Peninsula Clean Energy
Board of Directors Meeting

June 25, 2020
Agenda

• Call to order / Roll Call

• Public Comment

• Action to set the agenda and approve consent items
Regular Agenda

1. Chair Report (Discussion)
Regular Agenda

2. CEO Report (Discussion)
Today’s Updates

• Staffing Update
• COVID-19 Update
  • Load Impact Analysis
• Merced County Update
• Strategic Plan Update
• Update on Power On Peninsula - Portable Battery Program for Medically Vulnerable Customers
• Upcoming PCE Meetings
Staffing Update

• Dave Fribush started on June 1, 2020, as a consultant for a six-month term as Manager of Distributed Energy Resources Strategy.

• Matthew Rutherford started on June 15 as Regulatory Analyst

• Greg Miller, PhD student from UC Davis, joined PCE on June 15 as summer intern, researching 24x7 renewable energy goal

• Bobbi Bennett, HR Consultant, introduced to staff on June 17 with focus on Employee Relations and Employee Engagement. She will be meeting with every staff member over the next few weeks.

• We currently have one open position for a Data Manager.
COVID-19 Load Impact Analysis

- Overall PCE load
- Weekly and Daily Load Changes
- Weekly Load by Customer Type
- Load Shape Changes

Thank you to the power resources team for this analysis!
PCE Load after Shelter-in-place order

- **Week of May 25th (Memorial Day Weekend Heatwave):**
  - 6% decrease in Total PCE load compared to last week of Feb.
  - Around 17% decrease in commercial load
  - 8% increase in residential load (due to higher than normal temperatures, customers running cooling devices)

- **Week of June 8th:**
  - 11% decrease in Total PCE load compared to last week of Feb.
  - Around 16% decrease in commercial load
  - 4% decrease in residential load (due to milder temperatures)

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</thead>
<tbody>
<tr>
<td></td>
<td>Load</td>
<td>Load</td>
<td></td>
<td>Load</td>
<td></td>
</tr>
<tr>
<td>Agricultural</td>
<td>593</td>
<td>495</td>
<td>-17%</td>
<td>475</td>
<td>-20%</td>
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<tr>
<td>Industrial</td>
<td>5539</td>
<td>6115</td>
<td>10%</td>
<td>5574</td>
<td>1%</td>
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<tr>
<td>Large Commercial</td>
<td>15841</td>
<td>13248</td>
<td>-16%</td>
<td>13707</td>
<td>-13%</td>
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<tr>
<td>Medium Commercial</td>
<td>11488</td>
<td>9812</td>
<td>-15%</td>
<td>9710</td>
<td>-15%</td>
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<tr>
<td>Residential</td>
<td>27676</td>
<td>29808</td>
<td>8%</td>
<td>26481</td>
<td>-4%</td>
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<tr>
<td>Small Commercial</td>
<td>10877</td>
<td>8549</td>
<td>-21%</td>
<td>8505</td>
<td>-22%</td>
</tr>
<tr>
<td>Street Lights-Other</td>
<td>237</td>
<td>190</td>
<td>-20%</td>
<td>186</td>
<td>-21%</td>
</tr>
<tr>
<td>Total PCE (MWh)</td>
<td>72251</td>
<td>68217</td>
<td>-6%</td>
<td>64639</td>
<td>-11%</td>
</tr>
</tbody>
</table>
• 9% and 11% decrease in Total PCE load in weeks of June 1st and June 8th compared to last week of Feb and first two weeks of Mar
Daily Load

- Decrease in daily load compared to same weekdays in the weeks before shelter-in-place.
Weekly Load by Customer Type

Load (MWh)

- Small Commercial
- Medium Commercial
- Large Commercial
- Residential

Dates:
- 2/24/20
- 5/25/20
- 6/8/20
Load Shapes

Total PCE

Residential

Medium Commercial

Large Commercial
Merced County Update

- PCE presentation to Los Banos City Council on June 3
- Los Banos City Council voted unanimously to go forward with a technical study
- Awaiting response from Merced County regarding their interest in joining the study
Strategic Plan Update

- High level “glossy” brochure (pdf) expected to be on PCE website by end of June

- Ongoing implementation work of the plan by staff
Power On Peninsula – Medically Vulnerable Program

- **Program structure:** Donation of Portable Battery
- **Customer targets:** Customers enrolled in or eligible for PG&E’s Medical Baseline program that live in areas likely subject to PSPS events
- **Product:** Goalzero Yeti 3000x
  3,000 Wh battery + 200W foldable solar panel (see picture)
- **Volume & Cost Targets:**

<table>
<thead>
<tr>
<th></th>
<th>Unit Volume</th>
<th>Total Capacity</th>
<th>Total Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yeti 3000x</td>
<td>150</td>
<td>450kWh</td>
<td>360,000</td>
</tr>
<tr>
<td>200W Foldable solar panel</td>
<td>100</td>
<td>20kW</td>
<td>37,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>397,500</strong></td>
</tr>
</tbody>
</table>
Power On Peninsula – Medically Vulnerable Program

• Outreach partners:
  • Senior Coastsiders – agreement in process
  • Puente de la Costa Sur – working on agreement

• Product Sourcing and Distribution:
  • Working with a number of different channels
  • Hoping to get initial product delivery in July/Aug

• Shout out to Peter Levitt and Kirsten Andrews-Schwind for their work on this project
Upcoming Meetings

These meetings will continue to be held by video/teleconference

- Citizens Advisory Committee:
  - July 9 at 6:30 p.m.

- Executive Committee:
  - July 13 at 8:00 a.m.

- Board of Directors:
  - July 23 at 6:30 p.m.
Regular Agenda

3. Citizens Advisory Committee Report (Discussion)
Regular Agenda

4. Audit and Finance Committee Report (Discussion)
5. Approve Fiscal Year 2020-2021 Budget (Action)
Fiscal Year FY2020-2021 Budget Review

Proposed
Schedule – Budget Review and Approval

May 11, 2020 – Review Draft with Executive Committee - **Done**

May 11, 2020 – Review Draft with Audit & Finance Committee - **Done**

May 28, 2020 – Review Draft with Board of Directors - **Done**

June 8, 2020 – Review Final Proposal with Audit & Finance Committee - **Done**

June 25, 2020 – Approve Final by Board of Directors
Resolution Approved by Audit & Finance Committee

RESOLUTION RECOMMENDING THAT THE BOARD OF DIRECTORS APPROVE THE FISCAL YEAR 2020-2021 BUDGET WITH TOTAL OPERATING EXPENSES NOT TO EXCEED $225,642,453

UNANIMOUSLY APPROVED ON JUNE 8, 2020
Proposed Budget FY2020-2021 - Key Assumptions

- Rates – PG&E Generation Rates Increase of 2% on Jan 1, 2020
- PCIA
  - PCIA Cap of $0.005 on Jan 1, 2021
  - PCIA Trigger of 58% increase on Oct 1, 2020 (3 months)
- Energy Prices
  - Based on latest ABB forecast (in November) – does not include effects of COVID-19
- PPA Contracts
  - Mustang (Solar) project expected to start December 1, 2020 for 15 years
  - New Wind project starting January 1, 2021 for 7 years
- Programs
  - DER/Resiliency Program ramps up at total cost of $2 million
  - Significant expansion of Community Energy Programs
    - Approved Electric Vehicle Programs/Infrastructure - $5 million
    - Proposed Building Electrification Program - $950K
Load Assumptions for Budget

• No sharp recovery periods
• Residential
  o 6% increase through June 2021, then 4% increase for 1 year
  o 2% increase for next 3 years after
• Small/Medium Business (biggest change)
  o 30% decrease through June 2021, then 25% decrease for 1 year
  o 20% decrease for next 3 years after
• Large Commercial/Industrial
  o 20% decrease through June 2021, then 15% decrease for 1 year
  o 10% decrease for next 3 years after
• Total PCE Load
  o 13% decrease through June 2021, then 10% decrease for 1 year
  o 8% decrease for next 3 years after
# Impact of Revised COVID-19 Assumptions on Total Load

<table>
<thead>
<tr>
<th></th>
<th>FY2020-2021</th>
<th>FY2021-2022</th>
<th>FY2022-2023</th>
<th>FY2023-2024</th>
<th>FY2024-2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-COVID Forecast</td>
<td>3,817</td>
<td>3,836</td>
<td>3,880</td>
<td>3,934</td>
<td>3,969</td>
</tr>
<tr>
<td>Revised Budget (GWh)</td>
<td>3,334</td>
<td>3,437</td>
<td>3,561</td>
<td>3,614</td>
<td>3,646</td>
</tr>
<tr>
<td>Change from Pre-COVID Forecast</td>
<td>-13%</td>
<td>-10%</td>
<td>-8%</td>
<td>-8%</td>
<td>-8%</td>
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</tbody>
</table>
Impact of Revised COVID-19 Assumptions on Load by Customer Category
# Summary Proposed Budget FY2020-2021

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</thead>
<tbody>
<tr>
<td></td>
<td>Approved Budget</td>
<td>Forecast</td>
<td>Proposed Budget</td>
<td>$ Change</td>
</tr>
<tr>
<td>Total Operating Revenues</td>
<td>267,782,231</td>
<td>275,734,960</td>
<td>215,703,496</td>
<td>(60,031,464)</td>
</tr>
<tr>
<td>OPERATING EXPENSES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of energy</td>
<td>216,549,065</td>
<td>206,707,294</td>
<td>197,445,054</td>
<td>(9,262,240)</td>
</tr>
<tr>
<td>Staff compensation</td>
<td>4,589,149</td>
<td>4,463,060</td>
<td>6,236,981</td>
<td>1,796,421</td>
</tr>
<tr>
<td>Consultants &amp; Professional Svcs</td>
<td>896,333</td>
<td>825,945</td>
<td>3,068,340</td>
<td>2,242,395</td>
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<tr>
<td>Communications and Noticing</td>
<td>1,754,800</td>
<td>1,233,693</td>
<td>2,873,350</td>
<td>1,639,657</td>
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<tr>
<td>Community Energy Programs</td>
<td>5,094,473</td>
<td>1,680,058</td>
<td>7,550,000</td>
<td>5,869,942</td>
</tr>
<tr>
<td>Other Operating Expenses</td>
<td>7,925,266</td>
<td>7,619,335</td>
<td>8,468,728</td>
<td>849,393</td>
</tr>
<tr>
<td>Total Operating Expenses</td>
<td>236,809,086</td>
<td>222,529,385</td>
<td>225,642,453</td>
<td>3,135,568</td>
</tr>
<tr>
<td>Operating Income (Loss)</td>
<td>30,973,145</td>
<td>53,205,575</td>
<td>(9,938,957)</td>
<td>(63,144,532)</td>
</tr>
<tr>
<td>Total Nonoperating Inc/(Exp)</td>
<td>2,232,000</td>
<td>2,113,545</td>
<td>1,408,000</td>
<td>(705,545)</td>
</tr>
<tr>
<td>CHANGE IN NET POSITION</td>
<td>33,205,145</td>
<td>55,319,120</td>
<td>(8,530,957)</td>
<td>(63,850,077)</td>
</tr>
<tr>
<td>Net Position at the end of period</td>
<td>167,991,587</td>
<td>195,458,248</td>
<td>186,927,291</td>
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<tr>
<td>Total Cash &amp; Cash Equivalents</td>
<td>159,102,751</td>
<td>222,445,744</td>
<td>186,646,421</td>
<td></td>
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<tr>
<td>Unrestricted - Days Cash on Hand</td>
<td>159</td>
<td>272</td>
<td>255</td>
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</table>

Approve $225.6 million Total Operating Expenses
## Proposed Budget Detail - Revenues

### Significant changes in Revenue from FY2019-20 Forecast to FY2020-21 Budget:

- Reduction of $5 million – PCIA Cap of $0.005 implemented on May 1, 2020
- Reduction of $16 million – PCIA Trigger (58%) on October 1, 2020 (3 months)
- Reduction of $8 million - PCIA Cap of $0.005 implemented on January 1, 2021
- Reduction of $31 million – COVID-19 Load reduction assumptions (partially offset by lower energy costs)

### OPERATING REVENUES

<table>
<thead>
<tr>
<th></th>
<th>FY2019-20 Approved Budget</th>
<th>FY2019-20 Forecast</th>
<th>FY2020-2021 Proposed Budget</th>
<th>Variance FY2021 Budget vs. FY2020 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$ Change</td>
<td>% Change</td>
<td></td>
</tr>
<tr>
<td>Electricity Sales, net</td>
<td>265,221,745</td>
<td>273,223,764</td>
<td>213,552,721</td>
<td>(59,671,042) -22%</td>
</tr>
<tr>
<td>Green electricity premium</td>
<td>2,560,486</td>
<td>2,511,196</td>
<td>2,150,775</td>
<td>(360,422) -14%</td>
</tr>
<tr>
<td>Total Operating Revenues</td>
<td>267,782,231</td>
<td>275,734,960</td>
<td>215,703,496</td>
<td>(60,031,464) -22%</td>
</tr>
</tbody>
</table>

Variance FY2021 Budget vs. FY2020 Forecast: Increase/(Decrease)

- (59,671,042) -22%
- (360,422) -14%
- (60,031,464) -22%
### Proposed Budgeted Cost Detail – Cost of Energy

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</thead>
<tbody>
<tr>
<td>Cost of energy</td>
<td>216,549,065</td>
<td>206,707,294</td>
<td>197,445,054</td>
<td>9,262,240</td>
<td>-9,262,240</td>
<td>-4%</td>
</tr>
<tr>
<td>Net Energy Purchases</td>
<td>166,929,241</td>
<td>153,536,002</td>
<td>146,775,606</td>
<td>6,760,397</td>
<td>6,760,397</td>
<td>-4%</td>
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<tr>
<td>RECs and GHG Purchases</td>
<td>26,787,350</td>
<td>23,379,671</td>
<td>16,717,285</td>
<td>6,662,386</td>
<td>6,662,386</td>
<td>-28%</td>
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<tr>
<td>Forecasting and scheduling</td>
<td>1,313,079</td>
<td>1,332,632</td>
<td>1,477,502</td>
<td>144,871</td>
<td>144,871</td>
<td>11%</td>
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<tr>
<td>NEM Expense</td>
<td>474,380</td>
<td>1,000,664</td>
<td>1,000,000</td>
<td>(664)</td>
<td>(664)</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Net Energy Purchases - Lower**
- Lower volume expected
- PPAs are producing in FY20-21 (Wright Solar for full year, Mustang for 7 months)

**RECs and GHG expenses lower**
- Lower volume required
- Production from PPAs decreases need to purchase separately

**Resource Adequacy - Higher**
- Higher prices expected
- Increased Volume – Requirements are based on prior year (Pre-COVID) forecast
Proposed Plan FY2022-2025 - Key Assumptions

Rates – Increase of 0.5% on Jan 1 of each year starting on Jan 1, 2022

PCIA
• PCIA Cap of $0.005 on Jan 1, 2022
• PCIA Trigger - no additional Trigger

PPA Contracts
• 1st Solar+Storage project starting January 1, 2023 for 20 years
• 2nd Solar+Storage project starting January 1, 2023 for 20 years
• New Solar+Storage project starting January 1, 2024 for 20 years
• Community Solar projects starting September 1, 2021

Programs Contracts
• DER/Resiliency Program ramps continues
• Significant expansion EV infrastructure- $5 million/year in FY22 and FY23
• Allocated funds for Innovation - $1 million/year in FY23, FY24 and FY25
Proposed 5-year Plan – Observations

1. COVID-19 likely to have significant impact on revenues
   • Revenue decrease of $31 million expected in FY20-21
   • Revenue decrease of an average of $23 million expected for each of next 4 years

2. Expect to be able to mitigate revenue loss with significant energy cost reductions
   • Cost of Energy expected to be $24 million lower than Pre-COVID in FY20-21
   • Cost of Energy expected to be on average $19 million less for next 4 years

3. Avg of $5 MM/year impact to Net Position – Declining from $9 MM impact in FY20-21

4. Significant Cash Reserves and Open Position in energy procurement enables:
   • Ability to weather downturn for some time
   • Maintain Cash Reserves well above required level
   • Continue to invest in community grants and energy programs
Proposed FY2020-2021 Budget & 5-year Plan

<table>
<thead>
<tr>
<th>OPERATING REVENUES</th>
<th>FY2020-2021</th>
<th>FY2021-2022</th>
<th>FY2022-2023</th>
<th>FY2023-2024</th>
<th>FY2024-2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity Sales, net</td>
<td>213,552,721</td>
<td>229,955,736</td>
<td>231,697,113</td>
<td>237,874,445</td>
<td>242,042,383</td>
</tr>
<tr>
<td>Green electricity premium</td>
<td>2,150,775</td>
<td>2,335,232</td>
<td>2,550,546</td>
<td>2,748,740</td>
<td>2,984,385</td>
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<tr>
<td>Total Operating Revenues</td>
<td>215,703,496</td>
<td>232,290,968</td>
<td>234,247,659</td>
<td>240,623,184</td>
<td>245,026,768</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>OPERATING EXPENSES</th>
<th>FY2020-2021</th>
<th>FY2021-2022</th>
<th>FY2022-2023</th>
<th>FY2023-2024</th>
<th>FY2024-2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of energy</td>
<td>197,445,054</td>
<td>202,229,484</td>
<td>206,778,295</td>
<td>203,341,622</td>
<td>214,720,629</td>
</tr>
<tr>
<td>Staff compensation</td>
<td>6,236,981</td>
<td>6,786,954</td>
<td>7,119,219</td>
<td>7,468,097</td>
<td>7,834,419</td>
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<tr>
<td>Data Manager</td>
<td>3,420,000</td>
<td>3,454,200</td>
<td>3,488,742</td>
<td>3,523,629</td>
<td>3,558,866</td>
</tr>
<tr>
<td>Service Fees - PG&amp;E</td>
<td>1,260,000</td>
<td>1,272,600</td>
<td>1,285,326</td>
<td>1,298,179</td>
<td>1,311,161</td>
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<td>Consultants &amp; Professional Svcs</td>
<td>3,068,340</td>
<td>4,175,940</td>
<td>2,898,135</td>
<td>2,441,572</td>
<td>2,422,480</td>
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<td>Legal</td>
<td>1,708,230</td>
<td>1,706,160</td>
<td>1,753,260</td>
<td>1,797,619</td>
<td>1,854,449</td>
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<td>Marketing, Communications and Noticing</td>
<td>2,873,350</td>
<td>2,966,418</td>
<td>2,227,878</td>
<td>2,335,362</td>
<td>2,447,910</td>
</tr>
<tr>
<td>General and Administrative</td>
<td>1,947,282</td>
<td>2,071,452</td>
<td>2,588,462</td>
<td>2,658,448</td>
<td>2,731,552</td>
</tr>
<tr>
<td>Community Energy Programs</td>
<td>7,550,000</td>
<td>10,435,000</td>
<td>10,870,000</td>
<td>10,950,000</td>
<td>11,000,000</td>
</tr>
<tr>
<td>Depreciation</td>
<td>133,216</td>
<td>169,216</td>
<td>205,216</td>
<td>241,216</td>
<td>277,216</td>
</tr>
<tr>
<td>Total Operating Expenses</td>
<td>225,642,453</td>
<td>235,267,423</td>
<td>239,214,533</td>
<td>236,055,745</td>
<td>248,158,683</td>
</tr>
</tbody>
</table>

| Operating Income (Loss)  | (9,938,957) | (2,976,455) | (4,966,874) | 4,567,439   | (3,131,915) |
| Total Nonoperating Inc/(Exp) | 1,408,000 | 1,528,000   | 1,648,000   | 1,768,000   | 1,888,000   |
| CHANGE IN NET POSITION   | (8,530,957) | (1,448,455) | (3,318,874) | 6,335,439   | (1,243,915) |
| Net Position at the end of period | 186,927,291 | 185,478,836 | 182,159,962 | 188,495,402 | 187,251,487 |
| Total Cash & Cash Equivalents | 186,646,421 | 184,697,966 | 181,379,092 | 187,714,531 | 186,470,616 |
| Unrestricted - Days Cash on Hand | 255         | 242         | 233         | 246         | 232         |

Approve $225.6 million Total Operating Expenses
RESOLUTION THAT THE BOARD OF DIRECTORS APPROVE THE FISCAL YEAR 2020-2021 BUDGET WITH TOTAL OPERATING EXPENSES NOT TO EXCEED $225,642,453
Fiscal Year FY2020-2021 Budget
Detailed Expense Categories
### Proposed Budget Cost Detail – Staff Compensation

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</thead>
<tbody>
<tr>
<td><strong>Staff compensation</strong></td>
<td>4,589,149</td>
<td>4,463,060</td>
<td>6,236,981</td>
<td>$1,796,421 40%</td>
</tr>
<tr>
<td><strong>Employee welfare</strong></td>
<td>223,550</td>
<td>326,327</td>
<td>442,592</td>
<td>$116,266 36%</td>
</tr>
<tr>
<td><strong>Payroll tax expense</strong></td>
<td>260,809</td>
<td>224,254</td>
<td>306,797</td>
<td>$82,543 37%</td>
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<tr>
<td><strong>Retirement plan contributions</strong></td>
<td>353,954</td>
<td>326,489</td>
<td>455,633</td>
<td>$129,144 40%</td>
</tr>
<tr>
<td><strong>Salaries and wages</strong></td>
<td>3,725,836</td>
<td>3,561,432</td>
<td>5,006,958</td>
<td>$1,445,526 41%</td>
</tr>
<tr>
<td><strong>Workers comp insurance</strong></td>
<td>25,000</td>
<td>24,558</td>
<td>25,000</td>
<td>442 2%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Temp Employee</strong></td>
<td>-</td>
<td>-</td>
<td>22,500</td>
<td>22,500 0%</td>
</tr>
</tbody>
</table>

**Significant assumptions of note:**
- Addition of 8 employees from today’s level through June 2021 (2 current open positions)
- Increase over FY19-20 forecast looks bigger because 10 current employees were hired during the year – only a portion of their full-year salaries is reflected in current year’s forecast
Proposed Budget Cost Detail – Data Manager/Service Fees

<table>
<thead>
<tr>
<th>OPERATING EXPENSES</th>
<th>FY2019-2020</th>
<th>FY2020-2021</th>
<th>Variance FY2021 Budget vs. FY2020 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved Budget</td>
<td>Forecast</td>
<td>Proposed Budget</td>
<td>Increase/(Decrease)</td>
</tr>
<tr>
<td>Data Manager</td>
<td>3,822,123</td>
<td>3,655,825</td>
<td>3,420,000</td>
</tr>
<tr>
<td>Service Fees - PG&amp;E</td>
<td>1,256,056</td>
<td>1,252,779</td>
<td>1,260,000</td>
</tr>
</tbody>
</table>

Significant assumptions of note:
- Data Manager expenses expected to be lower due to revised/lower contract with Calpine
### Proposed Budget Cost Detail – Professional Services

**Significant assumptions of note:**
- $1.5 million for Approved DER and Resiliency projects – included in Power Resources Consulting for now
- $270K included in “Other Consultants” for Innovation projects

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Consultants &amp; Professional Svcs</td>
<td>896,333</td>
<td>825,945</td>
<td>3,068,340</td>
<td>2,242,395-shadow $271%</td>
</tr>
<tr>
<td>Accounting &amp; Auditing</td>
<td>165,000</td>
<td>174,753</td>
<td>191,000</td>
<td>16,247-9%</td>
</tr>
<tr>
<td>Human Resources Consulting</td>
<td>68,000</td>
<td>24,236</td>
<td>72,000</td>
<td>47,764-197%</td>
</tr>
<tr>
<td>IT Consulting</td>
<td>48,000</td>
<td>60,495</td>
<td>60,000</td>
<td>(495)-1%</td>
</tr>
<tr>
<td>Other Consultants</td>
<td>290,000</td>
<td>242,344</td>
<td>527,000</td>
<td>284,656-117%</td>
</tr>
<tr>
<td>Technical consultants</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Power Resources Consulting</td>
<td>325,333</td>
<td>324,117</td>
<td>2,218,340</td>
<td>1,894,223-584%</td>
</tr>
</tbody>
</table>

- | 39
## Proposed Budget Cost Detail – Legal

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Approved</td>
<td>Forecast</td>
<td>Proposed</td>
<td>Increase/(Decrease)</td>
</tr>
<tr>
<td>Legal</td>
<td>1,471,500</td>
<td>1,265,791</td>
<td>1,708,230</td>
<td>442,439</td>
</tr>
<tr>
<td>Legislative</td>
<td>210,000</td>
<td>118,323</td>
<td>126,750</td>
<td>8,427</td>
</tr>
<tr>
<td>Legal Power Resources</td>
<td>540,000</td>
<td>458,463</td>
<td>720,000</td>
<td>261,537</td>
</tr>
<tr>
<td>Legal Agency</td>
<td>240,000</td>
<td>193,397</td>
<td>240,000</td>
<td>46,603</td>
</tr>
<tr>
<td>Legal Regulatory</td>
<td>481,500</td>
<td>495,609</td>
<td>621,480</td>
<td>125,871</td>
</tr>
</tbody>
</table>

### Significant assumptions of note:
- Increased legal effort expected in support of several new PPAs to be signed in FY2020-2021
- Increased Regulatory support expected
## Proposed Budget Cost Detail – Communications/Marketing

### Significant assumptions of note:
- Required Mailings expenses expected to decrease related to new electronic distribution of Joint Rate Mailer
- Additional funds were added for Board-approved program related to Resiliency
  - $845K for Medically-vulnerable; grant funding to community-based organizations
  - $220K for digital advertising for DER Resiliency
- $208K for Building Electrification awareness previously approved by Board

### OPERATING EXPENSES

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Communications and Noticing</td>
<td>1,754,800</td>
<td>1,233,693</td>
<td>2,873,350</td>
<td>$1,639,657 (Increase of 133%)</td>
</tr>
<tr>
<td>Advertising/Paid Media</td>
<td>73,000</td>
<td>68,788</td>
<td>503,850</td>
<td>435,062 (Increase of 632%)</td>
</tr>
<tr>
<td>Communications consultants</td>
<td>420,000</td>
<td>308,940</td>
<td>375,300</td>
<td>66,360 (Increase of 21%)</td>
</tr>
<tr>
<td>Sponsorships and memberships</td>
<td>100,000</td>
<td>90,777</td>
<td>129,000</td>
<td>38,223 (Increase of 42%)</td>
</tr>
<tr>
<td>Marketing Automation/Software</td>
<td>14,800</td>
<td>3,352</td>
<td>77,500</td>
<td>74,148 (Increase of 2212%)</td>
</tr>
<tr>
<td>Promotions &amp; Branding</td>
<td>747,000</td>
<td>82,025</td>
<td>83,200</td>
<td>1,175 (Increase of 1%)</td>
</tr>
<tr>
<td>Communications - misc expenses</td>
<td>50,000</td>
<td>41,895</td>
<td>12,000</td>
<td>(29,895) (Decrease of -71%)</td>
</tr>
<tr>
<td>Grants &amp; Partner Contracts</td>
<td>8,000</td>
<td>209,836</td>
<td>1,297,500</td>
<td>1,087,664 (Increase of 518%)</td>
</tr>
<tr>
<td>Direct Mail</td>
<td>-</td>
<td>8,645</td>
<td>87,000</td>
<td>78,355 (Increase of 906%)</td>
</tr>
<tr>
<td>Collateral</td>
<td>-</td>
<td>-</td>
<td>72,000</td>
<td>72,000 (Increase of 0%)</td>
</tr>
<tr>
<td>Required Mailings</td>
<td>342,000</td>
<td>419,436</td>
<td>236,000</td>
<td>(183,436) (Decrease of -44%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>$ Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,639,657</td>
<td>133%</td>
</tr>
<tr>
<td>435,062</td>
<td>632%</td>
</tr>
<tr>
<td>66,360</td>
<td>21%</td>
</tr>
<tr>
<td>38,223</td>
<td>42%</td>
</tr>
<tr>
<td>74,148</td>
<td>2212%</td>
</tr>
<tr>
<td>1,175</td>
<td>1%</td>
</tr>
<tr>
<td>(29,895)</td>
<td>-71%</td>
</tr>
<tr>
<td>1,087,664</td>
<td>518%</td>
</tr>
<tr>
<td>78,355</td>
<td>906%</td>
</tr>
<tr>
<td>72,000</td>
<td>0%</td>
</tr>
<tr>
<td>(183,436)</td>
<td>-44%</td>
</tr>
</tbody>
</table>
# Proposed Budget Cost Detail – General & Administrative

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General and Administrative</td>
<td>1,277,187</td>
<td>1,348,029</td>
<td>1,947,282</td>
<td>$ 599,253</td>
</tr>
<tr>
<td>Bank service fee</td>
<td>60,000</td>
<td>118,457</td>
<td>129,312</td>
<td>10,855</td>
</tr>
<tr>
<td>Building Maintenance</td>
<td>3,000</td>
<td>7,871</td>
<td>15,000</td>
<td>7,129</td>
</tr>
<tr>
<td>Business meals</td>
<td>12,000</td>
<td>18,740</td>
<td>30,000</td>
<td>11,260</td>
</tr>
<tr>
<td>Conferences &amp; prof development</td>
<td>42,000</td>
<td>27,282</td>
<td>24,000</td>
<td>(3,282)</td>
</tr>
<tr>
<td>Equipment lease</td>
<td>3,600</td>
<td>2,921</td>
<td>6,000</td>
<td>3,079</td>
</tr>
<tr>
<td>Industry memberships and dues</td>
<td>425,000</td>
<td>355,632</td>
<td>480,000</td>
<td>124,368</td>
</tr>
<tr>
<td>Insurance</td>
<td>84,000</td>
<td>80,216</td>
<td>120,000</td>
<td>39,784</td>
</tr>
<tr>
<td>Miscellaneous G&amp;A</td>
<td>12,000</td>
<td>2,000</td>
<td>-</td>
<td>(2,000)</td>
</tr>
<tr>
<td>Office supplies and postage</td>
<td>18,000</td>
<td>17,407</td>
<td>24,000</td>
<td>6,593</td>
</tr>
<tr>
<td>Payroll service fees</td>
<td>18,000</td>
<td>20,172</td>
<td>21,000</td>
<td>828</td>
</tr>
<tr>
<td>Rent</td>
<td>381,787</td>
<td>429,324</td>
<td>531,570</td>
<td>102,246</td>
</tr>
<tr>
<td>Small equipment &amp; software</td>
<td>72,000</td>
<td>113,442</td>
<td>390,000</td>
<td>276,558</td>
</tr>
<tr>
<td>Subscriptions</td>
<td>60,000</td>
<td>72,701</td>
<td>72,000</td>
<td>(701)</td>
</tr>
<tr>
<td>Utilities</td>
<td>48,000</td>
<td>48,433</td>
<td>60,000</td>
<td>11,567</td>
</tr>
<tr>
<td>Travel - Mileage/fuel</td>
<td>4,200</td>
<td>3,121</td>
<td>3,600</td>
<td>479</td>
</tr>
<tr>
<td>Travel - Parking and Tolls</td>
<td>3,600</td>
<td>4,574</td>
<td>7,200</td>
<td>2,626</td>
</tr>
<tr>
<td>Travel - Airfare</td>
<td>12,000</td>
<td>7,705</td>
<td>9,600</td>
<td>1,895</td>
</tr>
<tr>
<td>Travel - Lodging</td>
<td>12,000</td>
<td>17,031</td>
<td>24,000</td>
<td>6,969</td>
</tr>
<tr>
<td>Travel - Other Travel</td>
<td>6,000</td>
<td>1,000</td>
<td>-</td>
<td>(1,000)</td>
</tr>
</tbody>
</table>

Significant assumptions of note:

- **Rent** – higher due to office expansion
- **Memberships** – mostly CalCCA dues
- **Software higher** – includes $240K for CRM software for Energy Programs

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### Proposed Budget Cost Detail – Community Energy Programs

**Significant assumptions of note:**
- Approved Electric Vehicle Programs/Infrastructure
  - Consulting - $1.1 million
  - Incentives - $3.9 million
- Approved Building Electrification Program- $950K
- Community Pilots/Grants - $350K
- Approved Ride & Drives - $250K

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Energy Programs</td>
<td>5,094,473</td>
<td>1,680,058</td>
<td>7,550,000</td>
<td>$5,869,942</td>
</tr>
<tr>
<td>Energy Program Consulting</td>
<td>1,569,447</td>
<td>895,183</td>
<td>2,403,000</td>
<td>1,507,817</td>
</tr>
<tr>
<td>Programs - G&amp;A</td>
<td>-</td>
<td>105,196</td>
<td>-</td>
<td>(105,196)</td>
</tr>
<tr>
<td>Programs - Marketing</td>
<td>-</td>
<td>2,500</td>
<td>250,000</td>
<td>247,500</td>
</tr>
<tr>
<td>Programs - Incentives</td>
<td>3,525,026</td>
<td>677,179</td>
<td>4,897,000</td>
<td>4,219,821</td>
</tr>
</tbody>
</table>
Regular Agenda

6. Approve Citizens Advisory Committee Recommendations for Operational Improvements (Action)
Recommendations Requiring Board Approval

A.1. Add a sixth item to CAC’s objectives: “Form working groups, as determined by the CAC membership, to assist PCE’s staff and Board with projects of importance to the organization.”

A.2. Recommend that a PCE Board member be appointed as an official liaison to the CAC.

A.3. Enhance processes for reviewing and recommending the addition of new Advisory Committee members when filling open positions by increasing CAC involvement in their screening and selection.
7. Authorize Chief Executive Officer to execute a Distributed Energy Storage Agreement for Resilience with Sunrun Inc. and any necessary ancillary documents in an amount not to exceed $5,500,000 and for a term from January 1, 2022 through December 31, 2032 (Action)
Approve Distributed Energy Storage Agreement with Sunrun

Siobhan Doherty, Director of Power Resource
Peter Levitt, Associate Manager Distributed Resources
Recommendation

• Authorize Chief Executive Officer to execute a Distributed Energy Storage Agreement for Resilience with Sunrun Inc. and any necessary ancillary documents in an amount not to exceed $5,500,000, and for a term from January 1, 2022 through December 31, 2032
Agenda

• Background
• About Sunrun
• Contract Terms
• Marketing Plan
• Recommendation
Background

- **October 2019**: 3 Public Safety Power Shutoff (PSPS) events impact PCE customers
  - Largest PSPS impacted over 55,000 customer accounts

- **January 2020**: Resiliency Strategy commits $10 MM over 3 years
  - Distributed Resource Adequacy (RA) to provide backup power to customers and RA benefits to Peninsula Clean Energy
Solicitation Summary

• Coordinated with 3 other load serving entities (LSEs): EBCE, SVCE, SVP
• Issued November 19, 2020
• Targeted 30MW+ of RA across 4 LSEs
  o Peninsula Clean Energy targeted 10+MW
• RA sourced from distributed solar+storage systems
• Carve out for minimum capacity installed in disadvantaged / low income communities
Solicitation Summary

20 Bids Received

5 Shortlisted

8 Interviewed

2 to Execute – 
Sunrun Tonight + Commercial Provider in July
About Sunrun, Inc.

Sunrun overview

**Who We Are**

- Formed in 2007 and headquartered in San Francisco, CA, Sunrun pioneered the residential solar-as-a-service product
- Largest residential solar, storage, home energy services company, with more than 250,000 customers
- Sunrun has deployed over 1.6GW of residential solar and currently operates in 23 states, plus DC and Puerto Rico
- In 2017, Sunrun expanded its offering to battery storage (over 6,000 units installed to date) and is the leading residential grid services provider
- In 2019, Sunrun won a bid to provide 20 MW of capacity from home solar and battery systems to ISO New England beginning in 2022 – a first for residential resources

**Market Coverage**

- Solar service
- Solar & Brightbox service

- Value to customer
  - Save on electricity
  - Little or no upfront cost
  - Backup power, no fuel or pollution
  - Bill management

- Value to the Grid
  - Peak capacity
  - Resiliency
  - Dispatchable Virtual Power plant
  - Ancillary Services
# Contract Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity Product</td>
<td>.4 – 5 MW (1.6 – 20 MWh)</td>
</tr>
<tr>
<td>Installation Size</td>
<td>2 – 11 MW (8 – 44 MWh)</td>
</tr>
<tr>
<td>Install Timeline</td>
<td>Late 2020 – end of 2021; option to increase capacity and extend install timeline to end of 2021 for additional</td>
</tr>
<tr>
<td>Delivery Term</td>
<td>January 1, 2022 – December 31, 2032</td>
</tr>
<tr>
<td>Customer Type</td>
<td>Single Family or Multifamily Residential</td>
</tr>
<tr>
<td>Islandable</td>
<td>Able to disconnect and provide backup power in case of power outage</td>
</tr>
<tr>
<td>Carve-out for Low-income, DAC, CARE, FERA, Medical Baseline</td>
<td>Minimum 10%</td>
</tr>
<tr>
<td>Price</td>
<td>A small premium to standard RA procurements</td>
</tr>
</tbody>
</table>
Capacity Product – Load Modification

- RA requirements set based on expected peak load
- Distributed energy storage resources reduce peak load by charging during the day and discharging during peak periods
- PCE and Sunrun will agree annually on a dispatch plan
  - Describe when Sunrun will instruct the storage to discharge to meet peak
Product Transition Trigger

• Load modification is a new approach. PCE and other LSEs have been working with regulatory agencies on this mechanism, however there is still some uncertainty

• Contract includes a “Product Transition Trigger” to allow for change in how batteries provide capacity benefits

• Product Transition can be triggered:
  o If the CEC no longer accepts load modification mechanism
  o If the CEC is accepting less than 80% of the load modification
  o At PCE’s election with a financial penalty
Proxy Demand Response (PDR)

• PDR is a slightly more established process for distributed resources to provide capacity attributes,

• Designed for demand response rather than energy storage

• Several drawbacks:
  o Process is complex and time consuming
  o Volume of resources that can be counted is lower
  o Results in a higher price
Workforce Development

- Sunrun is leveraging its relationship with GRID Alternatives in the low-income solar space to provide workforce development and training in every installation provided to low-income customers
  - GRID has an Installer Basic Training and has trained more than 17,000 individuals in solar installation since its inception
- Commitment to having San Mateo County residents provide 50% of the work hours associated with construction, operation, and maintenance of the projects
Marketing Plan

• In order to spur customer participation, PCE and Sunrun have developed a Co-Marketing Agreement
  • The Co-Marketing approach will utilize co-branded marketing materials, and various marketing channels through which PCE and Sunrun will reach customers
  • These marketing channels include nonprofit outreach partners, PCE’s newsletter, social media, events, and direct mail, et al
• Sunrun will provide customers an upfront incentive to motivate their participation in this program
Recommendation

Authorize Chief Executive Officer to execute a Load Modifying Agreement (LMA) for Distributed Resource Adequacy Capacity with Sunrun Inc. and any necessary ancillary documents in an amount not to exceed $5,500,000 and for a term from January 1, 2022 through December 31, 2031 (Action)

This agreement helps to fulfill several of PCE’s strategic goals:

• Design a diverse power portfolio that is 100% carbon-free by 2021; and is 100% carbon-free by 2024 that aligns supply and consumer demand on a 24x7 basis

• Create a minimum of 20MW of new power resources in San Mateo County by 2025
8. Authorize Chief Executive Officer to execute a contract amendment to Agreement with TerraVerde Energy, LLC for Distributed Resource Adequacy Capacity Request for Proposals in an amount not to exceed $220,000 and for a term through December 31, 2021 (Action)
Distributed RA Program Admin Contract Amendment

Siobhan Doherty, Director of Power Resources
Peter Levitt, Associate Manager Distributed Resources
June 25, 2020
Recommendation

Authorize Chief Executive Officer to execute Amendment 1 to Agreement with TerraVerde Energy, LLC for Distributed Resource Adequacy Capacity Request for Proposals in an amount not to exceed $220,000 and for a term through December 31, 2021. (Action)
Agenda

• Background

• Amendment Summary

• Consultant Selection

• Recommendation
Background

• January 2020: hired TerraVerde Energy to support staff evaluate responses to the Distributed RA RFP

• Evaluated two potential partners, one that was working with EBCE and TerraVerde

• Chose TerraVerde due to their:
  • Expertise in working on public sector solar+storage programs,
  • Familiarity with Proxy Demand Response, and
  • Deep background on public procurements.
Background

• Initial Scope of Work to support the evaluation of RFP responses
  • Created and completed evaluation matrix;
  • Assisted in identifying respondents to interview;
  • Organized initial and final interviews including developing questions, attending interviews and following up with interviewees on outstanding questions;
  • Advised on identifying respondents to shortlist and select;
  • Supported staff through negotiation process.

• Exceeded staff expectations –
  • Played an integral role in clarifying our goals for the program and representing these goals to vendors throughout the interview process.
  • Provided prompt, valuable feedback to inform the vendor selection process.
Amendment Summary

• The amendment expands the scope of the work by adding three tasks:
  o Task 2: Identify target customers to increase program speed and scale
  o Task 3: Establish & manage an efficient project qualification & program oversight model
  o Task 4: Manage vendor performance & provide actionable reporting to PCE

• **Cost:** $200,000 additional, for a total not to exceed $220,000

• **Timeline:** Extend term through December 31, 2021
Consultant Selection

- Reviewed scope of work with TerraVerde and another, similar consultant and received bids from both consultants
- TerraVerde provided a more complete response to the scope of work; the alternative consultant was not able to fulfill the scope that we set out
- Positive experience working with TerraVerde and believe they are best-positioned to support this program

Overview of TerraVerde’s Competitive Competencies:
- Reliable program performance to date, including prompt feedback, high quality analysis, and a very high degree of organization
- High degree of program familiarity
- History of successful public sector procurements
- Internal software capabilities well-suited for DER program customer segmentation
Recommendation

Authorize Chief Executive Officer to execute a contract amendment to Agreement with TerraVerde Energy, LLC for Distributed Resource Adequacy Capacity Request for Proposals in an amount not to exceed $250,000 and for a term through December 31, 2021 (Action)
Regular Agenda

9. Approve Contract with CLEAResult for Building Electrification Program in an amount not to exceed $3 Million (Action)
Existing Buildings
Electrification Contracts
In May 2020, the Board approved a four-year $6.1 million Existing Building Electrification plan. Initial programs outlined were:

1. **Heat Pump Water Heater (HPWH) Program**
   - Gas to HPWH replacement incentives. Combine with BayREN incentives.

2. **Low Income Home Upgrade Program**
   - Turnkey no-cost home upgrades, energy efficiency, and electrification for low-income residents.

3. **Harvest Thermal Technology Pilot**
   - Pilot combined space and water heating system with load shifting thermal
Heat Pump Water Heater Contract: Request

**Program**: Heat Pump Water Heater (HPWH) Program

**Request**: Delegate authority to CEO to execute contract with CLEAResult to administer the HPWH program

**Amount**: Up to $3 million over 4 yrs
Overview & Objective

• Water heater replacement incentives to single family customers
• Foster early market, develop workforce, create jobs

Approach

• Integrated with BayREN Home+ program to layer incentives and streamline customer experience
• PCE incentive $1,000 – 1,500/unit (+$1,000 from BayREN) & if needed $1,500/service panel upgrade
• Develop contractor network fed by existing training program

Administrator – CLEAResult

• National energy program administrator, CA focus, 80+ local Bay Area staff
• Selected by BayREN through public solicitation process
• PCE’s EV Ready Infrastructure Program selected partner
CLEAResult Contract for HPWH Program

Contract Scope of work

• Make enhancements to existing customer & contractor application portal
• Train Home Energy Advisors & participating contractors on benefits of electrification and PCE program
• Review and process applications
• Provide regular reporting and supporting documentation

Budget

• Total: up to $3 M over 4 yrs
• $2.75 M reserved for customer incentives to replace ~1,200 water heaters
• Up to $250,000 in CLEAResult administration: ~$25,000 start up fee, ~$60 fee per application
Heat Pump Water Heater Contract: Request

**Program**: Heat Pump Water Heater (HPWH) Program

**Request**: Delegate authority to CEO to execute contract with CLEAResult to administer the HPWH program

**Amount**: Up to $3 million over 4 yrs
Regular Agenda

10. Review Preliminary Integrated Resource Plan (IRP) Results (Discussion)
AGENDA

• IRP Background
• Reference System Portfolio
• CCA Approach
• Modeling Requirements
• Portfolio Overview
• Initial Results
• Next Steps
PURPOSE

1. Provide Board with background on the 2020 Integrated Resource Planning (IRP) process

2. Present preliminary results

3. Inform the Board of next steps to approve IRP
BACKGROUND

• This CPUC IRP was mandated by SB350, (de León, Chapter 547, 2015)

• Initial reporting year was 2018; report every other year

• 2020 IRP is due **September 1, 2020**

• Primary purpose:
  o To provide CPUC staff with the inputs from each LSE to forecast industry-wide procurement and
  o Determine whether load serving entities (LSEs) in CA are meeting GHG and reliability needs for 2030.
CA GHG REDUCTION GOALS

1. Figure courtesy of California’s 2017 Climate Change Scoping Plan: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

- 2030: 40% Below 1990 Levels
- 2050: 80% Below 1990 Levels
- SB100: 100% Carbon Free Electricity by 2045
ELECTRICITY’S ROLE

1. Figure courtesy of California’s 2017 Climate Change Scoping Plan: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

- 2030 Statewide Goal: 260 million metric tons (MMT) of CO2 equivalent
- 2030 Electricity Sector Portion: 46 MMT, 18% of allowable emissions
- To meet SB100, electricity sector to target 38 MMT in 2030, 15% of allowable emissions
In 2017, electricity sector contributed ~15% to California’s statewide emissions

2030 electric sector target is 30 – 53 MMT (11.5% - 20% of total)

1. Figure courtesy of https://ww2.arb.ca.gov/ghg-inventory-data
IRP: HOW WE GET THERE

• Integrated Resource Planning (IRP): Ensure electricity sector is on track to meet its portion of California’s 2030 GHG targets:
  o 46 MMT scenario to meet 40% reduction from 1990 GHG levels
  o 38 MMT scenario to meet SB100 targets
BIANNUAL PROCESS

• Odd-numbered years – CPUC conducts modeling to:
  o Recommend a GHG target for the electricity sector; and
  o Identify optimal portfolio – “Reference System Portfolio (RSP)”

• Even-numbered years – LSEs submit IRPs to the CPUC

• CPUC aggregates individual IRPs and conducts production cost modeling and a reliability assessment
REFERENCE SYSTEM PORTFOLIO (RSP)

• Identifies the portfolio of resources required for all CPUC-regulated LSEs across CA to
  o meet GHG reduction goals
  o at least cost
  o while ensuring electric service reliability.
RSP for All CA – 46 MMT

<table>
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<th>2020</th>
<th>2021</th>
<th>2022</th>
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<tr>
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RSP for All CA – 38 MMT

38 MMT RSP New Resource Buildout (Incremental MW)

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<td>887</td>
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<td>1,468</td>
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MW
OUR APPROACH

• Coordinating with 3 CCAs on modeling for IRP
  
  o East Bay Community Energy
  o Clean Power Alliance
  o San Jose Community Energy

• Siemens is providing modeling services to PCE and other 3 CCAs
MODELING REQUIREMENTS

• Use the assigned load forecast\(^1\) from the CEC’s 2019 Integrated Energy Policy Report (IEPR).

• Be consistent with the CPUC-adopted Reference System Portfolio:
  o Conforms to the LSE’s 2030 GHG Benchmark
  o Uses inputs and assumptions matching those used by CPUC staff to develop the Reference System Portfolio

1. The mid-AAEE version of Form 1.1c of the 2017 IEPR Mid-demand case
# Modeling Requirements

<table>
<thead>
<tr>
<th>LSE</th>
<th>2030 Load (GWh)</th>
<th>Share of Load in IOU Territory</th>
<th>2030 Emissions Benchmark – 46 MMT</th>
<th>2030 Emissions Benchmark – 38 MMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCE</td>
<td>3,560</td>
<td>4.68%</td>
<td>0.729</td>
<td>0.602</td>
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<tr>
<td>EBCE</td>
<td>6,910</td>
<td>9.08%</td>
<td>1.414</td>
<td>1.168</td>
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<td>SJCE</td>
<td>4,449</td>
<td>5.85%</td>
<td>0.910</td>
<td>0.752</td>
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<td>CPA</td>
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<td>13.85%</td>
<td>2.113</td>
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<td>PG&amp;E</td>
<td>26,777</td>
<td>35.2%</td>
<td>5.479</td>
<td>4.526</td>
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<tr>
<td>SCE</td>
<td>54,393</td>
<td>63.5%</td>
<td>9.687</td>
<td>8.003</td>
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<tr>
<td>SDG&amp;E</td>
<td>5,366</td>
<td>29.5%</td>
<td>1.198</td>
<td>0.990</td>
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</table>

Other CCAs

IOUs
The CPUC requires that LSEs use certain specific assumptions in their Conforming Portfolio, including the following:

- Cost assumptions;
- Load shape;
- Energy production profiles;
- BTM PV, EE, and EV charging profiles;
- Battery storage dispatch profiles; and
- Biomass/Geothermal/Hydro dispatch profiles.
## PORTFOLIO’S IN PCE’S IRP

<table>
<thead>
<tr>
<th>Meets GHG Benchmark?</th>
<th>46 MMT Preferred Portfolio</th>
<th>46 MMT Conforming Portfolio</th>
<th>38 MMT Preferred Portfolio</th>
<th>38 MMT Conforming Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Net open position is filled with contracts to meet 100% renewable on annual basis</td>
<td>46 MMT Preferred Portfolio adjusted to meet 46 MMT GHG benchmark</td>
<td>Net open position is filled with contracts to meet 100% renewable on 24/7 accounting</td>
<td>38 MMT Preferred Portfolio adjusted to meet 38 MMT GHG benchmark</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Meets 100% RE Goal?</th>
<th>✓</th>
<th>✗</th>
<th>✓</th>
<th>✗</th>
</tr>
</thead>
</table>

| Meets 100% RE Time Coincident Goal? | ✗ | ✗ | ✓ | ✗ |
Goal: To meet 100% renewable on an annual basis
SUBMISSION REQUIREMENTS

1. Standard LSE Plan – written description of IRP, including:
   • Description of modeling process and assumptions

2. CPUC Provided Clean System Power Calculator
   • Calculates LSE’s Portfolio’s expected GHG Emissions

3. Resource Data Template
   • Details on current and planned resources to meet LSE’s targets
NEXT STEPS

• Present final scenarios for Approval at July 2020 Board meeting

• Reserve August 2020 Board meeting for any follow-up questions
Regular Agenda

11. Board Members’ Reports (Discussion)
Regular Agenda

Adjourn