Update on Community Choice Energy and Caltrain Electricity Service

Board of Directors
February 2, 2017
Agenda Item 12

The Grid and Community Choice Energy

Energy Generation (Power Plants)
Energy Delivery (Transmission System)
Higher voltage, Longer distance

Energy Delivery (Distribution System)
Lower voltage, Local distance

Previous:

Current Path:

Stations, Signals, PEMCF
Traction Power Substations for EMUs
Community Choice Energy (CCE)

- Cities/counties procure and provide electricity on behalf of their communities
  - Goal: higher-renewable, lower-greenhouse gas emissions electricity, at competitive rates
- Electricity still delivered and billed by PG&E
- Automatic enrollment; customer can opt-out at any time
- June 2016
  - Board took action to enroll in CCE
  - Staff to conduct Technical Evaluation

Electricity (Generation) Providers

<table>
<thead>
<tr>
<th>Provider</th>
<th>Type</th>
<th>Previously</th>
<th>Current Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG&amp;E</td>
<td>Investor-Owned Utility</td>
<td>94%</td>
<td>50%</td>
</tr>
<tr>
<td>cleanpowerSF</td>
<td>Community Choice Energy</td>
<td>-</td>
<td>16%</td>
</tr>
<tr>
<td>PENINSULA CLEAN ENERGY</td>
<td>Community Choice Energy</td>
<td>-</td>
<td>21%</td>
</tr>
<tr>
<td>SILICON VALLEY CLEAN ENERGY</td>
<td>Community Choice Energy</td>
<td>-</td>
<td>7%</td>
</tr>
<tr>
<td>Municipal Utility</td>
<td></td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Municipal Utility</td>
<td></td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Technical Evaluation Criteria & Results

• Environmental: % renewable, % GHG-free
• Cost
• New Entity Risk Management
  - Successful start-up of service, high customer participation, industry standard/prudent power management practices
• Administrative
  - No adverse effects on billing or customer service

Technical Evaluation Criteria & Results

• Reliability: infrastructure
  - No change; delivered and maintained by PG&E
  - De-prioritization of CCE customers not allowed nor practicable
• Reliability: energy supply
  - Industry standard/prudent Power Purchase Agreements, Reserve Capacity, CAISO oversight
• Compatible with future Caltrain
  - CCE supply can support Electrified Caltrain
  - Caltrain should explore negotiating transit-specific rates, regardless of provider
## Options

<table>
<thead>
<tr>
<th>Option</th>
<th>CCE System Total</th>
<th>Est. Annual Cost Difference (Compared to Previous PG&amp;E)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>% Renewable Energy</td>
</tr>
<tr>
<td>1</td>
<td>CCE current path</td>
<td>36%</td>
</tr>
<tr>
<td>2a</td>
<td>CCE upgrade</td>
<td>60%</td>
</tr>
<tr>
<td>2b</td>
<td>CCE + Municipal upgrade</td>
<td>65%</td>
</tr>
<tr>
<td>2c</td>
<td>CCE + Municipal + PG&amp;E upgrade</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>opt-out back to PG&amp;E default</td>
<td>30%</td>
</tr>
<tr>
<td>4</td>
<td>opt-out back to PG&amp;E &amp; upgrade</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Staff Recommendation

## Next Steps

- **March 2017**
  - Staff presents formalized recommendation for Board action

- **July 2017**
  - Last of the 3 CCEs finishes enrolling remainder of Caltrain electricity meters

- **Spring/Summer 2018**
  - Staff evaluates 1 year actual CCE billing data
  - Update Board
Additional Info:
Notes for Table of Options

- Annual electricity cost for existing Caltrain system: ~$1,400,000
- Estimated annual costs are based on CleanPowerSF, PCE, and PG&E actual rates as of December 2016, rate estimates presented in the SVCE Implementation Plan (actual rates to be set January 2017), and historic Caltrain electricity usage (kWh). Actual costs will depend on actual usage. Costs presented are inclusive of all service charges: generation, transmission & distribution, and other fees.
- These options are summarized to assume Caltrain enrollment in all three CCE programs. In fact, Caltrain may choose to opt out of or upgrade 1, 2, or all 3 CCEs.
- Values may not sum due to rounding.