PGE Smart Grid Testbed

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Shaping Flexible Load
Portfolio Dispatch of Demand Response
PGE Smart Grid Testbed

Program Description

Timeline and Budget

- Order 17-386 (DRRC)
- $5.9M, 2.5 year Program
- 66% Participation to achieve 3-5 MW

Characteristics and Timeline

- Residential: ~ 19,000 – opt-out PTR
- Business: ~ 2,300 – New Program offerings
- Three Community Relations Managers embedded

Research Objectives

- Identify sustainable DR/DER customer value proposition.
- Accelerate the DR/DER pilot to program cycle.
- Collect data to inform maximum technical DR potential.

Customer Value Propositions

- Monetary Q4 2019
- Giving Back Q1 2020
- Carbon Q3 2020
- Giving Back V2 Q4 2020
- Community Renewables Q2 2021

Table:

<table>
<thead>
<tr>
<th>DR Event Seasons</th>
<th>Q3 - 2019</th>
<th>Q4 - 2019</th>
<th>Q1 - 2020</th>
<th>Q2 - 2020</th>
<th>Q3 - 2020</th>
<th>Q4 - 2020</th>
<th>Q1 - 2021</th>
<th>Q2 - 2021</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td>Summer</td>
<td>Winter</td>
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<td>Customer Value Propositions</td>
<td>Financial</td>
<td>Giving Back</td>
<td>Carbon</td>
<td>Giving Back+</td>
<td>Renewables</td>
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<td>EV Charging/TOU Pilot</td>
<td>SGTB Demo</td>
<td>500 Customer TOU Incentive Overlay Pilot</td>
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<td>DER Capacity Value Analysis</td>
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<td>Load Dissaggregation</td>
<td>Demo Phase</td>
<td>Ramp-Up Phase</td>
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<td>Phase 2 Transition</td>
<td>Internal Strategy</td>
<td>DRRC Review</td>
<td>OPUC Proposal</td>
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DR Event Seasons:
- Summer
- Winter

Customer Value Propositions:
- Financial
- Giving Back
- Carbon
- Giving Back+
- Renewables

DR Event Pilot Phases:
- Demo Phase
- Ramp-Up Phase

Product Strategy:
- ~150 Customer Device *Agnostic Pilot
Test Bed Substations
A Representative Sample of Customers

Delaware

Roseway

Island
Building Towards SGTB Phase II

DR/DER Product Roadmap

Existing Products
• Peak-Time Rebate
• Time-of-Day
• Smart Thermostats (Direct Install and BYOT)
• Multifamily Water Heater (Switch/Smart Resistance)
• Electric Avenue

Under Development
• Device agnostic home aggregation pilot
• Electric Vehicle Service Equipment (EVSE)
• Energy Storage (PGE-Owned and BYOD)

Planned Products
• Smart Inverters for Distributed Solar PV
• Distributed Solar plus Storage
• Large Energy Storage (Institutional, Large Industrial, and Substation)