what programs or activities do you feel most excited about, or want to ensure your utility is plugged into?

Extended Motor Products

Refresher on Initiative Start



September 21, 2017



Extended Motor Products: Update and Discussion

Warren Fish





Agenda for Today's Update

- Share the initial XMP program concept
- Gain understanding of your questions, concerns, and insights
- Take a deeper dive with you in Q4 with Initiative Start (IS) documents and further program development of this new regional effort

Efficiency Ratings for Products

MEF



PEI



U-Factor



SEER, IEER, AFUE, ...

HSPF



R-value



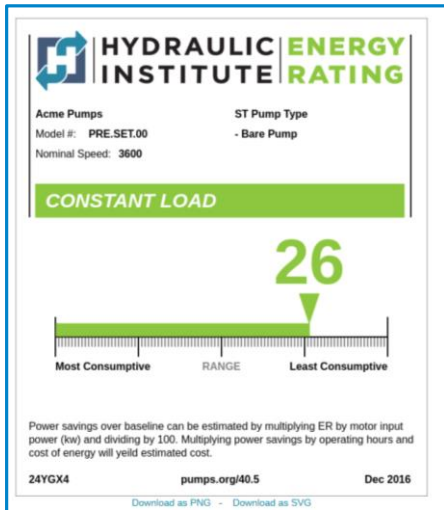
UEF



HI Energy Rating Portal – Individual Pump Listings

ID	Listing Date	Basic Model #	Individual Model #	Configuration	DOE Pump Category	Impeller (Inches)	Nominal speed (rpm)	Stages	PEI	ER
24YGX4	Nov 16, 2016	PRE.SET.00	N/A	Bare Pump	ST	10.000	3600	1	0.8100	26

Downloadable Media



Public Data

Brand X / PRE.SET.00 N/A

10.000 inches @ 3600 rpm

This data is visible to the public.



Download full data

HI Rating ID:	24YGX4
Basic model designation:	PRE.SET.00
Manufacturer's model designation:	N/A
DOE product category:	ST
HI approved laboratory:	undefined - undefined
Testing method:	Section III
Full impeller diameter:	10.000 inches
Nominal speed:	3600 rpm
BEP flow rate:	388.67 gpm
BEP head:	383.40 ft
BEP Driver input power:	55.60 hp
Rated motor power:	8 hp
Date listed:	Nov 16, 2016

Energy Ratings

This data is visible to the public.

Pump Energy Index

0.81

Baseline: 1.07

Energy Rating

26

Who is Participating in EMPLI / XMP

- Spawned out of DOE Rule makings, ACEEE convened broad group of stakeholders focused on energy saving systems (versus components)
- Key element was a label to compare performance
- EMPLI is organized into three groups:
 - **PUMPS!**
 - Fans
 - Compressed air



Numerous Utilities
Across the US

Savings for Pumps & Circulators

Commercial & Industrial



Regional
Technical Forum

Clear Water Pumps -Savings potential

- 3400 measures* ~ estimated savings potential
25-50 aMW

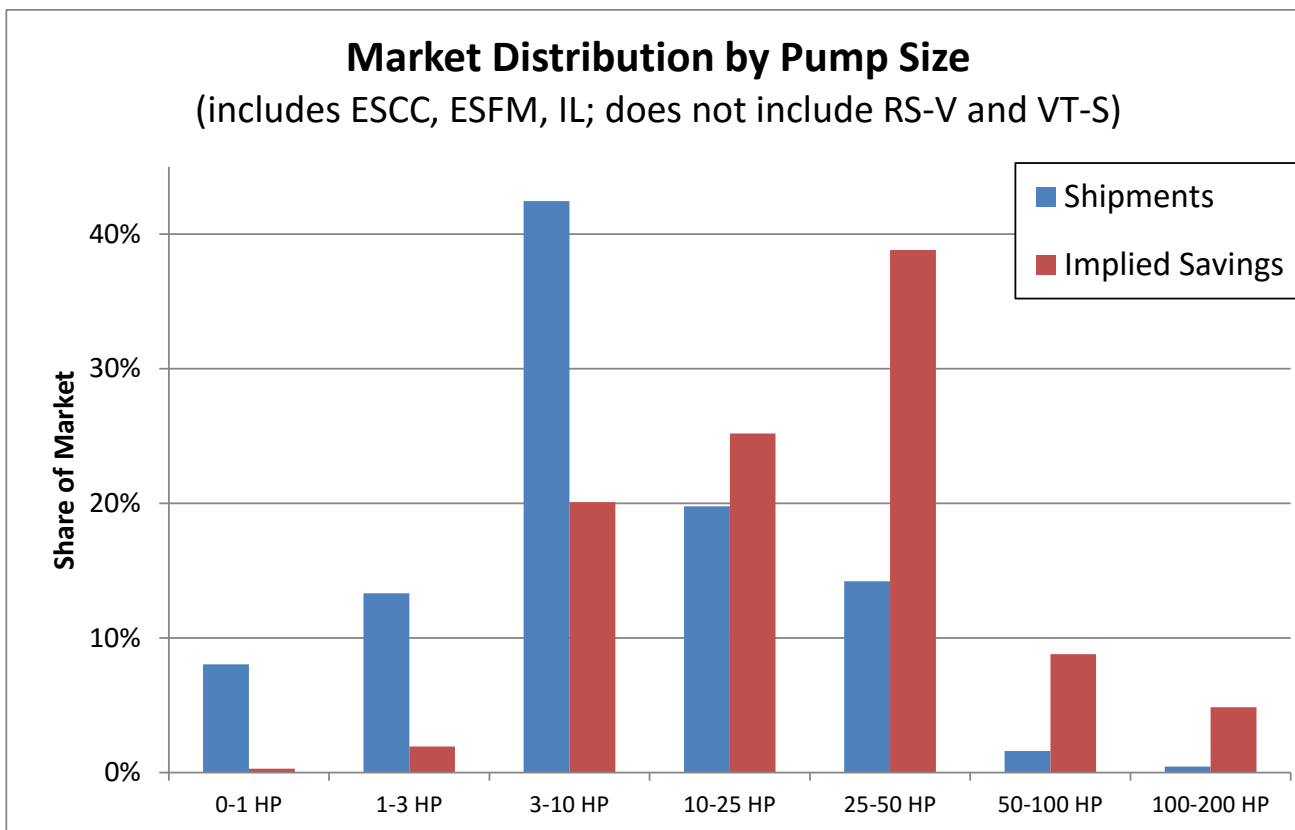
Circulator Pumps Savings

- 100 Measures* ~ estimated savings potential
45 aMW

* RTF UES – Available now as “planned” with research plan for achieving “proven” measures – we need more research funding

Small Pumps Market Characterization

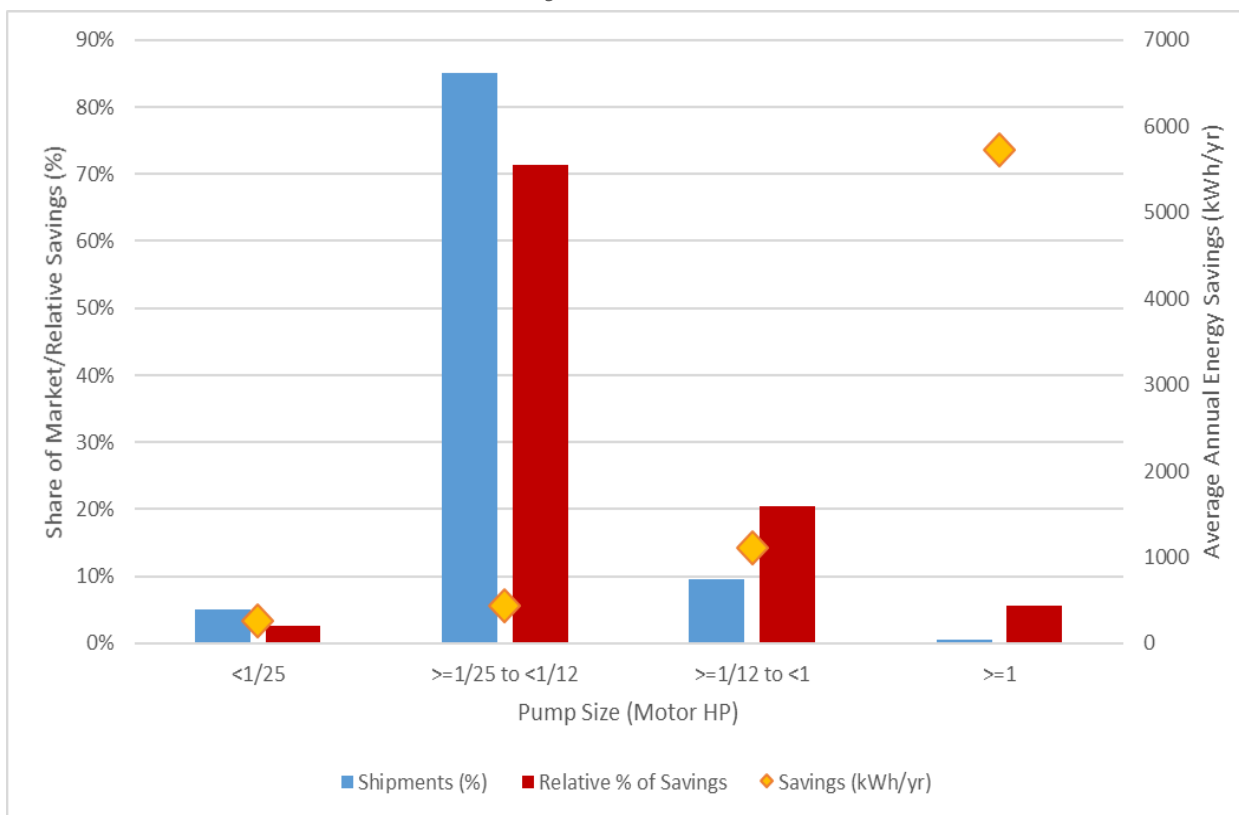
~20,000 small C&I pumps between 1 and 50 HP sold in the NW each year



Circulator Pumps Market Characterization

~10,000 circulator pumps between 1/40th and 5 HP are sold in the NW each year

HPCP's under 5% of sales today



Review:

- We have:
 - Federal Standard for small C&I Pumps, 2020
 - Energy Rating (PEI) and Label
 - RTF Planning measures in place, research plan for Proven

- We know:
 - ~30,000 sales a year (lots of transactions; small savers)
 - 100 aMW savings potential
 - Efficient pump solutions are available, yet few are sold
 - » Sensor/control technology for small pumps is here

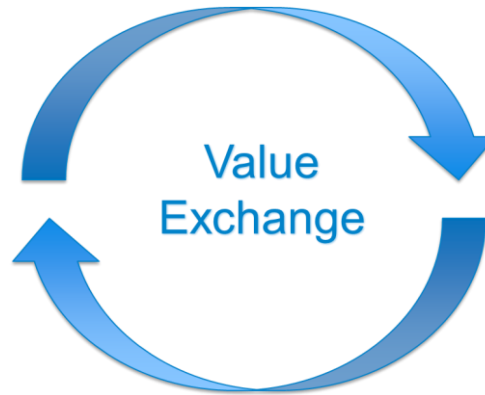
How Would a Regional XMP Work?

- Simplify process for distributors
- Obtain valuable and necessary data
- Cost effective solution for small savers
- Influence markets – supply side

Platform Concept



Distributors
Manufacturers
Other Market Actors



MT Initiatives
Utility Programs

✓ Scale

✓ Simplified engagement

✓ Improved profitability

✓ Cost-effective savings

✓ Speed to market

✓ Market insights

What Next?

- Distributor relationships
- Leverage assets of the RWLR distributor platform
- Research plan for UES measures
- Work collaboratively with funders to design and test market interventions

Discussion, Insights and Feedback



Thanks for your time!

TOGETHER We Are Transforming the Northwest

