



CITY OF POMONA

Community Choice Aggregation Technical Study: Summary of Results

October 3, 2018



Report Overview

1. Prospective Customer and Energy Usage Overview
2. Load Forecasting
3. Comparison of SCE Rates and CCA Revenue Potential
4. Current SCE Power Content
5. Pro Forma Operating Assumptions
6. CCA Supply Portfolio
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9. Recommendations, Key Decisions and Next Steps



Prospective Customers (Accounts)

- Prospective account totals reflect only “bundled” customers
- Direct Access (DA) customers are excluded from totals (321 accounts)
- Customer count data aggregated at a high level due to SCE’s 15/15 rule (customer confidentiality rules)
- About 87% of prospective accounts take service under residential rate options
- Total of 475 municipal accounts (≈1% of total eligible bundled accounts)
 - Searched SCE data set for all account names starting with “City of...”

Customer Class	Count	% of Total
Residential	39,106	87%
Non-Residential	6,008	13%
Total	45,114	100%



Prospective Customers (Electricity)

- Summary reflects bundled customer electricity usage in CY 2017
- DA usage (≈ 61.7 GWh, or 8% of total) was excluded
- Customer usage data aggregated at a high level due to SCE's 15/15 rule (customer confidentiality rules)
- Total municipal usage of 21.3 GWh (3% of total bundled usage)
- No municipal accounts are served under DA contracts

Customer Class	MWh	% of Total
Residential	246,123	36%
Non-Residential	429,124	64%
Total	675,247	100%

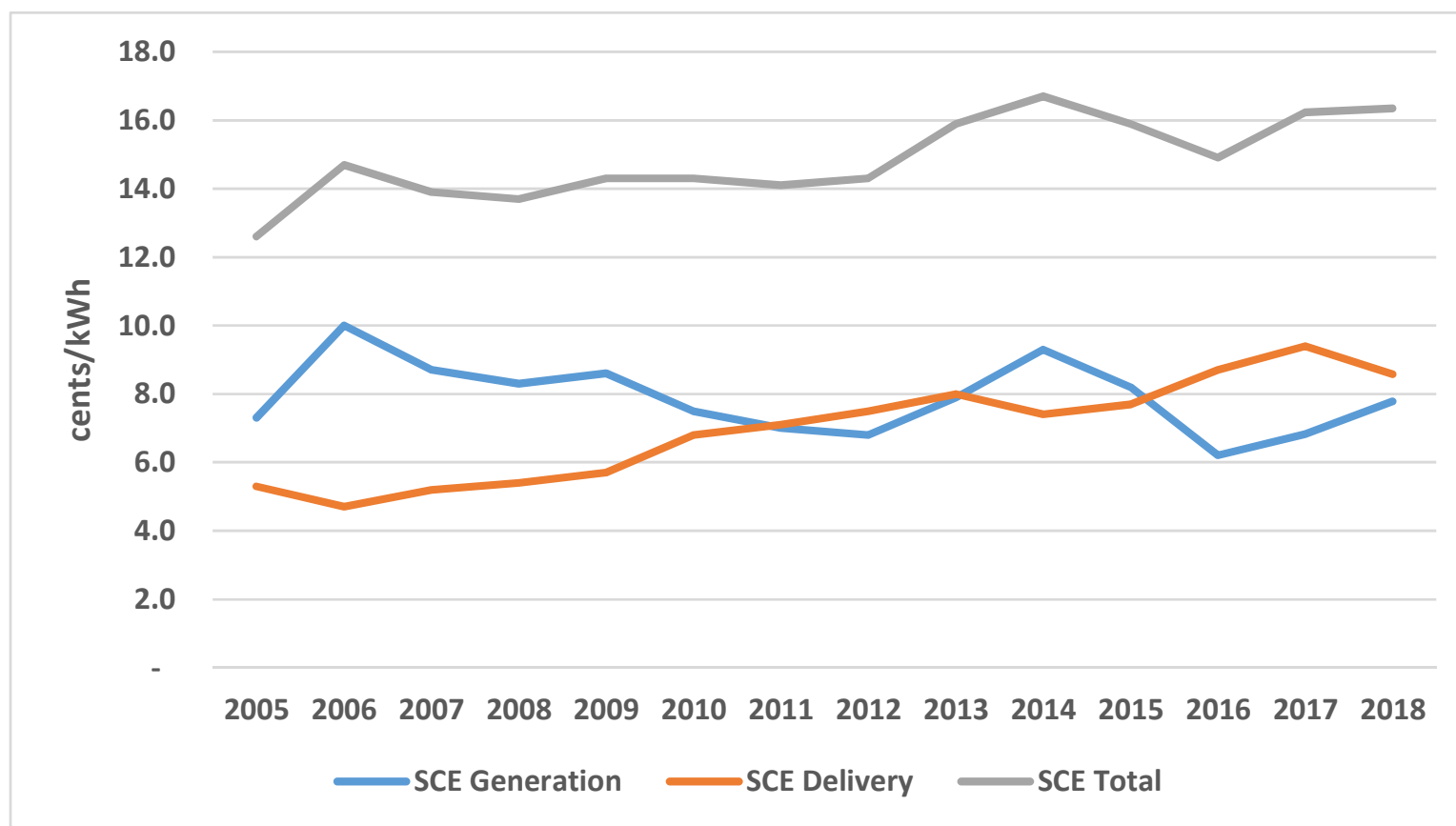


Load Forecasting Methodology

- CCEA utilized SCE's historical monthly usage data (for CY 2017) to develop average monthly usage per customer and rate type/tariff designations
- Customer counts from the most recent, complete months of historical SCE data (November and December 2017) were utilized and multiplied by average usage to determine projected electricity sales (kWh) for the City's prospective CCA program
- CCEA utilized SCE's published load profiles (dynamic and static) to derive the 8,760 hourly load curve
- Following submittal of an Implementation Plan to the California Public Utilities Commission ("CPUC"), Pomona may request hourly interval data from SCE for all prospective customers within the City



SCE's Historical Electricity Rates



Projected SCE Rates – 2020

- SCE's expected rates as of 1/1/2019 (per SCE's 6/1/2018 forecast) were utilized for this analysis
- Exit fees were modeled utilizing the new methodology currently being set by the CPUC
- Rates (below) represent weighted averages based on Pomona's seasonal load
- The highlighted class average rates (green box) reflect the projected rate parity with SCE in 2020; CCA rates below these values would promote customer savings (on a projected basis)

Customer Class	SCE Rate Category	SCE Generation Rate (cents/kWh)	Exit Fees (cents/kWh)	Franchise Fee (cents/kWh)	Rate Parity (cents/kWh)
Residential	Domestic	8.589	2.282	0.078	6.229
Small Commercial	GS-1	8.600	1.429	0.078	7.093
Medium Commercial	GS-2	7.877	1.873	0.072	5.932
Large Commercial	GS-3	7.412	1.568	0.067	5.776
Industrial	TOU-8	6.757	1.267	0.061	5.429
Ag and Pumping	TOU-PA	6.465	1.145	0.059	5.261
Street Lighting	Street Lighting	4.562	0.002	0.041	4.518
Traffic Control	TC-1	6.564	0.988	0.006	5.516
System Average		7.918	1.784	0.072	6.062



2020 Revenue Projections for Pomona

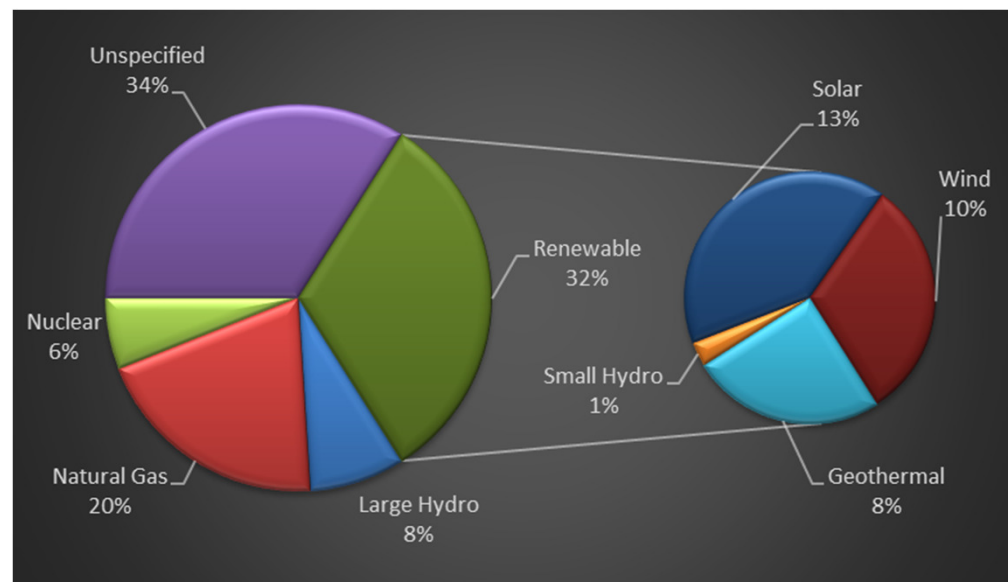
Annual CCA revenues approximate \$37.1 million, assuming rate parity with SCE

City of Pomona/SCE Rate Comparison					
<u>Rate Group</u>	<u>Customer Class</u>	<u>CCA Gen Rev</u>	<u>Exit Fees</u>	<u>Franchise Fee</u>	<u>SCE Gen Rev</u>
DOMESTIC	Residential	\$ 13,790,164	\$ 5,052,065	\$ 172,943	\$ 19,015,171
TOU-EV-4	Medium Commercial	\$ 46,151	\$ 14,308	\$ 555	\$ 61,013
TC-1	Traffic Control	\$ 47,971	\$ 8,594	\$ 519	\$ 57,084
SL	Street Lighting	\$ 233,453	\$ 106	\$ 2,144	\$ 235,703
TOU-8-SEC-A	Industrial	\$ 74,811	\$ 22,344	\$ 892	\$ 98,046
TOU-8-SEC-B	Industrial	\$ 3,180,533	\$ 776,242	\$ 36,317	\$ 3,993,093
TOU-8-PRI-B	Industrial	\$ 2,305,538	\$ 553,815	\$ 26,245	\$ 2,885,598
TOU-PA-2-A	Ag and Pumping	\$ 12,041	\$ 2,975	\$ 138	\$ 15,154
TOU-PA-2-B	Ag and Pumping	\$ 433,204	\$ 116,926	\$ 5,049	\$ 555,179
TOU-PA-2-SOP-1	Ag and Pumping	\$ 4,575	\$ 1,708	\$ 58	\$ 6,341
TOU-PA-3-A	Ag and Pumping	\$ 25,219	\$ 4,443	\$ 272	\$ 29,935
TOU-PA-3-B	Ag and Pumping	\$ 59,362	\$ 11,396	\$ 649	\$ 71,408
TOU-GS-1-A	Small Commercial	\$ 2,890,519	\$ 567,442	\$ 31,739	\$ 3,489,700
TOU-GS-1-B	Small Commercial	\$ 645,769	\$ 145,017	\$ 7,258	\$ 798,045
TOU-GS-2-A	Medium Commercial	\$ 1,479,142	\$ 430,978	\$ 17,532	\$ 1,927,653
TOU-GS-2-B	Medium Commercial	\$ 6,088,182	\$ 1,958,509	\$ 73,856	\$ 8,120,548
TOU-GS-3-A	Large Commercial	\$ 934,215	\$ 229,095	\$ 10,677	\$ 1,173,987
TOU-GS-3-B	Large Commercial	\$ 3,554,723	\$ 989,338	\$ 41,708	\$ 4,585,768
TOU-8-S-PRI-B	Standby Industrial	\$ 1,323,182	\$ 43,035	\$ 12,540	\$ 1,378,757
TOTAL		\$ 37,128,754	\$ 10,928,338	\$ 441,091	\$ 48,498,182



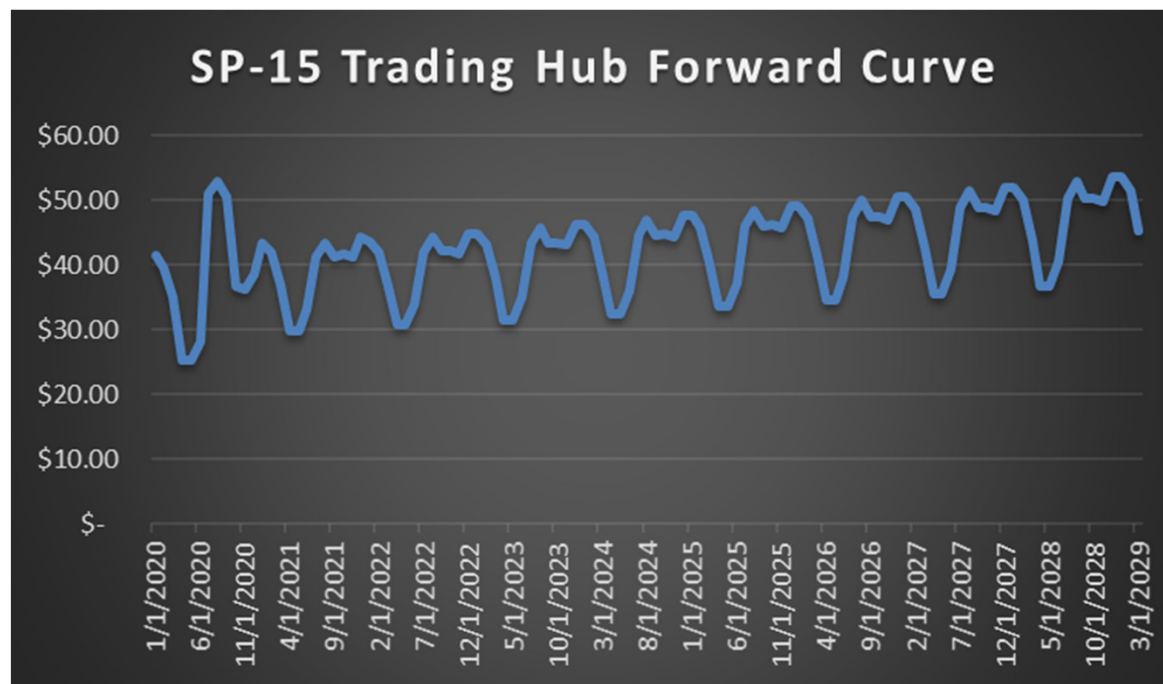
SCE's 2017 Electric Power Mix

- 32% of SCE's electric supply portfolio was comprised of renewable energy
- 46% of SCE's electric supply portfolio was comprised of "carbon-free" energy (6% increase from 2016)
- Carbon-free energy = renewable + large hydro + nuclear



Pro Forma Assumptions (cont.)

- Forward price curve is based on current electric commodity futures and historical market data (CAISO):



Pomona Energy Supply Scenario

- Base retail product to be comprised of 50% carbon-free energy (subject to anticipated AB 1110 GHG reporting rules, which are currently under development)
 - Renewable energy content follows RPS mandates and applies “Bucketing” rules
 - Incremental carbon-free energy (above RPS volumes) would be sourced from larger hydroelectric generators primarily located in California and the Pacific Northwest
 - Base retail product was designed to promote rate competition and increased GHG-free content
 - Proposed portfolio composition would also put Pomona on the proper path in meeting the State’s GHG-free goals in 2030, as required by the recently implemented Integrated Resource Plan initiative (part of SB 350)
 - If Pomona wanted to offer a higher renewable energy content, then the cost to do so would significantly reduce currently projected surpluses



Projected Financial Results

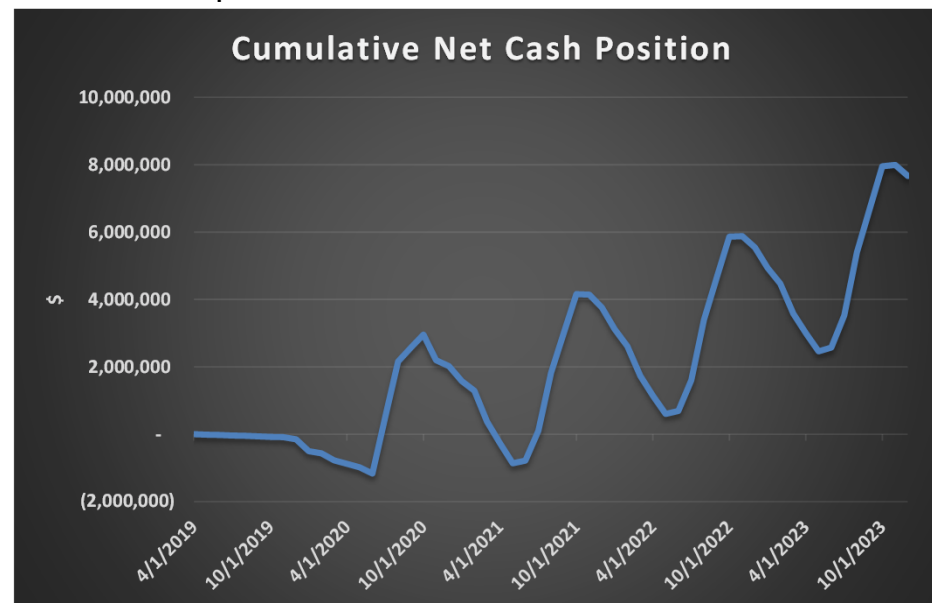
Pomona CCEA Financial Projections

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Percent Savings to Customers		3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Revenues											
SCE Projected Revenue	\$	6,800,326	\$ 49,158,217	\$ 50,392,089	\$ 51,656,930	\$ 52,953,519	\$ 54,282,652	\$ 55,645,147	\$ 57,041,840	\$ 58,473,590	\$ 59,941,277
Exit Fees	\$	1,290,014	\$ 10,846,527	\$ 10,573,737	\$ 10,307,808	\$ 10,048,566	\$ 9,795,845	\$ 9,549,479	\$ 9,309,310	\$ 9,075,181	\$ 8,846,940
Franchise Fee	\$	61,625	\$ 445,472	\$ 456,653	\$ 468,115	\$ 479,865	\$ 491,909	\$ 504,256	\$ 516,913	\$ 529,888	\$ 543,188
Interfund Loan	\$ 350,500	\$ -	\$ 53,557								
Customer Savings Value	\$	204,010	\$ 1,474,747	\$ 1,511,763	\$ 1,549,708	\$ 1,588,606	\$ 1,628,480	\$ 1,669,354	\$ 1,711,255	\$ 1,754,208	\$ 1,798,238
Net Revenue	\$ 350,500	\$ 5,244,677	\$ 36,445,028	\$ 37,849,936	\$ 39,331,299	\$ 40,836,482	\$ 42,366,418	\$ 43,922,058	\$ 45,504,362	\$ 47,114,313	\$ 48,752,911
Operating Expenses											
Power Supply	\$	3,168,727	\$ 34,446,695	\$ 33,824,899	\$ 34,836,554	\$ 36,026,137	\$ 37,251,715	\$ 38,514,456	\$ 39,815,568	\$ 41,156,300	\$ 42,537,941
CCEA Fees	\$	129,627	\$ 777,761	\$ 801,094	\$ 825,126	\$ 849,880	\$ 875,377	\$ 901,638	\$ 928,687	\$ 956,548	\$ 985,244
Implementation and Start-up Costs	\$ 350,500	\$ 350,500									
Data Management	\$	101,673	\$ 610,288	\$ 613,319	\$ 616,365	\$ 619,428	\$ 622,519	\$ 625,625	\$ 628,746	\$ 631,883	\$ 635,034
Service Fees	\$	12,941	\$ 77,675	\$ 78,038	\$ 78,404	\$ 78,771	\$ 79,142	\$ 79,515	\$ 79,890	\$ 80,266	\$ 80,644
Compliance Fees (Mandatory)	\$	50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275	\$ 57,964	\$ 59,703	\$ 61,494	\$ 63,339	\$ 65,239
Uncollectable	\$	17,845	\$ 183,113	\$ 180,007	\$ 185,305	\$ 191,499	\$ 197,881	\$ 204,455	\$ 211,229	\$ 218,208	\$ 225,400
Other Operating Expenses by City	\$ -	\$ 50,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Subtotal	\$ 350,500	\$ 3,881,313	\$ 36,247,032	\$ 35,650,402	\$ 36,696,390	\$ 37,921,990	\$ 39,184,598	\$ 40,485,392	\$ 41,825,614	\$ 43,206,544	\$ 44,629,502
Financing											
Reserve Contribution	\$ -	\$ 116,439	\$ 1,087,411	\$ 1,069,512	\$ 1,100,892	\$ 1,137,660	\$ 1,175,538	\$ 385,357	\$ 201,033	\$ 207,140	\$ 213,444
Interfund Load Repayment	\$	357,510		\$ 54,628.14	\$ -						
Subtotal	\$ -	\$ 473,949	\$ 1,087,411	\$ 1,124,140	\$ 1,100,892	\$ 1,137,660	\$ 1,175,538	\$ 385,357	\$ 201,033	\$ 207,140	\$ 213,444
Total Revenue Requirement	\$ 350,500	\$ 4,355,262	\$ 37,334,443	\$ 36,774,542	\$ 37,797,282	\$ 39,059,650	\$ 40,360,136	\$ 40,870,749	\$ 42,026,647	\$ 43,413,684	\$ 44,842,946
Cumulative Reserve Balance (15% Max)	\$	116,439	\$ 1,203,850	\$ 2,273,362	\$ 3,374,254	\$ 4,511,914	\$ 5,687,452	\$ 6,072,809	\$ 6,273,842	\$ 6,480,982	\$ 6,694,425
Net Surplus/(Deficit)	\$ -	\$ 889,415	\$ (889,414)	\$ 1,075,394	\$ 1,534,017	\$ 1,776,833	\$ 2,006,283	\$ 3,051,309	\$ 3,477,715	\$ 3,700,630	\$ 3,909,965
Net Surplus/(Deficit) Communitive	\$ -	\$ 889,415	\$ 0	\$ 1,075,394	\$ 2,609,412	\$ 4,386,245	\$ 6,392,527	\$ 9,443,836	\$ 12,921,550	\$ 16,622,180	\$ 20,532,145



Projected Financial Results (cont.)

- According to the pro forma model, it should take the program approximately 15 months (starting from the enrollment month of May 2020) to generate sufficient cash to self-finance program operations
 - Results are favorable due to the expected timing of CCA launch as well as Pomona's summer-weighted load shape



Summary of Results

- Positive operating results over the ten year study horizon and under current market conditions and projected 2019/2020 SCE rates
 - Due to higher power supply prices during the summer of 2020, FYE 2021 financial results are less favorable than the other fiscal years
 - Pomona could reduce discretionary spending and potentially lower the rate discount in order to offset higher power supply costs
- Pomona controls certain overhead costs such as staffing, legal and consulting, other A&G, overhead allocation, reserves, and loan repayment
- Annual program surplus could be added to reserves, used to reduce rates, increase staffing levels, or invest in ancillary energy programs (i.e., energy efficiency and/or distributed generation)
- Results are based on current energy prices and estimates; actual financial performance depends on final 2020 SCE rates and contracted energy pricing



CCA Risk Assessment

Risk Category	Risk Description	Risk Mitigation
<i>Financial Risk Related to CCA Failure</i>	Risk of General Fund exposure due to defaulting on power supply contracts as well as insufficient cost recovery from CCA implementation activities	• Securitize power supply contracts with the use of a “lockbox” structure, which will firewall the City’s General Fund • Expedited repayment of any start-up funding provided by City
<i>Financial Risk Related to Procurement Deviations</i>	Risk of imbalance in actual usage and contracted purchases, leading to spot market price exposure	• Use of “laddered” procurement strategies to promote short-term budgeting/rate certainty as well as mid- and long-term planning flexibility (to address electricity usage changes and/or future procurement opportunities) • Maintain an open position relatively similar to the incumbent utility
<i>Market Volatility and Price Risk</i>	Risk of exposure to all market price risk, including the spot market (discussed above)	• Use of “laddered procurement strategies that serve to mask the impacts of periodic price spikes and troughs by blending the financial impacts associated with such changes through a temporally diversified supply portfolio • Contract with a well qualified Scheduling Coordinator



CCA Risk Assessment

Risk Category	Risk Description	Risk Mitigation
<i>Availability of Renewable and Carbon-Free Energy Supplies</i>	Risk of failing to secure the requisite amount of renewable and/or carbon-free energy supporting CCA goals or customer commitments (this risk is primarily driven by increased CCA competition for clean-energy products as well as an increase in California's RPS mandates)	• Use of "laddered" procurement strategy as well as a diversified supply portfolio that includes contracts with various term lengths and end dates • Participation in the incumbent utility's short-term RFO for renewable energy sales
<i>Legislative and Regulatory Changes</i>	Risk that changes to law and regulatory rules/structures will disadvantage CCA's versus the incumbent utility – specific examples include: • Utility cost shifting • GHG emissions accounting rules • Changes to the CPUC bond calculation • Changes to the RPS program post-2020	• Active lobbying and advocacy at the legislature and jurisdictional regulatory agencies (by individual CCA's and associations – Cal-CCA)
<i>Power Charge Indifference Adjustment (PCIA) Rate Risk</i>	Risk that the PCIA rate assessed by the incumbent utility will dramatically increase and place the CCA at a competitive rate disadvantage	• Active participation in the recently issued PCIA reform proceeding at the CPUC • Procurement strategies that allow for the reduction of power supply costs as the PCIA increases (i.e., laddered procurement) • Prudent rate stability reserve policy



Next Steps

- Discuss study results with City of Pomona leadership
- Finalize the City of Pomona's CCA Implementation Plan
 - Submit prior to end of 2018 for May 2020 program launch date
- Update City of Pomona's pro forma in early November 2018 when SCE releases more accurate 2019 rate projections
- City of Pomona leadership to make determination on CCA formation and implementation – this includes the prioritization of the following CCA goals and objectives:
 - Customer cost savings
 - Use of local energy resources (renewable or other)
 - Other environmental/GHG-related goals
- Adopt City ordinance enabling CCA formation
- Determine CCA name



Implementation Timeline

- If Pomona were to move forward with CCA formation, then the below timeline is realistic and attainable, aligns with new CPUC requirements, and includes several off-ramps leading up to launch

	2018								2019												2020						
Implementation Activity	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
Pro Forma and Load Analysis																											
Implementation Plan Draft																											
CCA Ordinance/iPlan Approved																											
Implementation Plan Filed																											
CPUC iPlan Certification																											
CCEA Contracting																											
Register as CCA and Post CPUC Bond																											
2020 Year-Ahead Resource Adequacy Compliance																											
Power Procurement - Resource Adequacy																											
Execute SCE/PG&E Services Agreement																											
SCE/PG&E Testing and Systems Implementation																											
Community Outreach																											
Power Procurement - All Other Products																											
CAISO and Regulatory Setup																											
Rate Setting																											
Joint Rate Comparison Development																											
Customer Noticing																											
Launch																											



Appendix



Pro Forma Categories

- **Revenue**: Calculated by multiplying Pomona usage estimates by Pomona generation rates
 - Pomona Generation Rate = (SCE Generation Rate * 0.97) – Exit Fees – Franchise Fees
- **Power Supply**: Costs include shaped conventional energy, renewable energy, resource adequacy, line losses, scheduling coordinator fees, and CAISO fees
 - Estimates are based on current market prices
- **CCEA Service Fees**: Monthly cost for CCEA to perform operational functions, including portfolio management, procurement, rate design, regulatory compliance, regulatory and legislative advocacy, monthly reporting, accounting, pro forma management, and coordination of all SCE and data manager functions
 - Estimates are based on similar sized programs, with a combination of flat fees and scaled costs (that are allocated based on the program size of participating Members)
 - Actual fee will be determined at the time the Service Agreement is executed
 - CCEA does not currently assist with customer-facing activities, such as program marketing and customer outreach



Pro Forma Categories (cont.)

- **Implementation and Startup Costs:** See slides 12
- **Data Management:** Back-office function for billing and usage data exchange between SCE and the CCA as well as providing the customer call center for the CCA
 - Fees are calculated on a per account, per month basis
 - CCEA offers these services through Calpine Energy Services (data manager for most operating CCAs)
- **Service Fees:** SCE fees associated with SCE performing meter reads, billing (consolidated bill with both SCE and CCA charges), and other data exchange functions
 - Based on SCE's applicable tariff sheet; costs applied on a per account, per month basis
- **Mandatory Compliance Costs:** Includes annual mailer costs associated with providing rate and power supply information to customers as well as the cost of opt-out notices for new customers
- **Uncollectibles:** Costs related to delinquent accounts



Pro Forma Categories (cont.)

- **Staff**: Represents one Pomona FTE that would be responsible for coordinating with contractors and interfacing with customers, as necessary
 - *Pomona has full discretion with regard to this category*
- **Other Operating Expenses**: Costs include other legal, consulting, marketing, and other general and administrative expenses (i.e., costs to administer energy efficiency programs or other ancillary energy programs)
 - *Pomona has full discretion with regard to this category*
- **Startup Funding Repayment**: Repayment of loan required to fund implementation activities (terms outlined on slide 12)
 - *Pomona has full discretion with regard to this category*
- **Reserve Contribution**: Three percent of annual revenue, which cumulatively builds to ~15% of annual revenue by 2026
 - *Pomona has full discretion with regard to this category*
- **Interfund Loan**: \$403,557 loan from Water Fund (slide 12)



2020 Revenue Projections for Pomona

Annual CCA revenues approximate \$36.4 million, assuming 1.5% discount to SCE

City of Pomona/SCE Rate Comparison					
<u>Rate Group</u>	<u>Customer Class</u>	<u>CCA Gen Rev</u>	<u>Exit Fees</u>	<u>Franchise Fee</u>	<u>SCE Gen Rev</u>
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