

➤ **Small Commercial Building Controls**

A. Description

The Small Commercial Building Controls product seeks to reduce system load through various curtailment strategies. The Company will offer prescriptive measures and incentives to customers for the installation of building control measures and continued participation in the program. Prescriptive controls measures will be marketed to small and medium sized commercial customers (peak load of 200kW and under) to provide simple demand management solutions that are more accessible to these customers than the Company's larger performance-based programs. At this time, only smart thermostat demand response will be offered through this program with more measures to be added as they become more commercially available.

Commercial Smart Thermostat Demand Response

Following a study conducted by the Company in 2019, Public Service plans to expand its residential thermostat demand response product to commercial customers. This product seeks to reduce air conditioning load in commercial building at peak times by offsetting the customer's temperature set point during peak hours. The study measured the impacts of this control strategy at commercial sites and the results have been used to file the demand response measure in this product.

This product will initially be made available to customers exclusively through direct installations. Upon signing up for the program, customers will receive a thermostat and installation at no cost along with a \$25 annual bill credit per thermostat. There is no limit on the number of thermostats that a customer can request however each thermostat must directly control an AC unit and have access to a Wi-Fi signal.

Customers can also be enrolled in the product through other commercial direct install offerings offered by Public Service. The following products that offer direct installation measures will now include Wi-Fi enable thermostats as a part of their offering.

- Small Business Lighting
- Commercial Refrigeration
- Multifamily Building Efficiency (Common Areas)

The installing partners for these products will install the thermostat and assist the customers in setting up their connection. They will then provide Public Service the customer and device information necessary to enroll them in this program and enable control events.

In a control event, the Company communicates with the thermostat over the customer's Wi-Fi system and adjusts the set point by a few degrees. Customers have the ability to override control events by returning the device to a different set point. Currently, customers are not penalized for opting out of control events. However, the Company will

monitor product performance over time and may adjust incentives depending on how often events are overridden. The Company expects to analyze different control approaches including event pre-cooling in the coming years to determine optimal operations.

B. Targets, Participants & Budgets

Targets and Participants

The target population for this product, for both thermostat demand response and future prescriptive measures, is small to medium commercial customers that either do not meet the size requirements for other commercial demand management programs or do not have the resources to participate. This product fills a gap in the Company's demand management portfolio and will make demand management programs more accessible to customers within this segment. The Company expects to enroll 300 customers and 700 thermostats in year one of the product with significant growth expected in future years. These numbers account for product start-up and the transition of existing demand response systems in 2020.

Budgets

The primary costs for this product are the material and labor costs associated with the thermostat installations. These costs will be spread out across products in situations where other products complete the installation. Once the devices are installed, the recurring API costs to the device manufacturers and Demand Response Management System (DRMS) providers and bill credits to customers will continue for devices that remain enrolled in the product. As product penetration increases, both administrative budgets and advertising and promotional budgets will increase accordingly.

C. Application Process

Customers can sign up for an installation through the product website or through participation in one of the direct installation products that include Wi-Fi thermostats. The installing contractors will record the information necessary to enroll the customers in the Company's DRMS and provide it to the product manager to complete the enrollment.

D. Marketing Objectives & Strategies

Smart thermostat demand response is currently promoted to customers through a variety of channels including bill inserts, company newsletters, print and radio advertising and direct mail or email campaigns. The commercial product will take advantage of these marketing efforts where applicable and will expand the distribution of promotional materials to commercial customers that meet the customer characteristics spelled out above. The 2019 study relied on email and direct mail marketing and tracked the effectiveness of these channels as well as customer types most likely to participate and effectively shed load. The results of this analysis will be consulted when determining ideal customers to market the product to and marketing channels.

E. Product-Specific Policies

The smart thermostat demand response product requires customers to have a working Wi-Fi connection available for the thermostat to connect to and an air-conditioning unit directly controlled by the thermostat being installed. The thermostat must directly control a central or rooftop air conditioning unit and must be replacing a device that is not eligible for the Company's product. The Company also reserves the right to remove customers from the product if their devices go offline for an extended period and are no longer able to communicate with the Company's DRMS.

F. Stakeholder Involvement

Public Service has worked with its existing installation partners to provide customers with information regarding its demand response and Wi-Fi enable thermostats. Most, if not all, of these partnerships have included smart thermostat installation in the past so only minor adjustments to processes are necessary to expand these efforts to the commercial space.

G. Rebates & Incentives

Customers will receive a free thermostat and installation of a smart thermostat in exchange for their participation in the Company's demand response program. They will also receive a recurring \$25 bill credit per thermostat for each year that they remain involved in the program. The Company reserves the right to change these recurring payments based on ongoing evaluation of its product and customer behavior.

H. Evaluation, Measurement, & Verification

Public Service's load research organization leads an annual research project to evaluate the load relief achieved from installed Saver's Switch and AC Rewards units. A similar evaluation process will be conducted for the commercial smart thermostats. The team hires a consultant—that specializes in load research—to conduct the data gathering and most of the analysis. A sample of participants is included in the research, undertaken annually. This is done with data loggers deployed onsite to monitor A/C run time and device operations during the cooling season. The results are used to document the extent of load relief achieved during a control day. The Company is looking to modernize this approach using data available via device manufacturers; however, increased testing and data verification is required before using this approach exclusively.