Overview of CPUC Transportation Electrification Activities and Opportunities for Fleet Participation

August 30, 2018
Several CPUC TE Programs Support Charging for Light-Duty Vehicles Which Could Include Fleets

- **Utility Programs** - $197 million
  - 12,500 primarily Level 2 charge ports at workplaces, multi-unit dwellings, and long dwell-time destination centers

- **NRG Settlement** - $102.5 million
  - Over 200 DCFC stations
  - 6,000-10,000 make-ready stubs at workplaces, multi-unit dwellings, and destination centers
  - Car sharing and Technology R&D (V2G, high-power, storage)

- **SB 350 Pilot Programs** - $8 million
  - SCE residential make-ready installation pilot - $4 million
  - SCE DCFC program pilot - $4 million

- **SB 350 IOU Infrastructure Programs** - $158 million
  - PG&E DCFC program - $22 million
  - SDG&E residential program - $136 million
Fleet Opportunities are Available in IOU SB 350 MD/HD TE Programs

• SB 350 Medium/Heavy-Duty Infrastructure Programs - $578 million
  – SCE - $342 million
  – PG&E - $236 million

• SB 350 Pilot MD/HD Programs - $27.9 million
  – Delivery fleets (e.g. UPS, FedEx, etc.)
  – Shuttle buses
  – Port equipment electrification (e.g. yard tractors)
  – Airport ground support equipment
  – School bus electrification and renewable integration
  – Idle reduction technology
  – Transit bus electrification
Utility LCFS Programs Offer Rebates to Customers that Drive EVs

- CPUC oversees utility participation in the California Low-Carbon Fuel Standard program
  - California has a statewide cap on the carbon intensity of fuels sold in the state
  - Fuel distributors and providers can earn credits for fuels that have low carbon intensity (CI)

- Existing IOU LCFS rebate programs
  - SCE: $450 rebate (3 diff owners of vehicle)
  - PG&E: $500 rebate (one time)
  - SDG&E: $200 annual bill credit
Electric Rates are Critical for Ensuring EVs are Economic to Fuel

• Each of the IOUs currently offer a residential, time-variant EV rate that offers customers the option of charging at very low-cost prices during off-peak hours

• SCE’s recently adopted commercial EV time-of-use rates provide a window for fleets to adapt and develop low-cost charging plans
D.18-01-024 Provides Guidance on IOU TNC Proposals

- **Decision 18-01-024** rejected 2 IOU proposals to use ratepayer funding to encourage TNC drivers to go electric
  - SCE’s driver incentive proposal to provide cash payments for maximizing electric vehicle miles traveled
  - SDG&E’s taxi/rideshare proposal to install, own, and operate charging stations in TNC drivers’ home garages
- Neither proposal included any financial commitments from TNC companies
- Neither proposal ensured data could be collected from TNC companies
- Neither IOU provided evidence the proposals could be scaled if successful
Additional $1B Investment Has Been Proposed

- **A.18-01-012**: SDG&E Medium/Heavy Duty Charging Infrastructure Program and Vehicle-to-Grid Electric School Bus Pilot ($150.6 million as proposed)
- **D.16-01-023**: SCE requesting authorization to spend up to $22 million more on Phase I of Charge Ready LD infrastructure Program; SCE also directed to file a Phase 2 application for Charge Ready, if warranted from Phase 1 results
- **A.18-06-015**: SCE requesting $760 million to install up to 48,000 ports at workplaces, destination centers, multi-unit dwellings, and government facilities
- **AB 1082/1083**: 2017 legislation encourages IOUs to propose pilot programs for ZEV infrastructure at schools, state parks, and state beaches
- **A.18-07-021**: Low/Moderate-income EVSE rebate program (~$4mn)
CPUC Aligns with Other State Agencies for ZEV Action Plan / E.O. B-48-18

• Counting Stations Effort
  – Using data collection templates to contribute to list of existing charging stations

• VGI Roadmap Update
  – CEC leading update of 2014 VGI Roadmap
  – Working with Gridworks to continue work from 2017 VGI Communication Protocol Working Group

• Affordability and Rates
  – Follow-up from ZEV Rates Forum June 7-8

• Governor’s Climate Summit September 12-14
Overview of CPUC-Regulated Transportation Providers

August 30, 2018
Passenger Stage Corporations (PSCs)

- Fixed route, scheduled service (scheduled bus operators), or
- On-call, door-to-door "share-the-ride" service (airport shuttles)

- Provides transportation service to the general public on an individual fare basis.
Charter-Party Carriers (TCPs)

- Charters a vehicle, on a prearranged basis, for the **exclusive use** of an individual or group (limousines, tour buses, etc.)
Transportation Network Companies (TNCs) provide prearranged transportation services for compensation using an online-enabled application or platform (such as smart phone apps) to connect drivers using their personal vehicles with passengers.
Please Email Us With Any Questions!

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Cody Naylor: cody.naylor@cpuc.ca.gov

http://www.cpuc.ca.gov/zev
http://www.cpuc.ca.gov/sb350te
http://www.cpuc.ca.gov/transportation/
Appendix
<table>
<thead>
<tr>
<th></th>
<th>SDG&amp;E Power Your Drive</th>
<th>SCE Charge Ready</th>
<th>PG&amp;E EV Charge Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Start Date</td>
<td>December 2016</td>
<td>May 27, 2016</td>
<td>Expected early 2018</td>
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<tr>
<td></td>
<td>First site operational May 2017</td>
<td>First site operational Feb 2017</td>
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<tr>
<td>Scope</td>
<td>3,500 charging stations</td>
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<td>7,500 charging stations</td>
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<td>Budget</td>
<td>$45M</td>
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<td>$130M</td>
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<td>Markets</td>
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<td>multifamily, workplace, public</td>
<td>multifamily, workplace</td>
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<tr>
<td>Disadvantaged Communities</td>
<td>≥10% charging stations in disadvantaged communities</td>
<td>≥10% charging stations in disadvantaged communities</td>
<td>≥15% charging stations in disadvantaged communities</td>
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<tr>
<td>Charger Ownership</td>
<td>SDG&amp;E</td>
<td>Site host</td>
<td>Site host. PG&amp;E ownership allowed only in multifamily or disadvantaged community up to 35%</td>
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<tr>
<td>Cost to host</td>
<td>Participant Payment</td>
<td>Rebate</td>
<td>Participant Payment or Rebate</td>
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<tr>
<td>Rates</td>
<td>Vehicle-grid integration rate to driver or host</td>
<td>Time-of-use rate to host</td>
<td>Time-of-use rate to driver or host</td>
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<td>Regulatory Status</td>
<td>Approved Jan 2016 (CPUC Decision 16-01-045)</td>
<td>Approved Jan 2016 (CPUC Decision 16-01-023)</td>
<td>Approved Dec 2016 (CPUC Decision 16-12-065)</td>
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### 3 Large IOUs Approved SB 350 Projects

<table>
<thead>
<tr>
<th>Medium/Heavy Duty Infrastructure</th>
<th>Residential Infrastructure</th>
<th>Offroad Infrastructure</th>
<th>Public DC Fast Charging</th>
<th>Taxi/Shuttle</th>
<th>Education/Outreach</th>
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<tbody>
<tr>
<td>SDG&amp;E</td>
<td>Fleet Delivery Services</td>
<td>Residential Charging Infrastructure</td>
<td>Airport Ground Support Equipment</td>
<td>Electrify Local Highways</td>
<td>Car Dealer Incentives</td>
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<td>$3.7 M</td>
<td>$141 Million</td>
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<td>Residential Grid Integration Rate</td>
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<td>SCE</td>
<td>Transit Bus Make-Ready &amp; Rebate</td>
<td>Residential Make-Ready Rebate</td>
<td>Port of Long Beach Gantry Crane</td>
<td>Urban DC Fast Charger Clusters</td>
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<td>$4 M</td>
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<td>MD/HD Charging Infrastructure</td>
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<td>PG&amp;E</td>
<td>Electric School Bus Renewables Integration</td>
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<td>Idle-Reduction Technology Demonstration</td>
<td>Fast Charge Infrastructure</td>
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<td>$236 M</td>
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<td>FleetReady Make-Ready Infrastructure</td>
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<td>Home Charger Information</td>
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<td>$0.5 M</td>
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**Total SDG&E Budget:** $155 M  
**Total SCE Budget:** $360 M  
**Total PG&E Budget:** $266 M
## 3 Small IOUs Proposed SB 350 Projects Under CPUC Review

<table>
<thead>
<tr>
<th>Public DC Fast Charging</th>
<th>Residential Infrastructure</th>
<th>Commercial Infrastructure</th>
<th>Heavy-Duty Infrastructure</th>
<th>Education &amp; Outreach</th>
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<tr>
<td>$4 M</td>
<td>$1.74 M</td>
<td>$1.18 M</td>
<td>$223,000</td>
<td>$235,000</td>
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### Bear Valley ($746,500)

- **EV TOU Pilot Rate** ($139,000)
- **Destination Make-Ready Rebate** ($607,500)

### Liberty Utilities ($6.2 M)

- **DC Fast Charger Project** ($4 million)
- **Residential Make-Ready Rebate** ($1.6 million)
- **Small Business Make-Ready Rebate** ($300,000)
- **EV Bus Infrastructure Program** ($223,000)
- **Customer Online Resource Project** ($65,000)

### PacifiCorp ($440,000)

- **Demonstration & Development Grant Program** ($270,000)
- **Outreach & Education Program** ($170,000)