Peninsula Clean Energy Board of Directors Meeting

March 26, 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)
• Staffing Update
• PCE Assistance
• COVID-19 Update
  • PCE Staff and Operations
  • Load Impact Analysis
• Upcoming Rate Changes
• PG&E Bankruptcy Update
• Merced County Update
• Resiliency Program Outreach
• Wright Solar Ribbon Cutting
• Upcoming Meetings
Staffing Update

Currently recruiting for:

- Manager, Distributed Energy Resource Strategy
- Regulatory Analyst
PCE Assistance

• Presenting proposal tonight to assist CARE/FERA customers

• #SanMateoStrong – provide assistance from PCE?

• What other CCAs are doing

• Other thoughts for PCE?
COVID-19 Update

• PCE staff all working from home, utilizing RingCentral’s videoconferencing capabilities
• Call center continues to operate
• Disconnections stopped by PG&E
  • PCE had stopped sending non-paying customers back to PG&E over a year ago
• PG&E proposing extended payment terms
  • Concern about payment “waterfall”
COVID-19 Load Impact Analysis

- Overall load
- Changes by Customer Type
- Load Shape Changes
PCE Load after Shelter-in-place order

- 6% decrease in Total PCE load compared to last week of Feb.
  - 20% decrease in commercial load
  - 16% increase in residential load

<table>
<thead>
<tr>
<th>Customer Class</th>
<th>2/24/2020</th>
<th>3/16/2020</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural</td>
<td>556</td>
<td>623</td>
<td>12%</td>
</tr>
<tr>
<td>Industrial</td>
<td>5438</td>
<td>4494</td>
<td>-17%</td>
</tr>
<tr>
<td>Large Commercial</td>
<td>15004</td>
<td>12028</td>
<td>-20%</td>
</tr>
<tr>
<td>Medium Commercial</td>
<td>10733</td>
<td>8454</td>
<td>-21%</td>
</tr>
<tr>
<td>Residential</td>
<td>26551</td>
<td>30691</td>
<td>16%</td>
</tr>
<tr>
<td>Small Commercial</td>
<td>10176</td>
<td>8151</td>
<td>-20%</td>
</tr>
<tr>
<td>Street Lights-Other</td>
<td>222</td>
<td>215</td>
<td>-3%</td>
</tr>
<tr>
<td>Total PCE (MWh)</td>
<td>68680</td>
<td>64656</td>
<td>-6%</td>
</tr>
</tbody>
</table>
Weekly Load

- 6% decrease in Total PCE load in week of Mar 16th compared to last week of Feb and first two weeks of Mar
Daily Load

- Decrease in daily load compared to same weekdays in the previous 3 weeks.
Weekly Load by Customer Type

Weekly Load

<table>
<thead>
<tr>
<th></th>
<th>2/24/2020</th>
<th>3/16/2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load (MWh)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small Commercial</td>
<td>10,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Medium Commercial</td>
<td>15,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Large Commercial</td>
<td>20,000</td>
<td>25,000</td>
</tr>
<tr>
<td>Residential</td>
<td>25,000</td>
<td>30,000</td>
</tr>
</tbody>
</table>
Load Shapes

Total PCE

Residential

Large Commercial

Medium Commercial

2/24/2020

3/16/2020
Residential Load Shape

Load Shape by Week, Customer Class = Residential
Upcoming Rate Changes

• PG&E Advice Letter March 13, 2020
  • PCIA increase to capped amount of 0.5 cents/kWh effective May 1, 2020
  • Changes to Generation Rates – overall rate neutral for PCE
  • Approval to board at April 23 meeting

• PCIA Trigger
  • Under discussion at CPUC
PG&E Bankruptcy Update

- Governor withdrew objections and is supporting current plan
- $13.5 billion settlement for wildfire victims funded 50% by PG&E stock
- On Monday, PG&E pleaded guilty to 84 counts of involuntary manslaughter in Butte County – fine of $4 million, to be paid out of fire victims fund
- Plan of Reorganization and Disclosure Statement will be sent out shortly
- People entitled to vote on the plan will receive ballots, due on May 15, 2020
- CPUC proceeding in process to determine if plan meets requirements of AB1054
- BK process must be complete by June 30, 2020 for PG&E to access $21 billion state wildfire fund.
- PG&E under probation in federal court for San Bruno accident
Merced County Update

- PCE staff presentation to Los Banos City Council on March 18 currently delayed until May 20

- Board subcommittee meeting to evaluate governance, JPA, synergies
Resiliency program outreach

• Need to reach medically vulnerable customers for solar+storage backup under PCE’s $10 million, 3 year resiliency program

• Working with County Public Health Department

• Which non-profits in your jurisdictions should we also partner with?
Wright Solar Ribbon Cutting

Please note that this event has been put on hold.
New date likely in October
Upcoming Meetings

These meetings will be held by video/teleconference

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

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

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

3. Citizens Advisory Committee Report (Discussion)
Regular Agenda

4. Audit and Finance Committee Report (Discussion)
5. Selection of Chair and Vice Chair (Action)
6. Approve an on-bill credit of $100 to California Alternate Rates for Energy (CARE) and Family Electric Rate Assistance (FERA) customers on their next bill, in an amount not to exceed $3.1 Million (Action)
Bill Relief Credit for CARE/FERA Customers

Board Meeting March 26, 2020
Shelter in Place Community Impacts

- Schools closed throughout the County, students now home
- All residents ordered to either work from home or suspend work if not employed in an “essential” business
- Many service industry employees severely impacted with total loss of work or significantly reduced hours
- CARE/FEWA recipients more likely to be employed in the most impacted industries
Shelter in Place Energy Impacts for Residents

- Whole family home 24 hrs day vs 12 -15 hrs day
- Increased load associated with ramp up of WFH and homeschooling activities
- Exact impacts are difficult to model but overall home energy usage is likely to increase
- CARE/FERA customers are more likely to be impacted with job loss and less likely to be able to absorb additional costs
Week One Residential Load Impacts

Changes in Residential Load following Shelter-In-Place Order

- **Week of 3/16/20 - 3/23/20**
- **Week of 3/11/19 to 3/18/19**

<table>
<thead>
<tr>
<th>Day</th>
<th>Average Energy Usage (kWh/meter)</th>
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</thead>
<tbody>
<tr>
<td>Monday</td>
<td>16</td>
</tr>
<tr>
<td>Tuesday</td>
<td>16</td>
</tr>
<tr>
<td>Wednesday</td>
<td>18</td>
</tr>
<tr>
<td>Thursday</td>
<td>14</td>
</tr>
<tr>
<td>Friday</td>
<td>14</td>
</tr>
<tr>
<td>Saturday</td>
<td>16</td>
</tr>
<tr>
<td>Sunday</td>
<td>14</td>
</tr>
<tr>
<td>Monday</td>
<td>16</td>
</tr>
</tbody>
</table>
## CARE/FERA Customer Distribution

<table>
<thead>
<tr>
<th>CITY</th>
<th>PERCENTAGE CARE/FERA ENROLLED</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLMA</td>
<td>58.49%</td>
</tr>
<tr>
<td>EAST PALO ALTO</td>
<td>40.98%</td>
</tr>
<tr>
<td>UNINCORPORATED</td>
<td>16.87%</td>
</tr>
<tr>
<td>DALY CITY</td>
<td>16.32%</td>
</tr>
<tr>
<td>REDWOOD CITY</td>
<td>14.75%</td>
</tr>
<tr>
<td>HALF MOON BAY</td>
<td>14.04%</td>
</tr>
<tr>
<td>S. SAN FRANCISCO</td>
<td>13.92%</td>
</tr>
<tr>
<td>SAN BRUNO</td>
<td>12.76%</td>
</tr>
<tr>
<td>SAN MATEO</td>
<td>9.44%</td>
</tr>
<tr>
<td>MILLBRAE</td>
<td>8.07%</td>
</tr>
<tr>
<td>PACIFICA</td>
<td>7.96%</td>
</tr>
<tr>
<td>BRISBANE</td>
<td>6.82%</td>
</tr>
<tr>
<td>MENLO PARK</td>
<td>6.81%</td>
</tr>
<tr>
<td>BURLINGAME</td>
<td>5.58%</td>
</tr>
<tr>
<td>BELMONT</td>
<td>4.68%</td>
</tr>
<tr>
<td>FOSTER CITY</td>
<td>4.57%</td>
</tr>
<tr>
<td>SAN CARLOS</td>
<td>3.48%</td>
</tr>
<tr>
<td>HILLSBOROUGH</td>
<td>0.99%</td>
</tr>
<tr>
<td>AHERTON</td>
<td>0.76%</td>
</tr>
<tr>
<td>PORTOLA VALLEY</td>
<td>0.70%</td>
</tr>
<tr>
<td>WOODSIDE</td>
<td>0.14%</td>
</tr>
</tbody>
</table>
Bill Relief Credit Details

• Peninsula Clean Energy staff is proposing a $100 On-Bill Credit to be applied to all active customers currently enrolled in CARE/FERA as of March 20, 2020
• Credit would be applied directly to customer accounts on their electricity bill by our billing partner, Calpine
• If approved, credit would roll-out to customers on statements starting no later than April 10th, 2020 (10 business days processing)
• As of Friday March 20th, 2020, a total of 30,381 customers are receiving CARE/FERA discounts from PG&E
• Total cost for current proposal would be $3,038,100
Bill Relief Credit Logistics

• $100 will be issued via an ‘On Bill Credit’ on the Peninsula Clean Energy details page of the bill
• Issuing this way ensures all eligible customers receive the credit quickly and efficiently
• Credit will be applied to Peninsula Clean Energy Generation charges first, excess (if any) will roll through to remaining PG&E charges
  • Average PCE Charges for CARE/FERA customers in February were $34.72
Bill Relief Credit Notifications

• Customers will receive a letter letting them know that the credit is coming
• An email will also be sent for customers who have an email address on their account
• Blog post and Newsletter article are also being planned
• Press release set to be issued on Friday pending Board approval of the Resolution
Future Considerations

• Only applicable to customers who were eligible and enrolled in CARE/FERA as of March 20, 2020
• Enrollments in CARE/FERA programs are likely to increase over the coming weeks as more individuals and families qualify for financial assistance
  • The Board can consider modifying the resolution if the members deem it appropriate to increase the requested amount to include customers who become CARE/FERA customers after the March 20, 2020 cutoff date
Regular Agenda

7. Approve Second Investment Manager (Action)
Current Bank/Investment Accounts

PCE currently has the following Cash/Investment Accounts:

- Wilmington Trust Lockbox Account – All inflows from PG&E are sent here on a daily basis
- First Republic Bank Operating Account – Primary account for all operations (payroll, energy vendors, accounts payable, etc.)
- First Republic Bank Savings Account – used primarily for inflows from lockbox account
- First Republic Bank Investment Account – holds reserves and funds in excess of funds necessary for ongoing operations. Invests in accordance with PCE's Investment Policy
Investment Account

First Republic Bank Investment Account:

- Initially funded with $40 million in April 2018
- Grown to over $160 million as of end of February 2020

Audit & Finance Committee directed Staff to look to add a second investment manager to diversify funds
Investment Manager RFP

Summary

- RFP Release date – December 20, 2019
- RFP Submittal date – February 7, 2020
- 7 firms expressed interest
- 6 firms submitted proposals
Audit & Finance Committee – Evaluation/Recommendation

• Conducted detailed review of proposals with Larry May and Donna Colson. They determined that PFM Asset Management was uniquely qualified to provide the services that PCE needs.

• March 9, 2020 Audit & Finance Committee Meeting
  • Presented findings and evaluation summary to full committee
  • Invited PFM Asset Management LLC to present and answer questions
  • Committee recommended retaining PFM Asset Management LLC as PCE’s second investment manager and transferring 40-60% of PCE’s Investment funds to PFM
About PFM

• Started in 1989
• $142.3 billion assets under management
• 170 clients in CA, mostly public agencies
• SF-based account team
• Key Account manager works with Cities of Millbrae, Burlingame, and San Mateo
• Firm provides investment management services to County of San Mateo managing more than 85% of the County’s $5.8 billion portfolio
Recommendation

Approve:

• Retention of PFM Asset Management LLC as a second investment manager to initially manage 40-60% of PCE’s investment funds, and

• Direct Treasurer to execute any documents necessary to establish accounts, relationship and management
Regular Agenda

8. Approve Lyft EV (Electric Vehicle) Contract (Action)
Ride-Hailing Electrification Pilot Program Proposal

Board of Directors
March 26, 2020
Ride-Hail Electrification Pilot: Request

Program: Ride-Hail Electrification Pilot Program

Requests:
• Approve the proposed Ride-Hail Electrification Pilot Program, and
• Authorize the PCEA CEO to enter into an agreement with FlexDrive, a Lyft rental partner

Amount: Up to $500,000
San Mateo County Emissions

2018 "Back of Envelope" Calculation

- Upstream fugitive emissions are not accounted for so NG impact is likely significantly higher.
- Air travel and embedded carbon of products not included

- Transportation & Equipment: 61%
- Natural Gas: 20%
- Building: 7%
- Electricity: 15%
- Waste & Water: 4%

2015 RICAPS EMISSIONS INVENTORY
Transportation Emissions Detail

2019 Transportation GHG Emissions

- Personal Pax Cars: 33%
- Rental Pax Cars: 5%
- Com. Pax Cars: 2%
- Gov. Pax Cars: 1%
- Personal LD Truck/SUV: 21%
- Com. LD Truck/SUV: 2%
- HD Trucks: 7%
- MD Trucks: 15%
- Buses: 2%
- All Others: 10%

Ride-Hail drivers = 100,000 – 200,000 daily vehicle-miles travelled in San Mateo County

Source: CARB Model for 2019 for San Mateo County
High-Level Roadmap: Transportation

- **Transportation Electrification**
  - **Current**
    - EV Ride & Drive Campaign
    - New EV Dealer Incentive Program
    - DriveForward Electric (Low Income EV Program)
    - EV Charging Infrastructure Program (in development)
  - **Pilots**
    - Smart charging
    - Low Power charging
  - **Forthcoming**
    - Curbside charging Pilot
    - Municipal Fleets
    - Transportation Network Companies (Ride-Hailing)
Ride-Hailing
Ride-Hailing in the News

Los Angeles Times
Taking an Uber or Lyft pollutes more than driving, California finds. Next stop: Regulations

CITYLAB

The Union of Concerned Scientists estimates that the environmental impact of Uber and Lyft rides is 69% worse than the transportation modes they replace.
Climate Impact

• 2-3x GHG impact than personal autos*
• Major emissions reductions potential from EVs **
• 35% of DCFC charging at non-Tesla stations are ride-hail drivers *

* UC Davis, 2019
** Union of Concerned Scientists
Pilot Goals

1. High visibility EV ride-hailing demonstration
2. Reduce emissions
3. Deliver underserved community benefits
4. Assess approach for full ride-hail electrification
5. Enhance passenger and driver EV awareness
Target Outcomes

1. 100 rideshare drivers in EVs
2. Detailed utilization and charging data
3. Program evaluation with recommendation for ongoing program

Environmental and Community Benefits:
1. Over 200,000 total gallons of gas avoided
2. Approximately 2,000 tons of GHG avoided
3. Over $750,000 combined savings to ride-hail drivers
Program Design

Funds Charging

Marketing

Data

EVgo

FAST CHARGING

Free Charging

Drivers

Vouchers

Fund Vouchers

flexdrive

PENINSULA CLEAN ENERGY
Timeline

• March: Pilot proposal to BOD
• April-May: Contracting
• May – July: Vehicle acquisition and setup
• July: Pilot program launch
• Jul – Jun 2021: Pilot administration and evaluation
• Spring 2021: Assessment
Ride-Hail Electrification Pilot: Request

**Program:** Ride-Hail Electrification Pilot Program

**Requests:**
- Approve the proposed Ride-Hail Electrification Pilot Program, and
- Authorize the PCEA CEO to enter into an agreement with FlexDrive, a Lyft rental partner

**Amount:** Up to $500,000
9. Review Strategic Plan and Provide Direction (Discussion)
PCE Strategic Plan Status

• March 13 – review draft strategic plan by Board Strategic Planning Subcommittee

• March 26 – PCE Board of Directors review mission, vision, and organizational priorities and provide direction

• April 23 – PCE Board of Directors approve Strategic Plan

• May – implementation and development of workplans by PCE staff
PCE Board direction requested

- Mission Statement
- Vision Statement
- Organizational Priority 1
  - Definition of “carbon free”
Our Mission & Vision

*Board Input Needed*
Please review the mission and vision statement options and determine which ones you prefer. We will discuss all feedback at the upcoming Board meeting.

**Our Mission**

Option A
Peninsula Clean Energy is San Mateo County’s not-for-profit, locally controlled electricity provider. We are reducing greenhouse gas emissions by expanding access to sustainable energy solutions at competitive rates.

Option B
To reduce greenhouse gas emissions by expanding access to sustainable energy solutions at competitive costs

Option C (recommended by staff)
To reduce greenhouse gas emissions by expanding access to sustainable and affordable energy solutions

**Our Vision**

Option A
A carbon-free county in a carbon-free world

Option B
Creating a sustainable world by making clean energy the easy choice

Option C (recommended by staff)
A sustainable world with clean energy for everyone
Organizational Priorities

**Priority One**
Design a power portfolio that is sourced by 100% carbon free energy by 2025 that aligns supply and consumer demand a 24 x 7 basis

**Priority Two**
Contribute to San Mateo County reaching the state’s goal to be 100% greenhouse gas-free by 2045

*Board Input Needed:*
The Board will determine how we define “carbon free energy” so we can provide clear strategic direction for staff and other stakeholders. Please review the background definitions provided by the staff (see attachment). We will discuss and decide the appropriate definition at the upcoming Board meeting.
Background on Carbon Free Energy Types

Strategic Plan Update

Jan Pepper, CEO
Siobhan Doherty, Director of Power Resources
March 26, 2020
CURRENT GOALS

• Peninsula Clean Energy’s current targets for our energy portfolio are as follows:
  - 100% GHG free by 2021; and
  - sourced by 100% CA RPS eligible renewable energy by 2025 on a time coincident basis, provided it is economically viable.
2019 AVERAGE HOURLY LOAD
Renewable: electricity from a source that is not depleted when used, and not derived from fossil or nuclear fuel

GHG-free: electricity that does not emit carbon or other greenhouse gases

<table>
<thead>
<tr>
<th>Renewable</th>
<th>GHG Free</th>
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</thead>
<tbody>
<tr>
<td>Biomass &amp; Waste</td>
<td>Solar</td>
</tr>
<tr>
<td>Geothermal</td>
<td>Wind</td>
</tr>
<tr>
<td>Solar</td>
<td>Small / Eligible Hydro</td>
</tr>
<tr>
<td>Wind</td>
<td>Large Hydro</td>
</tr>
<tr>
<td>Small / Eligible Hydro</td>
<td>Nuclear</td>
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</table>
# ELECTRICITY GENERATION SOURCES

<table>
<thead>
<tr>
<th>Technology</th>
<th>RPS Renewable?</th>
<th>GHG-free?</th>
<th>Emissions (lbs/MWh)</th>
<th>Ability to procure beyond 2025?</th>
<th>Ability to schedule on an hourly basis?</th>
<th>New Build</th>
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</thead>
<tbody>
<tr>
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<td>✓</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Wind</td>
<td>✓</td>
<td>✓</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Biomass / Biogas</td>
<td>✓</td>
<td>✗</td>
<td>22</td>
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<tr>
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<td>✗</td>
<td>198</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Small Hydro (&lt;30 MW)</td>
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<td>✓</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Large Hydro (&gt;30 MW)</td>
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<td>✓</td>
<td>0</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Nuclear</td>
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<td>✓</td>
<td>0</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>
RENEWABLE GENERATION PROFILES

Hourly Average Breakdown of Renewable Resources

This graph shows the production of various types of renewable generation across the day.
CURRENT APPROACH

• Currently, we account for GHG-Free and Renewable Energy on an annual basis. For example:
  o Current target is 50% renewable
  o Annual Load is 3,600 GWh
  o We purchase 1,800 GWh over the course of the year

• In some hours, we may receive more renewables than our 50% target and in other hours, we receive less than our target

• As we transition to time-coincident, we will try to jigsaw together appropriate resources in each hour to meet load
MATCHING GENERATION TO LOAD

A day of inconsistent hourly matching with carbon-free power
Example from Chile data center on a day in August 2017

- Grid carbon-based energy
- Grid carbon-free energy
- Google-contracted solar energy
- Excess Google-contracted solar energy

Hourly electricity use (Megawatt-hours)

12AM  NOON  11PM
PCE LOAD SHAPE AND RESOURCES - 2025
SCHEDULING & CONTROL

• To meet our time-coincident goal, we need data and control over when energy is being delivered to the electricity grid for each of the projects in our portfolio.

• This allows us to match projects with different generation shapes and variabilities with energy storage options to meet customers’ energy demand in each hour.

• Different contract structures provide different amounts of data and control.
RECOMMENDATION

• Staff recommends that the definition of “carbon-free” energy for meeting the 100% time-coincident goal in 2025 and beyond be *California RPS-eligible renewable energy*

  o To match generation with customer energy use, we need to be able to control when resources are generating energy on an hourly basis
  o To date, we are unable to contract with large hydro sources to have a guaranteed hourly schedule of energy deliveries
  o Moves the needle in terms of “innovation” to accomplish this goal
  o We will be working on demand-side tools as well, such as incenting energy use when rates are lower, V2G / V2H as examples
  o Revisit goal with the board depending on the economic viability of this approach
Organizational Priorities

**Priority One**
Design a power portfolio that is sourced by 100% carbon free energy by 2025 that aligns supply and consumer demand a 24 x 7 basis

**Priority Two**
Contribute to San Mateo County reaching the state’s goal to be 100% greenhouse gas-free by 2045

* Carbon-Free = California RPS-Eligible Renewable Energy that can be scheduled by PCE on an hourly basis
10. Integrated Resource Plan (IRP) Update (Discussion)
Regular Agenda

11. Board Members’ Reports (Discussion)
Regular Agenda

Adjourn