Peninsula Clean Energy
Board of Directors Meeting
March 22, 2018
Call to order / Roll call

Public Comment

Action to set the agenda and approve consent items
1. Chair Report (Discussion)
2. CEO Report (Discussion)
Personnel Update

• New Employees coming on board:
  – Chelsea Keys, Power Resources Manager, starting March 26
  – Rafael Reyes, Energy Programs Director, starting April 9

• Search for Interim CFO

• Search for permanent CFO
Product Updates

• Rate adjustments effective March 15, 2018
  – Maintaining 5% discount compared to PG&E for ECOplus

• ECO100 green-e certified
  – Product content from new renewables / additionality resources
PCE’s 2018 Renewables RFO Update

• Offers received on February 9, 2018
  • 113 unique solar offers, including solar + storage
  • 23 unique wind offers, including wind + storage
  • 5 other renewable offers
• PCE evaluation of offers ongoing
• Short-list notification has been pushed out from March 9, 2018 to April 9, 2018
Financial Highlights (as of Feb 28, 2018)

- February revenue: $15.7 million
- February expenses: $13.9 million
- Increase in net position: $1.79 million
- Current net position: $58.97 million
Other Highlights

- CA Energy Storage Association (CESA) Market Development Forum with Jeff Aalfs – Feb 28
- City Managers Association Lunch – March 8
- San Mateo Leadership Environment Day – March 9
- SamTrans re EV infrastructure – March 20

- Regulatory meetings:
  - CPUC All-Party Meeting with Commissioner Guzman Aceves on DAC/Community Solar – March 13
  - call with Commissioner Randolph’s advisor – March 13
  - Commissioner Rechtschaffen’s advisor – March 13
  - Commissioner Peterman’s Advisor – March 14
CalCCA Update

- Meeting between CalCCA members and Renewable Energy Advocates – March 21
- 12 new CCAs expected to launch in 2018, plus 2 expansions of existing CCAs
- CalCCA recruiting for Director of Operations and Communications – see CalCCA website for details
- Active work on PCIA testimony due April 2
Upcoming Events

• PCE to receive 2018 Sustainability Award at Sustainable San Mateo County Awards Dinner Thursday March 29
  – 14 PCE staff attending
  – 6-7 Board members attending
    • Jeff Aalfs, Dave Pine, Wayne Lee, Ian Bain, Gary Pollard, Catherine Mahanpour, Rick DeGolia

• SVLG’s Silicon Valley Energy and Sustainability Summit - May 24, Oracle

• Business of Local Energy Symposium - June 4-5, Sacramento

• Precourt Energy Institute’s Silicon Valley Energy Summit – June 21, Stanford
3. Citizens Advisory Committee Report (Discussion)
4. Marketing and Outreach Report (Discussion)
# Opt-outs by City

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<tr>
<th>CITY</th>
<th>Eligible Accts</th>
<th>Total</th>
<th>TOTAL OPT OUT %</th>
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<td>PORTOLA VALLEY INC</td>
<td>1,670</td>
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<td>SAN BRUNO INC</td>
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<td>SO SAN FRANCISCO INC</td>
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<td>DALY CITY INC</td>
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<td>SAN MATEO INC</td>
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<td>COLMA INC</td>
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<td>MENLO PARK INC</td>
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<td><strong>Grand Total</strong></td>
<td><strong>300,739</strong></td>
<td><strong>7,089</strong></td>
<td><strong>2.36%</strong></td>
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Advisory Committee Recruitment

• Focusing recruitment on:
  – South San Francisco
  – Daly City
  – San Bruno
  – East Palo Alto
  – DAC program interest

• 3 year term

CAC Applications Due April 15th
New page on PCE website provides links to:

- Energy discounts
- Energy efficiency programs
- Low-income solar resources

Great resource to share through your city!

www.peninsulacleanenergy.com/lowerbill
Outreach Small Grants Pilot
Earth Day Prep

- Volunteer appreciation and outreach training: **Tues March 27th 6:30-9:00 pm, PCE office**
April Volunteer Opportunities

**Saturday 14th**
Marine Science Earth Day, Redwood City (1:30-5:30pm)

**Saturday 21th**
Daly City Earth Day (9-12pm)
Pacifica Earth Day (11-3pm)

**Saturday 28th**
STEAM Fest, Redwood City (10:30-1pm and 1-3:30pm)

**Sunday 29th**
Kermes Día del Niño, North Fair Oaks (11-3pm)
Outreach to Families and Youth

Congratulations to the winners of PCE’s special STEM Fair award!

Georgia Hutchinson (left)
*Data-Driven Dual Access Solar Tracker*

Charlotte Sullivan (right)
*The Power of Sun and Wind*

Both are in 7th grade
5. Regulatory and Legislative Report (Discussion)
Regulatory and Legislative Report
March 22, 2018

Joseph Wiedman
Director of Regulatory and Legislative Affairs
February/March Regulatory Activities

– Filings

• PCE filed **Opening** and **Reply Comments** on a Proposed Decision and Alternate Proposed Decision in the Commission’s NEM 2.0 docket. Both decisions authorize programs to serve disadvantaged communities. PCE supported the adoption of community solar as a means to serve disadvantaged communities. (NEM 2.0, R.14-07-002)

• PCE, as part of CalCCA, filed a **Response** to a Petition for Modification of the Commission’s Code of Conduct. (SB 790, R.12-02-009)

• PCE, as part of a coalition of CCAs, filed **Comments** and **Reply Comments** concerning implementation of Resolution E-4907, revisions to the Cost Allocation Methodology (CAM), and the idea of centralized buying of Resource Adequacy products.

• PCE, as part of a coalition of CCAs, filed **Comments** on Energy Commission Staff’s Draft Proposal for implemented AB 1110 regulations concerning power content disclosure requirements. (Docket 16-OIR-05)
Meetings with CPUC Commissioners and staff regarding the Commission decisions authorizing programs to serve disadvantaged communities:

- **March 13th** – Jan Pepper, Jeff Aalfs, and Joseph Wiedman attended an All-Party Meeting hosted by CPUC Commissioner Martha Guzman-Aceves. CPUC Commissioner Randolph attended also.

- **March 13th** – Jan Pepper and Joseph Wiedman met with Joanna Grubman, Energy Advisor to CPUC Commissioner Liane Randolph.

- **March 13th** – Jeff Aalfs and Joseph Wiedman met with Yulia Schmidt, Energy Advisor to CPUC Commissioner Clifford Rechtschaffen.

- **March 14th** – Jan Pepper and Joseph Wiedman met with Shannon O’Rourke, Energy Advisor to Commissioner Carla Peterman.
February/March Legislative Activities

• CalCCA is actively reviewing proposed legislation

• Current priorities:
  – AB 813 (Holden) – Regionalization study/authorization
  – AB 2693 (Quirk) – Contracting with natural gas powerplants
  – SB 1399 (Wiener) – Authorizes commercial/industrial virtual net metering
  – SB 1136 (Hertzberg) – Spot bill likely to focus on resource adequacy
  – SB 1912 (Rodriguez) – Eliminates the ability of CCA JPA members to limit their debt and liabilities to CCA JPA
6. Appointments to the Executive Committee and other Standing Board Committees (Action)
7. Presentation on Cost Allocation Mechanism (CAM) and Resource Adequacy (RA) (Discussion)
Presentation Overview

1. Energy & Capacity
2. Grid Reliability
3. Resource Adequacy (RA) Requirements
4. Cost Allocation Mechanism (CAM)
5. Emerging Trends
1. Energy & Capacity

• Energy – Amount of electricity produced or consumed (Units: Watt-hours, kWh, MWh, GWh)

• Capacity – Rate at which electricity is produced, transmitted, or consumed (Units: Watts, kW, MW, GW)
1. Energy & Capacity

Objective?
2. Grid Reliability

• Electricity supply and demand are defined by:
  – Location
  – Population
  – Infrastructure
  – Timing
2. Grid Reliability – Locations of Demand

- **Greater Bay Area LCR area**
  - Active OTC: 1,303 MW

- **Big Creek/Ventura LCR area**
  - Active OTC: 1,946 MW

- **San Diego LCR area**
  - Active OTC: 946 MW

- **LA Basin LCR area**
  - Active OTC: 6,722 MW

**AB 1318 Study Area**

- Coastal power plants
- Local capacity areas (generalized)
2. Grid Reliability – Locations of Supply
2. Grid Reliability – Locations of Grid
2. Grid Reliability – Timing of Demand

[Graph showing energy demand over time compared to Thanksgiving and Thursday before Thanksgiving]
2. Grid Reliability – Timing of Supply

Hourly Average Breakdown of Renewable Resources

- Solar Thermal
- Solar PV
- Wind
- Small Hydro
- Biogas
- Biomass
- Geothermal

October 28, 2015
2. Grid Reliability – Timing of Both

Figure 2: The duck curve shows steep ramping needs and overgeneration risk

Net load - March 31

- Ramp need ~13,000 MW in three hours
- Overgeneration risk

- 2012 (actual)
- 2013 (actual)
- 2014
- 2015
- 2016
- 2017
- 2018-2019
- 2020
2. Grid Reliability – When It Doesn’t Work!
2. Grid Reliability – How Do We Prevent That?

• Ensure adequate supply of both energy and capacity to meet demand

• Obligate Load-Serving Entities (LSEs) to comply

• Resource Adequacy (RA)
  – Created in 2004 (System)
  – Modified in 2007 (Local)
  – And again in 2015 (Flexible)
3. Resource Adequacy (RA)

• Three “Flavors” of RA:
  – System – Ensures enough capacity overall
  – Local – Ensures enough capacity in specific load centers (e.g. Greater SF Bay Area or LA Basin Area)
  – Flexible – Ensures capacity can be provided at rates that match demand
3. Resource Adequacy (RA)

• Who is Obligated (all LSEs):
  – Investor-Owned Utilities (IOUs)
  – Publicly-Owned Utilities (POUs)
  – Electric Service Providers (ESPws)
  – Community Choice Aggregators (CCAs)
3. Resource Adequacy (RA)

• How are the obligations made:
  – Based on CAISO study of reliability needs
  – Assigned by CPUC based on coincident share of peak load
  – Compliance is “shown” through filings to both CAISO and CPUC
3. Resource Adequacy (RA)

• What are the Requirements:

  – System (90% Annual Year Ahead & 10% Monthly Year Ahead)

  – Local (100% Annual Year Ahead)

  – Flexible (90% Annual Year Ahead & 10% Monthly Year Ahead)
4. Cost Allocation Mechanism (CAM)

- **365.1 (c) (2) (A)** Ensure that, in the event that the commission authorizes, in the situation of a contract with a third party, or orders, in the situation of utility-owned generation, an electrical corporation to obtain generation resources that the commission determines are needed to meet system or local area reliability needs for the benefit of all customers in the electrical corporation’s distribution service territory, the net capacity costs of those generation resources are allocated on a fully nonbypassable basis consistent with departing load provisions as determined by the commission, to all of the following:
  - (i) Bundled service customers of the electrical corporation.
  - (ii) Customers that purchase electricity through a direct transaction with other providers.
  - (iii) Customers of community choice aggregators.

...What does this mean?
4. Cost Allocation Mechanism (CAM)

- A means for socializing the costs and benefits of IOU capacity procurement
  - Costs and benefits shared among IOU, ESP, and CCA customers
    - But excludes POU customers
      - CPUC decides when it applies
    - Varies by IOU service area
4. Cost Allocation Mechanism (CAM)

- Applies to State identified resources “needed to meet system or local area reliability needs”

- Costs are allocated via a Non-Bypassable Charge (NBC)

- Benefits (i.e. capacity) are allocated to each LSE by reducing their individual RA obligations
4. Cost Allocation Mechanism (CAM)

• Why is CAM problematic for CCAs?
  – Jurisdiction
  – Timing
  – Planning
  – Costs
5. Emerging Trends

- Growing Complexity
  - Climate Change & Climate Policy
  - Distributed Energy Resources (DERs)
  - IOU load is shrinking as CCA load grows
  - Increasing misalignment between capacity needs and supply

- Building Tension Between Statewide Planning and Individual Actions
5. Emerging Trends

- CCAs and Grid Reliability
  - Balance community and state objectives
  - Spur adoption of distributed, carbon-free alternatives to conventional capacity
  - Stimulate and protect the local economy

- Move from compliance, to resilience
5. Emerging Trends
5. Emerging Trends
8. Board Members’ Reports (Discussion)
Adjourn