EV Programs Update

Government Fleets & Residential Managed Charging

December 3, 2020
Programs Portfolio

- Buildings
  - New
  - Existing
- Resilience
  - Resi.
- Transportation
- Energy Storage
  - Com.
- Fleet
  - Muni
- Private
- New Mobility
  - E-Bikes
  - Ride-hailing
- Muni Fleets

- Resilience Centers
  - Muni PV+Storage
- Appliance Incentives
  - Low Income Homes
  - Marketing & Training
- EV Incentives
  - Load Shaping
  - EV Ready Incentives & Tech. Asst.
  - Marketing & Training

Peninsula Clean Energy
Government Fleets Program

Support: $350K
Trainings, site design and setup

Funding: $300K
Gap funding assistance

V2B: $250K
Demonstration with local agency
Fleet Support

General: Total cost of ownership calculator (with PCE rates), workshops, events, grant education, contract resources, advising.

Custom assistance: project planning, cost estimation, grant/bid assistance, construction management, setup.
Fleet Funding

- Targeted gap-funding assistance
- Additional incentive to schools
- Can be used for EV chargers, EV incremental cost, installation, energy management subscriptions, etc.
- Light-duty vehicle demonstrations (e.g. electric class 1 truck)

<table>
<thead>
<tr>
<th>Unfunded Project Scope*</th>
<th>Local Agencies</th>
<th>Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$100K</td>
<td>Up to 25% or $25K per project (whichever is less)</td>
<td>Up to 50% or $50K per project (whichever is less)</td>
</tr>
<tr>
<td>&gt;$100K</td>
<td></td>
<td>Up to 50% or $100K per project (whichever is less)</td>
</tr>
</tbody>
</table>

* Net all other incentives and replacement depreciation
Vehicle to Building Resiliency Pilot

Demo at 1 local agency critical facility

**Goal:**
• Understand cost/benefit of fleet vehicle to building (V2B) as a resiliency measure

**Components:**
• Design and install support, testing, evaluation
• Vehicles (1-2 Leafs)
• 1-2 EV charging stations
• Installation
Residential EV Load Shaping

Objectives

• Support PCE goal of 100% RE on a 24/7 hourly basis by 2025 by better aligning charging demand and RE
• Test active managed charging beyond TOU rates
• Experiment with new systems
Phase 1 Recap

Peak charging energy decreased 50%

Percent Charging On Peak

<table>
<thead>
<tr>
<th>Peak</th>
<th>Managed</th>
<th>Unmanaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak</td>
<td>1.184</td>
<td>527</td>
</tr>
<tr>
<td>Part-Peak</td>
<td>2.086</td>
<td>347</td>
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<tr>
<td>Off-Peak</td>
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<td>503</td>
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<tr>
<td>Off-Peak</td>
<td>609</td>
<td>609</td>
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<tr>
<td>Weekend</td>
<td>295</td>
<td>295</td>
</tr>
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</table>

Managed Peak: 19% of charging
Unmanaged Peak: 37% of charging

L1 charging assumptions verified

Charging Levels (Residential Only)
Phase 1 Recap

Curtailment Potential
- 1 MW curtailment potential per 10,000 EVs enrolled

Next Steps:
- Academic partnership to test managed charging incentives
- Validation with larger data set
Questions?