

## **PG&E DRET Project: Heat Pump Water Heater Barriers and Mid-Stream Solution Study**

### **Overview**

As CA policy focuses on reducing GHG emissions, residential natural gas use is one of the sources of GHG emissions in the state that warrants attention. The majority of existing single family and low-rise multifamily buildings use natural gas for some or all of the following end uses: space heating, water heating, cooking, clothes drying, fireplace and pool heating. The State has allocated funding from several different sources for residential electrification efforts targeting space and water heating equipment. As the market is developing and initial programs have launched to support these efforts, several challenges have been identified that could significantly delay market transformation.

Converting existing gas water heaters to heat pump water heating equipment across the state will require a comprehensive effort across the entire industry, including education for homeowners and equipment manufacturers, enforcement personnel, distributors and installers. Initial efforts have identified several challenges that inhibit selection and installation of Heat Pump Water Heaters (HPWH), including, but not limited to:

- Insufficient panel capacity,
- location of existing equipment (e.g., most HPWH require 240V supply, no electricity (or only 120V) at equipment location)
- permitting (both electrical and plumbing),
- familiarity with technology – both for homeowners and contractors
- equipment not locally stocked.

As most water heater replacements are triggered by equipment failure with the majority resulting in emergency replacements, the objective of this DRET study is to identify potential solutions to these barriers, with a focus on leveraging mid-stream channels such as contractors, distributors, and retailers to increase adoption of this technology.

### **Collaboration**

This study is a joint EE/DR Emerging Technology Study. PG&E is planning to hire a 3rd party to lead this research project.

### **Results/Status**

The DRET team is in the process of developing the scope for this study and plans to select a 3rd party vendor to lead the study in the fourth quarter of 2020.

### **Next Steps**

This assessment is scheduled to start in the 4th quarter of 2020 and will last for six to twelve months. PG&E will provide updates on the bi-annual DRET report in the future.