

Agenda

8:30 - 9:00**Breakfast** Call to order / Roll call **Public Comment** Action to set the agenda and approve consent items 9:10 - 9:30Approve Resolution delegating authority to the Chief Executive Officer to execute an Amended and Restated Power Purchase Agreement with Wright Solar Park, LLC, a Delaware Limited Liability Company, and any other necessary ancillary documents. Power Delivery Term: 25 years. Not to exceed \$550,000,000. (Action) 9:30 - 9:45**Review of Strategic Goals (Discussion) Integrated Resource Plan (Discussion)** 9:45 – 11:15 **Local Energy Programs Evaluation Criteria (Discussion) 11:15 – 12:15 12:15 – 12:45** Lunch **Marketing Strategy (Discussion) 12:45 – 1:45** PCE Organization and Staffing Plan (Discussion) 1:45 - 2:00

9:10 – 9:30 Amended and Restated PPA with Wright Solar (Action)

Wright Solar Park, LLC

September 23, 2017



Action: Approve Wright Solar Amended and Restated PPA

- On January 26, 2017, PCE signed a PPA with Wright Solar Park, LLC
- The project developer sought financing and will sell the project
 - Additional negotiations took place to complete a mutually agreeable deal
 - Result: an Amended and Restated PPA
- The material changes to the agreement are:
 - The commercial operation deadline moved from 11/30/18 to 11/30/19
 - The length of the term was changed from 20 years to 25 years
 - The PPA price profile was adjusted, with no change to the average price
 - Credit provisions were modified
- The fiscal impact of the project will not exceed the amount approved in January - \$550,000,000

Wright Solar Park

- 200 MW new solar project in Merced County
 - Less than 100 miles from San Mateo County
 - Produces power equivalent to that used by over 75,000 households
 - Over 350 regional union jobs in 2018-19 (~650 job-years)
- Project is fully developed and needs only financing to proceed



Wright Solar Project

Proposed New Owner – Clēnera/Centaurus

- Clēnera is a very experienced US solar project developer
 - 15 facilities, 660 MW_{DC}, 108,000 households served
- Centaurus is a billion dollar-plus privately held company
 - Owner: entrepreneur John Arnold
- Clēnera and Centaurus have established a partnership where Clēnera provides development/operation expertise and Centaurus provides project financing
- Centaurus finances projects on balance sheet and maintains ownership throughout
- Have completed two Frontier Renewables projects in California
 - Excellent working relationship among the three companies

Request

PCE staff recommends executing an Amended and Restated Power Purchase Agreement with the Wright Solar project, and requests approval from the Board of Directors

- Wright Solar helps to fulfill several of PCE's strategic goals:
 - ✓ GHG Free and CA RPS eligible renewable energy to meet our goal of 100% GHG free by 2021 and 100% renewable by 2025
 - ✓ Long-term contract for low-cost power helps to manage volatility in energy markets and enable PCE to keep rates at or below PG&E's
 - ✓ Stimulates development of new renewable energy in CA and local to San Mateo County
 - ✓ Provides economic benefits and jobs to the region under a PLA

9:30 – 9:45 Progress toward Strategic Goals (Discussion)

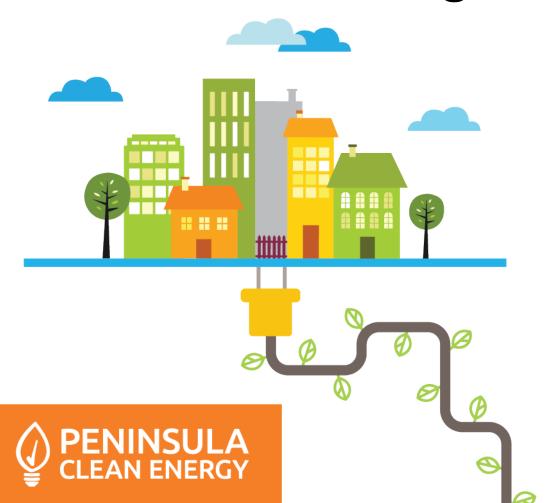
Progress on Strategic Goals

- ECOplus GHG-free content
 - **–** 2016: 75%
 - 2017: 80%
 - 2018: 85%
 - 2019: 90%
 - **2020: 95%**
 - **2021: 100%**
- Maintain 5% savings compared to PG&E for ECOplus
- 300 MW of new solar to be built in CA due to PCE
- Savings of \$17.4 million in county in 2017 due to PCE
- Developing local program selection criteria; pilot implementation planned for 2018
- Opt out rate is less than 2%
- Building financial reserves and paying off loans early

9:45 – 11:15 Integrated Resource Plan (Discussion)

Integrated Resource Plan

September 23, 2017

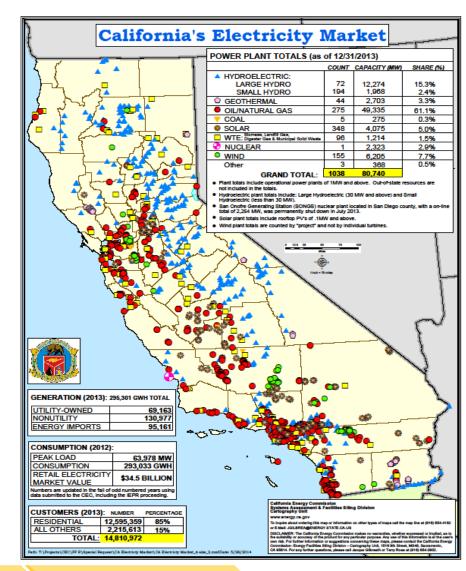


Agenda

- California Market Background
- Phase 1: Year 1 Accomplishments
- Phase 2: Scenario Planning and Risk Management
- Discussion Questions and Next Steps

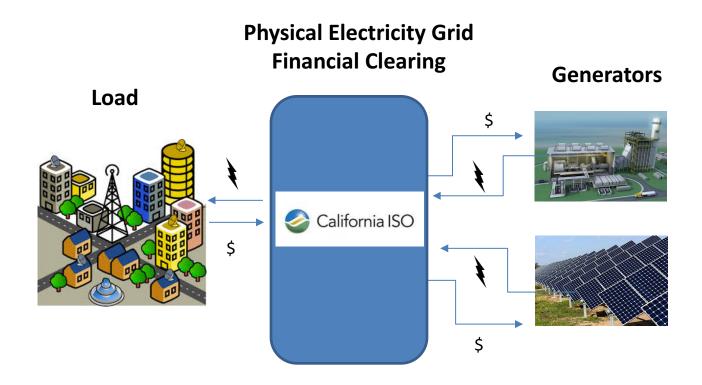
Who Generates Power?

- Over 1,000 electric generating units > 1 MW.
- Over 79,000 MW of generating capacity.
- ≈54% of capacity is natural gas.
- ≈68% of CA's energy is produced in-state.
- ≈ 15% is imported from NW.
- ≈ 17% is imported from SW.
- Approximately 27% of CA's generating capacity uses renewable fuel sources.
- >2,500 MW increase in solar PV capacity from 2015 to 2016.



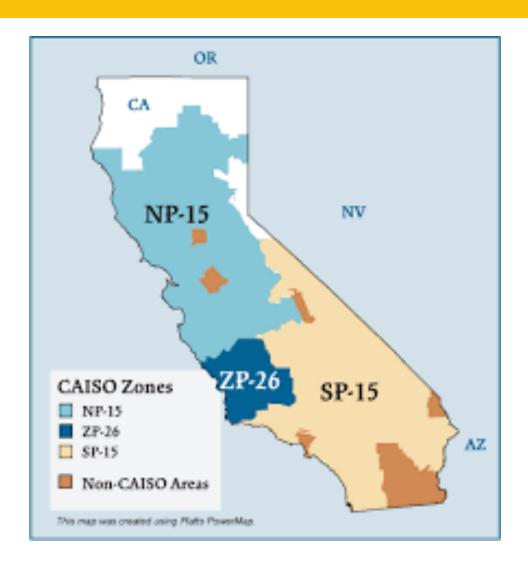
CAISO Centralized Market

- CAISO manages the grid and operates the power market
- CAISO wholesale power market prices electricity based on the cost of generating and delivering it from particular grid locations called nodes.
- PCE buys power for our customer at our demand node



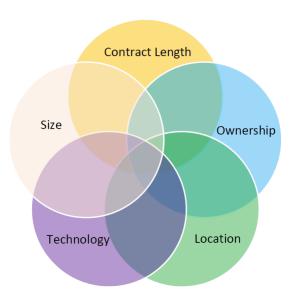
CAISO Trading Hubs

- Trading hubs: aggregated pricing nodes corresponding to CAISO transmission zones.
- NP-15, SP-15, ZP-26
 are actively traded
 delivery points in the
 wholesale power
 market.



IRP Phase 1: Portfolio Building in Two Phases

- PCE's energy portfolio planning is being managed in two overlapping phases
- Phase 1
 - Meeting near term goals for GHG-Free and Renewable energy
 - Contracts with full service providers and operating renewable energy projects
 - Built diversified portfolio over short period
 - Phase 2
 - Will be executed with principles and guidelines set by staff and board
 - Focus on creating guidelines around a set of diversity principles
 - Created through analytical process to evaluate cost impact of different proposed portfolios
 - Longer term contracts to create balanced portfolio



IRP Phase 1: PCE Procurement Targets by Resource Type

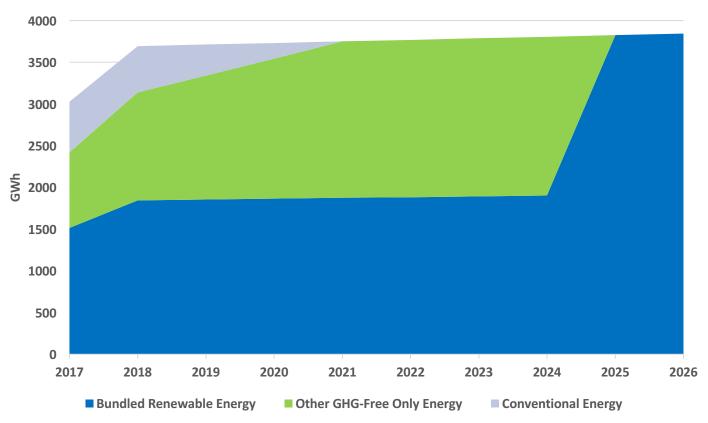
- PCE is subject to the CA RPS, which requires that we procure specific % of our retails sales from RPS eligible renewable energy as shown below
- PCE has set its own goals and policies that go above and beyond the RPS:
 - In 2017: 50% renewable energy & 80% GHG-Free
 - 100% GHG-Free by 2021
 - 100% renewable by 2025
- Collectively, these policies result in the following procurement targets:

10 Year Portfolio Mix (%)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
RPS Requirement	27%	29%	31%	33%	35%	36%	38%	40%	42%	44%
Bundled Renewables	50%	50%	50%	50%	50%	50%	50%	50%	100%	100%
Unbundled RECs	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
GHG Free	30%	35%	40%	45%	50%	50%	50%	50%	0%	0%
Conventional Energy	20%	15%	10%	5%	0%	0%	0%	0%	0%	0%

IRP Phase 1: Projected PCE Energy Volumes

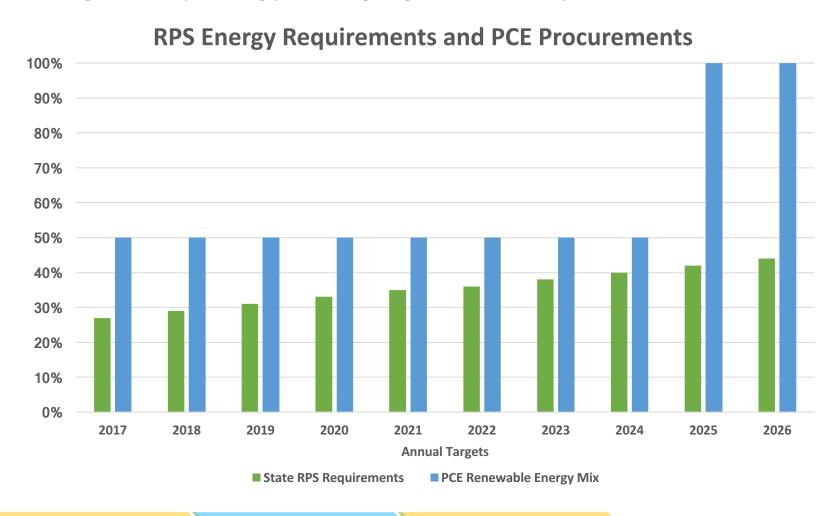
 The proportion of PCE's resource mix that is sourced from bundled renewable energy products will significantly increase as PCE transitions toward a 100% renewable energy content.





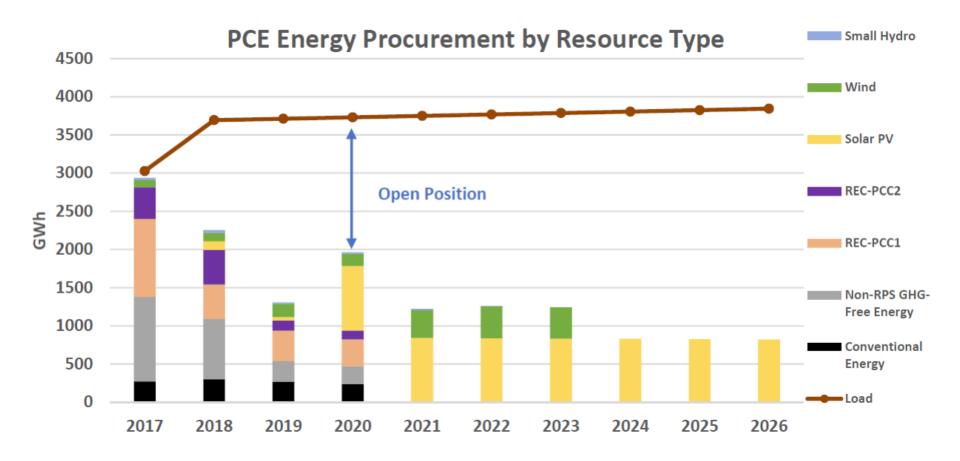
IRP Phase 1: PCE Procurement Targets

 PCE is significantly outpacing California's annual RPS procurement mandates throughout the planning period – going "above and beyond".



IRP Phase 1: PCE Energy Procurement and Open Position

 PCE's planned resource volumes and net "open position" that remains after accounting for production from PCE's existing resource portfolio:



IRP Phase 1: 2016 Power Content Label

- PCE's Power Content Label
 ("PCL") is a key customer
 communication that provides
 information regarding PCE's
 actual mix of various energy
 sources during the previous year
 of operation.
- The 2016 PCL quantifies PCE's aggregate renewable energy supply during the three months that PCE provided service, during PCE's initial rollout.
- This is not necessarily representative of the expected resource mix going forward as PCE builds its portfolio.

Peninsula Clean Energy					
ENERGY RESOURCES	ECOplus	ECO100	2016 CA Power Mix**		
Eligible Renewable	58%	100%	25%		
Biomass & waste	0%		2%		
Geothermal	0%		4%		
Small hydroelectric	18%		29		
Solar	0%		8%		
Wind	40%	100%	9%		
Coal	0%		4%		
Large Hydroelectric	27%		10%		
Natural Gas	0%		37%		
Nuclear	0%		9%		
Other	0%		0%		
Unspecified sources of power*	0% 15%		15%		
Unspecified sources of power* TOTAL	15% 100%	100%	15% 100%		
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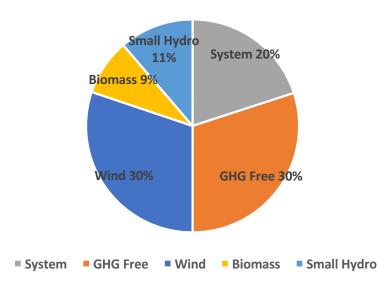
IRP Phase 1: 2017 Expected Resource Mix

• A projection of the expected resource mix for calendar year 2017 is illustrated here.

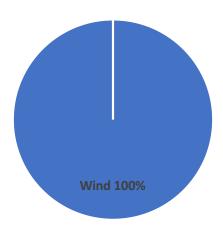




ECOplus 2017 Expected Resource Mix



ECO100 2017 Expected Resource Mix

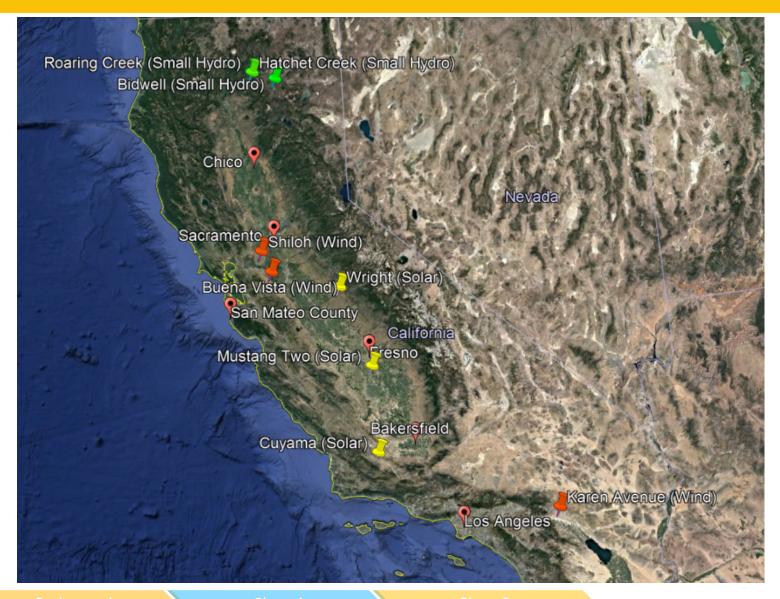


IRP Phase 1 Progress: a Diverse Portfolio

PCE has executed 9 PPAs for project specific renewable energy purchases

Resource (Technology)	Size (MW)	Contract Length (Years)	Owner (or Developer)	Location (County)
Solar	200	25	Frontier	Merced
	100	15	Recurrent	Kings
	40	1	First Solar	Santa Barbara
Wind	25-150	5	Avangrid	Solano
	38	5	Leeward	Contra Costa
	11.7	3	EDCC	Riverside
Small Hydro	7.5	5	Hydrodynamics	Shasta
	2	2	Hydrodynamics	Shasta
	2	2	Hydrodynamics	Shasta

IRP Phase 1: PCE Project Locations



IRP Phase 1 Progress: a Diverse Portfolio

 PCE has executed 5 contracts to purchase RPS-eligible energy from non-project-specific sources

Resource (Technology)	Contract Length (Years)	Owner (or Developer)	Location
Renewable	4	Direct	WECC
	<1	PG&E	California
	<1	Powerex	WECC
	2	Constellation	WECC

PCE has signed three contracts to meet our GHG-Free targets

Resource (Technology)	Contract Length (Years)	Owner (or Developer)	Location
GHG-Free	4	Direct	California
	1	Powerex	California
	<1	Morgan Stanley	California

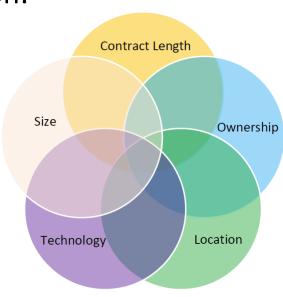
IRP Phase 1 Progress: a Diverse Portfolio

PCE has executed two contracts to hedge power prices

Resource (Technology)	Contract Length (Years)	Owner (or Developer)	Location
System	4	Direct	WECC
	2	Constellation	WECC

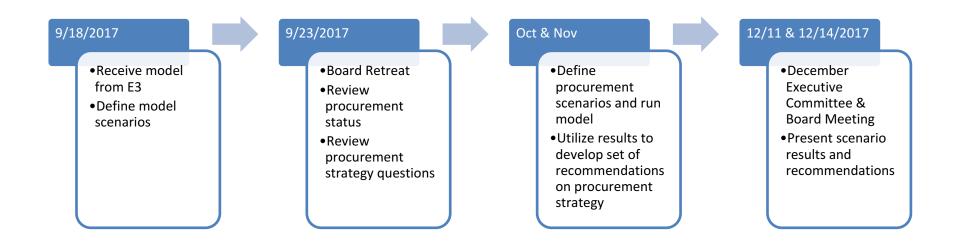
IRP Phase 2

- Phase 2 focus on developing guiding procurement principles to create a diverse portfolio composition:
 - Contract Term Length
 - Project Ownership
 - Project Location
 - Resource / Technology Mix
 - Project Size
- Guideline on market exposure
 - How should we manage our open position
 - How early should we procure to close open position



IRP Phase 2: Process

- Commissioned third party consultant to create a resource planning model
- This model allows us to run a series of scenarios to evaluate impact on average cost of power



IRP Phase 2: Projected Outcome

1. Set of principles defining diversity target similar to following table

Term Length	Ownership	Location	Resource	Size
Specify max/min % for different term lengths	Specify max % from a single counterparty	Prioritization or specify max/min % from different	Specify max/min % for different resource types	No projects larger than specified MW
		locations	Solar	
Short <1 Year		NP-15	Wind	
Medium 1-5 Years		141 13	VVIIIG	
Interm 5-10 Years		SP-15	Geothermal	Specify max % of
Long >10 Years		ZP-26	Small Hydro	load from any one project
		Out of State	Biomass	

2. Guidelines on % of open position for coming years

IRP Phase 2: E3 Model

- PCE commissioned third party expert consultant
- E3 is a SF-based energy consulting firm
 - Expertise working with a diverse set of stakeholders including regulators, non-profits, and government agencies
 - Primarily use Excel and Python based analytical tools
 - Vast California energy policy experience
 - Growing number of domestic and international consulting projects



IRP Phase 2: E3 Scope of Work

- Integrated Resource Plan Model
 - Sophisticated Excel model that quantitatively analyzes potential energy portfolios
 - Considers CA regulations, RPS, energy prices, technology, and future project development in the area
 - Inputs include: PPA prices and locations, penetration of EVs and DER,
 RPS targets, Carbon and REC costs
 - Specifically tailored to PCE's goals



IRP Phase 2: E3 IRP Model Price Forecast

- E3 model varies sets of assumptions to create two bookend future pricing scenarios
 - Grid-scale renewables
 - Distributed Energy Resources (rooftop PV)
 - Incremental Storage
 - Energy Efficiency
 - Electric Vehicles
 - Energy export limits to neighboring states
 - Carbon allowance cost



IRP Phase 2: E3 IRP Model Inputs

- E3 model evaluates a detailed set of inputs to create
 - Adjustable presets of assumptions that affect CA energy landscape (EVs, RPS, DER, EE)
 - Resource location, size, term, and price
 - REC banking strategies
 - Administrative costs



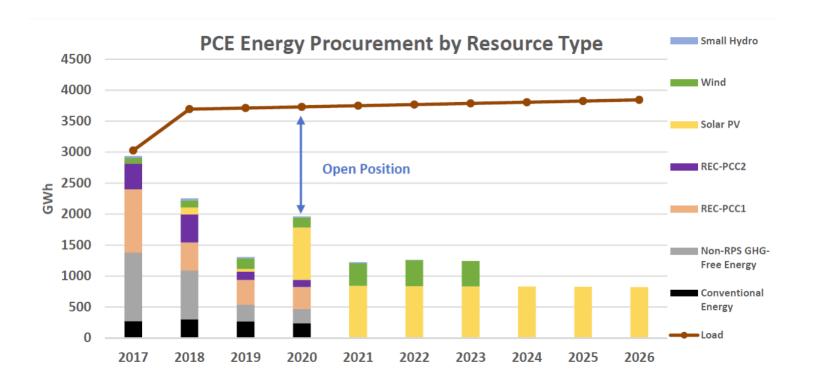
IRP Phase 2: E3 IRP Model Results

- Model calculates various metrics of proposed energy portfolio
 - Total cost and annual costs broken down by specific energy contracts
 - Annual REC calculation and count of RECs available for banking in surrounding years
 - Visualizations of annual and hourly loads, cost of portfolio over times
 - Verification of compliance status of RPS and other regulations



IRP Phase 2: Resource Diversity

- PCE's current portfolio includes a mix of non-resource specific contracts, small hydro, solar and wind
- We are mostly procured for 2017 with increasingly open positions in later years



IRP Phase 2: Resource Diversity - Solar

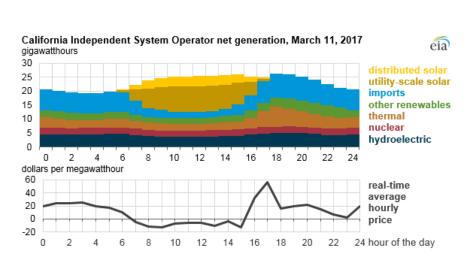
- A rapidly growing and "preferred" renewable resource
- Different technologies available, though photovoltaic is dominant
- Power supply is intermittent but near-term delivery profile is predictable
- Potential for wildlife disturbance, agricultural land conversion

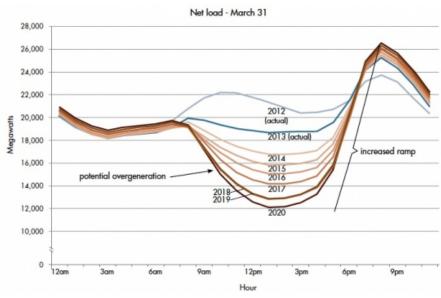




IRP Phase 2: Resource Diversity

- Solar PPAs offer lowest prices; opportunity to lock-in prices for 15-25 years
- Rapid growth of solar in CA has resulted in shifting peaks and low to negative prices during solar generation
- Opportunity to add storage to mitigate these issues





IRP Phase 2: Resource Diversity - Wind

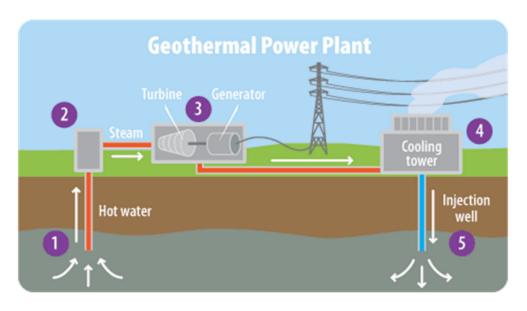
- Power supply is intermittent
- Aesthetic concerns turbines on ridgelines
- Avian fatalities turbines responsible for 0.01% of human-caused bird fatalities
- Limited new wind in CA; good sites already developed, permitting restrictions; existing sites are being repowered
- Opportunity to procure from out of state projects





IRP Phase 2: Resource Diversity – Geothermal

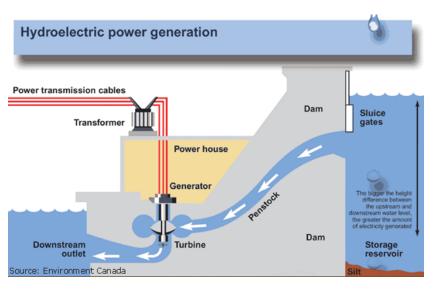
- Geothermal provides renewable baseload power
- Generates electricity using heat from the earth's core; Very low-carbon emitting
- Large facilities create potential for wildlife disturbance
- Tends to be higher priced than other renewable generation sources

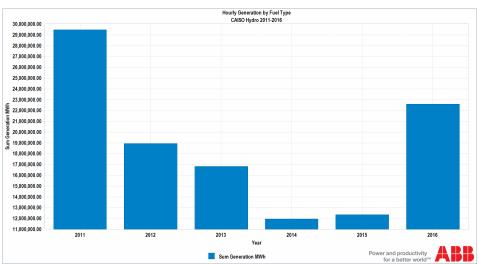




IRP Phase 2: Resource Diversity – Hydro

- In California, dams smaller than 30 MW are considered RPS-eligible.
- Generators above 30 MW are considered "large hydro" (GHG-free).
- Unpredictable due to weather conditions
 - California's drought reduced hydropower production and increased natural gas generation
- Limited opportunity for new run of river hydro in CA



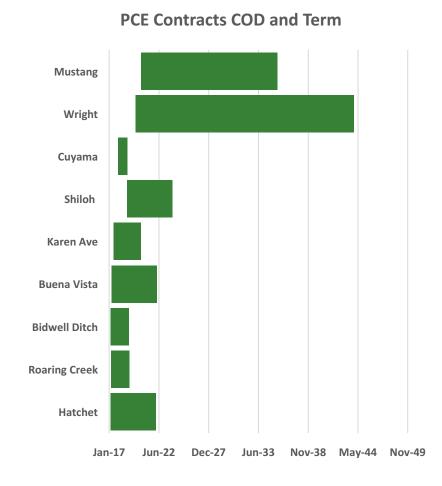


IRP Phase 2: Location Diversity

- Current policy on location:
 - PCE places the greatest value on locally sited renewable energy projects, particularly those located within 100 miles of PCE's service area.
 - Of next highest preference are projects sited in the North Path 15 (NP-15) region (generally, Northern California)
 - Followed by projects in the South Path 15 (SP-15) region (generally, Southern California),
 - Finally, out-of-state resources.
- For solar projects, SP-15 projects generally have lower PPA prices, but potentially higher risk of congestion pricing
- Limited new wind being developed in CA; existing sites being repowered
 - Can procure from out-of-state resources that dynamically schedule into CA -> RPS PCC1 Eligible

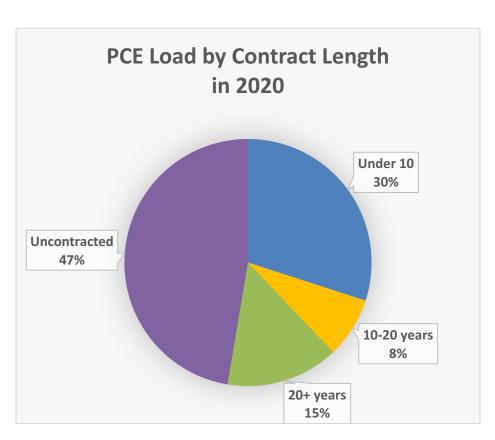
IRP Phase 2: Term Length Diversity

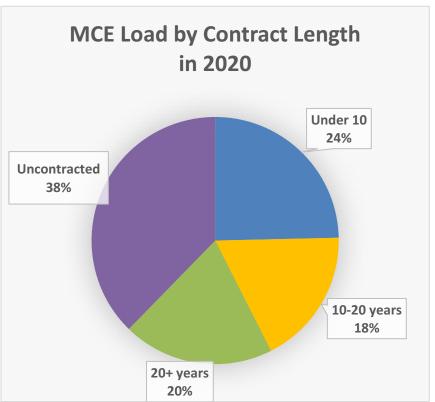
- PCE is seeking diversity in contract term length
- New projects require long term PPAs
 - Mitigates construction risk
- Utility Scale solar PPAs range between 15-25 years because
 - Large capital investment, low revenues require long terms to pay back
 - Capturing ITC benefits: 5-7 years at least



IRP Phase 2: Term Length Diversity

- Analysis conducted comparing length of PCE's contracts to MCE's
- Charts shows the percentage of 2020 load supplied by contracts of different lengths

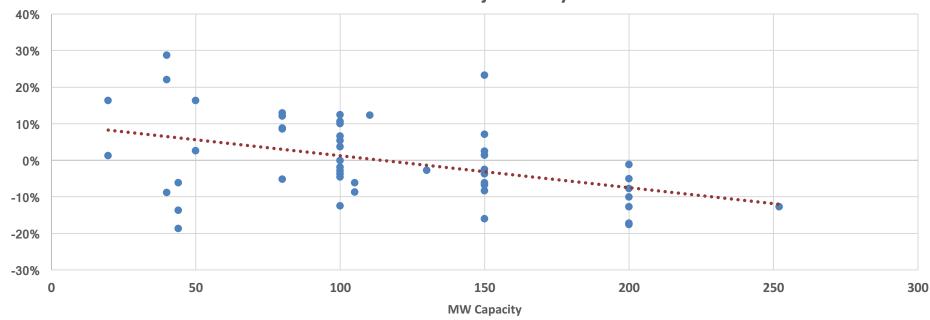




IRP Phase 2: Project Size Diversity

- Evaluated impact of project size on PPA price using data from PCE's November 2016 RFO. Total set analyzed contained 50 data points.
- Real bids show a decrease of roughly 10% per 100 MW increase in capacity





IRP Phase 2: Discussion Questions

- How to balance goals against cost of power?
- If renewable resources located out of state are cheaper than local, should we pursue this?
- If procuring all solar to meet renewable goals is cheaper than a diverse portfolio, should we pursue this?
- In addition to board's input, we are conducting economic analysis and will share results
 of that analysis in future meetings

Term Length	Ownership	Location	Resource	Size
Specify max/min % for different term lengths	Specify max % from a single counterparty	Prioritization or specify max/min % from different locations	Specify max/min % for different resource types	No projects larger than specified MW
			Solar	
Short <1 Year		NP-15	Wind	
Medium 1-5 Years				
Interm 5-10 Years		SP-15	Geothermal	Specify max % of load from any one project
Long >10 Years		ZP-26	Small Hydro	
		Out of State	Biomass	

11:15 – 12:15 Local Energy Programs Evaluation Criteria (Discussion)

Local Energy Programs Evaluation Criteria

September 23, 2017



Overview

What are local programs?

Proposed process for developing local programs

Staff draft guidance on criteria

Board input

Local Programs in Existing CCAs

MCE Clean Energy

- 19 megawatts of local renewable projects soon to be online
- Local Feed-In Tariff (FIT) with standard 20-year contracts at fixed price
- Energy efficiency programs for single family, multifamily, and commercial

Sonoma Clean Power Electric Vehicles Program

- Reduced prices on EVs from local dealerships
- Local purchase credits
- Free home EV charging equipment

Lancaster Choice Energy Electric Buses

• Partnering with local transit authority to fully electrify its bus fleet by 2018



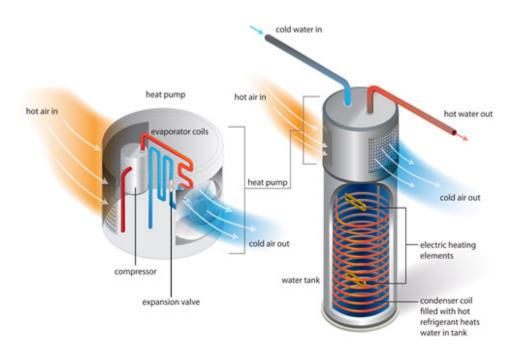
Other Local Program Ideas

Energy storage

- ➤ Batteries, electric vehicles
- Could be combined with local micro-grid development

Fuel switching

- Shifting from gas power to electric power
- ➤ Replacing gas appliances with electric, i.e. heat pump water heaters



Heat pump water heaters explained by Energy Star

Proposed Process for Developing Programs

- 1. Staff creates criteria based on PCE board's strategic goals
- 2. Staff develops a scoring matrix, with input from the Board
- 3. Review criteria and scoring matrix with the Ex. Comm. and then the Board
- 4. Staff creates an online form for anyone to propose local program ideas
- 5. Staff evaluates proposals based on criteria
- 6. Staff brings top proposals to Ex. Comm. for vetting, then to full board
- 7. Implementation after initial financial stability goals met



Draft Program Criteria

Required Criteria

- 1. GHG emissions reductions
- 2. Cost effectiveness
- 3. Number of customers served
- 4. Communities served
- 5. Supports PCE's workforce policy
- 6. Helps PCE match supply to load
- 7. PCE Implementation requirements

Criteria that Add Points to Proposals

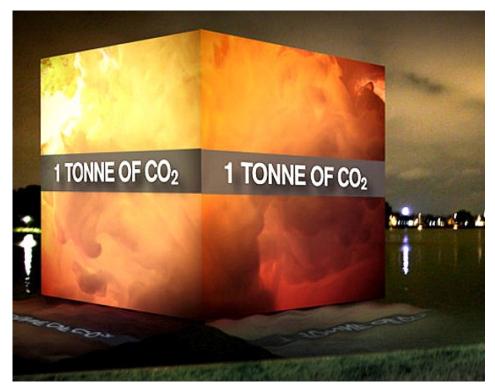
- 1. Contributes to procurement goals
- 2. Benefits disadvantaged communities
- 3. Innovative, scalable, and replicable
- 4. Supports community resilience
- 5. Fills a gap in current utility offerings



GHG Emissions Reductions

Metrics to Consider

- > % Reduction of baseline emissions
- > Tonnes CO2 avoided per:
 - Year
 - Installation of project
 - SMC resident
 - MWh of energy consumed
 - MW of capacity installed
 - Person adopting



Cube installation illustrating size of one ton of CO2 at Copenhagen UN climate talks in 2009. Created by Ifio Bonanno and Christophe Cornubert.

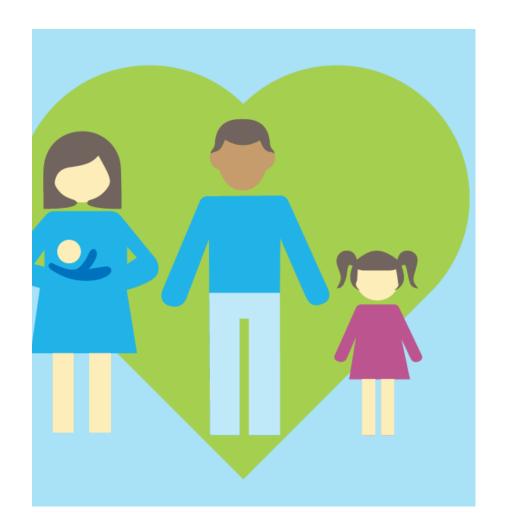


Cost Effectiveness

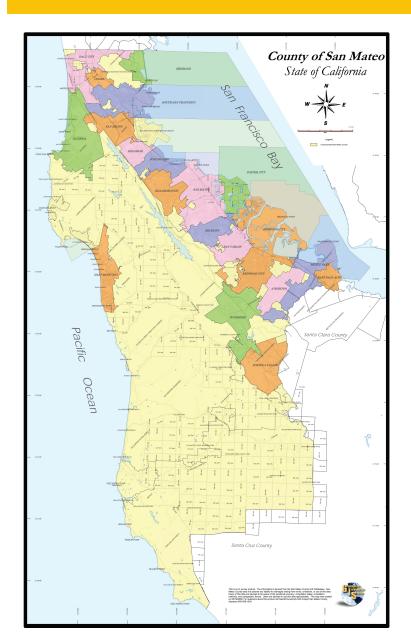
- Estimate of total costs and income (if any)
- ➤ List all funding sources, including if a subsidy would be required from PCE
 - Include external grant programs
- Costs and/or revenue to each entity
- Cost effectiveness calculated as:
 - o \$ per ton of GHG saved per year
 - o \$ per kWh saved per year
 - \$ per potential customer served per year
 - Tonnes of CO2 avoided/\$ spent

Number of Customers Served

- ➤ How many PCE customers could participate in the program given your stated budget?
 - Quantify customers by rate class (residential, etc)
- ➤ If this is a pilot, how many PCE customers would be served during the pilot?
 - How many could potentially be served during a full-scale implementation?



Communities Served



- List each city and/or unincorporated community in San Mateo County where eligible customers are located
- ➤ If your project favors one geographic area over others, please briefly explain why

Should preference be given for projects that serve a wide geographic area of the county?

Supports PCE Workforce Policy

- ➤ Information requested in proposals address each point of board workforce policy
- Requests information on utilization of:
 - Local businesses
 - Union labor
 - Multi-trade agreements
 - Apprenticeship programs
 - Fair compensation practices including proper assignment of work to crafts that traditionally perform the work



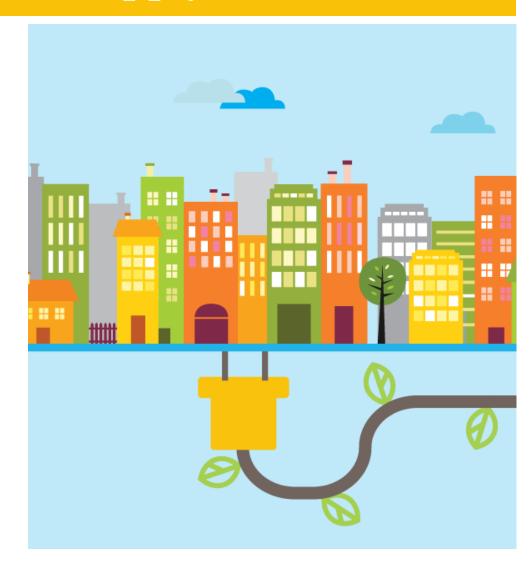
Helps PCE Match Supply to Load

In the future, PCE could have excess supply of electricity on weekdays in the middle of the day

Describe how your program may help solve this imbalance

Examples:

- Consuming during times of excess supply
- Storing during times of excess supply
- Generating at times when demand is high
- Creating pricing signals to encourage this behavior



PCE Implementation Requirements



- ➤ How many hours or months of PCE staff time do you estimate would be needed to implement this project?
- ➤ How does the project minimize administrative burdens on PCE?
- Does this project require development of new internal systems at PCE?
- Does this project require significant external policy changes to implement?

Contributes to Procurement Goals

PCE Procurement Goals

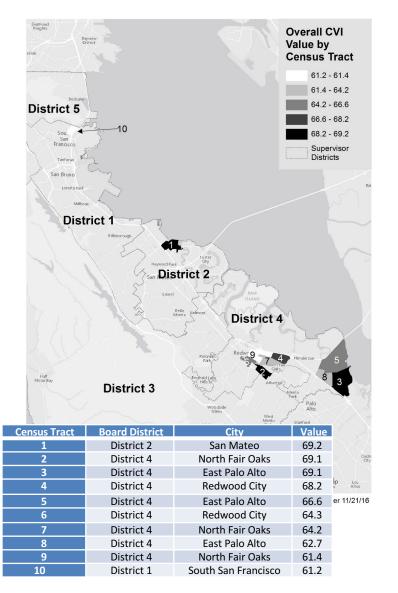
- Creating 20 MW of New Local Power by 2025
- 100% GHG-Free Power for 2021
- 100% Renewable Energy by 2025



Solar array installed by Cañada College

Benefits Disadvantaged Communities

Top 10 Most Vulnerable 2014 Estimates



- ➤ Describe how program will benefit qualifying disadvantaged community members.
- SMC Community Vulnerability Index
- Or CalEnviroScreen if seeking state funding

Potential benefits:

- Savings on energy bill
- Reduction in air pollutants
- Co-benefits between landlord/housing agency and tenants
- Increase in health/safety/comfort

Innovative, Scalable, and Replicable

- ➤ Is program implementing a new technology or innovation?
- ➤ Has program been implemented previously?
- ➤ How could program be expanded throughout PCE's service area?
- ➤ Could it be adopted by other CCAs, agencies or utilities?



Supports Community Resilience



Results of extreme weather such as heat waves and major fires can endanger the California electrical grid.

➤ Does project safeguard operation of key institutions or the health of vulnerable residents in emergency power outages?

Examples:

- Emergency responders: fire, police stations and local government buildings
- Health and social services:
 - Hospitals
 - Clinics
 - Skilled nursing facilities
 - Senior facilities
 - Cooling centers
 - Emergency shelters
 - Prisons, mental health institutions
- Homes of customers who rely on electricity for life-saving medical devices

Fills a Gap in Current Utility Offerings

Example of Existing Offerings

- Energy efficiency audits and rebates
- How does this program add to or enhance existing utility offerings? What programs specifically?

Example of Gaps in Offerings

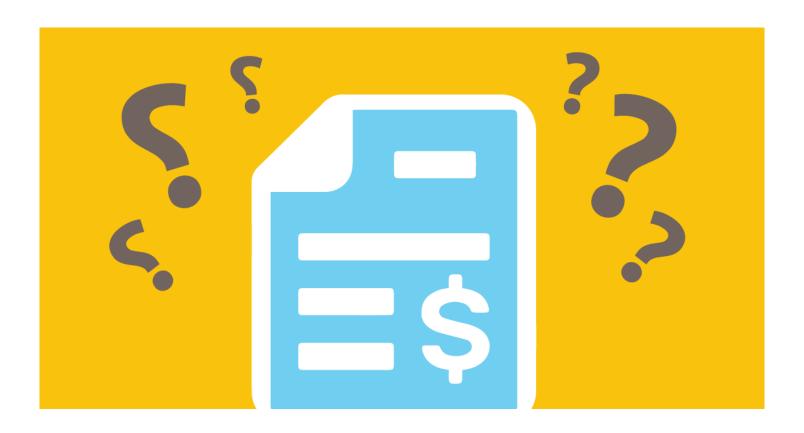
- Fuel switching from gas to electric
- ➤ How does this program address a current gap in existing program offerings?



Evaluation

➤ Ask proposal developers, how will success be measured?

Staff will work with promising proposals to develop an evaluation plan.



Questions and Input

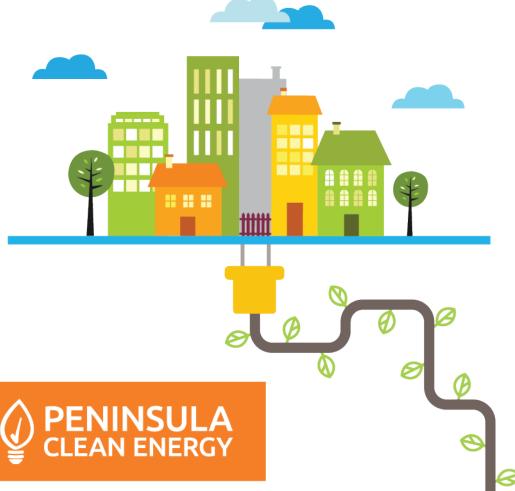


12:15 - 12:45 Lunch

12:45 – 1:45 Marketing Strategy (Discussion)

Marketing Report

September 23, 2017



Agenda

- Marketing team goals
- Review Year 1 marketing efforts and results
- Overview of marketing strategy for the coming year
- How will we meeting our goals?
- Board input on priorities



MARKETING TEAM GOALS

Marketing Team Goals

Goals of marketing team relate to the Board's goals:

Maximize and maintain customer participation in PCE.

- Provide a superior customer experience
- Develop PCE brand awareness and loyalty throughout the County.
- Actively encourage voluntary participation in its ECO100 renewable energy product
- Actively encourage participation in other programs PCE develops
- Achieve recognition from the EPA's Green Power Partnership for Green Power Communities for all cities with municipal accounts enrolled in ECO100 by 2018
- Primary objective: keep opt-outs low
- We need to build the brand in order to avoid "bill surprise" opt-outs









YEAR 1 MARKETING EFFORTS

PCE By the Numbers

- Number of accounts in San Mateo County: 299,952
- Active accounts: 285,156
- Accounts not offered service yet: some NEM accounts and Time of Use Pilot Participants
- Opt-out rate: **1.995**%
- Opt ups to ECO100: 4,247
- Opt up to ECO100 rate: 1.5%

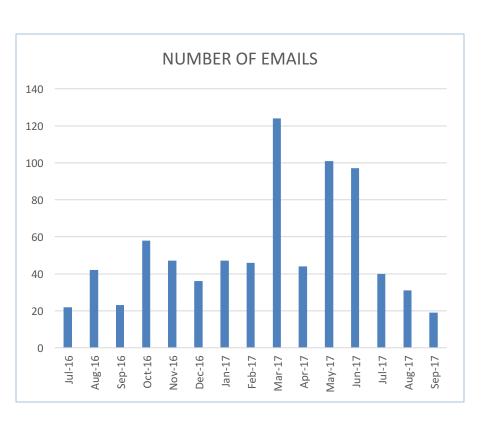
How did we accomplish this?

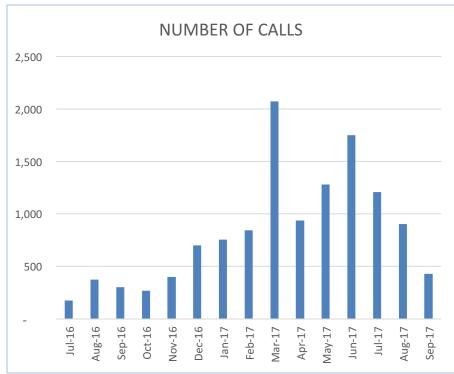
Customer Notifications

ltem	Date	Quantity
Phase 1 enrollments notices	Q3 & Q4 2016	375,000
Phase 2 enrollment notices	Q1 & Q2 2017	840,000
Discounted rates mailer	May 2017	35,000
Understand Your Bill mailer	June 2017	235,000
Joint Rate Mailer	June 2017	260,000
2016 Power Content Label	September 2017	290,000
NEM enrollment notices	Bi-monthly	40,000
Weekly confirmation letters	Ongoing	25,000
TOTAL		2,100,000

Customer Care

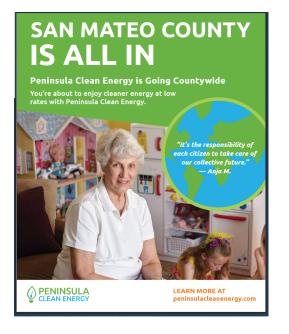
- 777 emails to support@peninsulacleanenergy.com
- 12,417 calls to the call center





Advertising

- Radio
- Social media
- Pandora streaming audio
- Comcast TV
- Billboards
- Newspaper advertising
- Bus shelters





Our Spring 2017 ad blitz was estimated to generate over 7 million impressions

Website

- Ongoing maintenance
- Three languages: English, Spanish, Mandarin
- Eco Business Directory for ECO100 businesses
- First line of defense in keep customers informed

Website Visits: June 21, 2016 - September 18, 2017



Sample Social Media

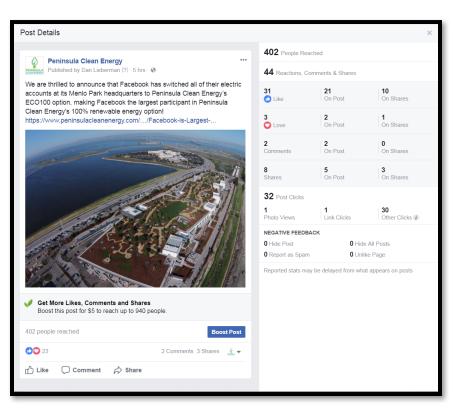
- Number of Facebook fans: 620
- Number of Twitter followers: 775
- Number of MailChimp email addresses: 1,192
- We're hoping to get our own NextDoor account

Top Tweet earned 9,667 impressions

PCE is happy to help @SamTrans meet their sustainability objectives.

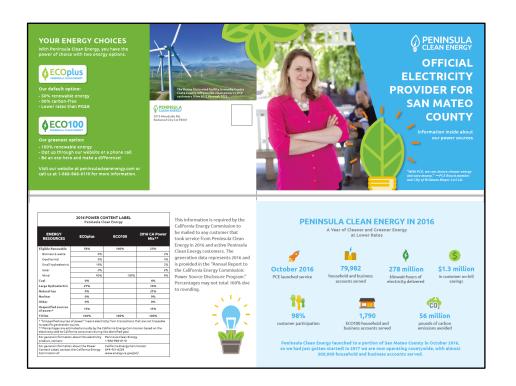
twitter.com/SamTrans/statu...

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Other Marketing Pieces

- Understanding Your Bill mailer and video
- Discount rate mailer
- 2016 Power Content Label
- Joint rate mailer with PG&E
- Brochures in 3 languages





Public Affairs

- 10 Press releases
- Earned media
- Op eds
- Two launch events (Phase 1 and Phase 2)

▼In the News

2017

- "City of Burlingame Opts for 100% Renewable Electricity", July 5, 2017
- "The San Mateo County Harbor District is Going Green!", July 5, 2017
- "How clean energy helps Pacifica", Pacifica Tribune, April 2017
- "Providing cleaner, greener, and cheaper energy in San Mateo County", Balitang America, April 2017
- "OP-ED: Peninsula Clean Energy now serving entire county", Daily Journal, April 2017
- "KHMB Featured Story of the Week", KHMB, April 2017

▶ 00.00 **■**)

- "We can help combat climate change with new energy program", The Almanac March 2017
- SamTrans, Caltrain to Use 100 Percent Renewable Electricity from Community Choice Energy Programs", Mass Transit Magazine, March 2017
- "Peninsula Clean Energy finalizes 20-year solar deal", Half Moon Bay Review, February 2017
- "Calif. Public Energy Provider Signs Up For 200 MW Of Solar", Solar Industry Magazine, February 2017
- "Peninsula Clean Energy Inks Deal for 200 MW of New Solar", Bay Voice, February 2017
- "Peninsula Clean Energy prepares for next phase of renewables", Half Moon Bay Review, January 2017

2016

- "San Mateo County ditches PG&E, starts buying cheaper, greener energy", Mercury News, October 2016
- "County flips the switch on clean energy: Peninsula Clean Energy launches", Daily Journal, October 2016
- "Cities moving to clean energy: 20 municipalities sign on to new county program", Daily Journal, July 2016



▼ Press Releases

2017

- Press Release 9-21-17 Facebook Switches to Peninsula Clean Energy's ECO100 (PDF)
- Press Release 9-12-17 Recurrent Energy Inks 100 Megawatt Power Purchase Agreement with PCE (PDF)
- PCE_press_kit_041917 PCE Now Serving All of San Mateo County with Lower Cost, Cleaner Electricity (PDF)
- Media Advisory 041417 PCE Now Serving All of San Mateo County with Lower Cost, Cleaner Electricity (PDF)
- Press Release 3-2-17 SamTrans, Caltrain to Use 100 Percent Renewable Electricity from PCE (PDF)
- Press Release 2-16-17 PCE to Enroll 210,000 New Customers and Maintain 5% Discount (PDF)
- Press Release 2-9-17 Peninsula Clean Energy Inks Deal for 200 MW of New Solar, (PDF)

2016

- Press Release 10-6-16 Program Launches, (PDF)
- Press Release 7-19-16 Enrollment Notices, (PDF)
- Press Release 5-19-16 First CEO Hired to Lead New San Mateo County Energy Agency, (PDF)

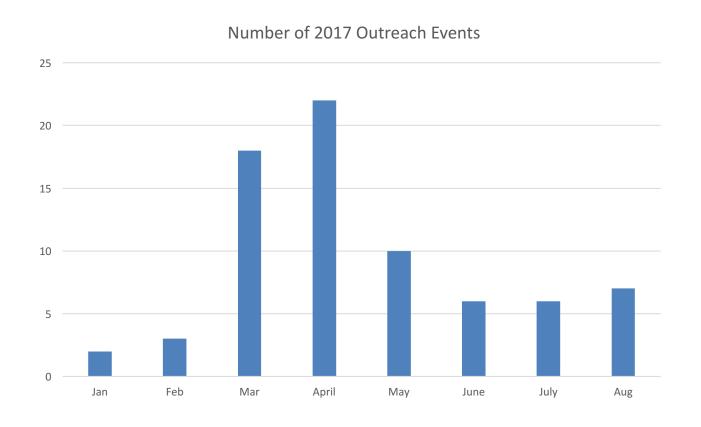
Branded Swag and Promotional Items





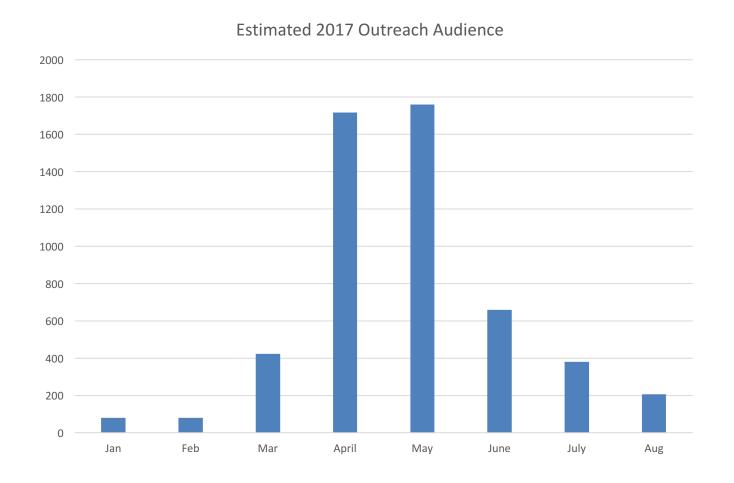
Outreach

- 74 outreach events Jan-August
- · Located in every city and major unincorporated area



2017 Outreach Audience

• Estimate of 5,300 customers educated through outreach events Jan-Aug 2017, often through one-on-one interactions



Marketing Items on Deck

- Website refresh featuring:
 - Energy Sources & Budget/Finances page
 - Understanding Your Bill form cost calculator
- City Snapshots and social media for RICAPS
- New and improved sample bills
- Video FAQs with PCE staff
- Fall advertising campaign
- PCE Open House event on October 18
- Green-e certification
- The Climate Registry protocol
- Bring design in-house (decrease reliance on Circlepoint)
- Market research
- Monthly email newsletter to MailChimp list
- Annual report



MARKETING STRATEGY

The 4 P's of Marketing

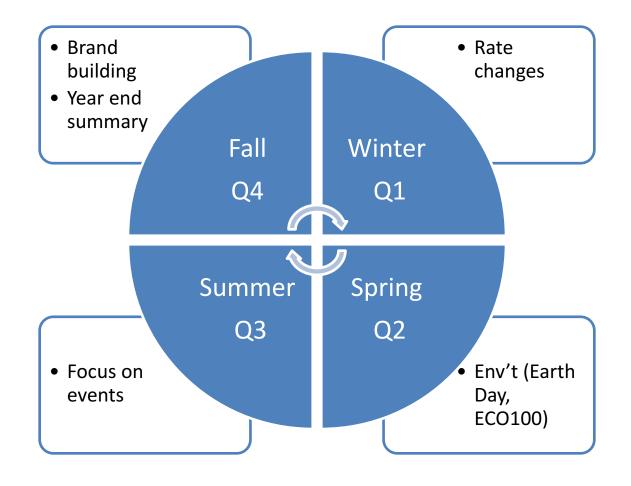
- Product what are we selling? What are the optimal characteristics of each product choice we offer. Do customers prefer local renewables, low-price, price-stability, etc.
- Price how should we price our products? Pegged to PG&E rates? Fixed rates over time?
- **Promotion** what is the best way to advertise, do outreach, and other marketing? What is the best mix of these options?
- Place our market is well defined, but our marketing can be geographically targeted to areas with high opt-outs, or low ECO100 enrollments, or where 2nd languages are spoken, etc.

This will become more important as we shift to program marketing.

Our Value Proposition

- Not traditional approach to marketing: automatic enrollment means a "call to inaction" rather than a call to action
- Our call to action is around ECO100, and yet ECO100 is a product with a declining marginal value and a limited lifespan
- By 2025, ECOplus = ECO100 in terms of content
- To reduce carbon, it's more important to keep a customer enrolled in ECOplus than to get an ECO100 enrollment
- We may want ECO100 to evolve over time in terms of pricing and supply.
 - More localized supply than ECOplus?
 - More price stability than ECOplus?

PCE Marketing Activity is Seasonal



Marketing is received better in Spring and Fall as energy bills tend to be lower

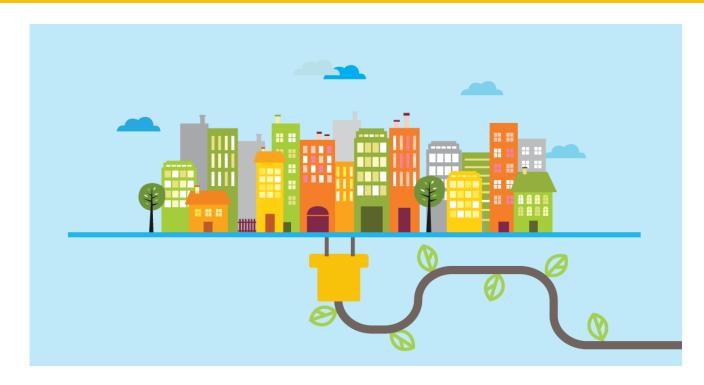
PCE Marketing Activity is Seasonal

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Social Media Maintenance																																									
Weekly Mailers																																									
Responding to Customer Inquiries																																									
Website Maintenance																																									
Collateral Design/Managing Swag																																									
Outreach Events																																									
CalCCA Efforts																																									
Monthly Activities																																									
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Current Strategy

- Focus on PCE brand building
- Market research on brand awareness





HOW WILL WE MEET OUR GOALS?

How Will We Provide a Superior Customer Experience?

Each customer group requires a slightly different set of resources to meet their customer service needs.

Residential and Small Commercial	Large Commercial Industrial (Top 50)
PCE Call Center (Calpine)	Individual outreach and response from PCE staff
Info@ and Support@ emails	Call Center questions ad emails re-directed to PCE
PCE website FAQ's	Personalized Energy Cost Analysis
Local outreach and community events	Annual or semi-annual customer meeting

How Will We Provide a Superior Customer Experience? Residential and Small Commercial

- Continue to work closely with Calpine on Call Center performance and CSR training
 - New Call Center facility is launching at the end of 2017/early 2018
 - Continue in-person visits (Quarterly) to meet with CSR team and Calpine operations staff
 - Work with Calpine to develop PCE specific training materials as needed (rate changes, seasonal bill issues, specific program developments, etc.)
- Look to potentially bring a CSR on staff at PCE to gain more real-time insight into customer questions and concerns.
- Continue to develop user friendly and intuitive tools via PCE website
 - Example: Understanding Your Bill worksheet and video

How Will We Provide a Superior Customer Experience? Top 50 Customers

- Personal outreach to large customers
 - First round attempts were pursued during launch, however several customers never responded
 - Pursue another round of outreach to connect and reaffirm the PCE value proposition
 - Hire Key Accounts Manager to focus on these customers
- Work with our largest customers to develop innovative long term partnerships
 - Explore long term service agreements to provide certainty to both
 PCE and our largest customers
 - Investigate partnership and service options for renewable project development and PPA contracts

How Will We Develop PCE Brand Awareness and Loyalty?

- Advertising
- Outreach
- Social Media
- Content Marketing
- Partnerships
- Continue to Offer Value



Outreach and Communication: Key Activities

Continue to build partnerships to reach key customers

- Small business: Chambers of Commerce
- Latino community
 - North Fair Oaks Library and outreach team
 - El Concilio de San Mateo County
 - Enlace de la Costa Sur
- Asian community
 - Voice of Hope Radio
 - News for Chinese Radio
- Discount customers
 - SMC Health System communications team
 - Commission on Disabilities
 - Commission on Aging
 - Rebuilding Together

Draft Campaign Theme

- You Have Great Energy
 - Easy to remember
 - Not prospective (you have it now)
 - Very positive, complimentary phrase
- Theme can be adapted to various campaigns
 - Display advertising
 - Video
 - Audio ads



Advertising Plan

Media Type	Channel	Amount	Location / Targeting	Timing	NOTES
Social Media	Facebook		Countywide	TBD	Highly targeted by interests, behaviors, demographics and geography. Wrefine and optimize in real-time.
	YouTube	\$1,500.00	Countywide	TBD	Tomo and opanizo in roa ano.
Cable TV	Comcast	\$15.500.00	Countywide	TBD	
Mobile	Geo-targeted Mobile ads (ReachLocal, Broadcast Soccer)		Countywide	TBD	Highly targeted around areas with highest opt-outs (really effective for another project)
Outdoor	Grocery Stores	\$5,500.00	99 Ranch in Daly City (carts & banners) Half Moon Bay (carts, store TBD) - Mexican Meat Market / Loma Produce / Caniceria Tepa - Seafood City Supermarket	TBD	San Bruno; Half Moon Bay; General, Filipino, Chinese & Latino Resident 99 Ranch - \$1,500/month for banner Safeway stores in San Bruno and Half Moon Bay are available. \$2,400 for 6 months of ads for entire store
	SamTrans Bus Ads (Lamar)	\$7,500.00		TBD	There is space available.
	SamTrans Shelter Ads (Outfront)	\$7,500.00		TBD	There is availablility.
	BART	\$10,000.00	San Bruno, South San Francicso (Daly City, Colma, Millbrae)	TBD	Cost for 6 weeks (1.5 x 4 week rate) 2-sheet - \$825 Rail King - \$1,612 **at this rate, we can target 4 stations. Here is the stations availability: Daly City 2-Sheets: 8 Rail Kings: 3 South SF 2-Sheets: 2 Rail Kings: 4 San Bruno 2-Sheets: 8
Community	Classic Bowling	\$600.00	Daly City	TBD	space is available.
	San Mateo On Ice Dasherboard	\$1,000.00	San Mateo		8'W x 32"H
	Sports Team Sponsorship	\$500.00	TBD, based on availability	Seasonal/ Ongoing	Pacifica Tigersharks (football)= game announcemnts and banner: \$500
Print	Half Moon Bay Review		Half Moon Bay	TBD	
	Pacifica Magazine	\$2,000.00		TBD	
	San Bruno Herald		San Bruno	TBD	
	San Mateo Daily Journal EPA Today	\$6,000.00	East Palo Alto		
	Phillipines Today		South San Francisco, San Bruno	TBD	
	Manila Mail		Daly City,	TBD	
	El Mensajero	\$2,000.00		100	
	El Tecolote		South SF, Daly City	TBD	
Radio	Pandora		Countywide	TBD	We can target by geography and language
	HMB Radio Multicultural Radio (FilAm, TFC, Voice of Hope)	\$1,500.00	Half Moon Bay - FilAm - filipino - Animateur de Radio (unvision) - spanish, the host lives in South SF	TBD	

How Will We Encourage Participation in ECO100?

- Partnerships
 - Cities
 - CAC members
 - Key stakeholders
 - Aligned organizations
- Green-e certification to improve confidence in ECO100



How Will We Encourage Participation in other PCE Programs?

- Help develop programs that meet customer needs
- Promote those programs
- Identify customers' preferences



How Will We Achieve Recognition from the U.S. EPA for Green Power Communities for all 20 cities by 2018?

- Achieve Green-e certification
- Only municipalities buying ECO100 are eligible
- Encourage residential and business participation in ECO100
- Apply for Green Power Community status





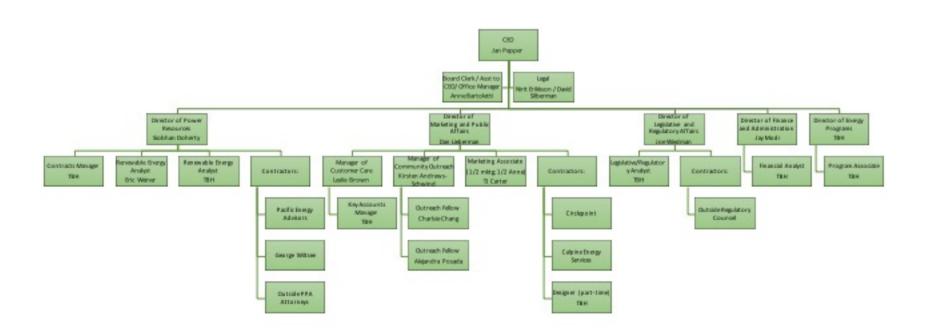
BOARD INPUT

Discussion of Priorities

- Brand building and outreach are the keys to keeping opt-outs low
- ECO100 is important product, but mass promotion by PCE may cause customer confusion around premium cost
 - Invest marketing spend on retention
 - Leverage relationships to increase opt-ups to ECO100
- Preferred approach is to work with partners over the next year to promote ECO100
 - RICAPs
 - Citizens Advisory Committee
 - Aligned partners (Sustainable San Mateo County, OOS, Menlo Spark, etc.)

1:45 – 2:00 PCE Organization and Staffing Plan (Discussion)

PCE Organization/Staffing Plan for FY2018



Adjourn