



# **Peninsula Clean Energy Board of Directors Meeting**

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June 25, 2020

# Agenda

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- Call to order / Roll Call
- Public Comment
- Action to set the agenda and approve consent items

# Regular Agenda

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## 1. Chair Report (Discussion)

# Regular Agenda

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## 2. CEO Report (Discussion)

# Today's Updates

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

# Staffing Update

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- Dave Fribush started on June 1, 2020, as a consultant for a six-month term as Manager of Distributed Energy Resources Strategy.
- Matthew Rutherford started on June 15 as Regulatory Analyst
- Greg Miller, PhD student from UC Davis, joined PCE on June 15 as summer intern, researching 24x7 renewable energy goal
- Bobbi Bennett, HR Consultant, introduced to staff on June 17 with focus on Employee Relations and Employee Engagement. She will be meeting with every staff member over the next few weeks.
- We currently have one open position for a Data Manager.

# COVID-19 Load Impact Analysis

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

Thank you to the power resources team for this analysis!

# PCE Load after Shelter-in-place order

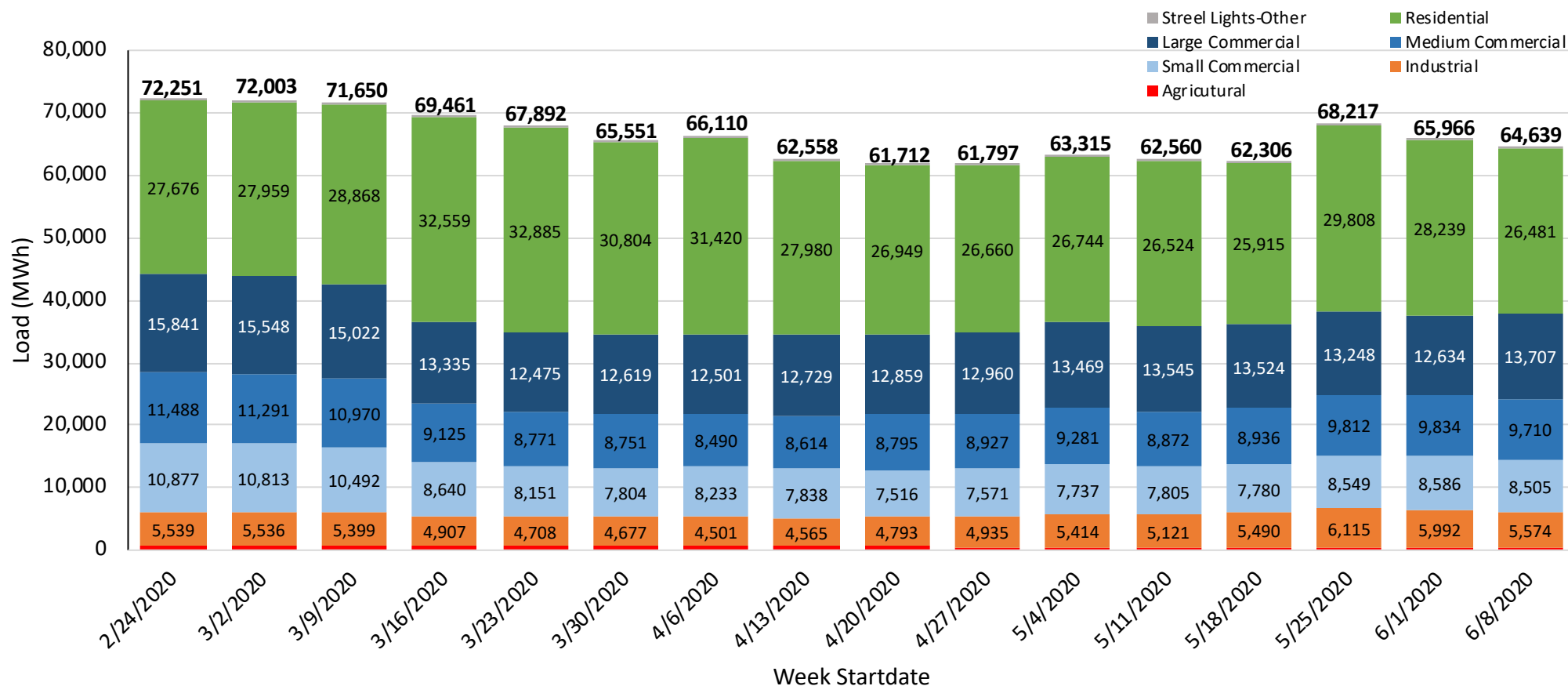
- Week of May 25<sup>th</sup> (Memorial Day Weekend Heatwave):
  - 6% decrease in Total PCE load compared to last week of Feb.
  - Around 17% decrease in commercial load
  - 8% increase in residential load (due to higher than normal temperatures, customers running cooling devices)
- Week of June 8<sup>th</sup>:
  - 11% decrease in Total PCE load compared to last week of Feb.
  - Around 16% decrease in commercial load
  - 4% decrease in residential load (due to milder temperatures)

Customer Class	2/24/2020	5/25/2020		6/8/2020	
	Load	Load	Percent Change	Load	Percent Change
Agricultural	593	495	-17%	475	-20%
Industrial	5539	6115	10%	5574	1%
Large Commercial	15841	13248	-16%	13707	-13%
Medium Commercial	11488	9812	-15%	9710	-15%
Residential	27676	29808	8%	26481	-4%
Small Commercial	10877	8549	-21%	8505	-22%
Street Lights-Other	237	190	-20%	186	-21%
<b>Total PCE (MWh)</b>	<b>72251</b>	<b>68217</b>	<b>-6%</b>	<b>64639</b>	<b>-11%</b>



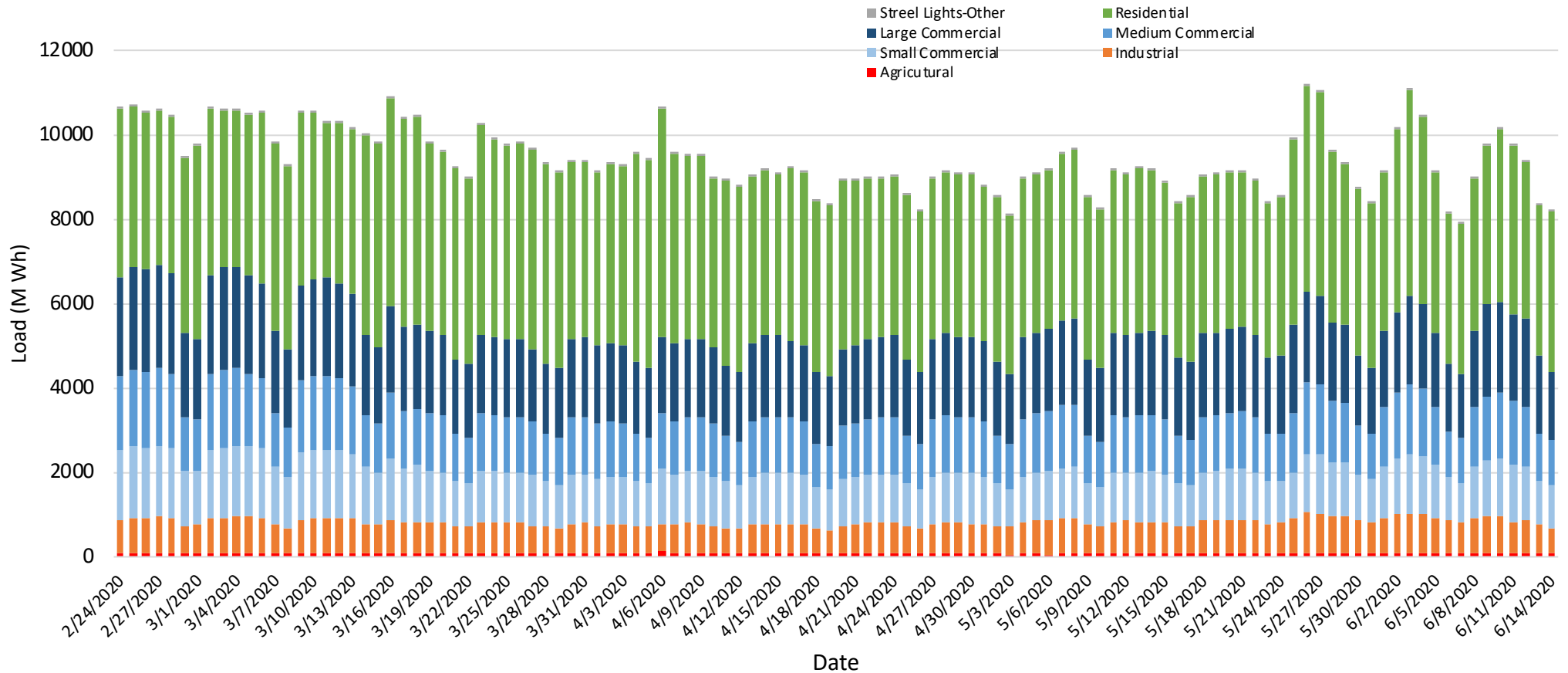
# Weekly Load

- 9% and 11% decrease in Total PCE load in weeks of June 1<sup>st</sup> and June 8<sup>th</sup> compared to last week of Feb and first two weeks of Mar

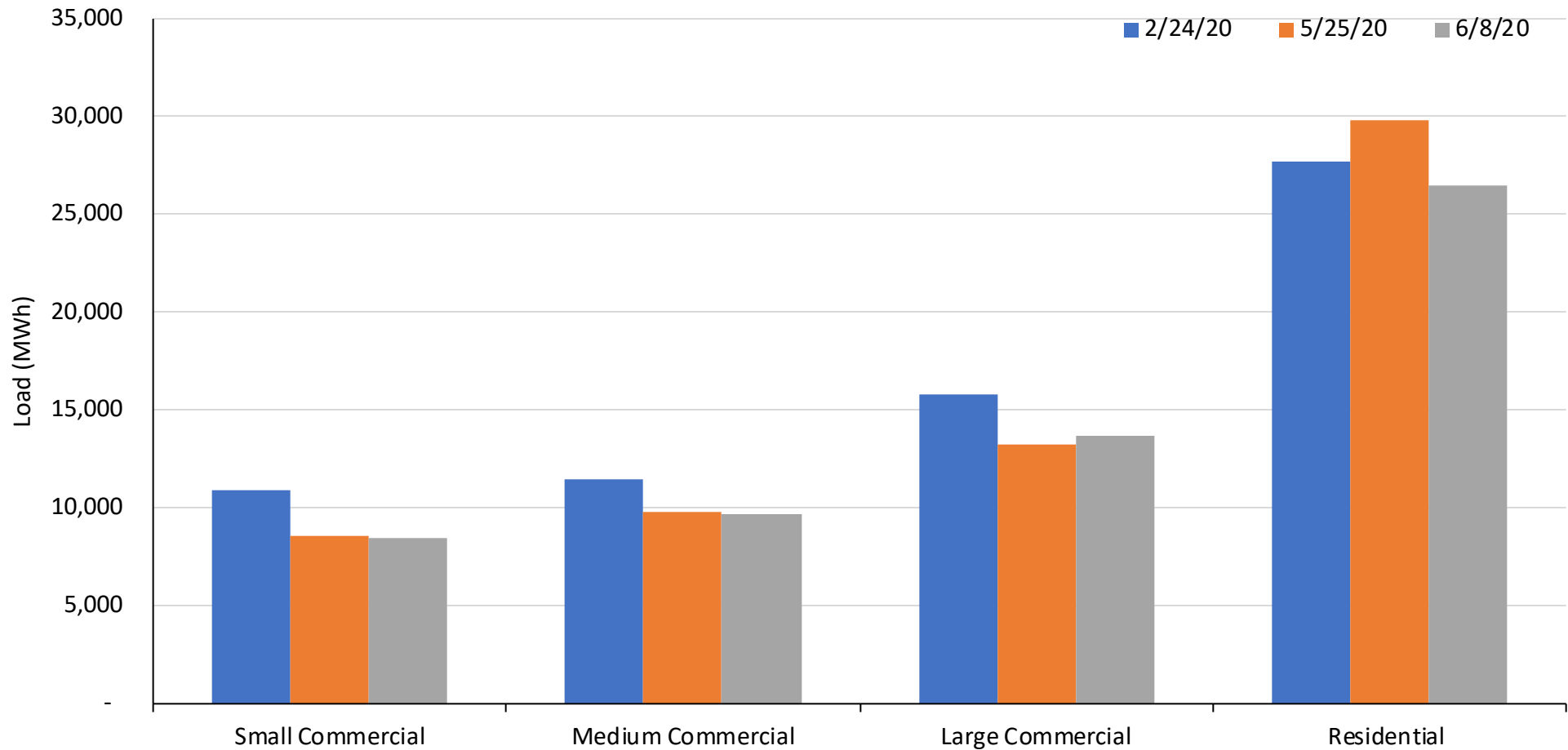


# Daily Load

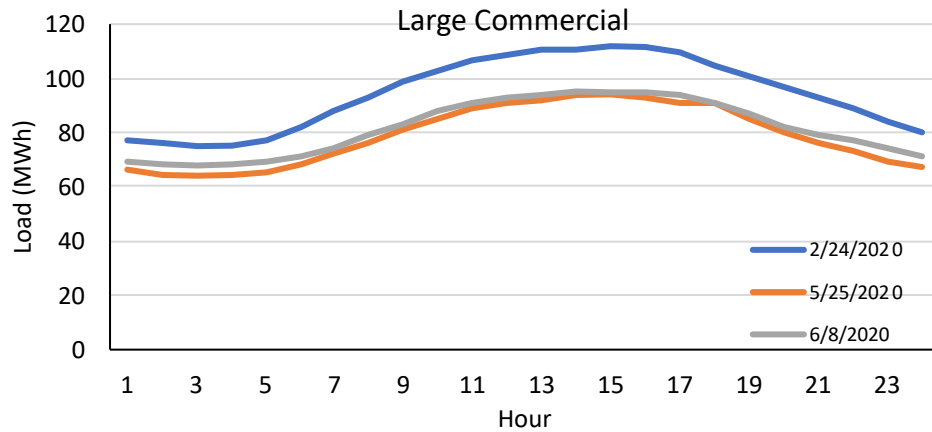
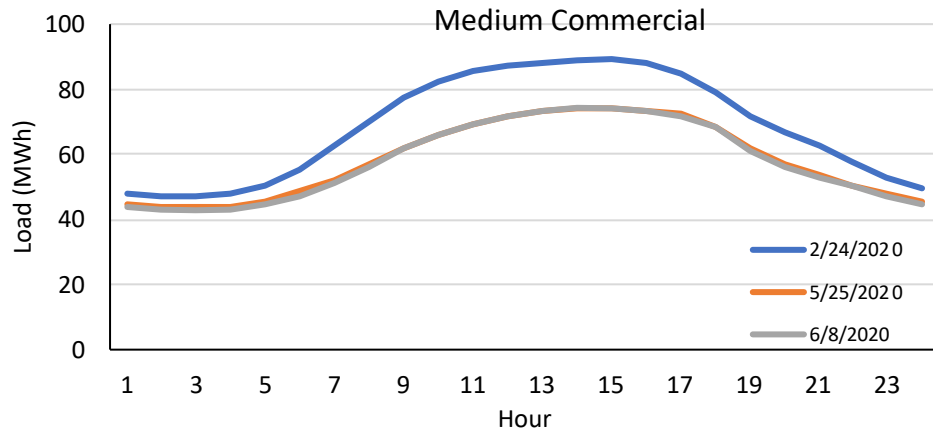
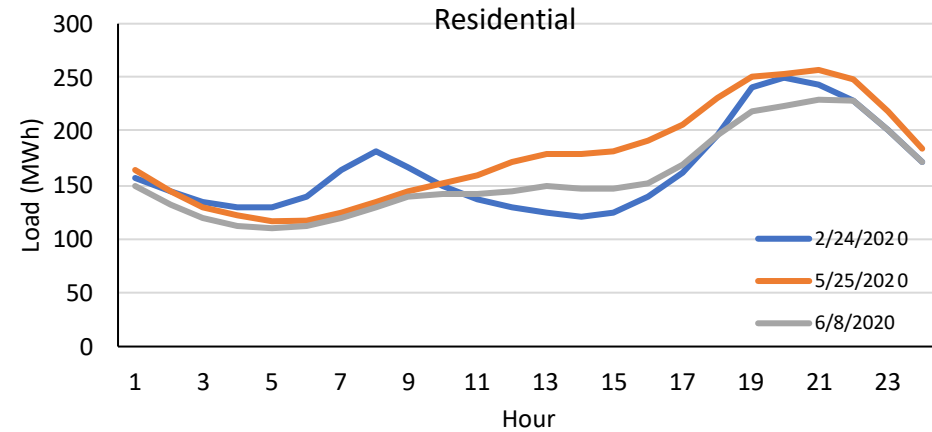
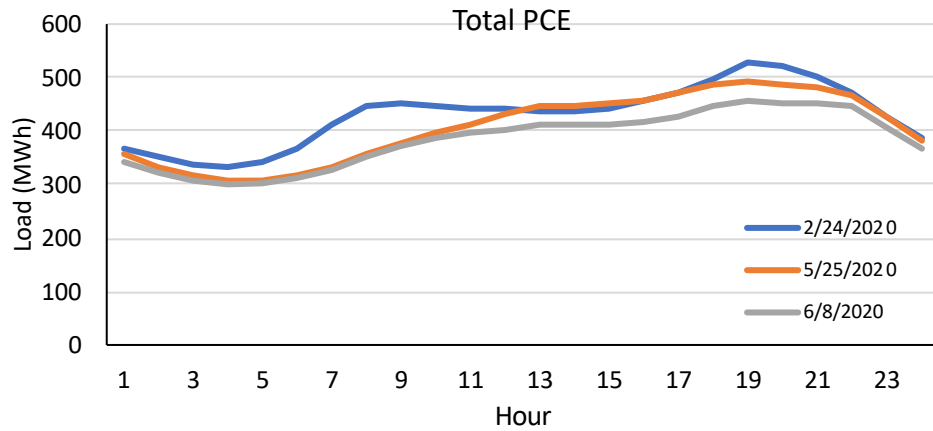
- Decrease in daily load compared to same weekdays in the weeks before shelter-in-place.



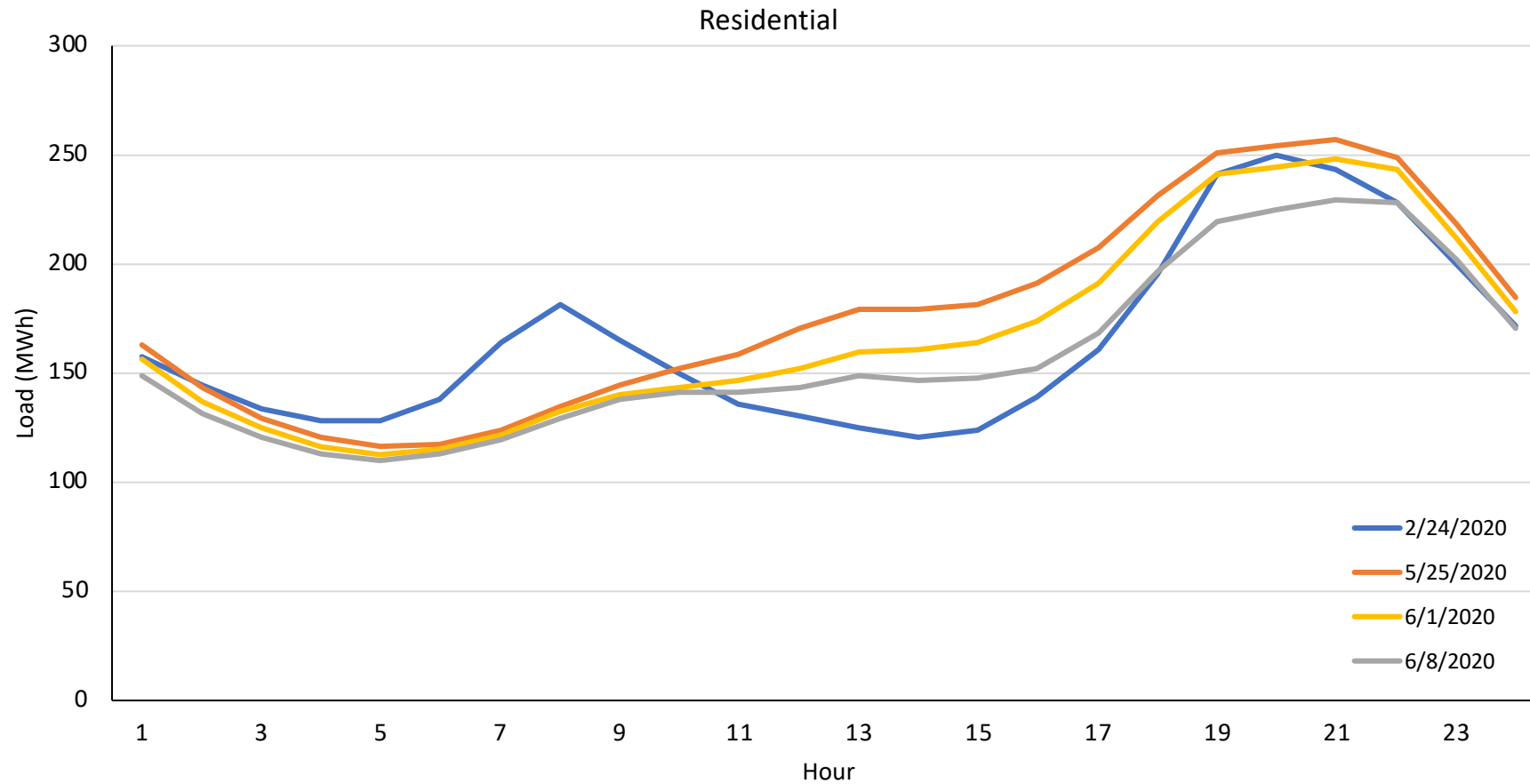
# Weekly Load by Customer Type



# Load Shapes



# Residential Load Shape



# Merced County Update

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

# Strategic Plan Update

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- High level “glossy” brochure (pdf) expected to be on PCE website by end of June
- Ongoing implementation work of the plan by staff



# Power On Peninsula – Medically Vulnerable Program

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



	Unit Volume	Total Capacity	Total Cost (\$)
Yeti 3000x	150	450kWh	360,000
200W Foldable solar panel	100	20kW	37,500
<b>Total</b>			397,500



# Power On Peninsula – Medically Vulnerable Program

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- Outreach partners:
  - Senior Coastsiders – agreement in process
  - Puente de la Costa Sur – working on agreement
- Product Sourcing and Distribution:
  - Working with a number of different channels
  - Hoping to get initial product delivery in July/Aug
- Shout out to Peter Levitt and Kirsten Andrews-Schwind for their work on this project

# Upcoming Meetings

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These meetings will continue to be held by video/teleconference

- Citizens Advisory Committee:
  - July 9 at 6:30 p.m.
- Executive Committee:
  - July 13 at 8:00 a.m.
- Board of Directors:
  - July 23 at 6:30 p.m.



# Regular Agenda

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## 3. Citizens Advisory Committee Report (Discussion)

# Regular Agenda

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## 4. Audit and Finance Committee Report (Discussion)

# Regular Agenda

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## 5. Approve Fiscal Year 2020-2021 Budget (Action)



# **Fiscal Year FY2020-2021 Budget Review** ***Proposed***

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# Schedule – Budget Review and Approval

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

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

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

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

June 25, 2020 – Approve Final by Board of Directors

# **Resolution Approved by Audit & Finance Committee**

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

***UNANIMOUSLY APPROVED ON JUNE 8, 2020***



# Proposed Budget FY2020-2021 - Key Assumptions

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

# Load Assumptions for Budget

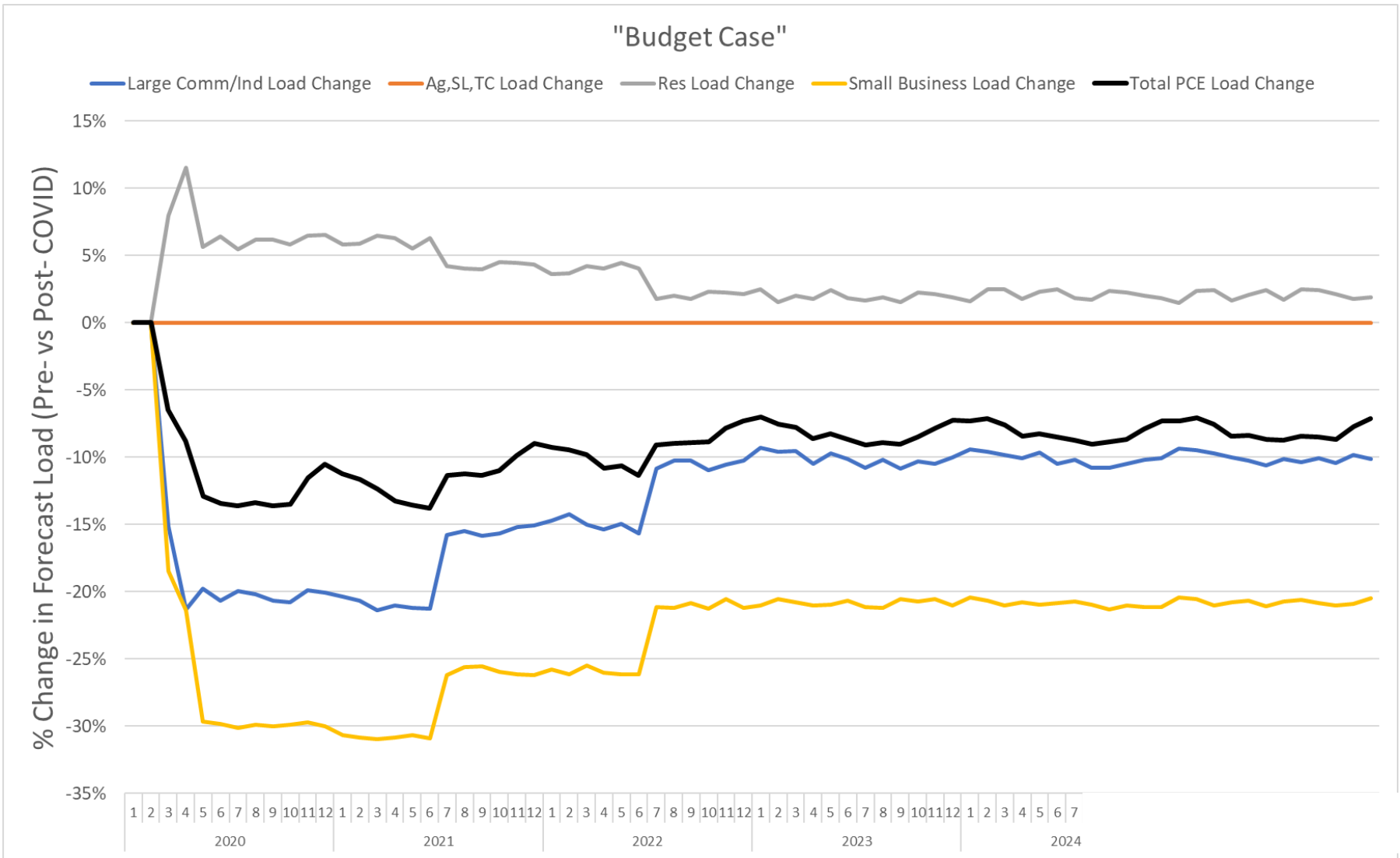
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- No sharp recovery periods
- Residential
  - 6% increase through June 2021, then 4% increase for 1 year
  - 2% increase for next 3 years after
- Small/Medium Business (**biggest change**)
  - 30% decrease through June 2021, then 25% decrease for 1 year
  - 20% decrease for next 3 years after
- Large Commercial/Industrial
  - 20% decrease through June 201, then 15% decrease for 1 year
  - 10% decrease for next 3 years after
- Total PCE Load
  - 13% decrease through June 2021, then 10% decrease for 1 year
  - 8% decrease for next 3 years after

# Impact of Revised COVID-19 Assumptions on Total Load

		FY2020-2021	FY2021-2022	FY2022-2023	FY2023-2024	FY2024-2025
Pre-COVID Forecast		3,817	3,836	3,880	3,934	3,969
Revised Budget (GWh)		3,334	3,437	3,561	3,614	3,646
Change from Pre-COVID Forecast		-13%	-10%	-8%	-8%	-8%

# Impact of Revised COVID-19 Assumptions on Load by Customer Category




# Summary Proposed Budget FY2020-2021

	FY2019-2020	FY2019-2020		Variance FY2021 Budget vs. FY2020 Forecast	
	Approved Budget	Forecast	FY2020-2021 Proposed Budget	Increase/(Decrease)	
				\$ Change	% Change
<b>Total Operating Revenues</b>	<b>267,782,231</b>	<b>275,734,960</b>	<b>215,703,496</b>	<b>(60,031,464)</b>	<b>-22%</b>
<b>OPERATING EXPENSES</b>					
Cost of energy	216,549,065	206,707,294	197,445,054	(9,262,240)	-4%
Staff compensation	4,589,149	4,463,060	6,236,981	1,796,421	40%
Consultants & Professional Svcs	896,333	825,945	3,068,340	2,242,395	271%
Communications and Noticing	1,754,800	1,233,693	2,873,350	1,639,657	133%
Community Energy Programs	5,094,473	1,680,058	7,550,000	5,869,942	349%
Other Operating Expenses	7,925,266	7,619,335	8,468,728	849,393	11%
<b>Total Operating Expenses</b>	<b>236,809,086</b>	<b>222,529,385</b>	<b>225,642,453</b>	<b>3,135,568</b>	<b>1%</b>
<b>Operating Income (Loss)</b>	<b>30,973,145</b>	<b>53,205,575</b>	<b>(9,938,957)</b>	<b>(63,144,532)</b>	<b>-119%</b>
<b>Total Nonoperating Inc/(Exp)</b>	<b>2,232,000</b>	<b>2,113,545</b>	<b>1,408,000</b>	<b>(705,545)</b>	<b>-33%</b>
<b>CHANGE IN NET POSITION</b>	<b>33,205,145</b>	<b>55,319,120</b>	<b>(8,530,957)</b>	<b>(63,850,077)</b>	<b>-115%</b>
<b>Net Position at the end of period</b>	<b>167,991,587</b>	<b>195,458,248</b>	<b>186,927,291</b>		
<b>Total Cash &amp; Cash Equivalents</b>	<b>159,102,751</b>	<b>222,445,744</b>	<b>186,646,421</b>		
<b>Unrestricted - Days Cash on Hand</b>	<b>159</b>	<b>272</b>	<b>255</b>		

Approve \$225.6 million  
Total Operating Expenses

# Proposed Budget Detail - Revenues




	FY2019-2020	FY2019-2020	FY2020-2021	Variance FY2021 Budget vs. FY2020 Forecast	
	Approved Budget	Forecast	Proposed Budget	Increase/(Decrease)	
				\$ Change	% Change
<b>OPERATING REVENUES</b>					
Electricity Sales, net	265,221,745	273,223,764	213,552,721	(59,671,042)	-22%
Green electricity premium	2,560,486	2,511,196	2,150,775	(360,422)	-14%
<b>Total Operating Revenues</b>	<b>267,782,231</b>	<b>275,734,960</b>	<b>215,703,496</b>	<b>(60,031,464)</b>	<b>-22%</b>

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

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

# Proposed Budgeted Cost Detail – Cost of Energy



	FY2019-2020	FY2019-2020	FY2020-2021	Variance FY2021 Budget vs. FY2020 Forecast	
	Approved Budget	Forecast	Proposed Budget	Increase/(Decrease)	
				\$ Change	% Change
<b>OPERATING EXPENSES</b>					
Cost of energy	216,549,065	206,707,294	197,445,054	(9,262,240)	-4%
Net Energy Purchases	166,929,241	153,536,002	146,775,606	(6,760,397)	-4%
Resource Adequacy (Net of Resales)	21,045,015	27,458,325	31,474,662	4,016,337	15%
RECs and GHG Purchases	26,787,350	23,379,671	16,717,285	(6,662,386)	-28%
Forecasting and scheduling	1,313,079	1,332,632	1,477,502	144,871	11%
NEM Expense	474,380	1,000,664	1,000,000	(664)	0%

## Net Energy Purchases - Lower

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

## RECs and GHG expenses lower

- Lower volume required
- Production from PPAs decreases need to purchase separately

## Resource Adequacy - Higher

- Higher prices expected
- Increased Volume – Requirements are based on prior year (Pre-COVID) forecast

# Proposed Plan FY2022-2025 - Key Assumptions

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

## PCIA

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

## PPA Contracts

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

## Programs Contracts

- DER/Resiliency Program ramps continues
- Significant expansion EV infrastructure- \$5 million/year in FY22 and FY23
- Allocated funds for Innovation - \$1 million/year in FY23, FY24 and FY25



# Proposed 5-year Plan – Observations

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## 1. COVID-19 likely to have significant impact on revenues

- Revenue decrease of \$31 million expected in FY20-21
- Revenue decrease of an average of \$23 million expected for each of next 4 years

## 2. Expect to be able to mitigate revenue loss with significant energy cost reductions

- Cost of Energy expected to be \$24 million lower than Pre-COVID in FY20-21
- Cost of Energy expected to be on average \$19 million less for next 4 years

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

## 4. Significant Cash Reserves and Open Position in energy procurement enables:

- Ability to weather downturn for some time
- Maintain Cash Reserves well above required level
- Continue to invest in community grants and energy programs

# Proposed FY2020-2021 Budget & 5-year Plan

	FY2020-2021	FY2021-2022	FY2022-2023	FY2023-2024	FY2024-2025
	Proposed Budget	Plan	Plan	Plan	Plan
<b>OPERATING REVENUES</b>					
Electricity Sales, net	213,552,721	229,955,736	231,697,113	237,874,445	242,042,383
Green electricity premium	2,150,775	2,335,232	2,550,546	2,748,740	2,984,385
<b>Total Operating Revenues</b>	<b>215,703,496</b>	<b>232,290,968</b>	<b>234,247,659</b>	<b>240,623,184</b>	<b>245,026,768</b>
<b>OPERATING EXPENSES</b>					
Cost of energy	197,445,054	202,229,484	206,778,295	203,341,622	214,720,629
Staff compensation	6,236,981	6,786,954	7,119,219	7,468,097	7,834,419
Data Manager	3,420,000	3,454,200	3,488,742	3,523,629	3,558,866
Service Fees - PG&E	1,260,000	1,272,600	1,285,326	1,298,179	1,311,161
Consultants & Professional Svcs	3,068,340	4,175,940	2,898,135	2,441,572	2,422,480
Legal	1,708,230	1,706,160	1,753,260	1,797,619	1,854,449
Marketing, Communications and Noticing	2,873,350	2,966,418	2,227,878	2,335,362	2,447,910
General and Administrative	1,947,282	2,071,452	2,588,462	2,658,448	2,731,552
Community Energy Programs	7,550,000	10,435,000	10,870,000	10,950,000	11,000,000
Depreciation	133,216	169,216	205,216	241,216	277,216
<b>Total Operating Expenses</b>	<b>225,642,453</b>	<b>235,267,423</b>	<b>239,214,533</b>	<b>236,055,745</b>	<b>248,158,683</b>
<b>Operating Income (Loss)</b>	<b>(9,938,957)</b>	<b>(2,976,455)</b>	<b>(4,966,874)</b>	<b>4,567,439</b>	<b>(3,131,915)</b>
<b>Total Nonoperating Inc/(Exp)</b>	<b>1,408,000</b>	<b>1,528,000</b>	<b>1,648,000</b>	<b>1,768,000</b>	<b>1,888,000</b>
<b>CHANGE IN NET POSITION</b>	<b>(8,530,957)</b>	<b>(1,448,455)</b>	<b>(3,318,874)</b>	<b>6,335,439</b>	<b>(1,243,915)</b>
<b>Net Position at the end of period</b>	<b>186,927,291</b>	<b>185,478,836</b>	<b>182,159,962</b>	<b>188,495,402</b>	<b>187,251,487</b>
<b>Total Cash &amp; Cash Equivalents</b>	<b>186,646,421</b>	<b>184,697,966</b>	<b>181,379,092</b>	<b>187,714,531</b>	<b>186,470,616</b>
<b>Unrestricted - Days Cash on Hand</b>	<b>255</b>	<b>242</b>	<b>233</b>	<b>246</b>	<b>232</b>

Approve \$225.6 million Total Operating Expenses

# **Request for Approval by Board of Directors**

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



# **Fiscal Year FY2020-2021 Budget** ***Detailed Expense Categories***

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# Proposed Budget Cost Detail – Staff Compensation

	FY2019-2020	FY2019-2020	FY2020-2021	Variance FY2021 Budget vs. FY2020 Forecast Increase/(Decrease)	
	Approved Budget	Forecast	Proposed Budget	\$ Change	% Change
<b>OPERATING EXPENSES</b>					
Staff compensation	4,589,149	4,463,060	6,236,981	1,796,421	40%
Employee welfare	223,550	326,327	442,592	116,266	36%
Payroll tax expense	260,809	224,254	306,797	82,543	37%
Retirement plan contributions	353,954	326,489	455,633	129,144	40%
Salaries and wages	3,725,836	3,561,432	5,006,958	1,445,526	41%
Workers comp insurance	25,000	24,558	25,000	442	2%
Other	-	-	-	-	0%
Temp Employee	-	-	22,500	22,500	0%

## Significant assumptions of note:

- Addition of 8 employees from today's level through June 2021 (2 current open positions)
- Increase over FY19-20 forecast looks bigger because 10 current employees were hired during the year – only a portion of their full-year salaries is reflected in current year's forecast


# Proposed Budget Cost Detail – Data Manager/Service Fees

	FY2019-2020	FY2019-2020		FY2020-2021		Variance FY2021 Budget vs. FY2020 Forecast	
	Approved Budget	Forecast		Proposed Budget		Increase/(Decrease)	
						\$ Change	% Change
<b>OPERATING EXPENSES</b>							
Data Manager	3,822,123	3,655,825		3,420,000		(235,825)	-6%
Service Fees - PG&E	1,256,056	1,252,779		1,260,000		7,221	1%

Significant assumptions of note:

- Data Manager expenses expected to be lower due to revised/lower contract with Calpine

# Proposed Budget Cost Detail – Professional Services




	FY2019-2020	FY2019-2020	FY2020-2021	Variance FY2021 Budget vs. FY2020 Forecast Increase/(Decrease)	
	Approved Budget	Forecast	Proposed Budget	\$ Change	% Change
<b>OPERATING EXPENSES</b>					
Consultants & Professional Svcs	896,333	825,945	3,068,340	2,242,395	271%
Accounting & Auditing	165,000	174,753	191,000	16,247	9%
Human Resources Consulting	68,000	24,236	72,000	47,764	197%
IT Consulting	48,000	60,495	60,000	(495)	-1%
Other Consultants	290,000	242,344	527,000	284,656	117%
Technical consultants	-	-	-	-	0%
Power Resources Consulting	325,333	324,117	2,218,340	1,894,223	584%

## Significant assumptions of note:

- \$1.5 million for Approved DER and Resiliency projects – included in Power Resources Consulting for now
- \$270K included in “Other Consultants” for Innovation projects

# Proposed Budget Cost Detail – Legal




	FY2019-2020 Approved Budget	FY2019-2020 Forecast	FY2020-2021 Proposed Budget	Variance FY2021 Budget vs. FY2020 Forecast Increase/(Decrease)	
				\$ Change	% Change
<b>OPERATING EXPENSES</b>					
Legal	1,471,500	1,265,791	1,708,230	442,439	35%
Legislative	210,000	118,323	126,750	8,427	7%
Legal Power Resources	540,000	458,463	720,000	261,537	57%
Legal Agency	240,000	193,397	240,000	46,603	24%
Legal Regulatory	481,500	495,609	621,480	125,871	25%

## Significant assumptions of note:

- Increased legal effort expected in support of several new PPAs to be signed in FY2020-2021
- Increased Regulatory support expected



# Proposed Budget Cost Detail – Communications/Marketing




	FY2019-2020	FY2019-2020	FY2020-2021	Variance FY2021 Budget vs. FY2020 Forecast	
	Approved Budget	Forecast	Proposed Budget	Increase/(Decrease)	
				\$ Change	% Change
<b>OPERATING EXPENSES</b>					
Communications and Noticing	1,754,800	1,233,693	2,873,350	1,639,657	133%
Advertising/Paid Media	73,000	68,788	503,850	435,062	632%
Communications consultants	420,000	308,940	375,300	66,360	21%
Sponsorships and memberships	100,000	90,777	129,000	38,223	42%
Marketing Automation/Software	14,800	3,352	77,500	74,148	2212%
Promotions & Branding	747,000	82,025	83,200	1,175	1%
Communications - misc expenses	50,000	41,895	12,000	(29,895)	-71%
Grants & Partner Contracts	8,000	209,836	1,297,500	1,087,664	518%
Direct Mail	-	8,645	87,000	78,355	906%
Collateral	-	-	72,000	72,000	0%
Required Mailings	342,000	419,436	236,000	(183,436)	-44%

## Significant assumptions of note:

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

# Proposed Budget Cost Detail – General & Administrative




	FY2019-2020 Approved Budget	FY2019-2020 Forecast	FY2020-2021 Proposed Budget	Variance FY2021 Budget vs. FY2020 Forecast Increase/(Decrease)	
				\$ Change	% Change
<b>OPERATING EXPENSES</b>					
General and Administrative	1,277,187	1,348,029	1,947,282	599,253	44%
Bank service fee	60,000	118,457	129,312	10,855	9%
Building Maintenance	3,000	7,871	15,000	7,129	91%
Business meals	12,000	18,740	30,000	11,260	60%
Conferences & prof development	42,000	27,282	24,000	(3,282)	-12%
Equipment lease	3,600	2,921	6,000	3,079	105%
Industry memberships and dues	425,000	355,632	480,000	124,368	35%
Insurance	84,000	80,216	120,000	39,784	50%
Miscellaneous G&A	12,000	2,000	-	(2,000)	-100%
Office supplies and postage	18,000	17,407	24,000	6,593	38%
Payroll service fees	18,000	20,172	21,000	828	4%
Rent	381,787	429,324	531,570	102,246	24%
Small equipment & software	72,000	113,442	390,000	276,558	244%
Subscriptions	60,000	72,701	72,000	(701)	-1%
Utilities	48,000	48,433	60,000	11,567	24%
Travel - Mileage/fuel	4,200	3,121	3,600	479	15%
Travel - Parking and Tolls	3,600	4,574	7,200	2,626	57%
Travel - Airfare	12,000	7,705	9,600	1,895	25%
Travel - Lodging	12,000	17,031	24,000	6,969	41%
Travel - Other Travel	6,000	1,000	-	(1,000)	-100%

Significant assumptions of note:

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

# Proposed Budget Cost Detail – Community Energy Programs



	FY2019-2020	FY2019-2020		FY2020-2021		Variance FY2021 Budget vs. FY2020 Forecast	
	Approved Budget	Forecast		Proposed Budget		Increase/(Decrease)	
						\$ Change	% Change
<b>OPERATING EXPENSES</b>							
Community Energy Programs	5,094,473	1,680,058		7,550,000		5,869,942	349%
Energy Program Consulting	1,569,447	895,183		2,403,000		1,507,817	168%
Programs - G&A	-	105,196		-		(105,196)	-100%
Programs - Marketing	-	2,500		250,000		247,500	9900%
Programs - Incentives	3,525,026	677,179		4,897,000		4,219,821	623%

## Significant assumptions of note:

- Approved Electric Vehicle Programs/Infrastructure
  - Consulting - \$1.1 million
  - Incentives - \$3.9 million
- Approved Building Electrification Program- \$950K
- Community Pilots/Grants - \$350K
- Approved Ride & Drives - \$250K

# Regular Agenda

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

# Recommendations Requiring Board Approval

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

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

A.3. Enhance processes for reviewing and recommending the addition of new Advisory Committee members when filling open positions by increasing CAC involvement in their screening and selection.

# Regular Agenda

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



# **Approve Distributed Energy Storage Agreement with Sunrun**

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Siobhan Doherty, Director of Power Resource

Peter Levitt, Associate Manager Distributed  
Resources

# Recommendation

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



# Agenda

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

# Background

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- October 2019: 3 Public Safety Power Shutoff (PSPS) events impact PCE customers
  - Largest PSPS impacted over 55,000 customer accounts
- January 2020: Resiliency Strategy commits \$10 MM over 3 years
  - Distributed Resource Adequacy (RA) to provide backup power to customers and RA benefits to Peninsula Clean Energy

# Solicitation Summary

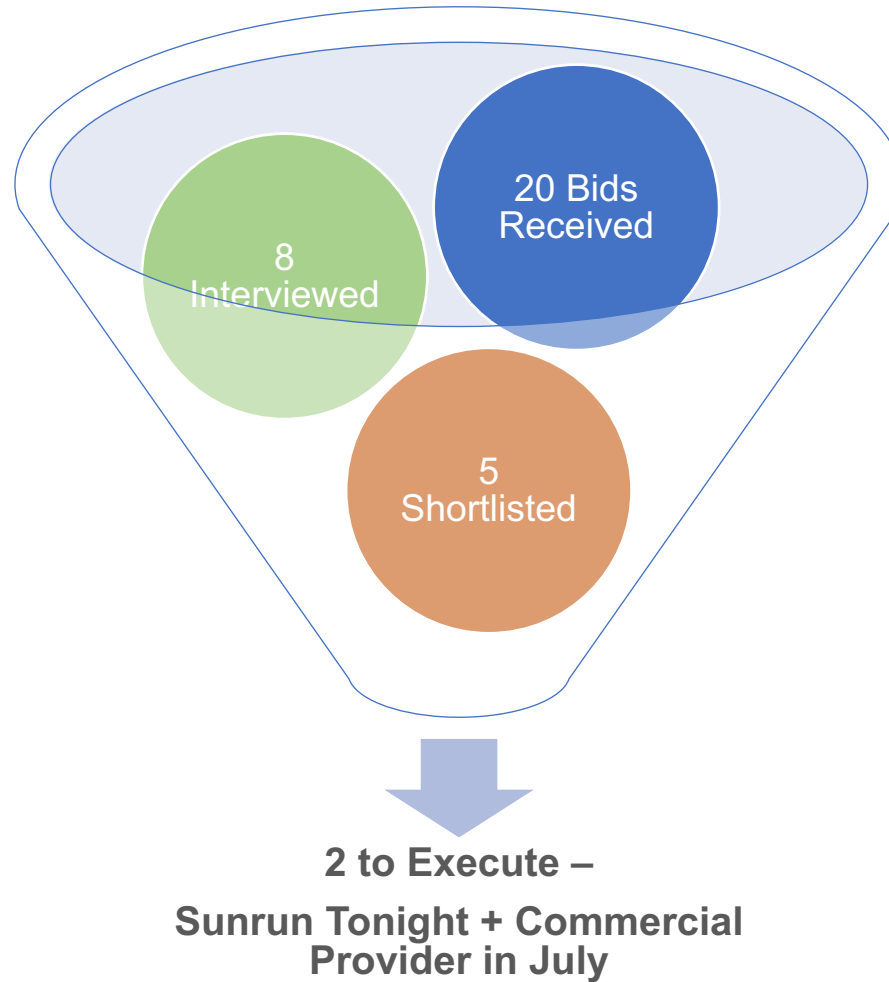
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- Coordinated with 3 other load serving entities (LSEs): EBCE, SVCE, SVP
- Issued November 19, 2020
- Targeted 30MW+ of RA across 4 LSEs
  - Peninsula Clean Energy targeted 10+MW
- RA sourced from distributed solar+storage systems
- Carve out for minimum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



# Solicitation Summary

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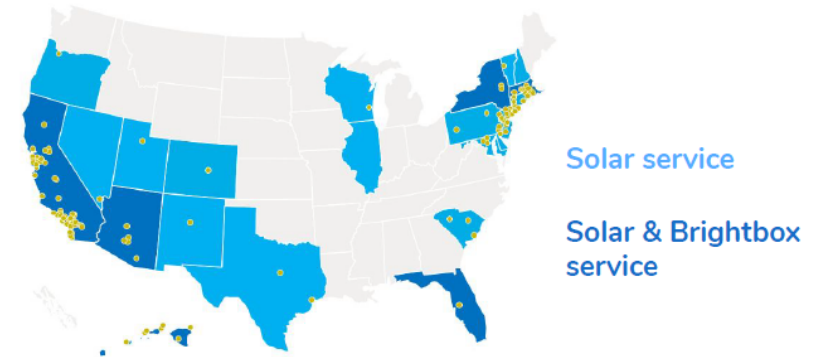
# About Sunrun, Inc.

## Sunrun overview

### Who We Are

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

### Market Coverage



#### Value to customer



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

#### Value to the Grid



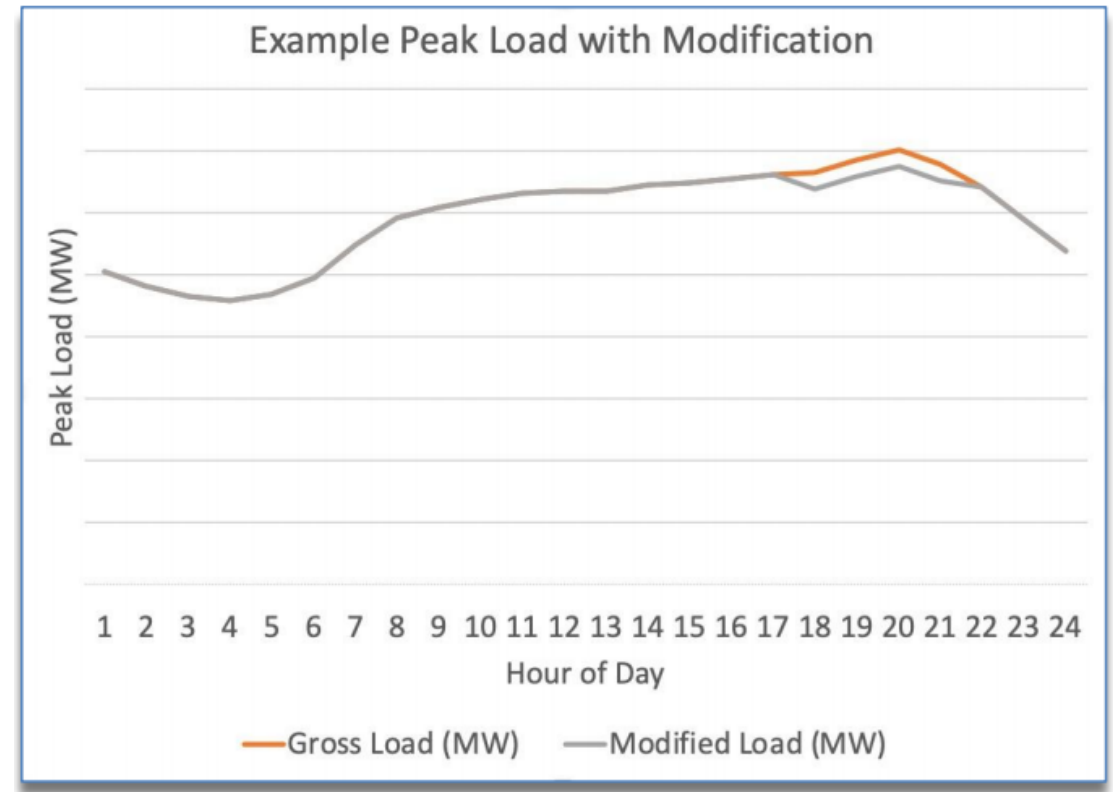
- + Peak capacity
- + Resiliency
- + Dispatchable Virtual Power plant
- + Ancillary Services

# Contract Terms

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

# Capacity Product – Load Modification

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



# Product Transition Trigger

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- Load modification is a new approach. PCE and other LSEs have been working with regulatory agencies on this mechanism, however there is still some uncertainty
- Contract includes a “Product Transition Trigger” to allow for change in how batteries provide capacity benefits
- Product Transition can be triggered:
  - If the CEC no longer accepts load modification mechanism
  - If the CEC is accepting less than 80% of the load modification



# Proxy Demand Response (PDR)

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- PDR is a slightly more established process for distributed resources to provide capacity attributes,
- Designed for demand response rather than energy storage
- Several drawbacks:
  - Process is complex and time consuming
  - Volume of resources that can be counted is lower
  - Results in a higher price

# Workforce Development

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

# Marketing Plan

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

# Recommendation

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

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

- Design a diverse power portfolio that is 100% carbon-free by 2021; and is 100% carbon-free by 2024 that aligns supply and consumer demand on a 24x7 basis
- Create a minimum of 20MW of new power resources in San Mateo County by 2025

# Regular Agenda

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



# **Distributed RA Program Admin Contract Amendment**

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Siobhan Doherty, Director of Power Resources

Peter Levitt, Associate Manager Distributed Resources

June 25, 2020

# Recommendation

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

# Agenda

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- Background
- Amendment Summary
- Consultant Selection
- Recommendation



# Background

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- January 2020: hired TerraVerde Energy to support staff evaluate responses to the Distributed RA RFP
- Evaluated two potential partners, one that was working with EBCE and TerraVerde
- Chose TerraVerde due to their:
  - Expertise in working on public sector solar+storage programs,
  - Familiarity with Proxy Demand Response, and
  - Deep background on public procurements.

# Background

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- Initial Scope of Work to support the evaluation of RFP responses
  - Created and completed evaluation matrix;
  - Assisted in identifying respondents to interview;
  - Organized initial and final interviews including developing questions, attending interviews and following up with interviewees on outstanding questions;
  - Advised on identifying respondents to shortlist and select;
  - Supported staff through negotiation process.
- Exceeded staff expectations –
  - Played an integral role in clarifying our goals for the program and representing these goals to vendors throughout the interview process.
  - Provided prompt, valuable feedback to inform the vendor selection process.

# Amendment Summary

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- The amendment expands the scope of the work by adding three tasks:
  - Task 2: Identify target customers to increase program speed and scale
  - Task 3: Establish & manage an efficient project qualification & program oversight model
  - Task 4: Manage vendor performance & provide actionable reporting to PCE
- Cost: \$200,000 additional, for a total not to exceed \$220,000
- Timeline: Extend term through December 31, 2021

# Consultant Selection

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

## **Overview of TerraVerde's Competitive Competencies:**

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

# Recommendation

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

# Regular Agenda

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9. Approve Contract with CLEAResult for Building Electrification Program in an amount not to exceed \$3 Million (Action)



# **Existing Buildings Electrification Contracts**

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# Existing Buildings Electrification Plan Summary

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In May 2020, the Board approved a four-year \$6.1 million Existing Building Electrification plan. Initial programs outlined were:

## 1. Heat Pump Water Heater (HPWH) Program

- Gas to HPWH replacement incentives. Combine with BayREN incentives.

## 2. Low Income Home Upgrade Program

- Turnkey no-cost home upgrades, energy efficiency, and electrification for low-income residents.

## 3. Harvest Thermal Technology Pilot

- Pilot combined space and water heating system with load shifting thermal



# Heat Pump Water Heater Contract: Request

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

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

**Amount:** Up to \$3 million over 4 yrs

# CLEAResult Contract for HPWH Program

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## Overview & Objective

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

## Approach

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

## Administrator – CLEAResult

- National energy program administrator, CA focus, 80+ local Bay Area staff
- Selected by BayREN through public solicitation process
- PCE's EV Ready Infrastructure Program selected partner

# CLEAResult Contract for HPWH Program

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## Contract Scope of work

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

## Budget

- Total: up to \$3 M over 4 yrs
- \$2.75 M reserved for customer incentives to replace ~1,200 water heaters
- Up to \$250,000 in CLEAResult administration: ~\$25,000 start up fee, ~\$60 fee per application

# Heat Pump Water Heater Contract: Request

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

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

**Amount:** Up to \$3 million over 4 yrs

# Regular Agenda

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

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# Integrated Resource Plan Update

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Siobhan Doherty, Director of Power Resources

Doug Karpa, Senior Regulatory Analyst

June 25, 2020

# AGENDA

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



# PURPOSE

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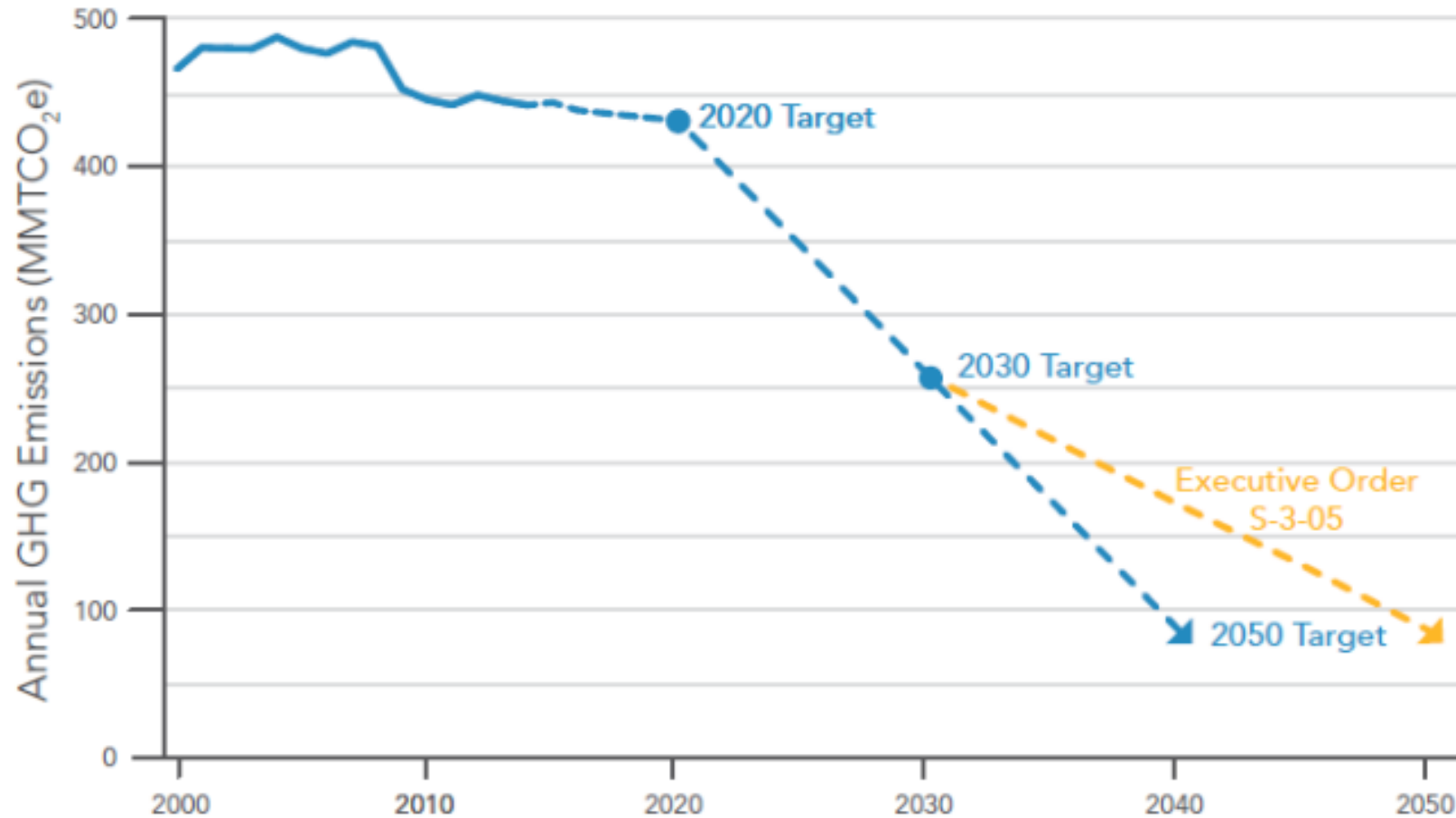
1. Provide Board with background on the 2020 Integrated Resource Planning (IRP) process
2. Present preliminary results
3. Inform the Board of next steps to approve IRP

# BACKGROUND

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- This CPUC IRP was mandated by SB350, (de León, Chapter 547, 2015)
- Initial reporting year was 2018; report every other year
- 2020 IRP is due **September 1, 2020**
- Primary purpose:
  - To provide CPUC staff with the inputs from each LSE to forecast industry-wide procurement and
  - Determine whether load serving entities (LSEs) in CA are meeting GHG and reliability needs for 2030.

# CA GHG REDUCTION GOALS



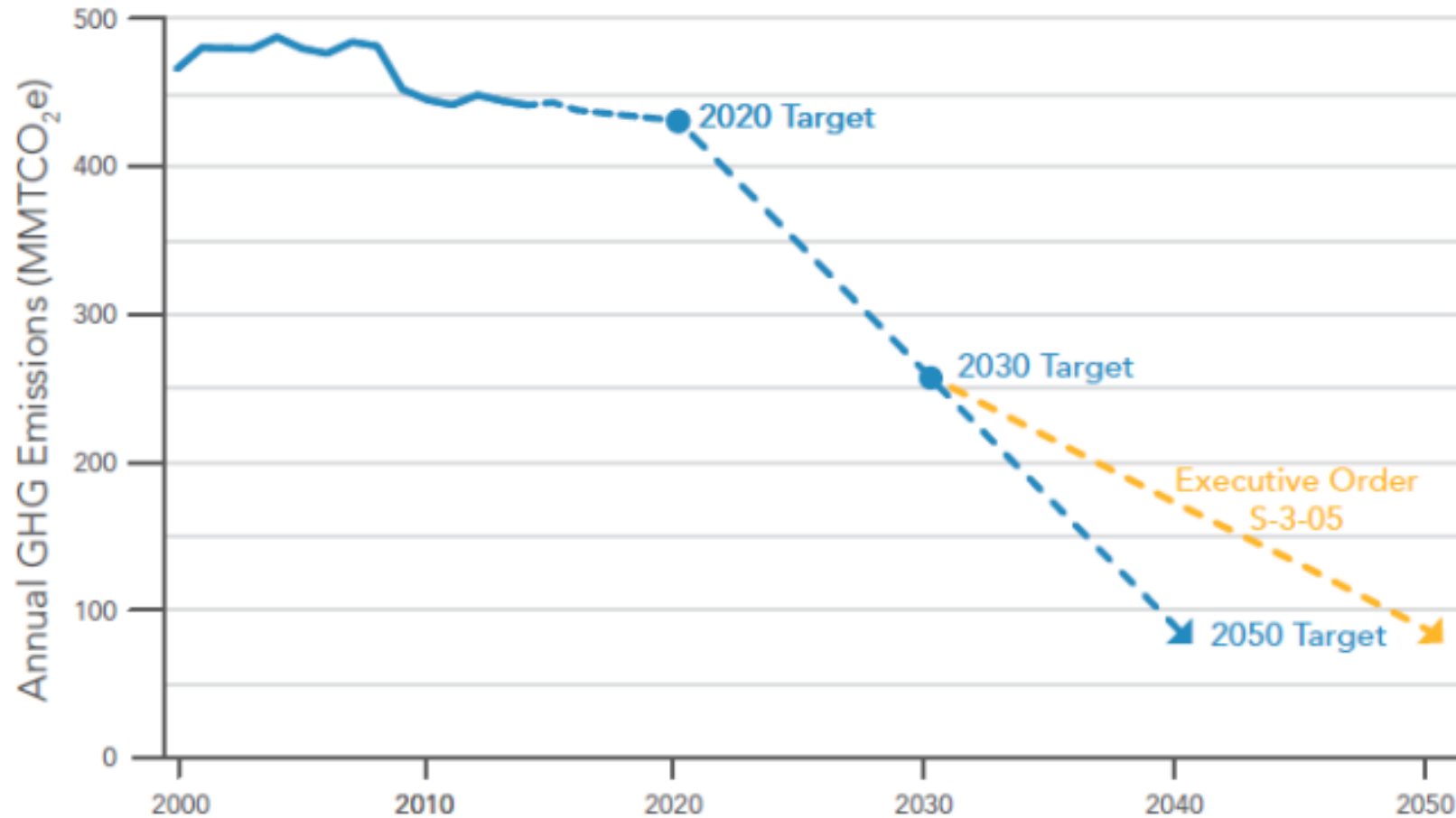
2030: 40% Below 1990 Levels

2050: 80% Below 1990 Levels

SB100: 100% Carbon Free  
Electricity by 2045

1. Figure courtesy of California's 2017 Climate Change Scoping Plan:  
[https://ww3.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf)

# ELECTRICITY'S ROLE



2030: 40% Below 1990 Levels

2030 Statewide Goal: 260 million metric tons (MMT) of CO2 equivalent

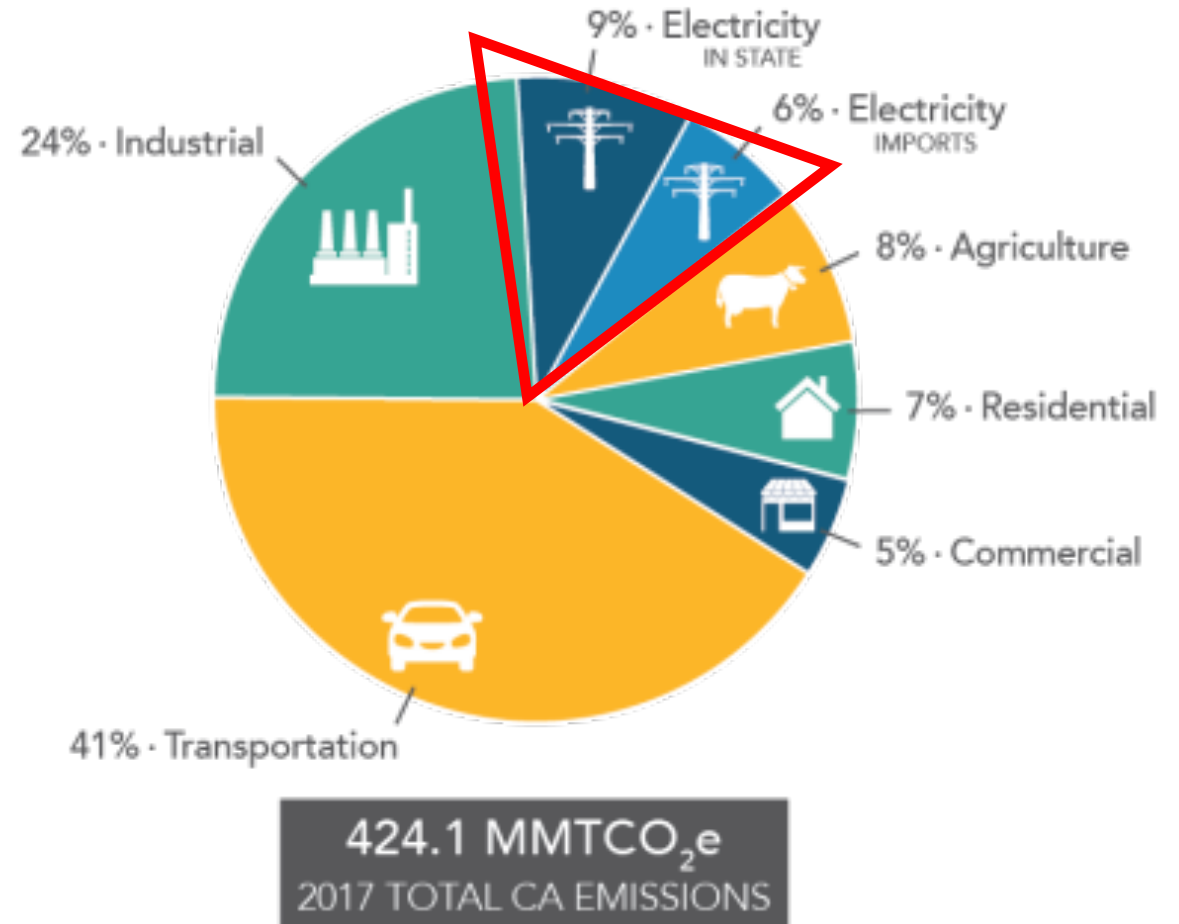
2030 Electricity Sector Portion: 46 MMT, 18% of allowable emissions

To meet SB100, electricity sector to target 38 MMT in 2030, 15% of allowable emissions

# ELECTRICITY IN CONTEXT

In 2017, electricity sector contributed ~15% to California's statewide emissions

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



# IRP: HOW WE GET THERE

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

# BIANNUAL PROCESS

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- Odd-numbered years – CPUC conducts modeling to:
  - Recommend a GHG target for the electricity sector; and
  - Identify optimal portfolio – “Reference System Portfolio (RSP)”
- Even-numbered years – LSEs submit IRPs to the CPUC
- CPUC aggregates individual IRPs and conducts production cost modeling and a reliability assessment

# REFERENCE SYSTEM PORTFOLIO (RSP)

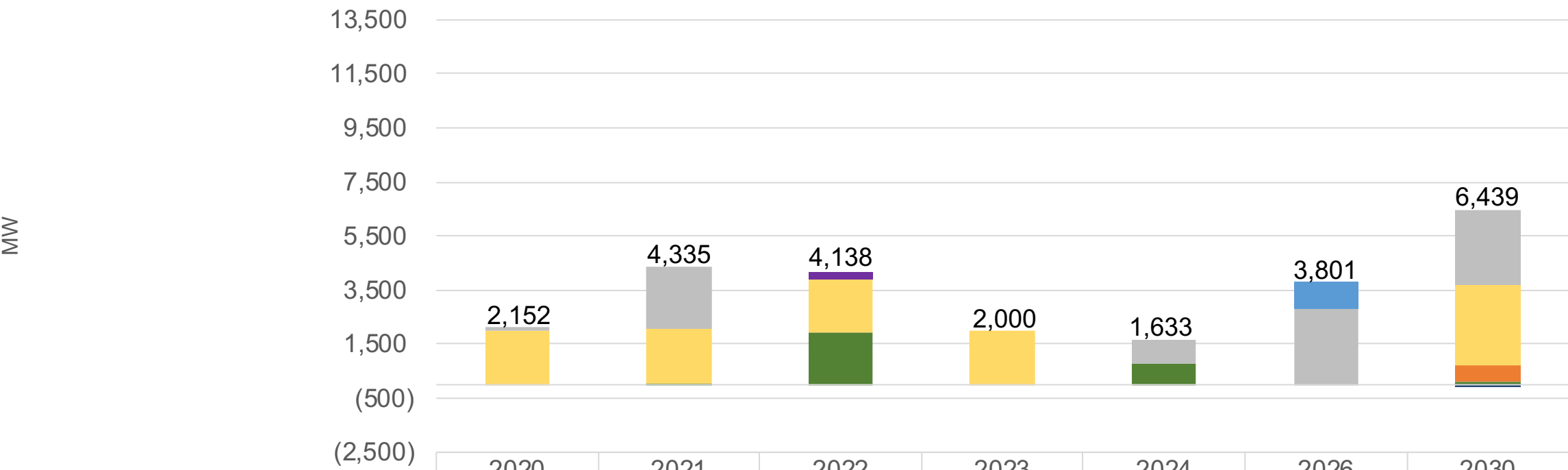
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- Identifies the portfolio of resources required for all CPUC-regulated LSEs across CA to
  - meet GHG reduction goals
  - at least cost
  - while ensuring electric service reliability.



# RSP for All CA – 46 MMT

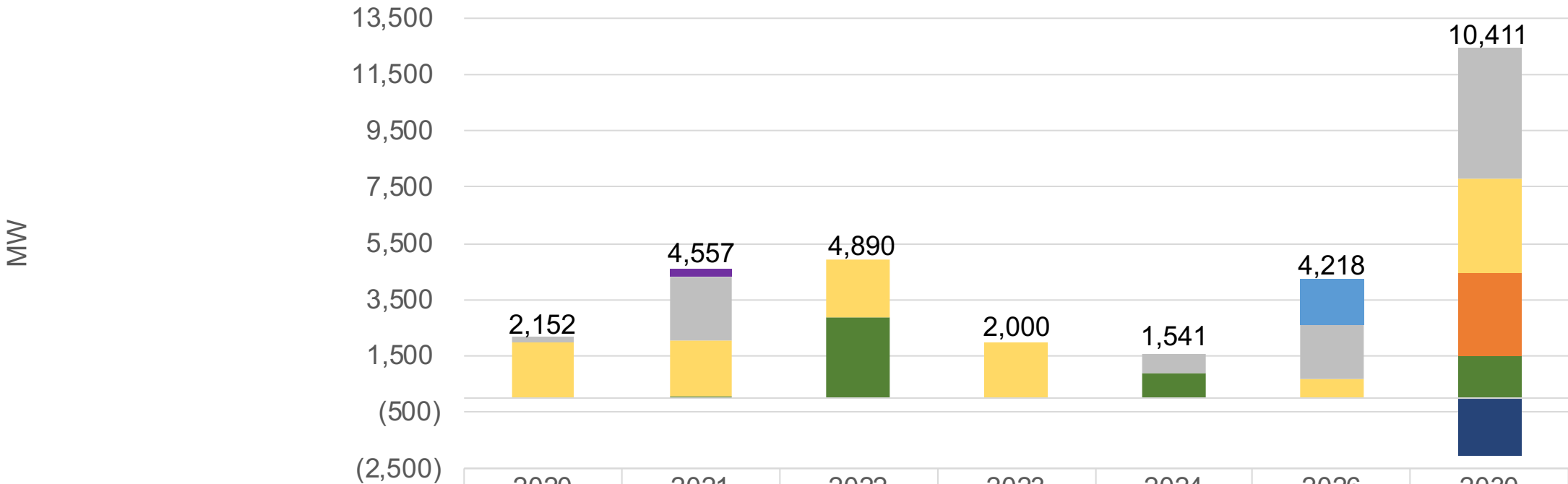
46 MMT RSP New Resource Buildout (Incremental MW)



	2020	2021	2022	2023	2024	2026	2030
■ Natural Gas Capacity Not Retained							(30)
■ Shed Demand Response			222	-	-	-	-
■ Pumped Storage						973	-
■ Battery Storage	152	2,301	-	-	846	2,828	2,746
■ Utility-Scale Solar	2,000	2,000	2,000	2,000	-	-	3,017
■ Out of State Wind							606
■ Wind		34	1,916	-	787	-	100

# RSP for All CA – 38 MMT

38 MMT RSP New Resource Buildout (Incremental MW)



	2020	2021	2022	2023	2024	2026	2030
■ Natural Gas Capacity Not Retained	-	-	-	-	-	-	(2,046)
■ Shed Demand Response	-	222	-	-	-	-	-
■ Pumped Storage	-	-	-	-	-	1,605	-
■ Battery Storage	152	2,301	-	-	654	1,929	4,678
■ Utility-Scale Solar	2,000	2,000	2,000	2,000	-	684	3,311
■ Out of State Wind	-	-	-	-	-	-	3,000
■ Wind	-	34	2,890	-	887	-	1,468

# OUR APPROACH

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- Coordinating with 3 CCAs on modeling for IRP
  - - East Bay Community Energy
    - Clean Power Alliance
    - San Jose Community Energy
- Siemens is providing modeling services to PCE and other 3 CCAs



# MODELING REQUIREMENTS

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- Use the assigned load forecast<sup>1</sup> from the CEC's 2019 Integrated Energy Policy Report (IEPR).
- Be consistent with the CPUC-adopted Reference System Portfolio:
  - Conforms to the LSE's 2030 GHG Benchmark
  - Uses inputs and assumptions matching those used by CPUC staff to develop the Reference System Portfolio

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

# MODELING REQUIREMENTS

LSE	2030 Load (GWh)	Share of Load in IOU Territory	2030 Emissions Benchmark – 46 MMT	2030 Emissions Benchmark – 38 MMT	
<b><i>PCE</i></b>	<b>3,560</b>	<b>4.68%</b>	<b>0.729</b>	<b>0.602</b>	
EBCE	6,910	9.08%	1.414	1.168	Other CCAs
SJCE	4,449	5.85%	0.910	0.752	
CPA	11,867	13.85%	2.113	1.746	
PG&E	26,777	35.2%	5.479	4.526	IOUs
SCE	54,393	63.5%	9.687	8.003	
SDG&E	5,366	29.5%	1.198	0.990	

# MODELING CONSTRAINTS

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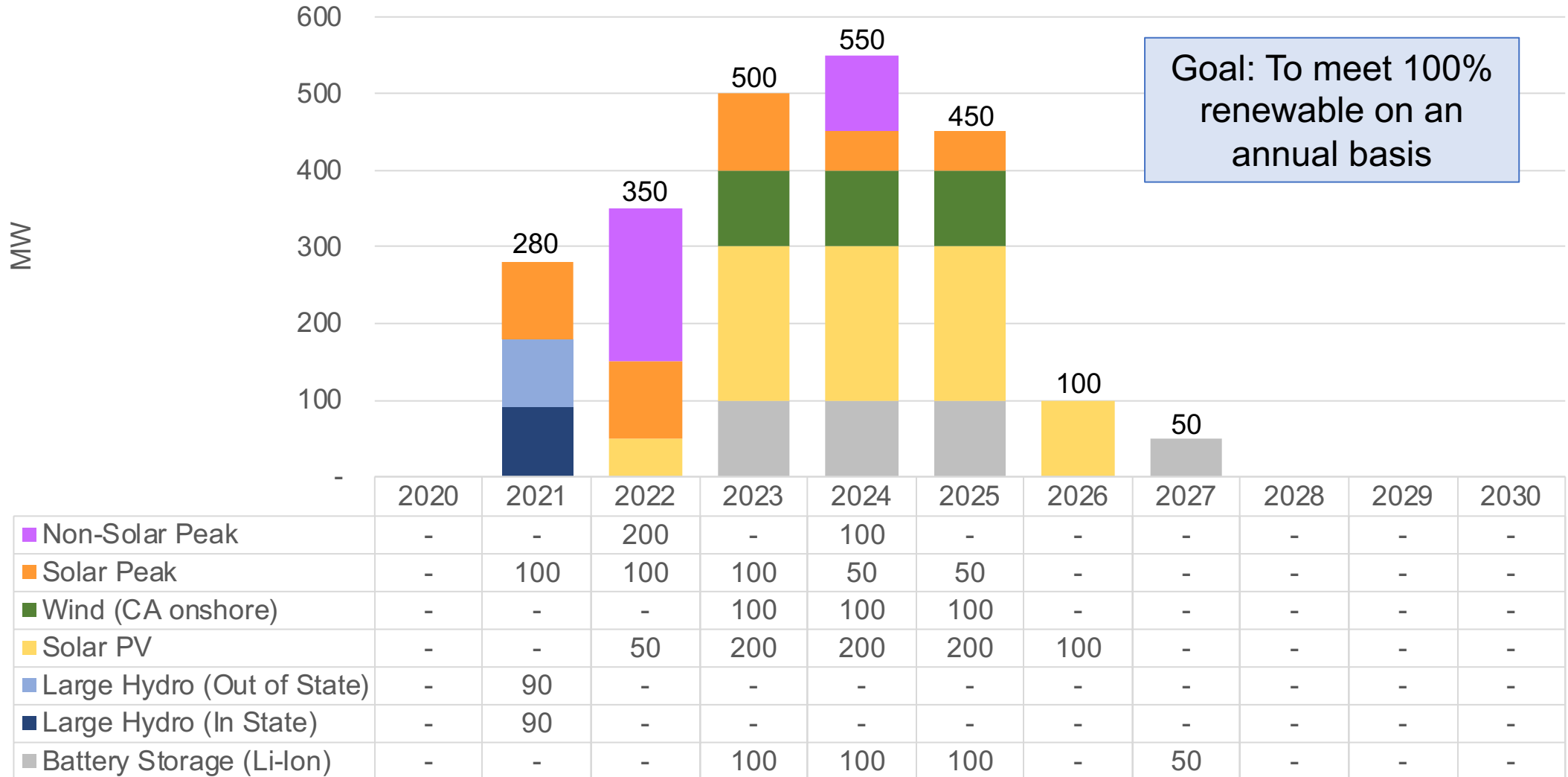
- The CPUC requires that LSEs use certain specific assumptions in their Conforming Portfolio, including the following:
  - Cost assumptions;
  - Load shape;
  - Energy production profiles;
  - BTM PV, EE, and EV charging profiles;
  - Battery storage dispatch profiles; and
  - Biomass/Geothermal/Hydro dispatch profiles.

# PORTFOLIO'S IN PCE'S IRP

	46 MMT Preferred Portfolio	46 MMT Conforming Portfolio	38 MMT Preferred Portfolio	38 MMT Conforming Portfolio
	Net open position is filled with contracts to meet 100% renewable on annual basis	46 MMT Preferred Portfolio adjusted to meet 46 MMT GHG benchmark	Net open position is filled with contracts to meet 100% renewable on 24/7 accounting	38 MMT Preferred Portfolio adjusted to meet 38 MMT GHG benchmark
Meets GHG Benchmark?	✓	✓	✓	✓
Meets 100% RE Goal	✓	✗	✓	✗
Meets 100% RE Time Coincident Goal?	✗	✗	✓	✗

# 46 MMT PREFERRED - DRAFT

46 MMT Preferred - New Resource Buildout (Incremental MW)





# SUBMISSION REQUIREMENTS

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1. Standard LSE Plan – written description of IRP, including:
  - Description of modeling process and assumptions
2. CPUC Provided Clean System Power Calculator
  - Calculates LSE's Portfolio's expected GHG Emissions
3. Resource Data Template
  - Details on current and planned resources to meet LSE's targets

# NEXT STEPS

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- Present final scenarios for Approval at July 2020 Board meeting
- Reserve August 2020 Board meeting for any follow-up questions

# Regular Agenda

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## 11. Board Members' Reports (Discussion)

# Regular Agenda

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Adjourn