



PERFORMANCE TESTED
COMFORT SYSTEMS®

PTCS Program Redesign: Pre-Roundtable Brown Bag

Amy Burke, Program Support Specialist
August 1, 2019

Hello!

Amy Burke

PTCS Redesign Lead • 503.230.4364 • aaburke@bpa.gov

The Agenda

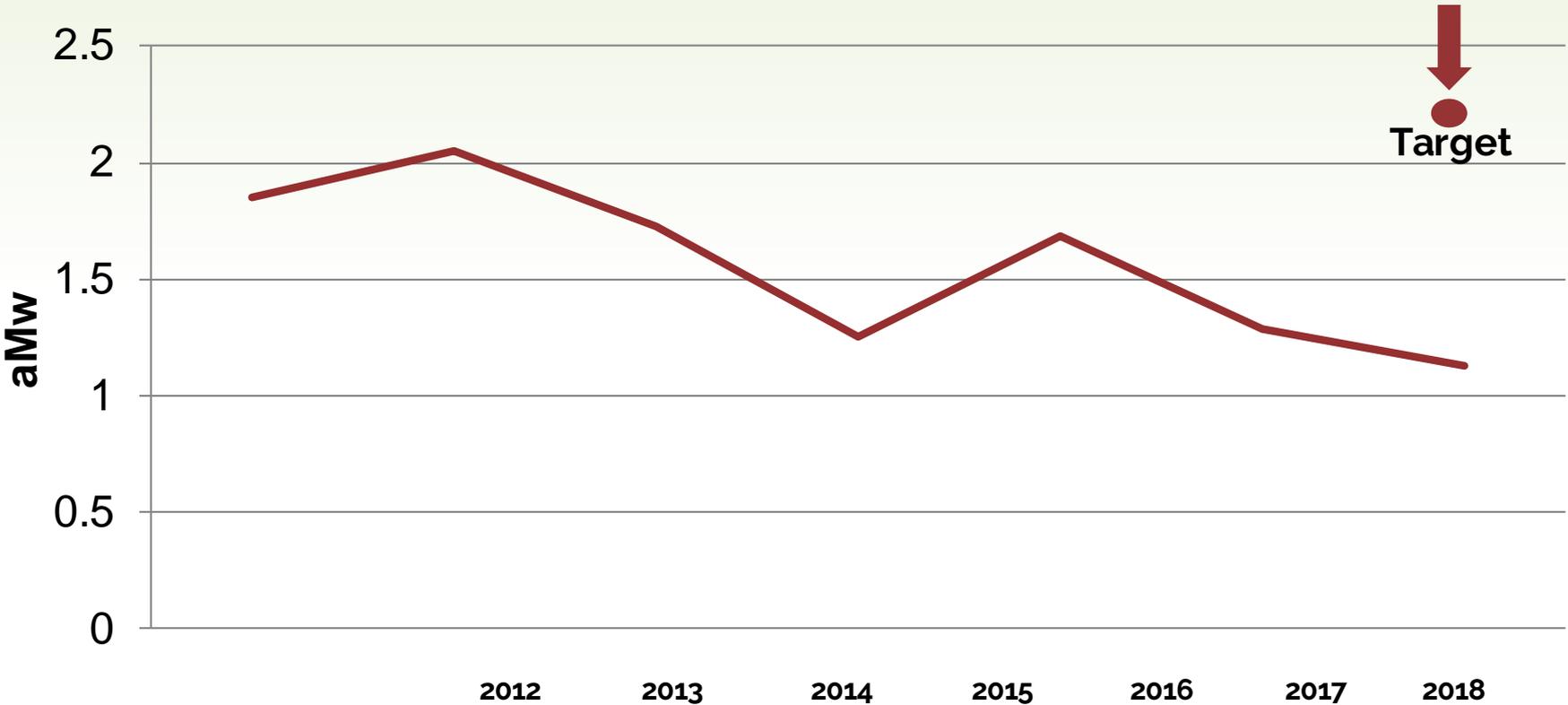
- The Why
- Big Picture Goals
- The Process
- Down in the Weeds
- Discussion
- Next Steps



**We got the
message:
PTCS is
complicated.**



PTCS Annual Savings

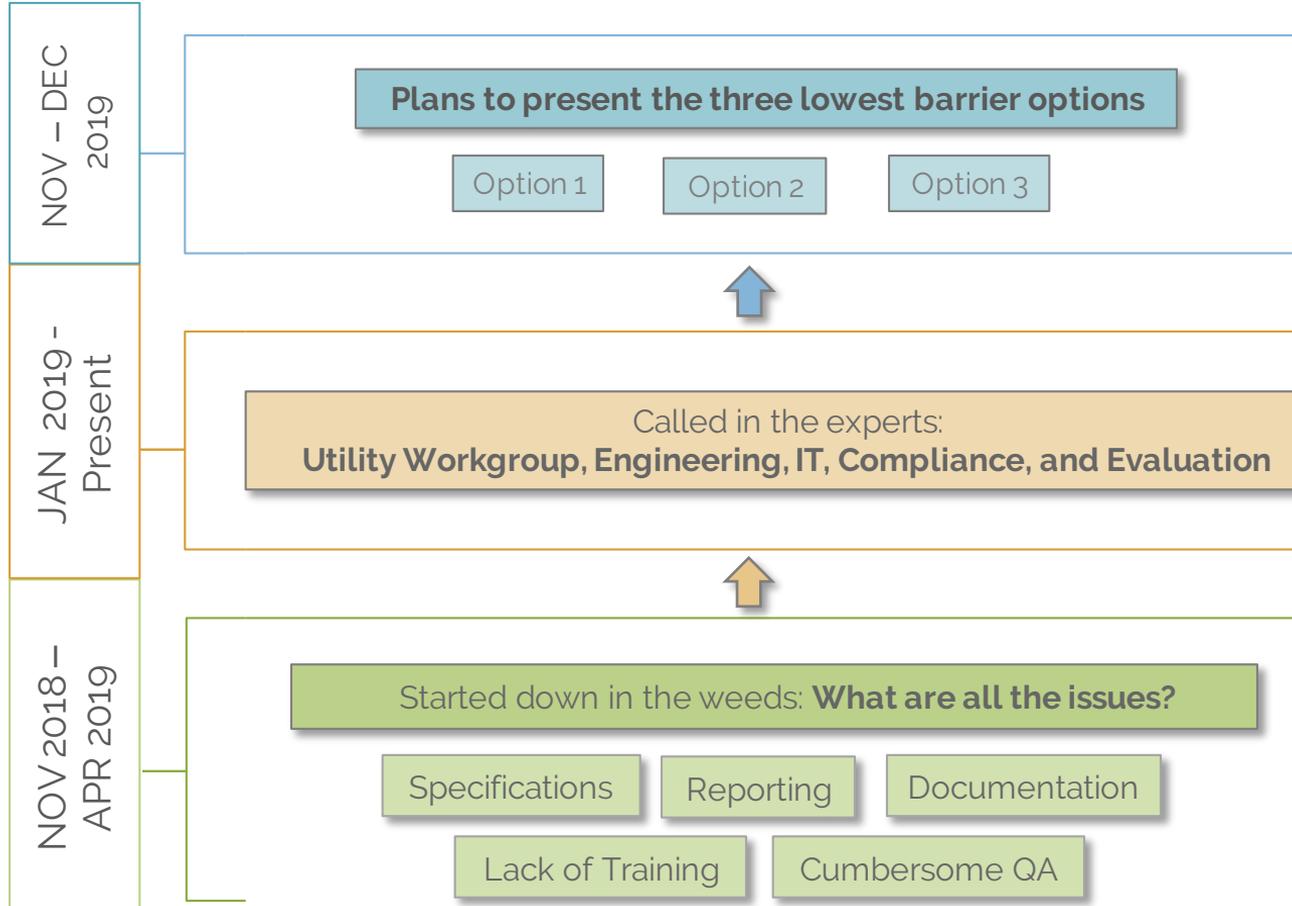


Big Picture Goals

- Simplify PTCS for utilities and technicians to increase uptake
- Simplify systems, materials, and infrastructure
- Update technical specifications and program design to reflect the changing market



The Process



Utility Workgroup

Thank you, participants!

Alicia Harmanson,
Lewis County PUD

Jim Maunder,
Ravalli Electric

Michael Currie,
Clallam PUD

Ryan Perry,
Tillamook PUD

Anita Clever,
Klickitat PUD

Jody Howe,
Central Electric Co-Op

Michelle Ehrlich,
Cowlitz PUD

Sara Bernards,
McMinnville Water and Light

Brandy Neff,
PNGC

Joe Hull,
Midstate Electric

Nancy Phillip,
Benton PUD

Scott Mayfield,
Kootenai Electric

Charles Schifferdecker,
Eugene Water & Electric

Kevin Watier,
Snohomish PUD

Pat Didion,
Milton-Freewater

Todd Williams,
Inland Power

DuWayne Dunham,
Clark PUD

Lindsey Hobbs,
Inland Power

Penny Brambrink,
Flathead Electric

Wid Ritchie,
Idaho Falls Power

Eric Miller,
Benton REA

Mattias Jarvegren,
Clallam PUD

Ryan Davies,
Central Electric Co-Op



Workgroup Topics

Specification Review

- Ease of implementation
- Inspection failure rates
- Cost to commission
- Variable speeds: game changing?
- Data and market trends

Documentation

- Obstacles and best practices
- Assess requirements
- Impact to oversight

Reporting

- Obstacles and best practices
- Assess reporting requirements and impact to savings
- Impact to oversight

Training Content & Process

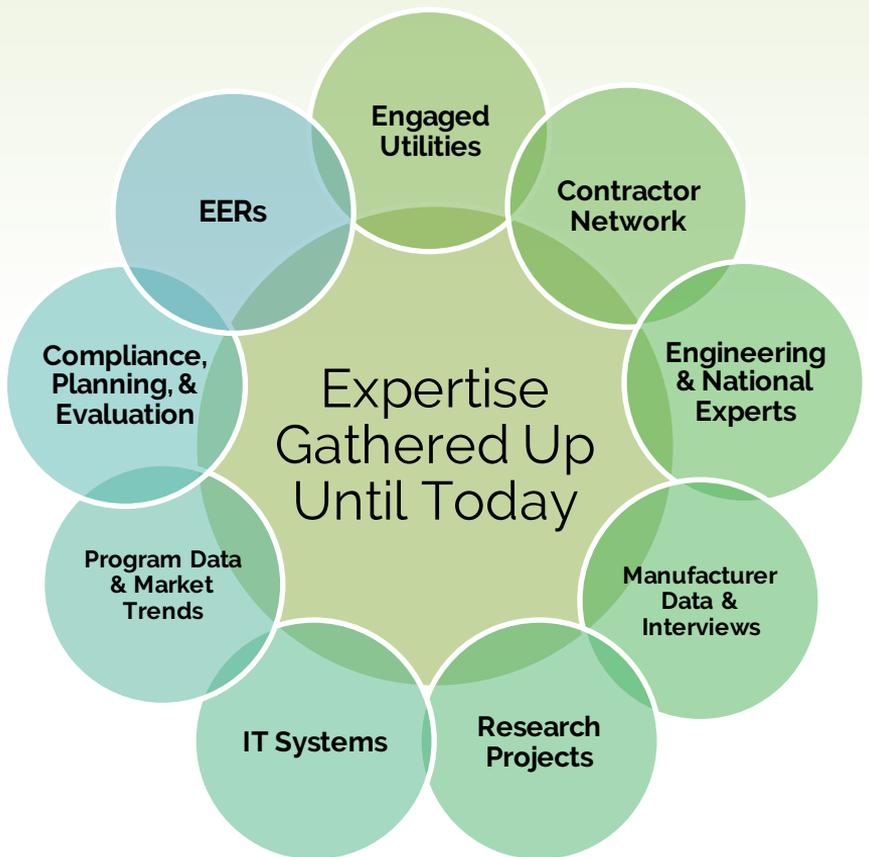
- Streamline training obligations
- Improve scheduling and rural access
- Leverage regional and market partners
- Address contractor turnover

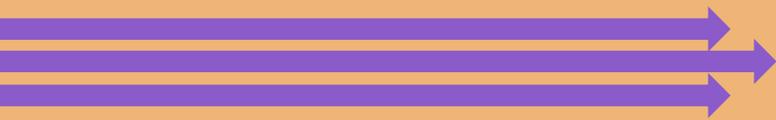
Quality Assurance Criteria & Process

- Streamline QA process and lower cost
- Reduce barriers
- Partner with utilities



The Advisors





Progress Report

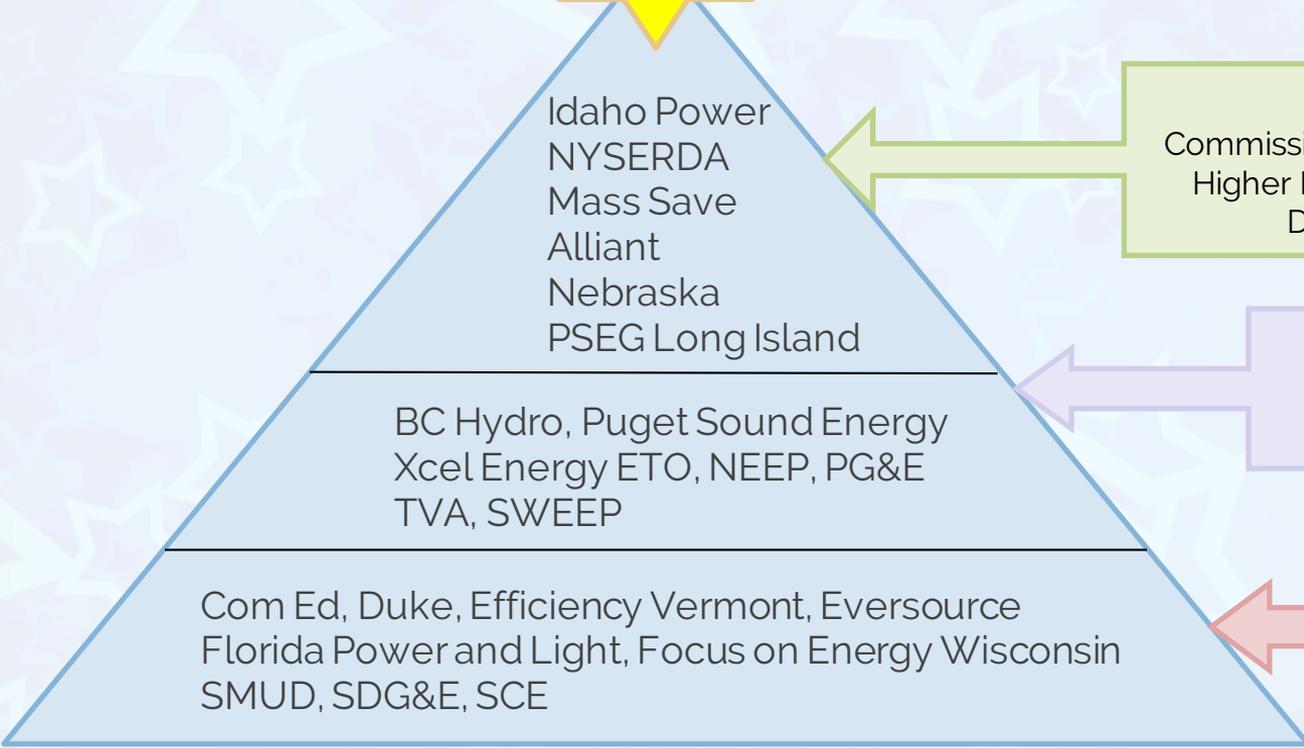
National Utility Programs

Reviewed requirements for 24 non-BPA utilities with similar programs.

Some questions that were considered:

- Which specifications are being used and how are they applied?
- Are there alternatives methods to verify specifications?
- Are there other useful tools, models, calculators or methods?

BPA



Top Tier
Commissioning with Verification
Higher Level of Support and Documentation

Mid Tier
No Verification
Some Guidance

Lower Tier
Box Spec, Low Utility Engagement,
Prescriptive Rebate

Documentation Requirements

- **Goals:**
 - Reduce duplication between documentation and reporting requirement
 - Only require relevant documentation
 - Make any documentation and report user friendly
- Analysis underway regarding if the sizing documentation is a necessary requirement
- We are aware of issues involving paperwork burnout and contractor turnover



Reporting Requirements

Considering all options! Options to be presented in November, but ideas being discussed are:

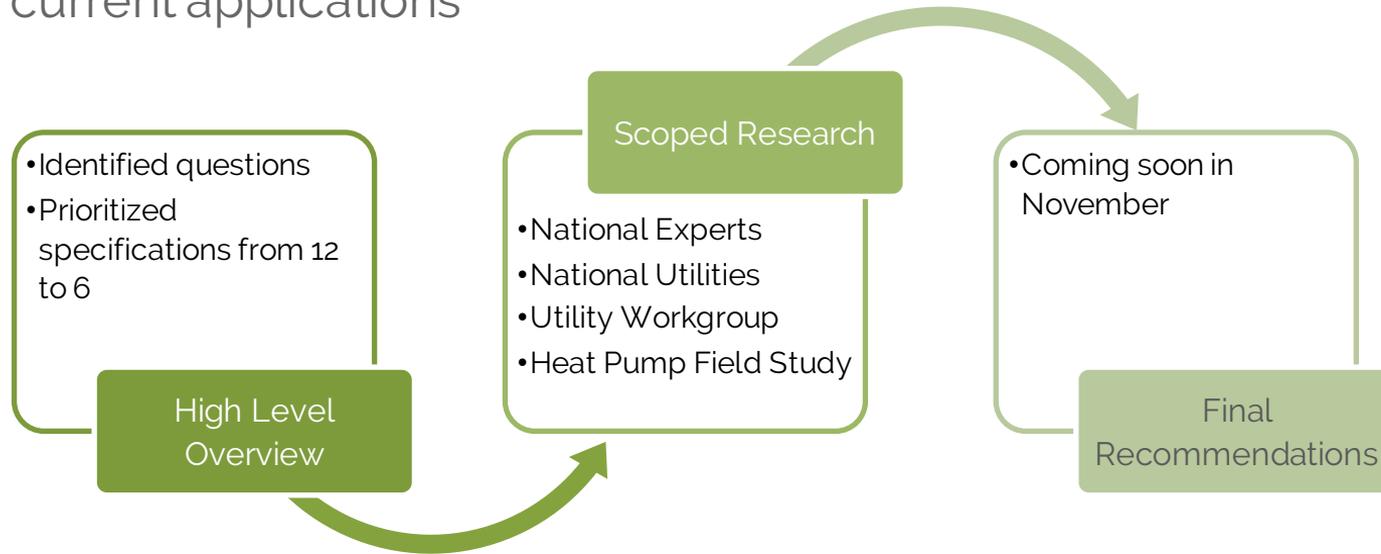
- Offline version of the registry
- Option to upload backup documentation and email utility directly
- Simplify the interface to enter projects
- Suggest the appropriate Measure RefNo on the report

Goal: Least amount of interaction with reporting as possible.

Technical Specifications

Research Goals:

- Identify any specifications that could be simplified or removed
- Update any specifications for Variable Speed units and any other current applications



Technical Specifications

Sizing

- “Like for like” sizing is common
- Investigating all alternative sizing methods

External Static Pressure & Airflow

- Exploring the accuracy and reliability of multiple alternative methods to measure airflow, including external static pressure and temperature rise
- Discussing if the correction factor in the TrueFlow test can be eliminated



Technical Specifications

Refrigerant Charge

- Considering using the manufacturer's charging method as the preferred option
- Exploring the reliability of the temperature rise method and its ability to capture overcharged systems

Controls

- Discussing if the current Compressor Low Ambient Lockout specification is relevant to today's installations
- Considering how to adapt the spec for systems sized without strip heat



Technical Specifications

Duct Leakage

- BPA is aware that duct system design and tightness is important to a heat pump installation, but overall feedback is that requiring the ducts be sealed is a significant hardship

Ground Source Heat Pumps

- Recommendations to simplify coming in November

PTCS & Prescriptive Duct Sealing

- Recommendations to simplify coming in November



Training Process

Goals: Increase availability, decrease cost, decrease need for travel, and address low literacy levels

- Remote, online classes to be available at any time
- In-person training for some elements, test proctoring, and in-field technician support
- Training on other topic areas created and available: sizing & administrative process

Quality Assurance Process

Goals: Reduce contractor call-backs for failures, increase real-time inspections and on-site corrections, decrease inspection cost, and simplify remediation

- Adding ability to inspect a percentage of projects remotely
- Working with the contractor for on-site inspections with a combination of pictures and non-recorded video
- Process possible offline
- Test pilot planned to start in early 2020



Quality Assurance Process

- In-person inspections criteria and process will still be available for the QA vendor and utilities
- Percentage of in-person inspections will be devoted to working with new technicians
- Analyzing how to target the inspection criteria on the highest failing specifications
- Simplifying requirements for utility representatives to become inspectors and offer self-inspections

Technician Outreach

Discussing more ideas!

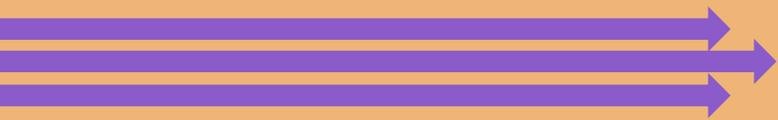
- Technician recognition program
- Some sales training
- Some element of continuing education
- Clarifying requirements for alternative qualifying certifications
- Considering certifying entire contracting companies in addition to individual technicians



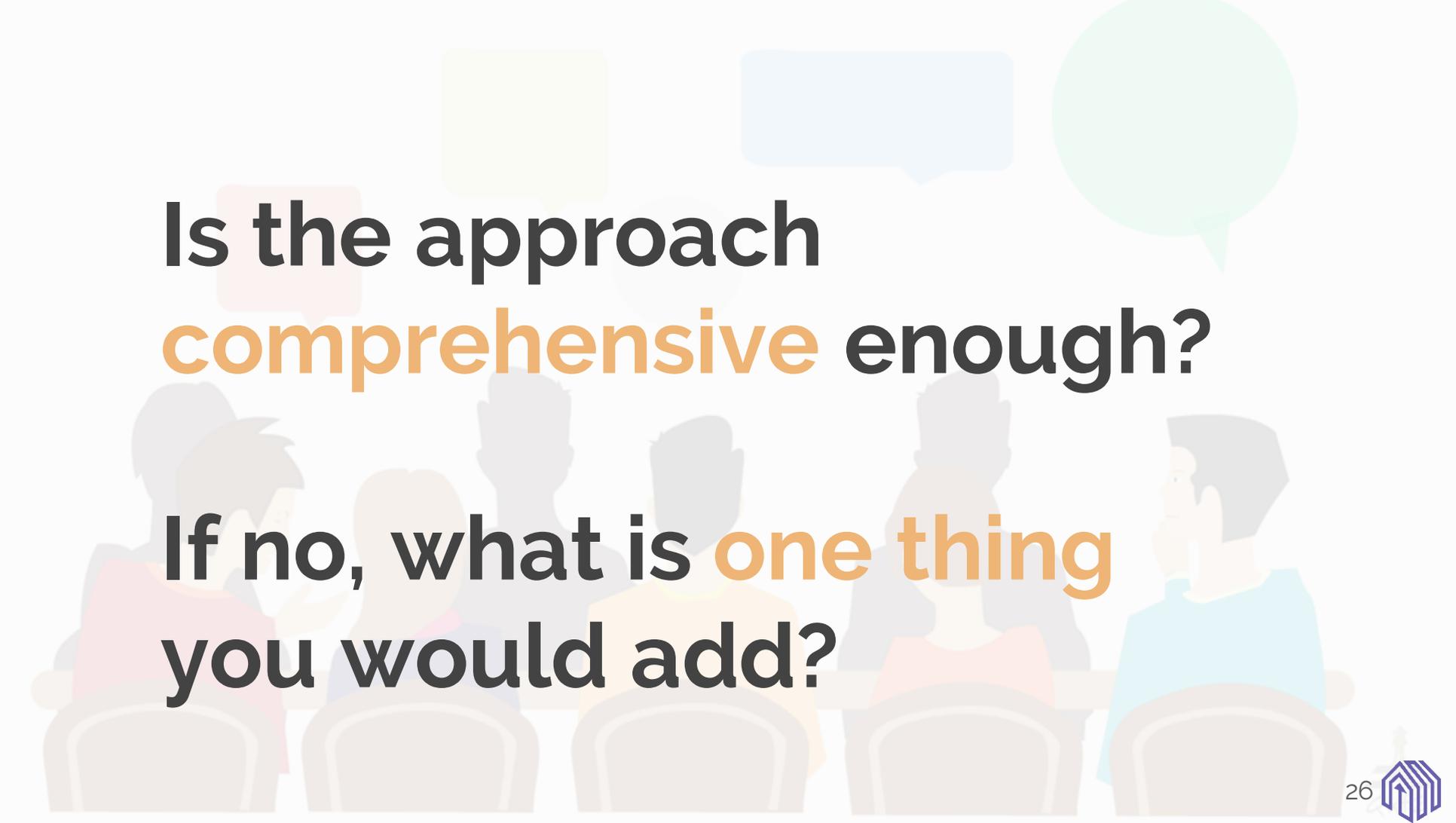
General Program Design

- Streamlining the program participation requirements
- Streamlining the contractor sign on process
- Discussing how best to leverage a technician network and recognize high-performing technicians
- Planning to schedule a regular meeting for participating utilities to discuss wins and obstacles with PTCS



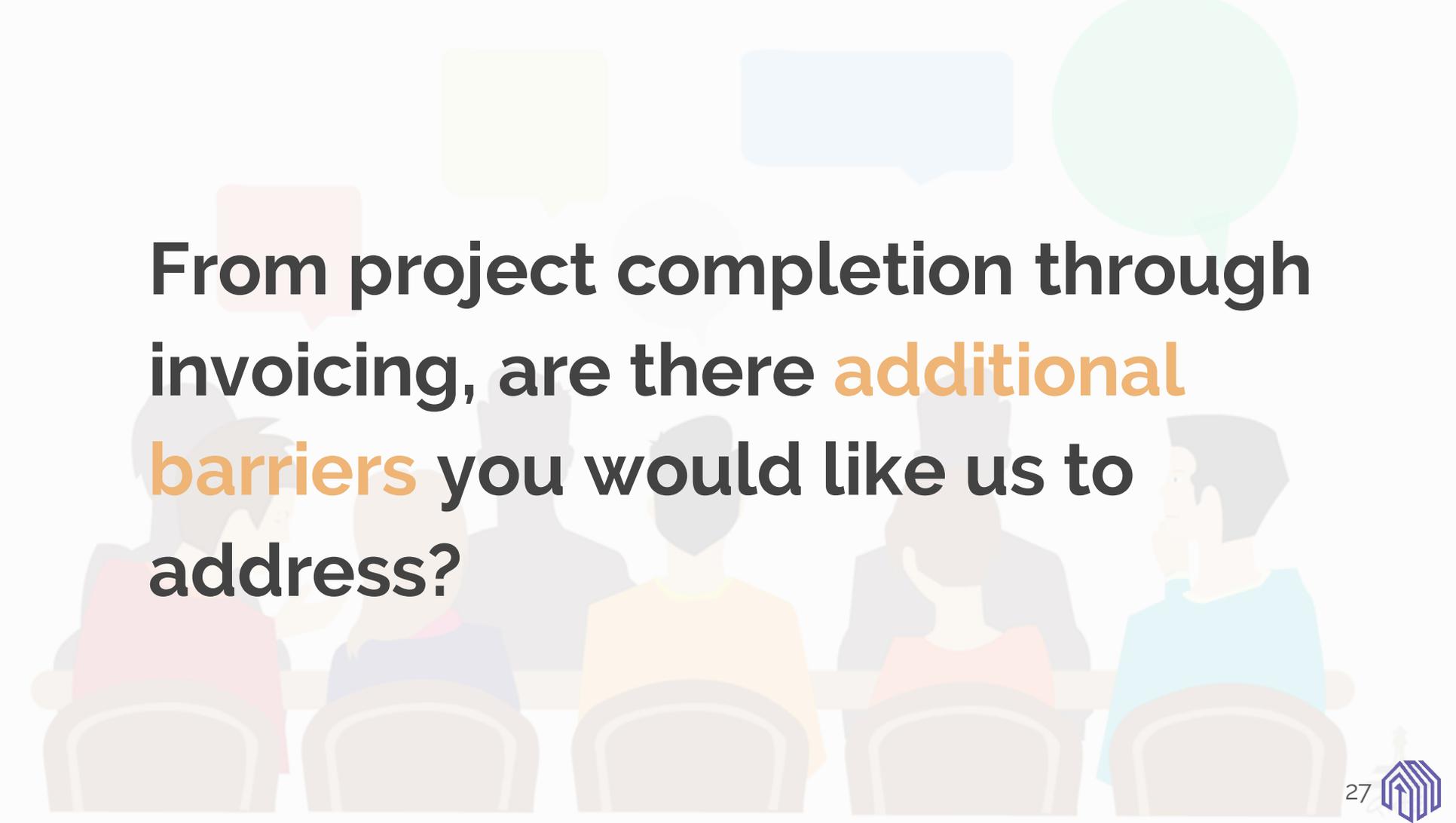


Discussion



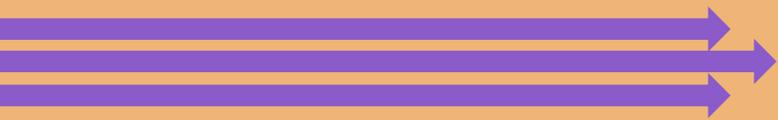
Is the approach
comprehensive enough?

If no, what is **one thing**
you would add?



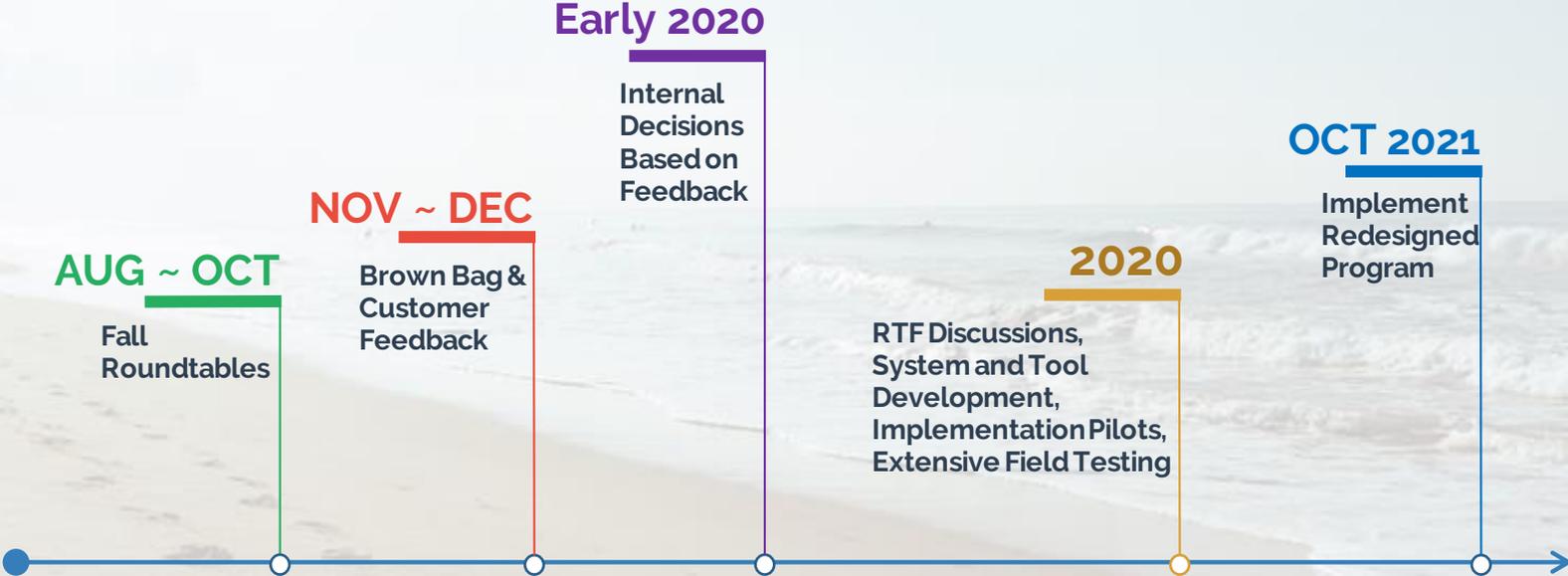
From project completion through invoicing, are there **additional barriers** you would like us to address?



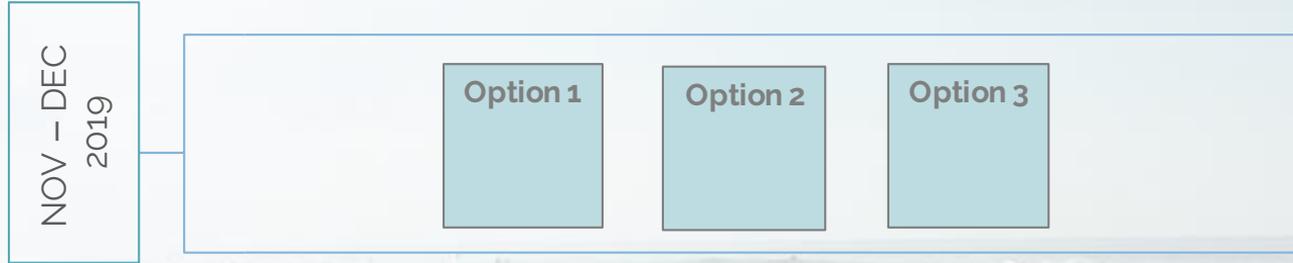


Next Steps

Next Steps



Next Steps



- November 21, 2019 brownbag
- Present three groups of recommended options to improve PTCS
- Prior to this meeting, a summary document will be provided including received feedback, all the simplification efforts, and what can or cannot be done and why.



*Any feedback
or questions?*



thank you

Amy Burke • aaburke@bpa.gov • 503.230.4364