Open Q Proposal

Program/Measure Name: Heat Strip Lockout
Date: 1-15-2025

1. **Brief description of program or measure(s) proposed for Open Q consideration:**
    - Overall Summary
      Provide a high-level summary of the proposed measure or program you are planning to implement and report to BPA.
        - **A thermostat would be added to a heat pump and lock out the electric auxiliary heat to at most 35 degrees or lower.**
    - Describe the baseline conditions for the program/measure
      What is the inefficient condition the measure or program will change? This represents the starting place from which you propose to measure savings.
        - **A heat pump with electric auxiliary heating that doesn't have a lockout, or a lockout that is set up. This measure would also be applicable to a new heat pump if there wasn't a lockout on the existing heat pump.**
    - Described the proposed energy efficient measure/program
      How will the measure or program change the baseline conditions? What will it do to create energy savings?
        - **The new, or existing thermostat, will either have an outdoor temperature sensor or be web-enabled to retrieve local weather data from the internet.**
    - What are the implementation criteria or requirements of the measure/program?
      What implementation rules will your proposed measure/program require? Are there any specific criteria you plan to impose?
        - **The lockout would be set to a maximum of 35 degrees.**

2. **Please provide the following values and an outline of how you estimated or calculated them (if submitting technical files to show calculations, you can say "see [filename]"):**
    - Measure Savings
      What savings do you estimate for this proposed measure / program per installation and how did you estimate them?
        - Unknown energy or demand savings. I don't know if there is some previous BPA data with this information on the lockout from the PTCS program days.
    - Measure Incremental Cost
      How much does the measure/program cost compared to the baseline? For example, if you are proposing to install a more efficient technology, how much more does it cost than an inefficient alternative?
        - Best estimate would be between $0-$400. In some cases some simple programming would be all that is required which may not carry an added cost if paired with a maintenance visit.
    - Measure Life
      How long do you think the measure will last after it is installed? How long before it would typically be replaced or deactivated?
        - Either 5 or 15 years. This measure used to be part of PTCS and was built into the heat pump program. I would probably tend to believe that it is closer to 5 years due to the measure life of an advanced thermostat.
    - Market Potential

How much total savings do you think this program can achieve and how did you estimate this figure?

- We expect hundreds or systems, but it is unknown. There are a lot of heat pumps installed outside of our program that could use this upgrade.

3. **What method will be used to verify the savings post-installation?**
   Approval requires verification of estimated savings within two years of approval. This can be done through evaluation or onsite verification. What is your proposed means of verifying savings?
   - **We are expecting to utilize pre and post usage meter data that is weather normalized. We can potentially also utilize daily demand data.**

4. **Will you be collecting any data from the installation sites?**
   - Yes

   - Would you be willing to share that data with BPA for further measure development?
     i. Yes

For Reference: Payment Rate Table from Section 5.1 of the Implementation Manual (Custom Programs Payment Rate):

PROJECT TYPE	MEASURE LIFE (YEARS)	SECTOR	PAYMENT RATE ($/KWH)
Nonresidential Lighting	All	Agricultural Commercial Industrial	$0.13
New or Retrofit Construction, Major Renovation (Excluding Nonresidential Lighting)	1	All	$0.025
	2-3	Agricultural Commercial Industrial Residential	$0.06
	4-19	Agricultural Commercial Industrial Residential Utility Distribution	$0.33
		Whole Building New Construction * Commercial Industrial	$0.35
	20+	Agricultural Commercial Industrial Residential Utility Distribution	$0.38
New Construction	45+	Residential	$0.45