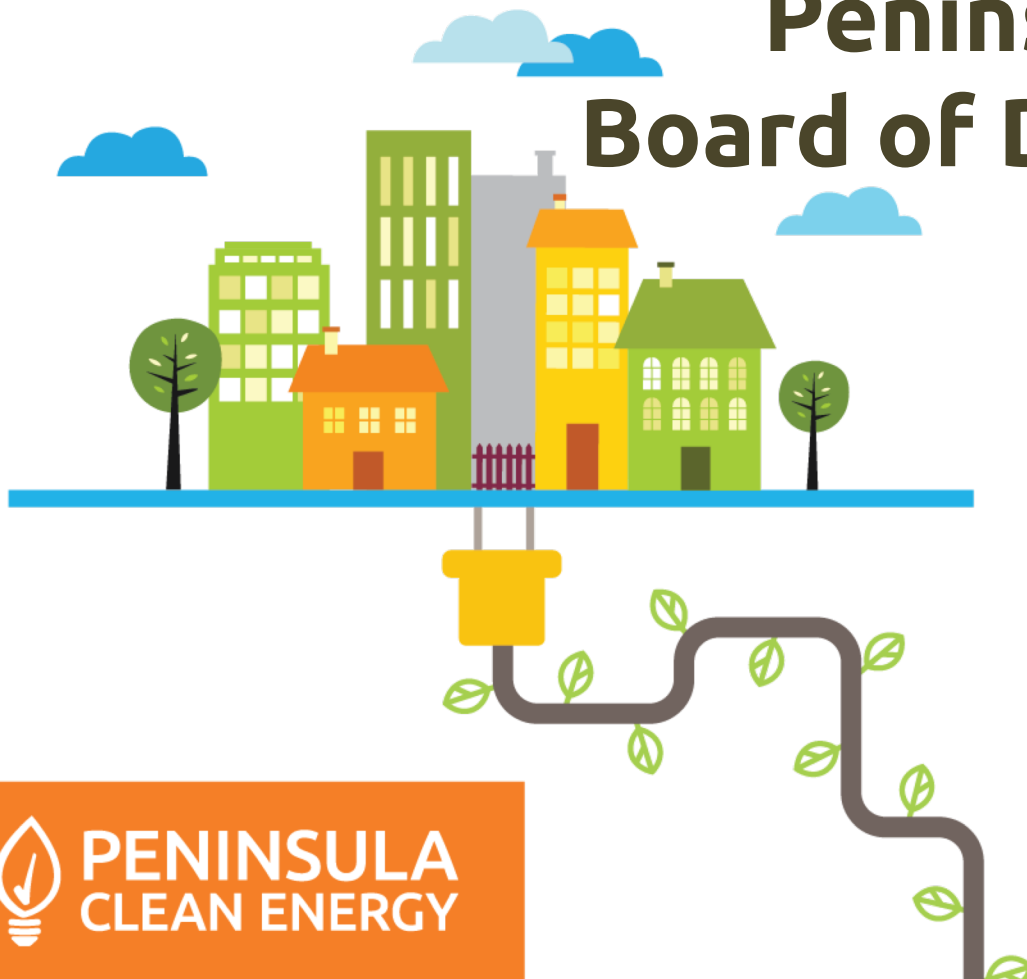


Peninsula Clean Energy Board of Directors Meeting

May 24, 2018



**PENINSULA
CLEAN ENERGY**

Agenda

Call to order / Roll call

Public Comment

**Action to set the agenda and approve
consent items**

Regular Agenda

1. Chair Report (Discussion)

Jeff Aalfs
Peninsula Clean Energy
24 May 2018

Important Events and Anniversaries

- May 27th : Jan Pepper's two-year anniversary with PCE!!
- May 24th (today): SVLG Energy and Sustainability Summit, Oracle

SVLG Energy and Sustainability Summit

- Highlights:
 - Dave Pine: Regional Resilience through partnerships (inter-agency and public-private)
 - Antonio Villaraigosa, Candidate for Governor; former Mayor of Los Angeles: “I support SB1380 (Stern)”: Climate adaptation information and transparency.
 - Carla Peterman, CPUC: EV adoption policies

Impacts of High Variable Renewable Energy Futures on Wholesale Electricity Prices, and on Electric-Sector Decision Making

Authors:

Joachim Seel*, Andrew Mills, Ryan Wiser ¹

Sidart Deb, Aarthi Asokkumar, Mohammad Hassanzadeh, Amirsaman Aarabali ²

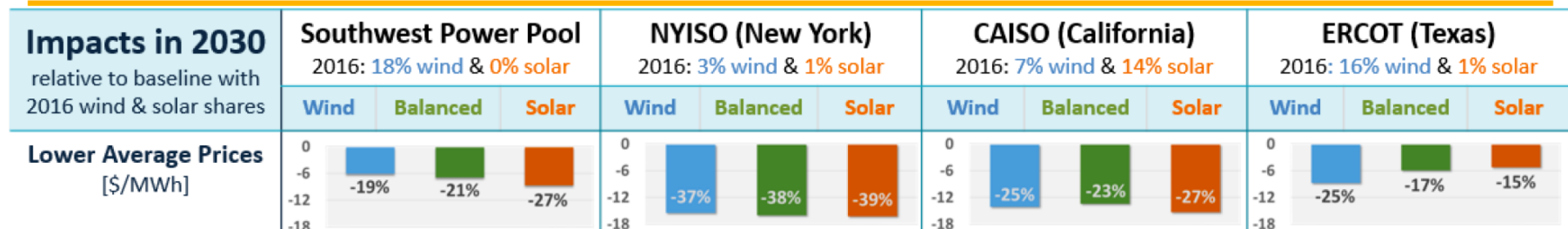
¹ Lawrence Berkeley National Laboratory

² LCG Consulting

Moderate Renewables Integration in CA leads to significantly lower prices

Wholesale Price Effects of 40-50% Wind & Solar

(**Wind:** 30% wind & 10+% solar | **Balanced:** 20% wind & 20% solar | **Solar:** 30% solar & 10+% wind)



Regular Agenda

2. CEO Report (Discussion)

Personnel Update

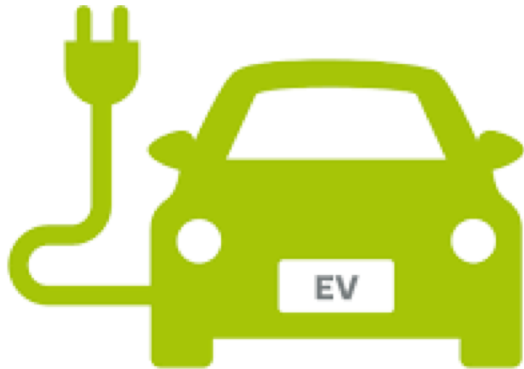
- Current recruitments:
 - Energy Programs Associate
 - Clean Energy Programs Manager
 - Regulatory Analyst
 - CFO (through search firm)
- New recruitments soon:
 - Distributed Energy Procurement



Local Programs Update

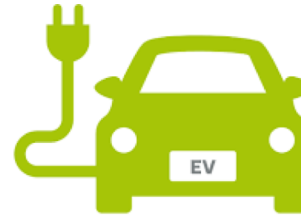
Board approved Phase 1 programs last month:

- \$745K for EV measures
- \$450K for community pilots



Local Programs: EV Measures

- Signed contract with Reach for Ride & Drive events
 - 4 corporate
 - 2 public
- Signed contract with EV Charging Pros for MUD technical assistance
- Meeting with auto dealerships in SMC
 - Met with Putnam in Burlingame
 - Arranging meetings with all others



Local Programs: Community Pilots

- Final refinement and marketing plans are under development
- Rollout expected in June



Other Updates

- Data Management Vendor:
 - Negotiating with Calpine
- Employee Handbook:
 - In final review
- Reserves Policy
 - Targeting approval in June



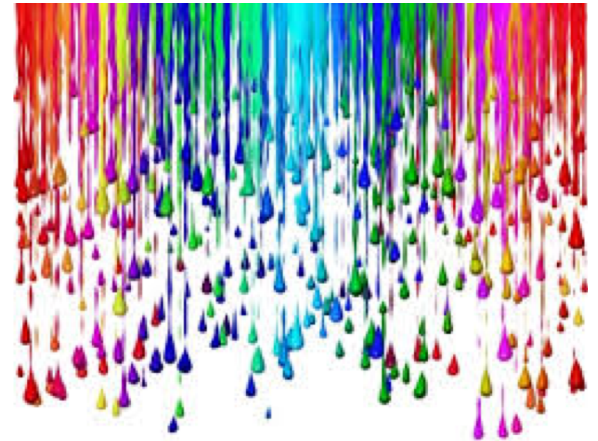
Legislative Committee – ad hoc meeting

- Met on May 16 – thank you to board members and alternates who were able to attend:
 - Pradeep Gupta
 - Rick DeGolia
 - Rick Bonilla
 - Daniel Yost
 - Julia Mates



Scheduling Board Retreat

- Propose changing date from September 22 to September 29
 - Can you make it on Sept 29?
 - If not, can your alternate?



Upcoming Events

- Business of Local Energy Symposium - June 4-5, Sacramento
- Precourt Energy Institute's Silicon Valley Energy Summit – June 21, Stanford
- CalCCA Annual Summit – Sept 5-6, Asilomar (Monterey)
- **Special Meeting June 28 at 5pm** – Cordell Stillman presentation on SCP's Drive Evergreen Program (Thanks to the CAC for requesting this presentation)
- PCE Board Retreat – **Sept 29**
- Groundbreaking for Wright Solar project – **October 11**
- CAISO Stakeholder Conference – Oct 17-18, Sacramento



Regular Agenda

3. Citizens Advisory Committee Report (Discussion)

Regular Agenda

4. Appointment of CAC Members (Action)

Regular Agenda

5. Audit and Finance Committee Report (Discussion)

Regular Agenda

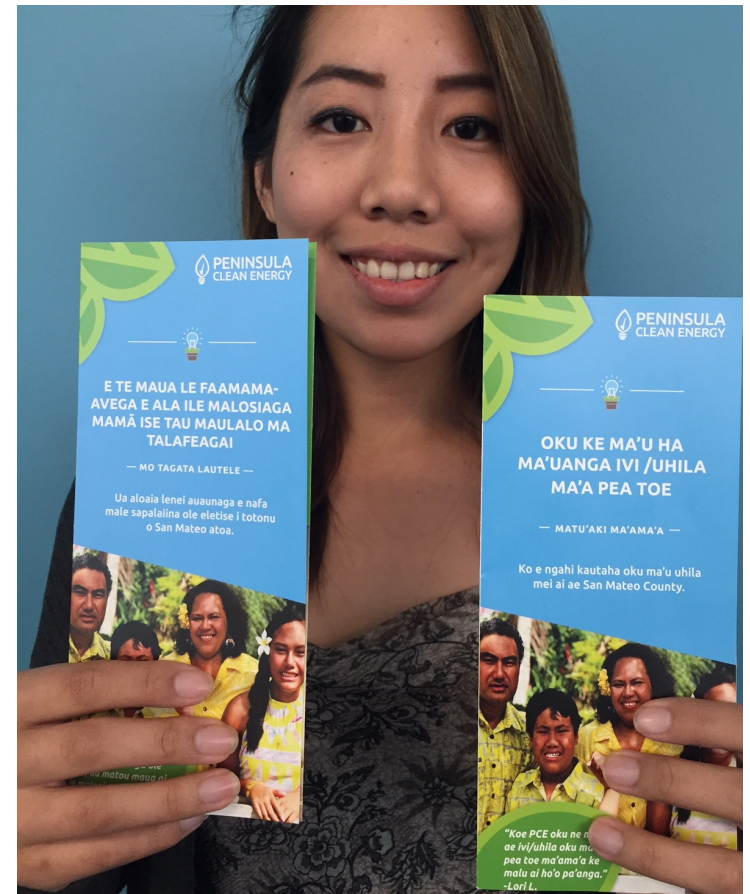
6. Marketing and Outreach Report (Discussion)

Opt-outs by City

CITY	Eligible Accts	Total	TOTAL OPT OUT %
PORTOLA VALLEY INC	1,679	99	5.90%
SAN BRUNO INC	16,424	589	3.59%
PACIFICA INC	15,436	506	3.28%
SO SAN FRANCISCO INC	24,770	799	3.23%
DALY CITY INC	33,941	976	2.88%
MILLBRAE INC	9,366	249	2.66%
HALF MOON BAY INC	4,942	129	2.61%
UNINC SAN MATEO CO	24,413	625	2.56%
EAST PALO ALTO INC	7,797	199	2.55%
SAN MATEO INC	43,972	1018	2.32%
SAN CARLOS INC	14,441	332	2.30%
BELMONT INC	11,854	270	2.28%
HILLSBOROUGH INC	4,038	82	2.03%
BRISBANE INC	2,474	50	2.02%
REDWOOD CITY INC	34,784	675	1.94%
FOSTER CITY INC	14,645	281	1.92%
BURLINGAME INC	15,422	294	1.91%
WOODSIDE INC	2,282	37	1.62%
ATHERTON INC	2,694	42	1.56%
COLMA INC	797		1.38%
MENLO PARK INC	15,752	214	1.36%
Grand Total	301,923	7,477	2.48%

Outreach Grantee Update

- Acterra translated PCE brochures into Somoan and Tongan for East Palo Alto
- Pacifica Resource Center is reaching seniors, launching social media campaign
- Rebuilding Together is including PCE in mailer to National Building Day participants
- Sound of Hope recorded radio ads in Mandarin and Cantonese
- El Concilio is tabling events with PCE materials in Spanish



PCE brochures in Samoan (left) and Tongan (right) feature Violet Saena of Acterra and her family, who are Samoan.

Solar Net Metering Bill Workshop

June 20th 6:30 pm at PCE office

Great response of 70 RSVPs: Workshop is full!

Taking wait list and scheduling additional dates



ECO100 Opt-Ups by City

ACTIVE ACCTS BY CITY	Eligible Accts	May '18			
CITY	Full Territory	RES ACT	COM ACT	ACTIVE	ECO100
ATHERTON INC	2,694	2,395	226	2,621	55
BELMONT INC	11,854	10,547	936	11,483	145
BRISBANE INC	2,474	1,911	505	2,416	75
BURLINGAME INC	15,422	13,022	1,965	14,987	306
COLMA INC	797	501	274	775	28
DALY CITY INC	33,941	30,774	1,959	32,733	59
EAST PALO ALTO INC	7,797	7,088	444	7,532	16
FOSTER CITY INC	14,645	13,304	811	14,115	115
HALF MOON BAY INC	4,942	4,173	584	4,757	82
HILLSBOROUGH INC	4,038	3,781	145	3,926	59
MENLO PARK INC	15,752	13,630	1,720	15,350	412
MILLBRAE INC	9,366	8,401	662	9,063	87
PACIFICA INC	15,436	13,976	860	14,836	112
PORTOLA VALLEY INC	1,679	1,431	142	1,573	1,472
REDWOOD CITY INC	34,784	30,295	3,372	33,667	616
SAN BRUNO INC	16,424	14,603	1,102	15,705	80
SAN CARLOS INC	14,441	11,849	2,144	13,993	241
SAN MATEO INC	43,972	38,585	3,903	42,488	566
SO SAN FRANCISCO INC	24,770	20,610	3,215	23,825	71
UNINC SAN MATEO CO	24,413	20,616	2,862	23,478	442
WOODSIDE INC	2,282	2,006	217	2,223	48
Unallocated					
Unallocated (cust type)				241	
Grand Total	301,923	263,498	28,048	291,787	5,087

VISA ECO100 Press Release

- Sent through Business Wire, received 2,500+ views
- Posted online by 260+ news outlets across the country
- Notable online publications:
 - **New York Times**
 - **Nasdaq.com**
 - **Morningstar**
 - **Silicon Valley, San Francisco, Sacramento, and LA Business Journals**
 - **San Francisco Business Times**
 - **Solar Power World**



Regular Agenda

7. Regulatory and Legislative Report (Discussion)

Regulatory and Legislative Report

May 24, 2018

Joseph Wiedman

Director of Regulatory and Legislative Affairs



PENINSULA
CLEAN ENERGY

April/May Regulatory Activities



- CalCCA rebuttal testimony in PCIA docket
- CalCCA comments and reply comments on “clean net short”
- CalCCA comments and reply comments on CCA bond methodology proposed decision
- PCE and SCP comments on congestion revenue rights
- Smart EV Charging Coalition comments on Low-Carbon Fuel Standard Credit allocations

April/May Regulatory Outreach

- CPUC Webinar on “Green Book”
- CalCCA Ex Parte with Jason Houck



April/May Legislative Activities

- CalCCA activity:
 - AB 813 (Holden) – Support
 - AB 893 (Garcia) – Oppose
 - SB 1088 (Dodd) – Oppose unless amended
 - SB 1347 (Stern) – Oppose unless amended
 - Letter to Governor's Office
 - Letter to supportive legislators



Regular Agenda

8. Update on Power Charge Indifference Adjustment (PCIA) (Discussion)

Update on PCIA

May 24, 2018

Jeremy Waen
Senior Regulatory Analyst



What is the PCIA?

“The [Power Charge Indifference Adjustment (PCIA)] is a mechanism adopted by the Commission as part of the ratemaking methodology developed to ensure that when electric customers of the investor-owned utilities (IOUs) depart from IOU service and receive their electricity from a non-IOU provider, those customers remain responsible for costs previously incurred on their behalf by the IOUs — but only those costs.”

Per P.U. Code 366.2(f)(2), these costs for CCA customers must be:

- “Net” (i.e. costs that are “above market” value)
- “Unavoidable” (i.e. costs that cannot be reduced or mitigated)
- “Attributable” (i.e. costs are specific to the customer and their timing of departure)

PCIA Rulemaking (R.17-06-026)

Commission initiated a Rulemaking (R.) 17-06-026 on June 29, 2017:

- “in order to review, revise, and consider alternatives” to the present PCIA methodology
- **Track 1** – Considers exemptions for CARE and medical baseline customers
- **Track 2** – Evaluates possible modifications of the PCIA methodology

PCIA Rulemaking (R.17-06-026)

CPUC Proceeding Process



1) Scope

2) Fact

3) Law

4) Policy Decision

PCIA Rulemaking (R.17-06-026)



Remaining Track 2 Schedule

- Fact** {
 - April 2nd – Opening Testimony
 - April 23rd – Rebuttal Testimony
 - May 7th-11th – Hearings
- Law** {
 - June 1st – Opening Briefs
 - June 15th – Reply Briefs
- Policy** {
 - Late July – Proposed Decision
 - Late August – Final Decision

CalCCA PCIA Testimony - Overview



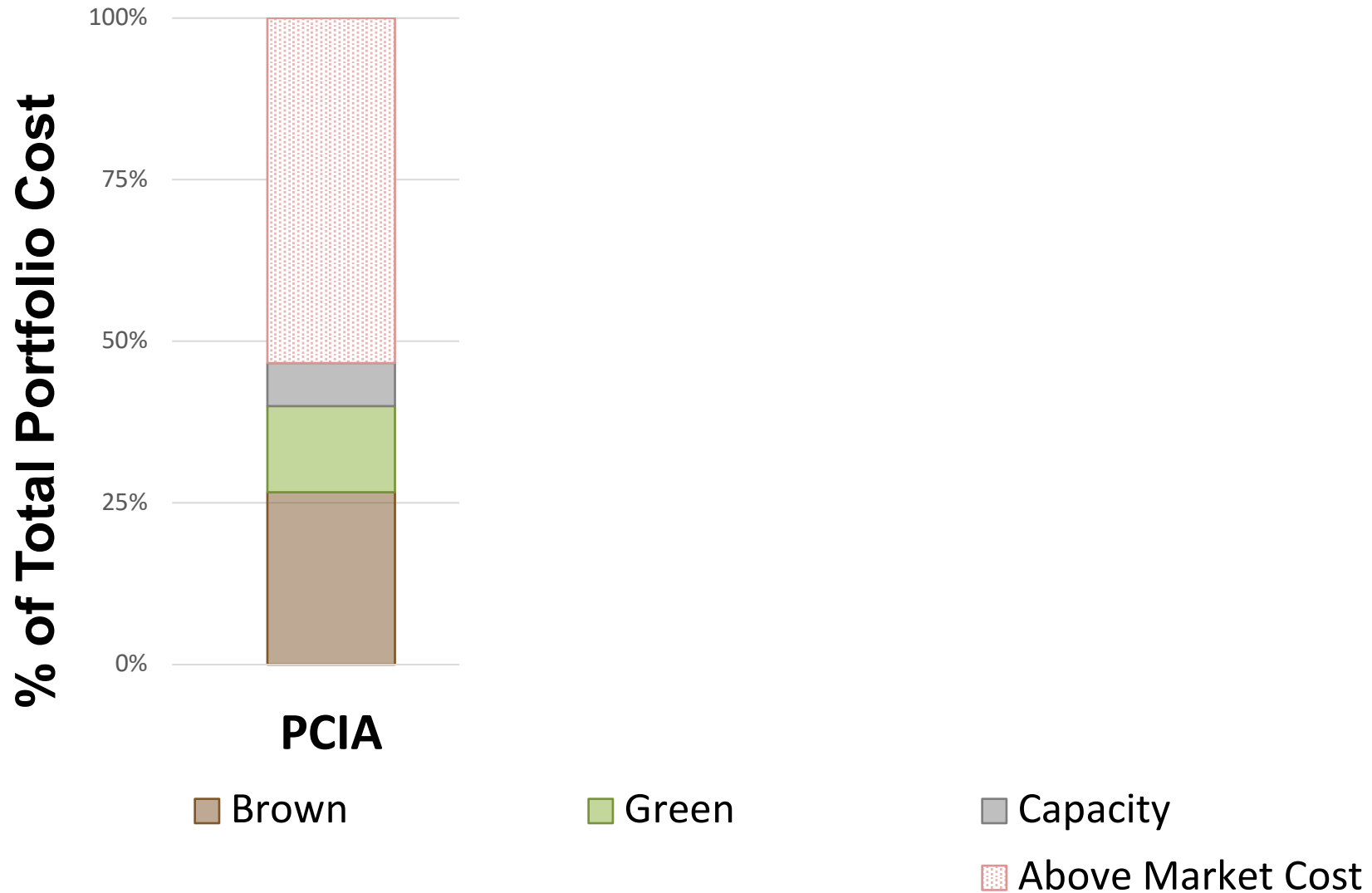
Shorter-Term Reform

- Revised Capacity Adder
- New Ancillary Service Adder
- New GHG-Free Adder

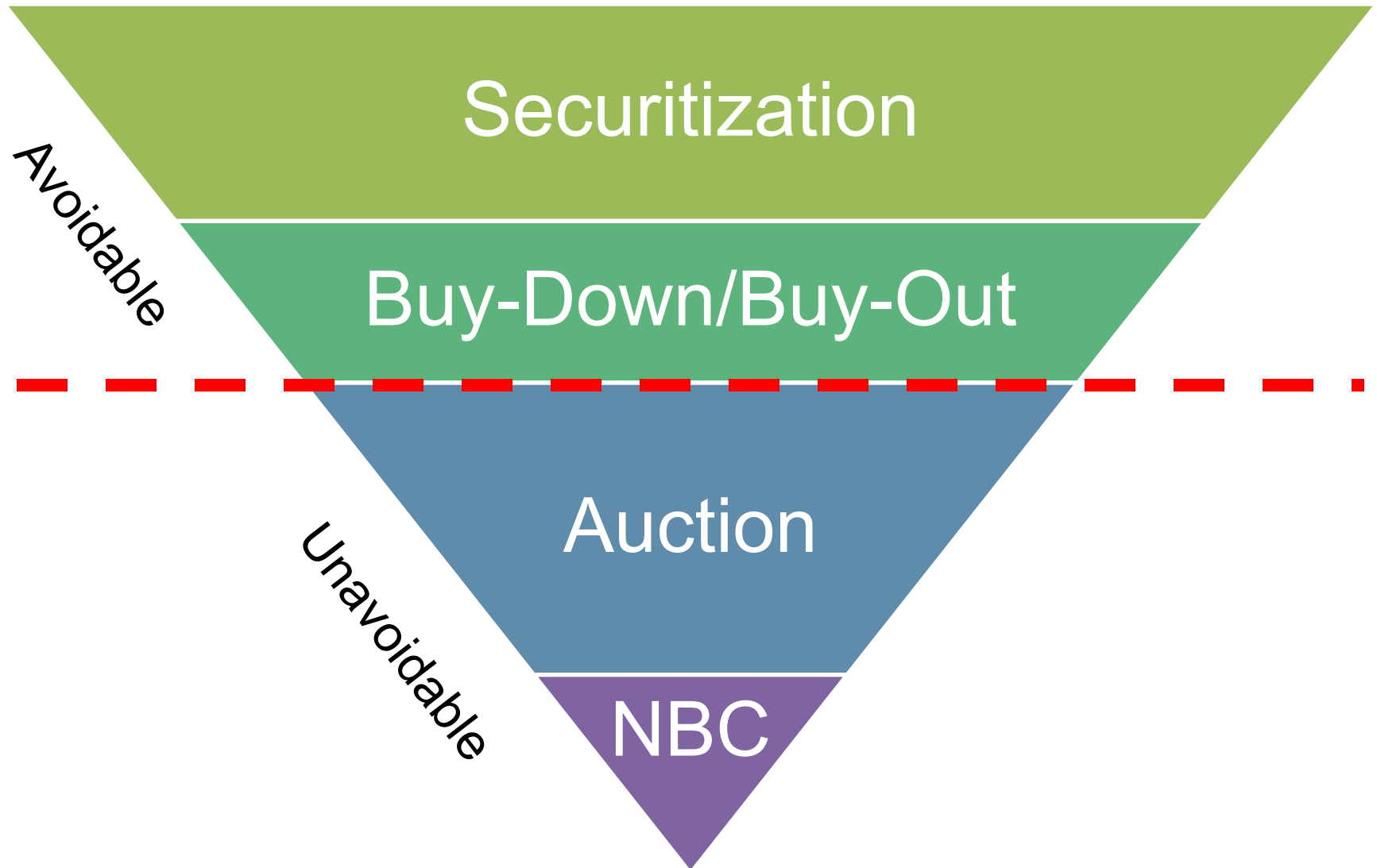
Longer-Term Reform

- Securitization
- Buy-Down/Buy-Out
- Auction

Potential Benchmark Reform



CalCCA PCIA Testimony - Overview



CalCCA PCIA Testimony - Overview

1. Benchmark Reform

- Include values of:
 - i. long-term capacity,
 - ii. ancillary services, and
 - iii. greenhouse gas-free resources
- ~\$500 M reduction in PG&E's "above market" costs

CalCCA PCIA Testimony - Overview

2. Securitization

- Focused on Utility Owned Generation (UOG)
- ~\$1.2 B in reduced costs for all PG&E ratepayers

3. Buy-Down/Buy-Out

- Focused on existing, high-cost renewables contracts
- Further reduces costs for all ratepayers

4. Staggered Auction of IOU Portfolio

- Requires IOUs to sell all renewable and GHG-free resources into a quarterly action where all Load-Serving Entities (LSEs) can bid
- Clearing prices would establish the true market value to replace need for benchmarks

CalCCA PCIA Testimony - Overview



Potential Impact on PG&E's Above Market Costs:

\$2.2 Billion -> \$512 Million

Joint IOUs' PCIA Testimony - Overview

Before...

Portfolio Allocation Mechanism (PAM)

- Forcefully allocates *costs and attributes* of IOU portfolio resources onto CCAs
- Values these attributes in short-term manner only
- Violates CCA procurement autonomy
- Fails to minimize both above-market costs and IOUs' total portfolio costs

Joint IOUs' PCIA Testimony - Overview

Now...

Green Allocation Mechanism (GAM)

- Forcefully allocates *costs and attributes* of IOUs' renewable and large hydro resources onto CCAs

Portfolio Management Mechanism (PMM)

- Forcefully allocates *costs* of gas/nuclear/energy storage IOU resources onto CCAs
- Values these attributes in short-term manner only

Next Steps



Remaining Track 2 Schedule

- Fact** {
 - April 2nd – Opening Testimony
 - April 23rd – Rebuttal Testimony
 - May 7th - 11th – Hearings
- Law** {
 - **June 1st – Opening Briefs**
 - June 15th – Reply Briefs
- Policy** {
 - Late July – Proposed Decision
 - Late August – Final Decision

Regular Agenda

9. Fiscal Year 2018-2019 Budget Review (Discussion)

Approach

FY 2017-18 Budget Model	FY 2018-19 Budget Model
<ul style="list-style-type: none">• Prepared by PEA	<ul style="list-style-type: none">• Internal Model
<ul style="list-style-type: none">• Used 2014 data for load forecast, as basis for revenue and cost of energy budgeted numbers	<ul style="list-style-type: none">• Used 2017 actual load data for revenue and cost of energy budgeted amounts
<ul style="list-style-type: none">• Top-down and bottoms-up forecast	<ul style="list-style-type: none">• Bottoms-up forecast
<ul style="list-style-type: none">• The model might take time to build scenarios	<ul style="list-style-type: none">• Model designed to run multiple “what if” scenarios

DRAFT FY 2018-2019 Budget

Category	FY 2017-18	FY 2018-19	Change in \$\$\$	Change in %
OPERATING REVENUES				
Electricity Sales	\$247,213,713	\$235,967,569	\$ (11,246,144)	-5%
ECO100 Premium	737,000	750,842	13,842	2%
Revenues	247,950,713	236,718,411	(11,232,302)	-5%
OPERATING EXPENSES				
Cost of energy	181,715,000	176,147,894	(5,567,106)	-3%
Data Manager	3,970,000	3,758,400	(211,600)	-5%
Service Fees - PG&E	1,636,000	1,260,000	(376,000)	-23%
Bad Debt expense	865,248	828,514	(36,734)	-4%
Communications and Outreach	1,049,000	1,010,600	(38,400)	-4%
General and Administrative	795,207	1,227,200	431,993	54%
Professional Services	1,017,000	1,432,511	415,511	41%
Energy Programs	250,000	3,200,000	2,950,000	1180%
Legal	1,030,000	1,146,600	116,600	11%
Personnel	3,319,605	4,492,745	1,173,140	35%
Total Operating Expenses	195,647,060	194,504,465	(1,142,596)	-1%
Operating Income (Loss)	52,303,653	42,213,946	(10,089,706)	-19%
NON-OPERATING REVENUES (EXP.)				
Interest Income	-	440,000	440,000	0%
Interest and related expense	-	(48,000)	(48,000)	0%
Nonoperating Revenues (Exp.)	-	392,000	392,000	0%
OTHER USES.				
Capital Outlay	484,000	42,000	(442,000)	-91%
Debt Service Principal	7,997,000	-	(7,997,000)	-100%
Other Uses	8,481,000	42,000	(8,439,000)	-100%
CHANGE IN NET POSITION				
Net Position at the beginning of period	21,710,529	65,533,182	43,822,653	202%
Increase in Net Position	43,822,653	42,563,946	(1,258,706)	-3%
Net Position at the end of period	65,533,182	108,097,128	42,563,946	65%

Next Steps

- Projections for FY 2019 – FY 2023
- Run Scenarios
- Reserves Policy

Regular Agenda

10. Risks and Hedging for Power Purchases (Discussion)

Risks and Hedging for Power Purchases

May 24, 2018

Chelsea Keys
Power Resources Manager



Agenda

- What is an energy hedge?
- How hedging mitigates market risk
- PCE's open position
- Review CAISO market prices in 2017
- PCE's hedging strategy



What is a energy hedge?

- A hedge is when a buyer agrees to pay a seller a fixed price for a particular quantity of energy, and for a specific time period.
- Hedging allows us to manage our cost of energy vs. buying energy from the market
 - The CAISO market works similar to the stock market; it's volatile and exposes participants to unpredictable risk

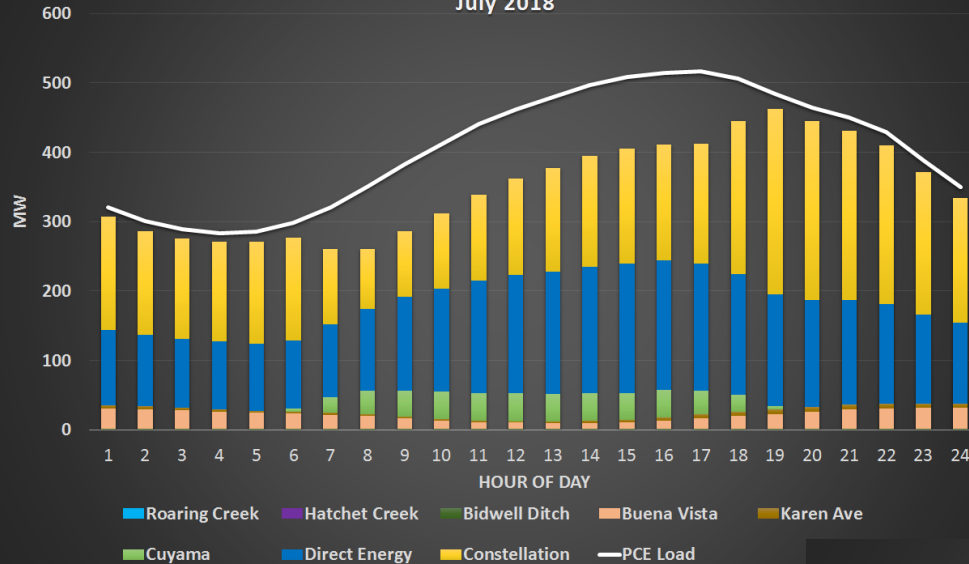
How hedging mitigates market risk

- At PCE, we reduce our risk of market exposure by hedging to cover our open position
 - Helps us maintain our low rates for our customers
- Budget energy costs and ensure future cash flows with more confidence
- IRP Open Position Guidelines

	Percentage of Load Procured	
	Min	Max
Current Year	90%	100%
Year 2	75%	90%
Year 3	65%	80%
Year 4	55%	70%

PCE's Open Position: July & December

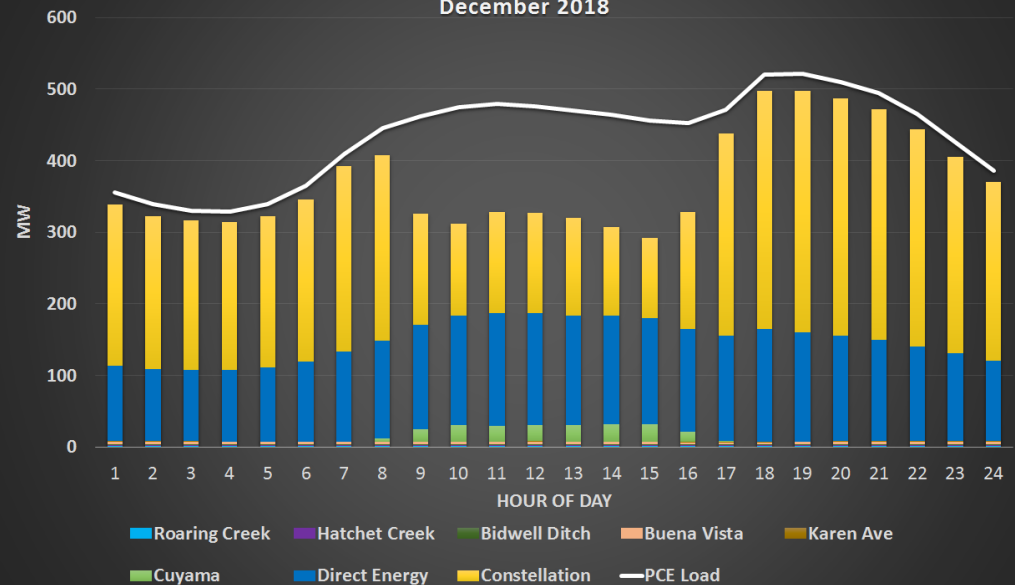
Average Daily Load Profile
July 2018



- PCE's load profile prior to completing our 2018 hedge

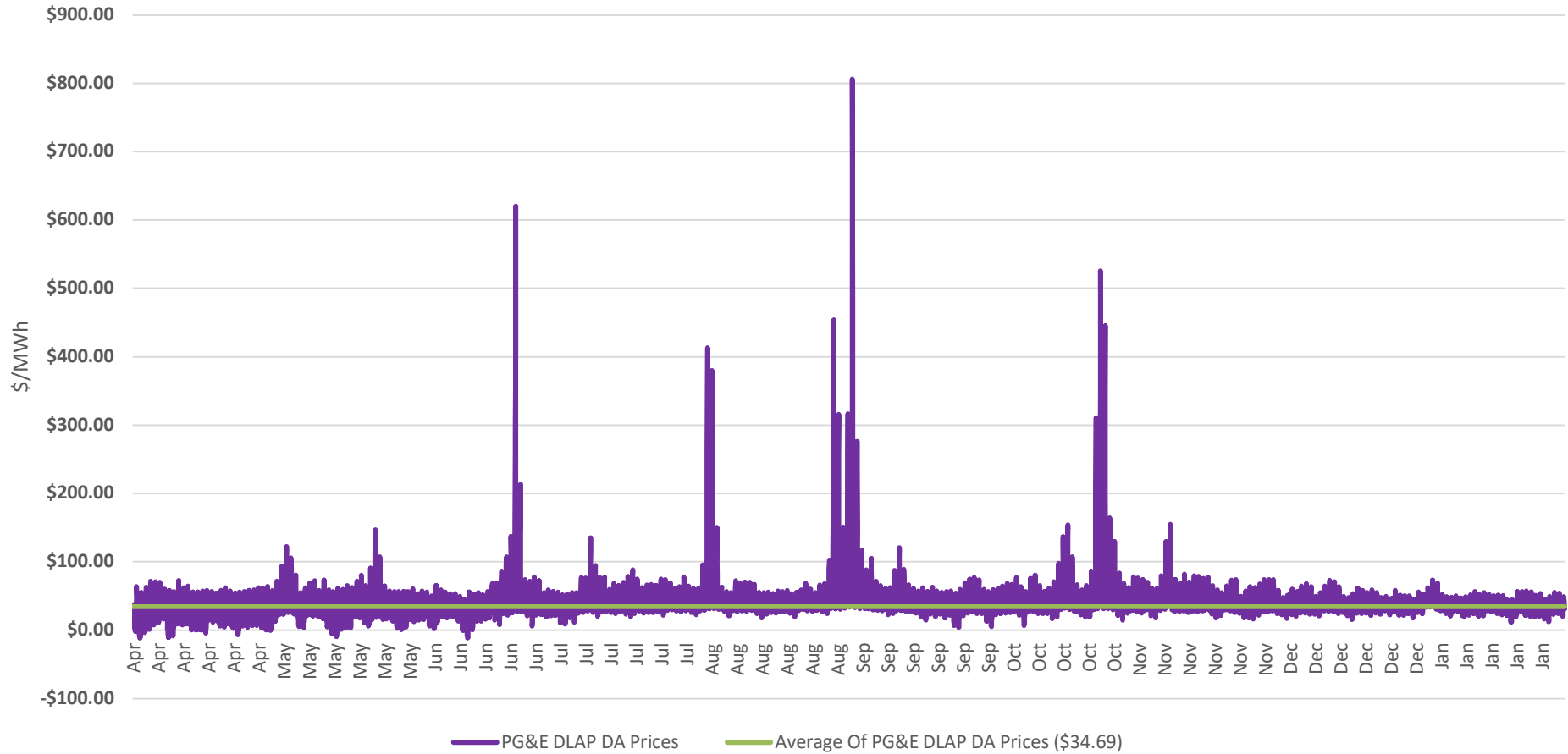
- Avg. daily load demand is different depending on the time of year

Average Daily Load Profile
December 2018



Energy Prices in 2017

Day Ahead CAISO Prices



PCE's Hedging Strategy

**1. Forecast
future open
position**

**2. Solicit offers
to supply a
shaped energy
hedge**

**3. Suppliers
send indicative
offers**

**4. PCE reviews
& invites
competitive
offers to final
round of bidding**

**5. PCE
negotiates price
& selects
winning supplier**

Regular Agenda

11. Board Members' Reports (Discussion)

Regular Agenda

Adjourn