PG&E DRET Project: Using Voice Automation Technology for Load Management

Overview

PG&E plans to default residential customers to TOU rate starting April 2021. Therefore, it is important to develop tools and technologies to help customers to be successful in this new time varying rates. The objective of this DRET study is to leverage residential voice assistants technology (such as Amazon Alexa, Google Home) to educate residential customers on energy usage and bill forecast, rates and Time-Of-Use automation/optimization, available of Internet-of-Things (IoT) and connectivity, configuration, and notification on utility information. This study has two phases:

Phase I – Customer Engagement through Voice Assistants: This phase has no dependence on smart home energy hub hardware installation, however, it does require customer having access to Amazon Alexa (and in the future Google Assistants, etc.) via speakers, display and/or mobile app. Information is collected and processed from PG&E's Share My Data (SMD) to 3rd party system. Customer would then interact with a 3rd party system (Energy Expert) through smart speakers, display and mobile devices. The Energy Expert will advice the customers to optimize energy use based on the customer's rate schedule.

Targeted customer – up to 50 friendlies (combination of PG&E employees and friends of PG&E employees)

Phase II - Real Time Usage & Optimization: This phase requires the installation and commissioning of a smart home energy hub that connects with the customer's Smart Meter and IoT devices.

Targeted customer – up to 200 friendlies (combination of PG&E employees and friends of PG&E employees)

Collaboration

The DRET team will partner with the internal customer care team to develop frequently asked questions (FAQs) that relate to TOU and load management. PG&E plans to hire a 3rd party to provide the voice automation software (Energy Expert).

Results/Status

The DRET team scoped this study in the second and third quarter of 2020, and PG&E started the contracting process with the consultant in August 2020.

Next Steps

This assessment is scheduled to last until the end of 2021; PG&E will provide updates on the biannual DRET report in the future.