TO THE MEMBERS OF THE CITY COUNCIL FOR THE CITY OF STANTON AND TO THE CITY CLERK:

NOTICE IS HEREBY GIVEN that a Special Meeting (Study Session) of the City Council for the City of Stanton is hereby called by the Mayor, to be held on Tuesday, February 23, 2021, commencing at 5:00 p.m.

The Agenda for the Special Meeting is attached to this Notice and Call.

Dated: February 18, 2021

s/ Patricia A. Vazquez, City Clerk

SAFETY ALERT – NOTICE REGARDING COVID-19

The President, Governor, and the City of Stanton have declared a State of Emergency as a result of the threat of COVID-19 (aka the "Coronavirus"). The Governor also issued Executive Order N-25-20 that directs Californians to follow public health directives including cancelling all large gatherings. Governor Newsom also issued Executive Order N-29-20 which lifts the strict adherence to the Brown Act regarding teleconferencing requirements and allows local legislative bodies to hold their meetings without complying with the normal requirements of in-person public participation. Pursuant to the provisions of the Governor's Executive Orders N-25-20 and N-29-20 the February 23, 2021, Special City Council Meeting (Study Session) will be held telephonically.

The health and well-being of our residents is the top priority for the City of Stanton, and you are urged to take all appropriate health safety precautions. To that end, out of an abundance of caution the City of Stanton is eliminating in-person public participation. Members of the public wishing to access the meeting will be able to do so telephonically.

In order to join the meeting via telephone please follow the steps below:

1. Dial the following phone number +1 (669) 900-9128 US (San Jose).
2. Dial in the following **Meeting ID: (830 9980 0748)** to be connected to the meeting.

ANY MEMBER OF THE PUBLIC WISHING TO PROVIDE PUBLIC COMMENT FOR ANY ITEM ON THE AGENDA MAY DO SO AS FOLLOWS:
E-Mail your comments to pvazquez@ci.stanton.ca.us with the subject line "PUBLIC COMMENT ITEM #" *(insert the item number relevant to your comment).* Comments received no later than 4:00 p.m. before the meeting *(Tuesday, February 23, 2021)* will be compiled, provided to the City Council, and made available to the public before the start of the meeting. Staff will not read e-mailed comments at the meeting. However, the official record will include all e-mailed comments received until the close of the meeting.

The Stanton City Council and staff thank you for your continued patience and cooperation during these unprecedented times. Should you have any questions related to participation in the City Council Meeting, please contact the City Clerk's Office at (714) 890-4245.

IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE OFFICE OF THE CITY CLERK AT (714) 890-4245. NOTIFICATION BY 24 HOURS PRIOR TO THE MEETING WILL ENABLE THE CITY TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

AGENDA
CITY COUNCIL SPECIAL MEETING – STUDY SESSION
7800 KATELLA AVENUE, STANTON, CA 90680
TUESDAY, FEBRUARY 23, 2021 - 5:00 P.M.

SAFETY ALERT – NOTICE REGARDING COVID-19

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In compliance with the Americans With Disabilities Act, if you need special assistance to participate in this meeting, please contact the Office of the City Clerk at (714) 890-4245. Notification 24 hours prior to the meeting will enable the City to make reasonable arrangements to assure accessibility to this meeting.

The City Council agenda and supporting documentation is made available for public review and inspection during normal business hours in the Office of the City Clerk, 7800 Katella Avenue, Stanton California 90680 immediately following distribution of the agenda packet to a majority of the City Council. Packet delivery typically takes plan on Thursday afternoons prior to the regularly scheduled meeting on Tuesday. The agenda packet is available for review and inspection on the city's website at www.ci.stanton.ca.us.

1. CLOSED SESSION None.

2. CALL TO ORDER

3. PLEDGE OF ALLEGIANCE

4. ROLL CALL Council Member Ramirez
Council Member Van
Council Member Warren
Mayor Pro Tem Taylor
Mayor Shawver

SPECIAL ORDERS OF THE DAY

5. NEW BUSINESS

5A. STUDY SESSION TO REVIEW COMMUNITY CHOICE ENERGY

At the November 24, 2020 City Council meeting, Council Member Van asked that Community Choice Energy be reviewed at a future City Council Study Session. Staff has researched the topic and has found a variety of information which is in this staff report. Additionally, experts on the subject will present to the City Council as well.

RECOMMENDED ACTION:

1. City Council declare that the review is not a project per the California Environmental Quality Act ("CEQA"); and

2. Review the staff report and testimony regarding the subject: and

3. Direct staff how to proceed.

6. ADJOURNMENT

I hereby certify under penalty of perjury under the laws of the State of California, the foregoing agenda was posted at the Post Office, Stanton Community Services Center and City Hall, not less than 24 hours prior to the meeting. Dated this 18th day of February, 2021.

/s/ Patricia A. Vazquez, City Clerk

Item: 5A

CITY OF STANTON

REPORT TO CITY COUNCIL

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

DATE: **FEBRUARY 23, 2021**

SUBJECT: **STUDY SESSION TO REVIEW COMMUNITY CHOICE ENERGY**

REPORT IN BRIEF:

At the November 24, 2020 City Council meeting, Councilmember Van asked that Community Choice Energy be reviewed at a future City Council Study Session. Staff has researched the topic and has found a variety of information which is in this staff report. Additionally, experts on the subject will present to the City Council as well.

RECOMMENDED ACTION:

1. City Council declare that the review is not a project per the California Environmental Quality Act ("CEQA"); and

2. Review the staff report and testimony regarding the subject: and

3. Direct staff how to proceed.

BACKGROUND:

What is Community Choice Energy (Aggregation)?

Community Choice Aggregation (CCA) is a model that allows communities to purchase power to meet their electricity needs, offering a new choice in the market. CCAs can provide the communities they serve with competitively priced clean energy choices, while reinvesting revenues into projects and programs, thus supporting the local economy. A CCA can also offer rate discounts and/or rate stability programs to residents and local businesses. CCAs enable communities to have local control when it comes to the procurement and pricing of energy, but as with any endeavor CCAs come with risk.

How it Works

CCAs are established by local communities, either through the creation of a joint powers authority or enterprise fund within the organization. While CCAs are locally operated, they work in partnership with the region's existing investor owned utility (IOU) – in the City of Stanton's case, this would be Southern California Edison (SCE). The CCA would

purchase electricity from the open market for its customers and SCE would continue to deliver the electricity through its distribution system and provide meter reading, billing and maintenance services for CCA customers. Transition from SCE to a CCA is seamless, most customers will not notice changes other than a CCA line item on their utility bill that replaces SCE electricity charges.

How are CCAs Managed?

CCAs are governed by a board or council of local elected officials who oversee decisions regarding power purchasing, programs, and rate setting and are directly accountable to the people who elected them. Because CCAs are locally managed, not-for-profit entities, any excess revenue is to be reinvested into the community through on-bill savings and innovative energy programs. A CCA takes many operational forms – it could be a single jurisdiction (e.g. Long Beach), a Hybrid JPA (the City of San Jacinto joined the City of Lancaster) where communities contract for the services they need to operate a CCA by joining an existing joint-powers authority as an associate member or a more formal Joint Powers Authority like the Los Angeles / Ventura County Clean Power Alliance. A JPA is an independent, public agency that operates a CCA on behalf of its member municipalities. JPAs are a common legal structure in California for the administration of cooperative multi-jurisdictional programs. There is also the commercial vendor package CCA model which is where a private company manages the CCA on behalf of the local government(s). King City Community Power is the only operational CCA program in California under this model. The majority of existing CCAs operate under the JPA model.

What is Happening in Surrounding Cities?

On September 25, 2018 the Irvine City Council approved conducting a feasibility study to determine the pros and cons of implementing a CCA program, including the potential economic benefits for the community. Their completed feasibility study indicated that should the City follow its recommendation to implement a CCA plan that there would be an expected savings of $7.7 million per year in citywide electricity cost savings for Irvine residents and businesses and $112,000 per year savings for the City itself in municipal energy costs, as well as driving additional local economic development benefits such as new jobs and $10 million in annual economic output.

On December 10, 2019, the Irvine City Council voted unanimously to consider formation of a CCA program in partnership with other Orange County cities. At that time, Irvine sent letters to cities in Orange County seeking interested partners to learn more about a potential partnership with the City of Irvine as they move towards the formation of a CCA. Since then, Irvine and a few OC cities have been working to form a Community Choice Energy Joint Power Authority (JPA), prepare necessary JPA documentation and file the Implementation Plan with the California Public Utility Commission (CPUC) by the December 31, 2020 deadline.

The most recent city to consider joining the JPA is the City of Lake Forest. They are scheduled to review the item at their Council meeting on February 16, 2021. Their staff report is attached to this report. At the Study Session we will provide the outcome.

FISCAL IMPACT:

Some savings may be realized by the City if we participate in a CCA due to potential reduced costs for electricity. It is unknown how much staff time would be involved in the administration of a program and how much this would cost the City.

ENVIRONMENTAL IMPACT:

In accordance with the requirements of the CEQA, this review has been determined to not be a project.

LEGAL REVIEW:

None.

PUBLIC NOTIFICATION:

Notifications were performed through normal agenda process.

STRATEGIC PLAN OBJECTIVE ADDRESSED:

5 – Provide a high quality of life

Prepared by:	Approved by:
/s/ Allan Rigg	/s/ Jarad L. Hildenbrand
Allan Rigg Public Works Director	Jarad L. Hildenbrand City Manager

Attachments:

A. SCE Presentation
B. City of Lake Forest Staff Report

Attachment: A

Community Choice Aggregation (CCA) – SCE's Perspective

City of Stanton

February 23, 2021

SCE Follows the CCA Code of Conduct (D.12-12-036)

SCE does not lobby or market against CCA formation, but only provides factual information about SCE's programs & rates

Community Choice Aggregation is a customer choice program that permits cities, counties, and Joint Power Authorities to buy and sell electricity on behalf of the utility customers within their jurisdiction and transmit over SCE's lines.

SCE's Perspective

SCE SUPPORTS CUSTOMER CHOICE

We believe in supporting customer choice as long as:

1) ***all*** customers are treated fairly and customer indifference is maintained, and

2) grid reliability and safety are preserved

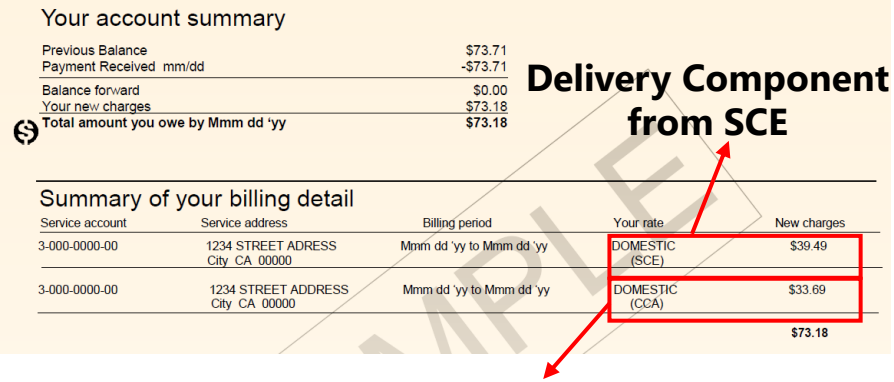
COMMITMENT TO SERVING OUR CUSTOMERS

SCE is <u>not allowed</u> to profit from the sale of energy; the California Public Utilities Commission regulates SCE's energy procurement activities.

How Community Aggregation Works

source	delivery	customer
CCA	UTILITY (SCE)	END-USERS
buy electricity supply	deliver electricity, maintain lines & billing	enable customer energy choices

CCA generation charges appear as new section on bill:



Your account summary

Previous Balance	$73.71
Payment Received mm/dd	-$73.71
Balance forward	$0.00
Your new charges	$73.18
Total amount you owe by Mmm dd 'yy	**$73.18**

Summary of your billing detail

Service account	Service address	Billing period	Your rate	New charges
3-000-0000-00	1234 STREET ADRESS City CA 00000	Mmm dd 'yy to Mmm dd 'yy	DOMESTIC (SCE)	$39.49
3-000-0000-00	1234 STREET ADDRESS City CA 00000	Mmm dd 'yy to Mmm dd 'yy	DOMESTIC (CCA)	$33.69
				$73.18

Delivery Component from SCE

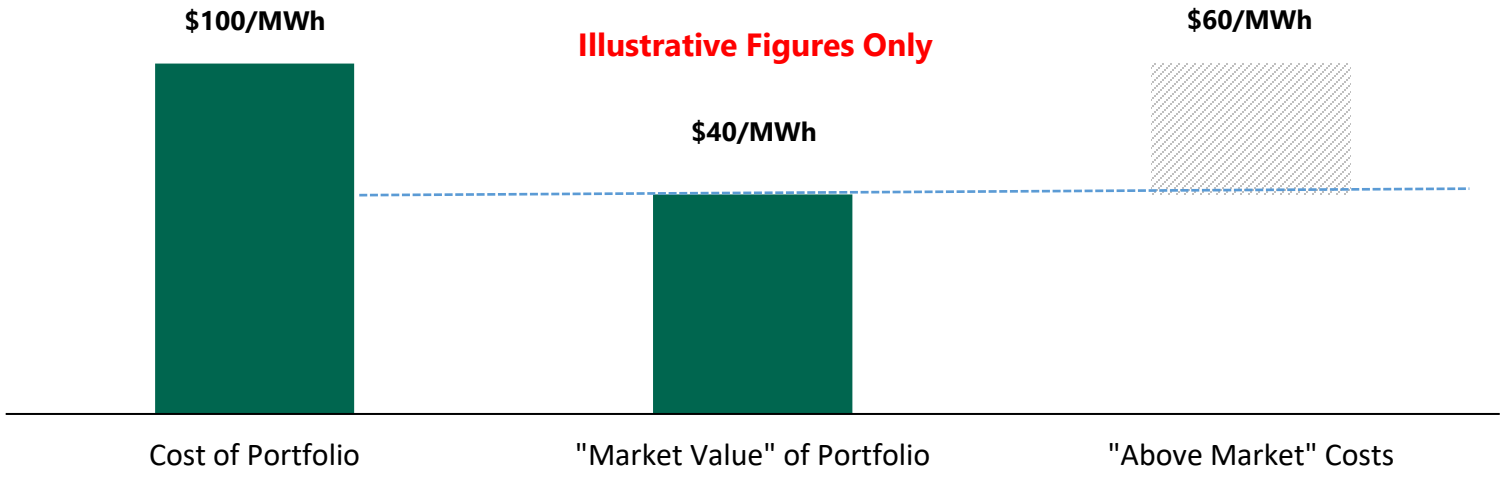
Generation Component from CCA

Statutory/Regulatory Background and Formation Process

- Post-California Energy Crisis, communities clamored for and passed legislation on the right to choose an alternative electricity provider for bulk power and related services
- AB 117 authorized the creation of CCAs in 2002, and codified the prohibition on cost shifting in the context of customer choice programs
  - Protects existing utility customers from liabilities they might otherwise incur when a portion of the utility's customers transfer their energy services to a CCA – The Indifference Principle
  - D.04-12-046 implemented AB 117 and established Cost Responsibility Surcharges (CRS)
- CPUC has jurisdiction over CCAs for consumer protections, and compliance with procurement mandates

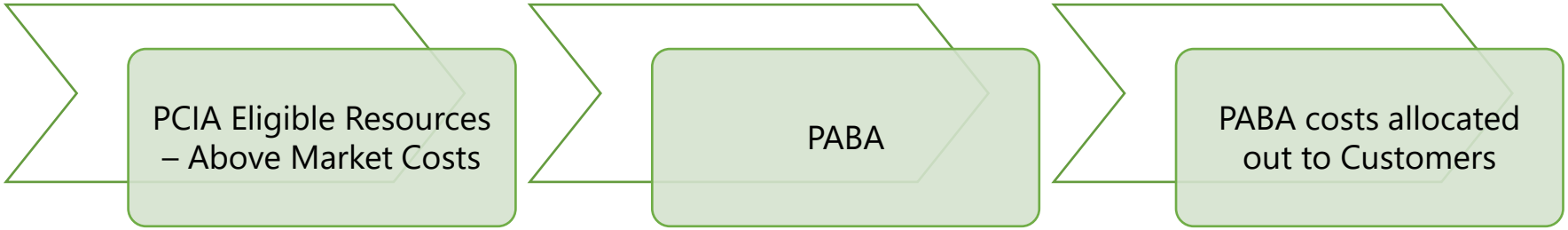
What Is Power Charge Indifference Adjustment (PCIA)?

- PCIA is a ratemaking mechanism instituted to ensure that bundled service customers are *indifferent* when departing load customers leave and choose generation services from a different provider, e.g. CCA formation
  - Ensures the above-market costs associated with prior resource commitments are not avoided by departing load customers, and therefore shifted to the remaining utility customers
  - Not quite accurately labeled by the media and CCAs as an "exit fee" charge
  - Calculated annually, and costs collected directly from customer bills through a PCIA charge



- Is intended to recover the "above-market costs" in an equitable manner
- The "fair" market value of certain eligible resources can be hard to quantify creating differences in what departing load entities consider appropriate above market costs

How PCIA Flows into Customer Rates



- Mandated Procurement
  - RPS
  - BioMAT
  - QFs
  - RAM
  - Re-MAT
  - Energy Storage (Non-CAM)

- Non PCIA Eligible
  - Procurement contracts <1 yr in term
  - CAM
  - Non-bypassable charges, e.g. EE, PPP

- Contracts segregated into sub-accounts by vintage
  - CTC-eligible
  - Legacy UOG
  - 2004-2009 vintages
  - 2010 vintage
  - …
  - 2018 vintage

- Above market net costs allocated out on a vintaged load share basis to customers
  - SCE bundled
  - Lancaster (2017)
  - Apple Valley (2017)
  - PRIME (2018)
  - San Jacinto Power (2018)
  - Rancho Mirage (2018)
  - Clean Power Alliance (Phased 2018-2020)
  - Etc.

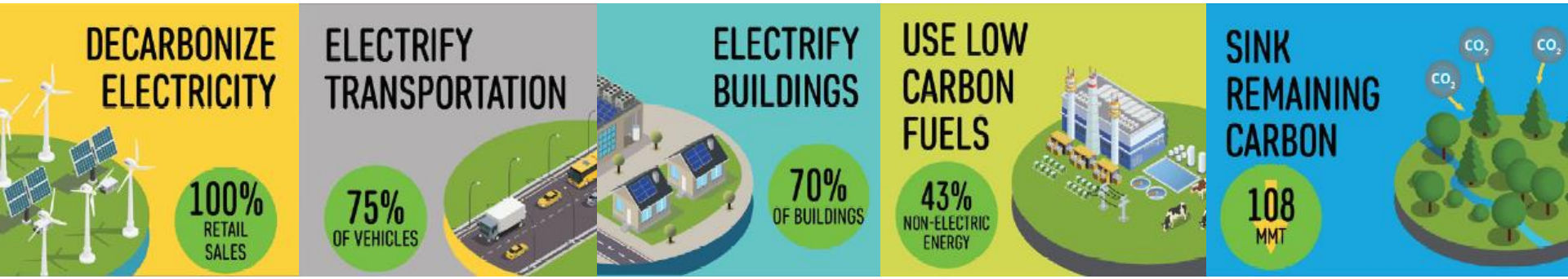
Building a Clean Energy Future

California's Environmental Policy Goals

- 100% Renewable/zero-carbon by 2045 (SB100)
- 80% reduction below 1990 levels by 2050 (SB32)
- 1325 MW Energy Storage contracted by 2020, installed by 2024 (AB2514)

SCE's Pathway 2045 paper is a blueprint for achieving these goals in a way that is both practical and affordable

- As the grid gets cleaner, so too does everything connected to it
- Customers who embrace an electric-led future will see greater reductions in energy costs

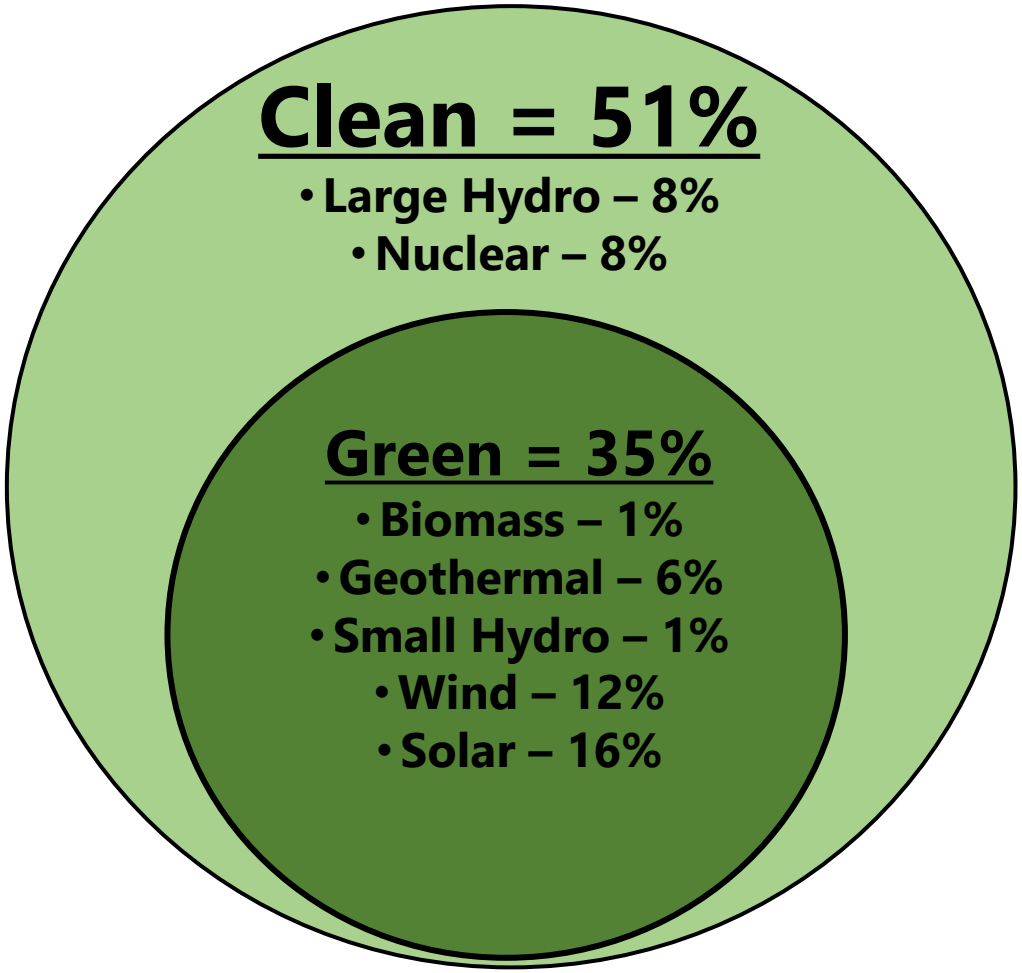


Clean the power grid. And electrify.

* Learn more at www.Edison.com/pathway2045

How Clean is SCE's Power Today?

2019 SCE Power Mix*



*Each category is rounded to nearest whole number

Helping Customers Go Green

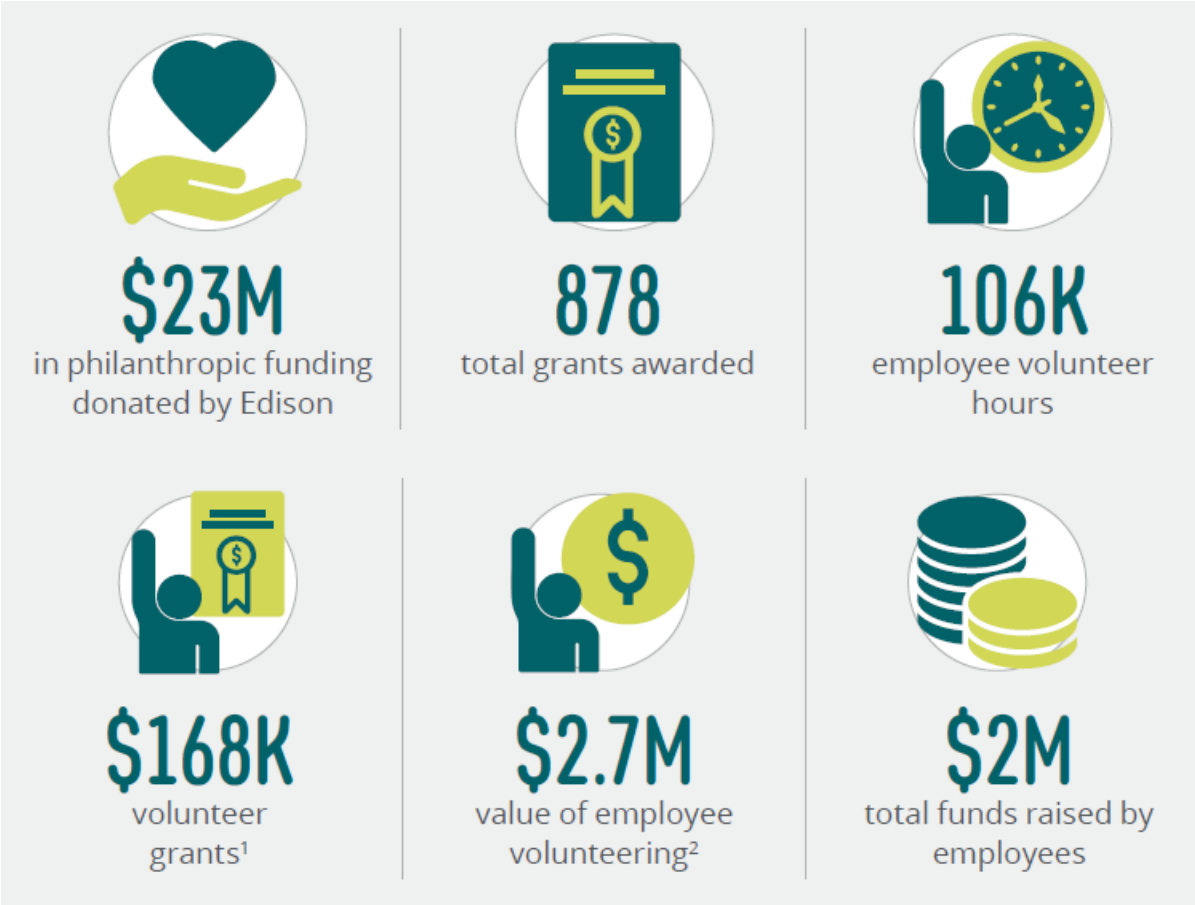
- Green Rate Options
- Incentives for rooftop solar and energy storage
- Clean Fuel Rewards Program
- Special EV Rates
- Charge Ready Pilot
- Charge Ready Transport

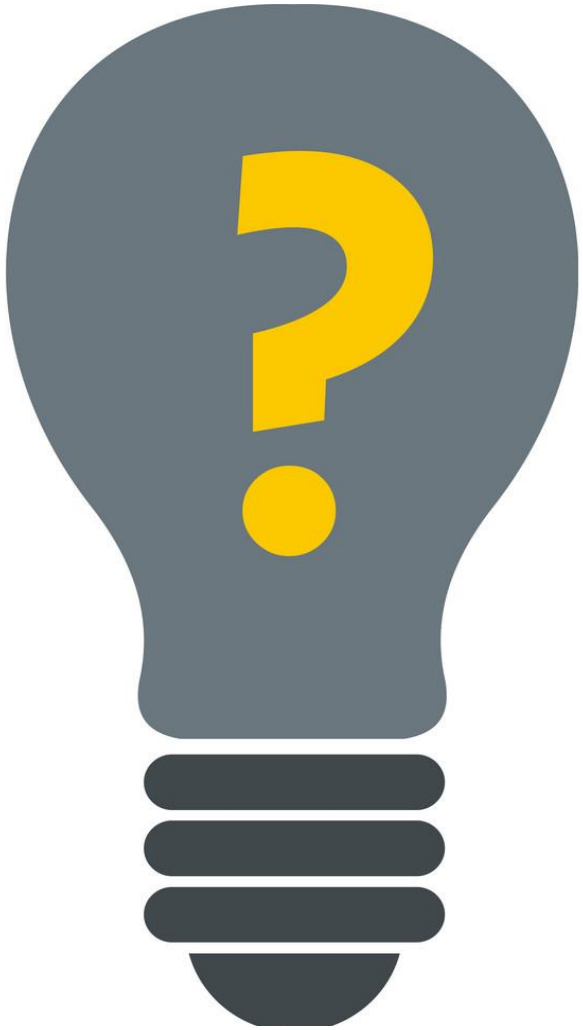
More to Come

- Charge Ready 2 (recently approved)
- Community Solar
- New Green Rates
- Low-Income Building Electrification Pilots

Investing in Our Communities

- SCE believes that when we give back to our local communities, we will inspire others to do the same





Questions?

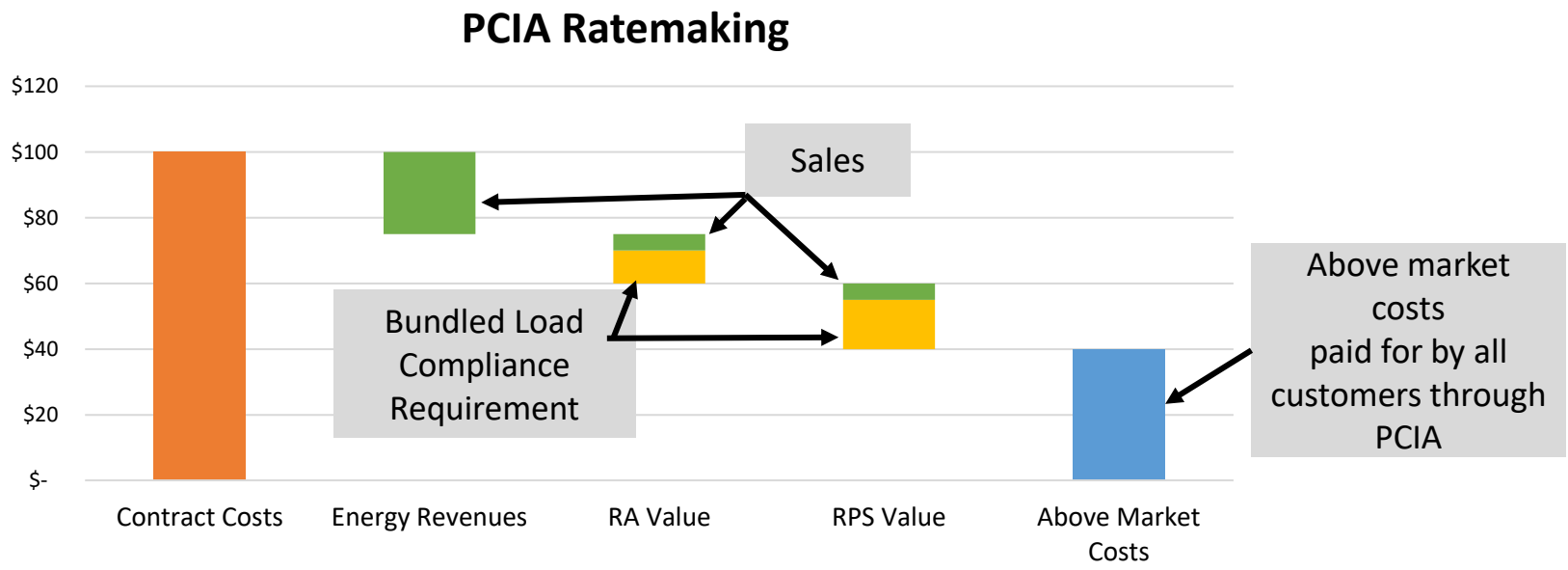
Supplemental Information

Regulatory Framework

- PCIA OIR Proceeding (R.17-06-026)
  - Track 1 (CARE and Medical Baseline Exemptions)
    - D.18-07-000
  - Track 2 (Consideration of Modifications and Alternatives to the Current PCIA)
    - Phase 1: D.18-10-019 (PCIA Decision) Modifying PCIA
      - Modified "forecast" benchmarks
      - Required that PCIA be "trued-up" annually
      - Established a second phase of the proceeding
    - Phase 2: Established to further work through issues
      - Each working group is being jointly co-lead by an IOU and DA/CCA lead
      - Working Group 1: Benchmark and True-Up Methodology
        - PD issued 9/6/19, adopting PG&E and Joint IOU proposals
        - Revised PD issued 10/10/19, more favorable for IOUs
      - Working Group 2: Prepayments
        - Decision anticipated by Q1 2020
      - Working Group 3: Portfolio Optimization
        - Decision anticipated by Q2 2020

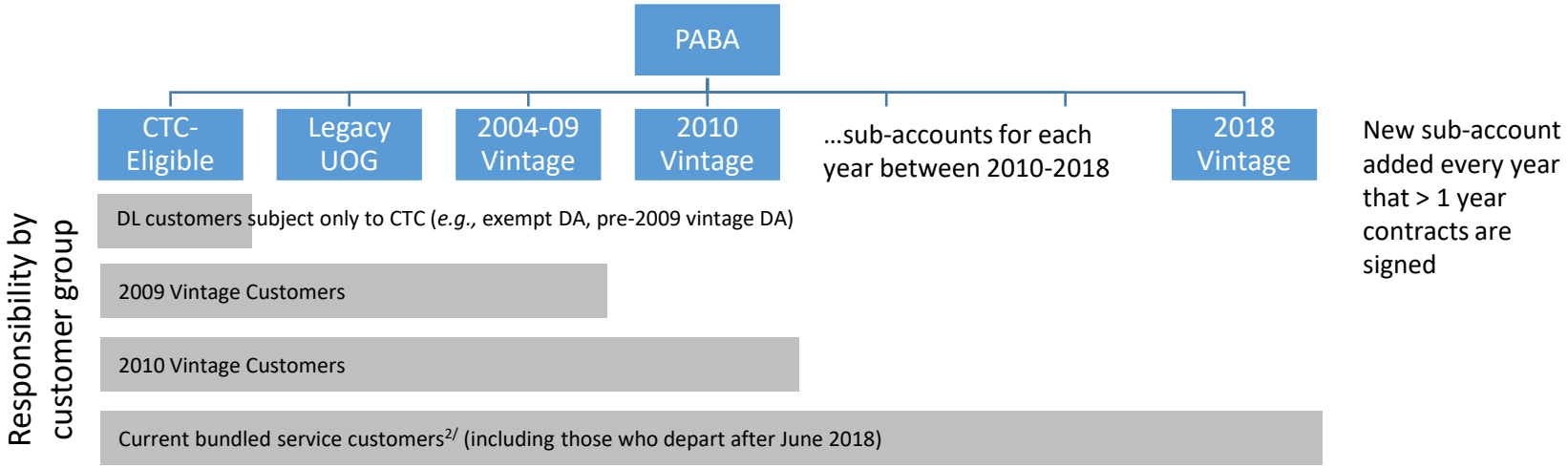
Overview of PCIA Formula

- **PCIA Rate = Contract/UOG Costs – Energy Revenues – RA Value – RPS Value**
  - Energy Revenues are forecasted based upon forward SP/NP-15 prices and trued-up based upon actual energy and A/S revenues in CAISO
  - RA and RPS Value is forecasted based upon product of (a) MPB (set by existing transactions) and (b) the sum of forecasted IOU need and forecasted sales
  - RA and RPS Value are trued-up based upon product of (a) updated MPB set by all transactions for Year N and (b) actual IOU need, plus (c) actual sales revenues



PABA Vintage Structure

- PABA has several sub-accounts that track Above-Market Costs by "Resource Vintage"
  - Each "PABA-eligible"[1/] generation resource is assigned a Resource Vintage based on the calendar year the resource was originally executed (contracts) or approved by the Commission for cost recovery (UOG)
  - Customers are responsible for all resources executed/approved while they were bundled service customers
    - Departing load customers responsible for multiple sub-accounts in PABA
    - Bundled service customers responsible for all sub-accounts in PABA, as well as ERRA



1/ PABA-eligible generation resources do not include resources eligible for CAM (which are tracked in the New System Generation Balancing Account) and resources < 1 year in length (which are tracked in ERRA).
2/ A portion of bundled service customers' generation revenues will also be directed to ERRA and BRRBA-G.

Impacts on Customer Rates - Reentry Fees and Financial Security Requirements (FSR) for CCAs

- If a customer of a CCA is involuntarily returned to service, any reentry fee imposed that the commission deems is necessary to avoid imposing costs on other customers shall be the obligation of the CCA
  - Exceptions
    - Customer returned due to default of payment or other contractual obligations
  - In the event the CCA is unable to discharge its obligation, **the fees shall be allocated to the returning customers**
  - Calculation of FSR and reentry fees
    1. Incremental administrative costs
    2. Incremental costs incurred for procuring electricity based on six month period
    3. FSR updated every six months with a minimum FSR of $147,000

California's Environmental Policy Goals

- SB100 clean energy targets:
  - 44% Renewable by 2024
  - 50% Renewable by 2026
  - 52% Renewable by 2027
  - 60% Renewable by 2030
  - 100% Renewable/zero-carbon by 2045
- AB32/SB32 Green House Gas (GHG) reduction goals:
  - 40% reduction below 1990 levels by 2030
  - 80% reduction below 1990 levels by 2050
- AB2514 Energy Storage Target[1]
  - 1325 MW contracted by 2020, installed by 2024
- SB350 Clean Energy and Pollution Reduction Act
  - Requires each Load Serving Entity to file an Integrated Resource Plan every two years with the Commission

[1] Additionally, AB 2868 was passed as an opportunity to contract for 500 MW of distributed energy storage systems, above and beyond the existing AB 2514 target to achieve ratepayer benefits, reduce dependence on petroleum, meet air quality standards, and reduce emissions of GHGs.

Attachment: B

CITY COUNCIL AGENDA REPORT
MEETING DATE: 2/16/2021
DEPARTMENT: City Manager

SUBJECT:

COMMUNITY CHOICE AGGREGATION

RECOMMENDED ACTION(S):

1. Receive a Presentation from MRW regarding Feasibility Study Results; and
2. Exercise City Council Discretion.

EXECUTIVE SUMMARY:

On December 15, 2020, the City Council approved the required documents necessary to join the Orange County Power Authority ("OCPA"), a Community Choice Aggregation ("CCA") Joint Powers Authority ("JPA"). The City Council also directed staff to hire a consultant to: (1) review the OCPA JPA Agreement and Implementation Plan; and (2) conduct a financial feasibility study of a CCA solely serving the City of Lake Forest.

MRW's study found that overall, the OCPA appears feasible. Given current and expected market and regulatory conditions, OCPA should be able to, over the long run, offer its residents and businesses customers electric rates that are less than Southern California Edison ("SCE") rates. Nonetheless, margins are tight in the first few years which could potentially prevent the OCPA from offering a rate discount or contributing to financial reserves. At its February 9, 2021, meeting, the OCPA Board voted 6-0 to extend the "non-penalty" opt out date to 15 days prior to April 1, 2021 but did not support at this time the City's requested changes to the OCPA JPA Agreement as outlined in a letter sent by the City Council to the OCPA Board.

MRW also identified two CCA options for Lake Forest aside from OCPA: (1) form a Lake Forest-only enterprise-based CCA or (2) form a Lake Forest CCA that is supported by the California Choice Energy Authority ("CalChoice")[1]. Recent resident survey results appear to indicate an interest to receive electricity from the City if one or more of the stated benefits associated with the switch are achieved – lower rates, rate stability over time, and/or electricity produced through renewable sources.

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[1]California Choice Energy Authority, or "CalChoice" is referenced as "CCEA" in MRW's report.

At this time, staff recommends the City Council receive a presentation from staff and Mark Fulmer, President of MRW & Associates ("MRW") and identify any further information staff may provide for the City Council's next scheduled discussion at its March 2, 2021 meeting. No further action is required to remain in the OCPA.

BACKGROUND:

In 2020, the City of Irvine initiated the process of forming a regional CCA JPA and invited Orange County cities that procure energy solely through SCE to join. On November 20, 2020, the Cities of Fullerton and Irvine established the OCPA JPA. Lake Forest joined on December 15, 2020. Currently, the OCPA consists of five founding member agencies: Buena Park, Fullerton, Huntington Beach, Irvine, and Lake Forest. The OCPA has stated there are up to 10 other Orange County cities that are considering joining the OCPA in the future.

As a condition of joining the OCPA, the City Council directed staff to hire an independent consultant to assist with CCA related items. Last month, staff entered into an agreement with MRW which was retained to complete the following tasks: (1) review the OCPA JPA; (2) review the JPA Implementation Plan; (3) conduct a CCA study session for the City Council; (4) outline the City's options regarding the formation of a CCA, or joining a JPA; (5) advise the board-appointed Director and Alternate on Board Meetings; (6) provide an opinion on whether this is the best JPA to accomplish rate savings; and (7) provide a financial feasibility study assessment of a CCA that only serves the City of Lake Forest.

<u>OCPA Member Agency Status Update</u>

The City of Huntington Beach reaffirmed its participation in the OCPA and did not request changes to the JPA. The City of Buena Park voted to host a town hall meeting to gain input from residents and businesses regarding CCA. Its meeting is scheduled for March 2, 2021. Cities only need to take official action if they intend to opt-out of the JPA.

DISCUSSION:

At the December 15, 2020 City Council Meeting, the City Council voted to join the OCPA JPA. The City Council also directed staff to hire an independent consultant to assist with CCA related items. Last month, staff entered into an agreement with MRW & Associates ("MRW").

MRW completed its review of the OCPA Foundational documents and CCA options for the City of Lake Forest (Attachment 1). MRW found that overall, the OCPA appears financially viable in the long run. MRW highlights that the OCPA may not be able to offer rate savings in the first few years of operation due to SCE rates (including the Power Charge Indifference Adjustment), the need to pay off its start-up debts, and building of financial reserves. Additional findings regarding the OCPA founding documents are summarized below:

- The OCPA differs from other CCA JPAs in two ways: (1) Irvine will have two voting Directors on the OCPA Board of Directors, while all other cities will have only one until the loan repayment is satisfied; and (2) there will be two types of members: cities that join the OCPA prior to December 30, 2020 will be "founding parties", while those that join thereafter will be "additional parties".

- Most of the assumptions made by the Implementation Plan were reasonable. However, two of the assumptions were understated or outdated: (1) the Implementation Plan may be underestimating the initial working capital requirements; and (2) the Implementation Plan is overstating the costs for Resource Adequacy in 2023 and thereafter.

- Financial margins are smallest during the first two years of operation due to initial investment in startup costs, loan repayments, and SCE rates. This could prevent OCPA from offering rate discounts or contributions to financial reserves.

MRW also identified two CCA options for Lake Forest aside from OCPA: (1) form a Lake Forest-only enterprise-based CCA or (2) form a Lake Forest CCA that is supported by CalChoice. CalChoice is a hybrid CCA structure that provides members the ability to leverage CalChoice's knowledge and staff to benefit from lower energy procurement costs, regulatory matters, accounting, and compliance functions which are crucial to CCA agencies. A member city that may otherwise be unable to operate as an enterprise due to size or budget constraints is able to take advantage of economies of scale without having to sacrifice key control often associated with JPAs or taking on the significant liability of a stand-alone enterprise. CalChoice is governed by the Lancaster City Council with each City joining as an associate member of the JPA. As an associate member, a City Council would set rates for their City, purchase energy, and contract CCA services through existing CalChoice contracts which could help keep costs low to pass on rate savings to customers. Table 1 below briefly summarizes the comparison of Lake Forest CCA options.

Table 1: Comparison of Lake Forest CCA Options

Criterion	Join OCPA	Use CalChoice JPA	Stand-Alone Enterprise	Stay with SCE
Rates	Comparable/ modestly lower	Comparable/ modestly lower	Comparable/ modestly lower	Base
GHG Reduction Potential Over Forecast Period	Some	Some	Some	Base
Local Control/Governance	Some	Greater	Greatest	None
Local Economic Benefits	Some	Greater	Greatest	Minimal
Start Up Costs/Cost to Join	None	Some	Greatest	None
Level of Effort	Minimal	Some	Greatest	None
Timing (earliest)	2022	2023	2023	N/a

In addition, MRW also provided a Technical Assessment of a potential stand-alone CCA for the City of Lake Forest (Attachment 2). MRW's analysis found that a stand-alone Lake Forest only CCA program could be financially feasible over the long run. The CCA would likely be able to offer businesses and residents power that is priced at or a few percentage points lower than that offered by SCE. Similar to the OCPA, financial margins are smallest during the first years of operation due to the initial investment in startup costs, loan repayments, and SCE rates. Additional findings regarding the Technical Assessment are summarized below:

- Due to economies of scale, the OCPA would likely have slightly lower average costs than a stand-alone Lake Forest CCA. Conversely, MRW found no correlation between the size of the existing CCAs and the rate discounts they currently offer, suggesting governance and policy decisions also impact rates.

- CCA formation is not risk-free. A Lake Forest-only CCA would be participating in a competitive power market and subject to evolving state requirements and regulations.

- Rate savings may be achievable in the long run, but market prices and SCE rate volatility could combine to occasionally prevent the Lake Forest CCA from offering lower rates than SCE.

True North Residential Survey Results

Every two years, the City hires an independent research firm to perform a statistically significant survey of residents and businesses to obtain feedback on city services and potential new initiatives. Survey results are then interpreted by the consultant in a report entitled the Community Satisfaction Survey. Attached are survey responses to two questions included in the 2021 survey prepared by True North Research (Attachment 3).

According to True North Research, the resident responses to Question 20 appear to indicate a basic interest in the City's involvement in purchasing electricity on behalf of the community. A higher level of interest is indicated if the rates charged would be lower (85% of respondents are much more or somewhat more likely to purchase electricity from the City) and more stable over time (76% of respondents are much more or somewhat more likely to purchase electricity from the City). Approximately 72% of respondents also indicated being much more or somewhat more likely to purchase electricity from the City if a greater amount of the electricity would be produced through renewable sources. The least motivating factor to purchase electricity from the City is local control over the type of electricity offered (61% of respondents indicated much more likely or somewhat more likely) while 24% of respondents indicated "not sure." True North Research also noted that the survey did not ask if residents would be supportive of purchasing more energy from renewable sources if it resulted in a temporary or periodic slight rate increase.

A related question (Question 21) asked residents who their preferred provider of electricity would be if the cost were the same: Southern California Edison or the City. The survey indicated that 38% of residents preferred the City while approximately 29% of residents preferred Southern California Edison and 31% answered "Not sure." It should be noted that Question 21, due to time constraints to obtain survey responses, did not define "provider" nor differentiate between the components of providing electricity to a customer, e.g., generation, transmission, and distribution.

Revisions to the OCPA Joint Powers Agreement

At its meeting of February 2, 2021, the City Council directed staff to send two communications to the OCPA. The first was letter to the OCPA Board of Directors requesting amendments to the JPA and, the second was a transmittal of 19 questions regarding the JPA and JPA Agreement directly to the OCPA staff. The City Council also directed staff to schedule a Special Meeting of the City Council on February 12, 2021, in the event the OCPA Board did not adopt the Amendment to the JPA extending the "no-penalty" opt out date to 15 days prior to April 1, 2021.

In its letter, the City Council requested the Board discuss amending the JPA at its next meeting (Attachment 4). At its meeting of February 9, 2021, the OCPA Board voted 6-0 to approve the JPA Amendment extending the opt out date. However, the meeting agenda did not include consideration of the City's letter. During Board Member comments, the OCPA Board Members discussed the City's letter and expressed no interest in amending the Joint Powers Agreement at this time.

Potential Community Engagement Strategies: Ballot Measure, Postage Paid Post Cards, Newsletter, (Virtual) Public Forums, Single Subject Community Survey

At the January 19, 2021 City Council Meeting, Council Member Tettemer sought consensus to agendize for discussion a possible future ballot initiative regarding launching Community Choice Aggregation ("CCA") in Lake Forest. Minority consensus was given by Mayor Pro Tem Pequeno, and the City Council directed staff to place this item on the February 2, 2021 agenda for discussion (Attachment 5).

The City Council discussed this item in conjunction with its discussion of questions to pose to the OCPA as part of its due diligence process.
Council Member Tettemer clarified that a ballot measure could be part of a broader public engagement strategy to educate the community on the advantages and disadvantages of Community Choice Aggregation and identify the community's goals regarding electricity from renewable sources. This information could be used to determine a path to achieve the community's goals which could include participating in a CCA.

Such an engagement campaign could include multiple channels such as newsletter articles, (virtual) Public Forums/Town Hall meetings, educational mailers with postage paid comment cards for residents to express their views, a single subject community survey and, potentially, a ballot measure.
Such comprehensive public engagement would likely require a six-to-nine-month time frame and dedicated time from the City Manager's Office, Economic Development, and Public Information staff. Additional costs related to this effort may include consultant assistance, direct mailer design and postage, and costs related to a ballot measure.

CCA Due Diligence

The following section outlines the City's ongoing efforts researching the OCPA, and includes staff's recommendations for future City Council Meeting dates:

- January 19 – MRW provided an overview of CCA and responded to the City Council's questions and comments related to the OCPA JPA.

- February 2 – The City Council approved correspondence to the OCPA Board of Directors and its staff. Staff forwarded communication to OCPA Staff and a separate letter to its Board.
- February 16 – The City Council reviewed MRW's reports for Lake Forest and posed final questions to the consultant.
- March 2 – City Council Discussion (If required, the City Council may continue this item to its second meeting in March).
- March 16 – City Council Discussion (If needed).

The City has until March 17 to provide the Authority with advance written notice of withdrawal to opt out of the JPA without penalty. No action is necessary to remain an OCPA founding member.

FISCAL IMPACT:

The fiscal impact associated with this item is dependent upon City Council direction. There is no immediate fiscal impact associated with remaining in the OCPA.

ATTACHMENTS:

1. Review of OCPA Foundational Documents and CCA Options for the City of Lake Forest
2. Technical Assessment of CCE for the City of Lake Forest
3. True North Resident Survey Topline Results – CCA Questions
4. Letter to the OCPA Board of Directors
5. Minute Excerpt – January 19, 2021 City Council Meeting

Initiated By: Adrian Grijalva, Senior Management Analyst
Submitted By: Keith Neves, Assistant City Manager
Approved By: Debra Rose, City Manager

February 15, 2021

The Honorable Scott Voigts
Mayor City of Lake Forest
100 Civic Center Drive
Lake Forest, CA 92630

RE: City of Lake Forest Letter

Dear Mayor Voigts:

We are in receipt of your February 3, 2021 letter requesting amendments to the Orange County Power Authority Joint Powers Agreement. At our February 9, 2021 Board Meeting. the Authority's Board expedited the previous request from the City of Lake Forest to extend the City of Lake Forest's ability to exit the Orange County Power Authority until April 1, 2021. Further amendments to the JPA Agreement are not being considered at this time.

The Orange County Power Authority is a community choice aggregation agency that will provide competitive energy choice to residents and business owners to its member cities, including the City of Lake Forest and its 84,000 residents and small businesses. Our Board of Directors has asked me to convey our sincere hope that the City of Lake Forest will remain in the Orange County Power Authority. We stand ready to provide whatever information and resources the City may require to get itself comfortable with its prior decision to join the Authority.

Sincerely,

/s/Mike Carroll

Mike Carroll
Chairman
Orange County Power Authority

cc: Board of Directors, Orange County Power Authority
Brian S. Probolsky, CEO, Orange County Power Authority
Debra DeBruhl Rose, City Manager, City of Lake Forest
Ryan M. R. Baron, Partner BBK

BOARD OF DIRECTORS | **MIKE CARROLL** CHAIRMAN | **FRED JUNG** VICE CHAIRMAN | **SUSAN SONNE** DIRECTOR | **FARRAH KHAN** DIRECTOR | **SCOTT VOIGTS** DIRECTOR | **MIKE POSEY** DRECTOR

ATTACHMENT 1

Review of Orange County Power Authority Foundational Documents and CCA Options to the City of Lake Forest

Prepared by:

MRW & Associates, LLC
1736 Franklin Street, Ste 700
Oakland, CA 94612

February 11, 2021

This report was prepared by MRW & Associates. MRW has been working on Community Choice Aggregation (CCA) issues since they were authorized by the California State Legislature in 2002. MRW has prepared and critiqued numerous CCA feasibility plans and is providing rate forecasting and other ongoing support to CCAs throughout the state.

This Study is based on the best information available at the time of its preparation, using publicly available sources for all assumptions to provide an objective assessment regarding the prospects of CCA operation in the City. It is important to keep in mind that the findings and recommendations reflected herein are substantially influenced by current market conditions within the electric utility industry and state regulations, both of which are subject to sudden and significant changes.

Table of Contents

Executive Summary **1**
Review of the OCPA's Joint Powers Agreement 1
Review of the OCPA's Implementation Plan 2
CCA Options Available to Lake Forest 2

Introduction **3**

Part 1: Review of the Orange County Power Authority (OCPA) Joint Powers Agreement **3**
Board of Directors and Voting **3**
Financial Exposure **4**
Founding Party Versus Additional Party **5**
Withdrawing from the JPA **5**

Part 2: Review of the OCPA's Implementation Plan **7**
Implementation Plan Approach **8**
Main Assumptions **8**
Is the OCPA likely to be financially viable? **13**

Part 3: CCA Options Available to Lake Forest **14**
Forming a Single City Agency **14**
Joining a Joint Powers Agency (generically) **15**
Joining CalChoice Energy Authority **16**
Comparison of Lake Forest Options **17**

Executive Summary

The City of Irvine has extended an invitation to Lake Forest to become a member of the new Community Choice Aggregation (CCA) it is spearheading, the Orange County Power Authority (OCPA).[1] Other cities which have committed to the OCPA include Fullerton, Huntington Beach, Buena Park. Like Lake Forest, they too have the opportunity to withdraw from the JPA on or before April 1 (originally March 1).

The City of Lake Forest retained MRW & Associates (MRW) to: (1) review the OCPA's Joint Powers Agreement; (2) Review Implementation Plan; (3) provide the benefits and risks to the City of joining OCPA or forming a Lake Forest only CCA. This report addresses the first two items and qualitatively discusses Lake Forest's CCA options. A separate report, Technical Assessment of Community Choice Energy for the City of Lake Forest," addresses the benefits and risks of CCA formation as well as the viability of a stand-alone CCA for Lake Forest.

Review of the OCPA's Joint Powers Agreement

Overall, the OCPA Joint Powers Agreement (JPA) is patterned after and consistent with other California CCA JPAs. First, it explicitly states that the JPA member cities are not required to provide any funding to the OCPA and the OCPA's debts, obligations and liabilities cannot fall back onto the member cities. Second, the JPA also provides for a second "Voting Shares Vote."[2] The JPA states that during the same Board Meeting after an affirmative or tie vote, two or more Directors may request a "voting share vote to reconsider the action approved by a first vote. (Both Directors cannot be from Irvine.) The voting shares are proportional to the annual energy use of the community. Given the current OPCA makeup, Lake Forest Director's vote would be worth 10 out of a total of 100 (i.e., 10 percent). This is a common feature for all the CCA JPA Agreements that MRW has reviewed.

The OCPA JPA differs from other CCA JPAs in two ways. First, the City of Irvine will have two voting Directors on the OCPA Board of directors, while all other cities will have only one. Irvine will revert back to having only one Director once the $2.5 million loan the city has made to the OCPA is repaid. Second, there will be two types of OCPA members: cities that joint the OCPA prior to April 1, 2021 will be Founding Parties, while those that joint after will be Additional Parties. Lake Forest would be a Founding Party. Founding Parties are automatically placed on the OCA's Executive Committee. (We note that the powers and responsivities of the Executive Committee are not delineated in the JPA). No other CCA has two different types members.

[1] CCA is also called "Community Choice Energy," or "CCE."
[2] OCPA JPA Agreement, Section 3.9.2

Review of the OCPA's Implementation Plan

Overall, the assumptions and analysis in the Implementation Plan are sound. That is, the underlying customer phase-in, assumed power prices, operating costs, and CCA revenues are all reasonable or conservative. However, we note that the Implementation Plan may be underestimating the initial working capital requirements. The Implementation plan assumes $15.5 million for starting and a working capital loan/line of credit. This represents about 30 days of average cash flow in the first year, in which due to the phase-in schedule is only a fraction of the load would be served. MRW's more conservative analysis assumes that the working capital loan / line of credit would be for 60 days of cash flow assuming the full load is served.

San Diego Community Power (SDCP) provides another data reference. OCPA's load is projected to be about 62% of that of SDCP. SDCP required $40 million initial line of credit. Simply scaling SDCP's requirement down to OCPA suggests an initial bank load/line of credit around $25 million.

Based on our review of the OCPA Implementation Plan, our financial feasibility analysis of a stand-alone Lake Forest CCA to date, and our analysis conducted for the City of Huntington Beach, MRW believes that the OCPA is, in the long run, financially viable. However, we believe that OCPA's may not be able to offer rate savings in the first few years of operation. This is because of SCE rates (including the PCIA), the need to pay off its start-up debts, and the need to build up financial reserves.

CCA Options Available to Lake Forest

Lake Forest's three primary options for CCA are: joining the OCPA; forming a stand-alone Lake-Forest only enterprise-based CCA; or forming a Lake Forest CCA and joining the CalChoice Energy Authority (CCEA). CCEA is a "hybrid" JPA, where the JPA provides services to its member CCAs but does not control any of its general policies or programs.[3] This is a good match for smaller cities who are interested in local control of the CCA but not interested in bringing in-house the day-to-day management needed to operate a CCA.

The primary benefits of either of the Lake Forest-only CCA options are more local control over procurement practices and budgets and services better tailored to Lake Forest. Joining with CCEA greatly reduces the administrative burden relative to keeping all the CCA activities in-house in Lake Forest. The primary benefits of joining with OCPA are foregoing the need to provide upfront financing for the CCA's startup process, less potential financial exposure to the City as the JPA will be a financially distinct entity, economies of scale which can translate into lower average operating costs and reduced administrative burdens.

[3] *See*, https://californiachoiceenergyauthority.com/

Introduction

The City of Irvine has extended an invitation to Lake Forest to become a member of the new Community Choice Aggregation (CCA) it is spearheading, the Orange County Power Authority (OCPA). Other cities which have committed to the OCPA include Fullerton, Huntington Beach, Buena Park. Like Lake Forest, they too have the opportunity to withdraw from the JPA on or before April 1 (originally March 1).

The City of Lake Forest retained MRW & Associates (MRW) to: (1) review the OCPA's Joint Powers Agreement; (2) Review Implementation Plan; (3) provide the benefits and risks to the City of joining OCPA or forming a Lake Forest only CCA. This report addresses the first two items and qualitatively discusses Lake Forest's CCA options. A separate report, Technical Assessment of Community Choice Energy for the City of Lake Forest," addresses the benefits and risks of CCA formation as well as the viability of a stand-alone CCA for Lake Forest.

Part 1: Review of the Orange County Power Authority (OCPA) Joint Powers Agreement

The Joint Powers Agreement (JPA) is the fundamental governance document for the OPCA. In this section, we review sections of the JPA that are particularly important to Lake Forest and note where the OCPA JPA differs from, or is consistent with, other CCA JPAs.

Board of Directors and Voting

The OCPA would be governed by a Board of Directors, with one director appointed by each JPA member, except for the City of Irvine, which would initially have two directors but would drop down to one director once Irvine's loan to the OCPA is paid off.[4] This structure is unique; all other California CCA JPA agreements that MRW has seen specify that each member community would have one member on its JPA Board.

The JPA also provides for a second "Voting Shares Vote."[5] The JPA states that during the same Board Meeting after an affirmative or tie vote, two or more Directors may request a "voting share vote to reconsider the action approved by a first vote. (Both Directors cannot be from Irvine.) The voting shares are proportional to the annual energy use of the community. Given the current OPCA makeup, Lake Forest Director's vote would be worth 10 out of a total of 100 (i.e., 10 percent).

This voting shares vote option is common. East Bay Community Energy (EBCE), Marin Clean Energy (MCE), Clean Power Alliance, Peninsular Clean Energy, Sonoma Clean Energy, and

[4] OCPA JPA Agreement, Section 3.1
[5] OCPA JPA Agreement, Section 3.9.2

Silicon Valley Clean Energy are all major CCAs that allow for a "voting shares vote" for a particular matter if requested by a certain number of board directors. MRW is not aware of any CCA Board of Directors exercising a Voting Share Vote.

The OCPA JPA Agreement also explicitly states that membership does not require any financial obligations: "Parties are not required under this Agreement to make any financial contributions or payments to the Authority, and the Authority shall have no right to require such a contribution or payment."[6] Instead, the City of Irvine is providing the initial capital loan and collateral to the OCPA, with terms laid out in the JPA agreement Section 5.5 and Exhibit D.

The voting shares for OCPA, given the current makeup and projected load for each community, is shown in the table below.

Table 1 OCPA Voting Shares

Community	Directors	Equal Vote	Voting Shares Vote
Irvine	2*	33%	42.4%
Fullerton	1	17%	14.8%
Huntington Beach	1	17%	22.9%
Buena Park	1	17%	9.8%
Lake Forest	1	17%	10.0%
Total	6	100%	100%

*Irvine will have 2 Directors on the Board until its loan to the CCA is paid off.

Financial Exposure

Generally, all CCAs have similar stipulations in their JPA agreement to those of OCPA regarding the financial obligations of their members. Individual member jurisdictions are not held responsible for the debts, liabilities, or obligations of a JPA unless the governing board of each member jurisdiction (i.e., its City Council) agrees to assume a debt, liability, or obligation. Additionally, CCAs typically indemnify and hold harmless member jurisdictions and their associated staff from any claims, losses, damages, costs, injuries, and liabilities arising directly or indirectly from the conduct, activities, operations, acts, and omissions of the JPA. For those JPAs that allow for members to be required to make contributions or pledge assets as a condition of continued participation in a CCA program, the JPA agreement requires a vote of at

[6] OCPA JPA Agreement, Section 5.6.

least 75% of all directors and the approval of the governing boards of each member jurisdictions who are being asked to contribute.

The establishment of many JPAs necessitated that the initial implementation costs of a CCA Program be funded by an initial member jurisdiction. In these situations, the member jurisdiction providing the initial funding was not entitled to any reimbursement of these cost if the CCA program did not become operational.

Founding Party Versus Additional Party

Since Lake Forest joined the OCPA JPA before the end of the year, it is a "Founding Party;" if it withdraws membership before April 1 and rejoins sometime later, it will become an "Additional Party."[7] Being a Founding Party would automatically place the Lake Forest Director on the JPA's Executive Committee. The benefits and obligations of being a member of the Executive Committee are note laid out in the JPA. The Executive committee would be formed if the Authority' s membership reaches nine or more members. If the City waits to commit after the end of the year, it will join as an Additional Party and potentially be subject to a membership fee upon joining.[8] This tiered membership, which provides privileges to the initial members, is again unique among CCAs.

No other CCA JPA differentiates Board Members benefits based on when the jurisdiction joins. We note that there has been at least one instance where a JPA revised its board membership rules once it reached a certain number of member jurisdictions. Central Coast Community Power (formerly known as Monterey Bay Community Power) originally allocated seats on its Policy and Operations board based on a one jurisdiction, one seat basis until the number of member jurisdictions exceeded eleven. Once the number of member jurisdiction reached more than eleven, the JPA's Policy and Operations boards' composition shifted to a regional allocation based on population size.

Withdrawing from the JPA

The JPA agreement also provides for the right to withdraw from JPA membership: "a Party may withdraw from the Authority for any reason and without liability or cost prior to March 1, 2021 upon providing the Authority fifteen (15) days advance written notice."[9] This option reduces the risk to the City of committing to the OCPA now by allowing a more thorough analysis of the implications during the next few months.

After March 1, 2021, the City could withdraw from the JPA effective at the beginning of an OPCA's fiscal year by providing no less than 180 days written notice. If the City exercises this latter withdrawal option, it could be responsible for the various damages and losses its withdrawal might cause to the JPA.[10] These damages would likely be associated with the value

[7] OCPA JPA Agreement, Preamble.
[8] OCPA JPA Agreement, Section 6.1.
[9] OCPA JPA Agreement, Section 6.1.
[10] OCPA JPA Agreement, Section 6.3.

of power purchase contracts entered into by the OCPA on the City's behalf which the OCPA could not liquidate.

Other CCA JPAs allow member jurisdictions to withdraw from the authority after giving a certain amount of notice in advance, usually 180 days. Like OCPA, some JPAs also require an affirmative vote from the governing board of the departing jurisdiction (i.e., City Council) before the jurisdiction can withdraw. However, JPAs will typically hold departing jurisdictions responsible for certain continuing liabilities or financial obligations, such as power purchase agreements. These liabilities and obligations are typically costs incurred by the JPA on behalf of the departing jurisdiction.

Part 2: Review of the OCPA's Implementation Plan

This section reviews the analytical approach, assumptions, and results of the OCPA Implementation Plan pro forma financial analysis and compares the key assumptions and results against the independent analysis conducted by MRW. The fundamental question addressed is, "Are the assumptions reasonable and is the OCPA likely to be financially viable?" As detailed below, the assumptions underlying the OCPA Implementation Plan are generally reasonable. Further, MRW believes that the OCPA is likely to be financially viable, although the margins in the first few years will be tight and the OCPA may not be able to offer more than token rate savings.

Table 2 summarizes MRW's findings on the financial analysis underlying the OCPA Implementation Plan. Each entry is discussed in the following sections.

Table 2. Implementation Plan Assumption Summary

		Conservative	Reasonable	Potential Issue
	Modeling Approach		✓	
Load Assumptions	Load Forecast		✓	
	Line Losses	✓		
	Opt-Out Rate	✓		
CCA Power Assumptions	CCA Power Portfolio		✓	
	Wholesale Power Prices		✓	
	Renewable Power Prices		✓	
	RA Costs		✓	X
CCA Admin. and Other Cost Assumptions	Startup Costs		✓	
	Financing Costs		✓	X
	Admin. Costs		✓	
SCE Rate Assumptions	PCIA	✓		
	SCE Generation Rate		✓	X

Implementation Plan Approach

The Implementation Plan's financial analysis approach is sound and complete. It includes all the necessary expense and revenue categories and modeled a CCA program's pro forma cash flow accurately.

Main Assumptions

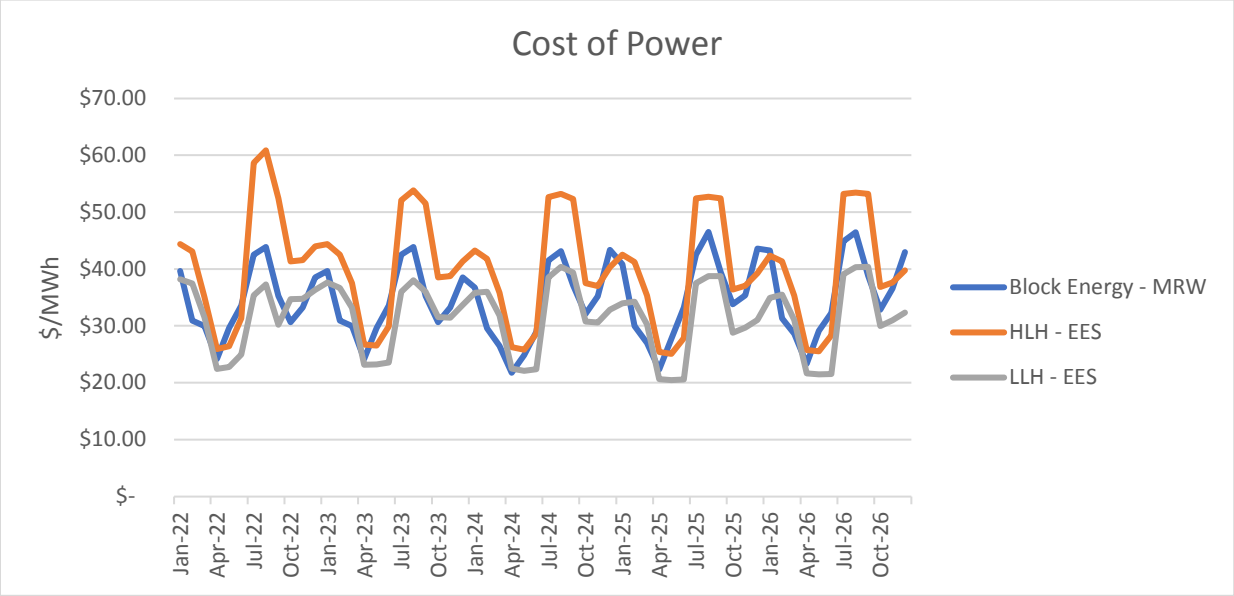
This section reviews each of the major assumptions that the Implementation Plan makes and opines on the reasonableness of the assumptions. While most of the assumptions made by the Implementation Plan were reasonable, two of the assumptions were understated or outdated. Additionally, many of the assumptions that the Implementation Plan characterizes as "conservative" MRW would consider reasonable, but not necessarily conservative.

Load Forecast. The Implementation Plan's load forecast is reasonable. It is based on recent historical data provided by SCE, assumes conservative opt-out rates, and modest growth. With respect to the opt-out rate, the Implementation Plan assumes that 5% of the residential customers and 10% of the commercial and industrial customers will choose to remain with SCE for their electric energy. With one notable exception, opt-out rates seen by recent CCA program launches have been less than this, making the assumption conservative. The exception is the Clean Power Alliance of Southern California (CPA), the CCA that serves Los Angeles and Ventura counties, which experienced a much higher opt-out rate, closer to 50%, for its largest industrial customers. This was because CPA chose not to offer rates that were lower than SCE's for this customer class, but instead chose to set rates at levels equal to CPA's cost to provide power to them. Because the CPA rates were higher, and this class is especially sensitive to power costs, a large fraction of the industrial customers declined to take service from CPA.

Cost of Power. As outlined in its Implementation Plan, OCPA intends to purchase significant amounts of power from power marketers, public agencies, generators, or utilities during the first several years of operation. It will utilize one or more power supply agreements to obtain all of its electricity from one or more third-party providers. These suppliers will be responsible for procuring the mix of resources, including renewable energy, needed to meet OCPA's portfolio requirements and provide cost-effective electricity.

The figure below shows the forecasted monthly power costs for block energy estimated by MRW and the heavy load hours (HLH) and light load hours (LLH) used in the Implementation Plan. The figure shows that the Implementation Plan estimates are similar in pattern and value to MRW's estimate for block power and therefore appear reasonable.

Figure 1. Implementation Plan Assumed Cost of Power



Cost of Renewable Power. OCPA anticipates purchasing a minimum of 50% of renewable energy by 2026, 60% of renewable energy by 2030, and 100% carbon-free energy by 2045, as mandated by California law. To achieve these Renewable Portfolio Standards (RPS) goals, OCPA will secure renewable power supply from third-party electric suppliers, potentially supplementing these renewable power contracts with direct purchases off renewable energy from renewable energy facilities or from renewable generation owned by OCPA.

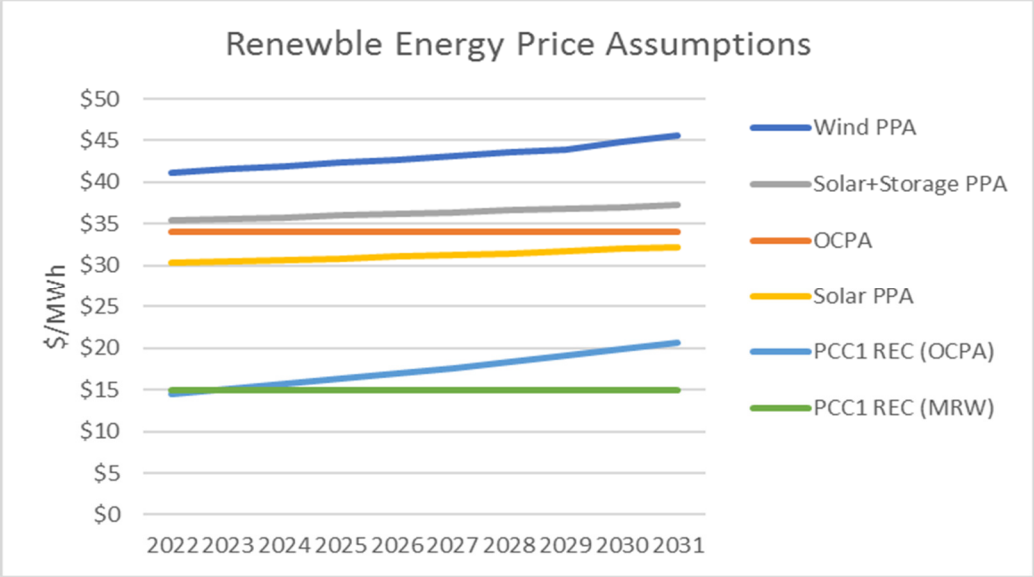
The renewable energy OCPA plans to procure would come bundled with its individual clean energy attributes in the form of Renewable Energy Credits (RECs). RECs are tradable instruments, with each individual REC representing one megawatt hour of renewable energy generated. In California, there are different types of RECs. The most stringent is the "PCC-1" REC. These RECs require that the associated renewable power be directly provided into the California power grid. This is in contrast to the more generic PCC-3 REC, where the renewable power need not be used in California but generated elsewhere. The State sharply limits the use of these PCC-3 RECs, and the OCPA Implementation Plan's use of RECs is strictly limited to the stringent PCC-1 type.

Beyond these RECs, the OCPA Implementation Plan says it will secure renewable power from third-party suppliers, with the potential of supplemental procurement from other renewable facilities or OCPA-owned renewables. OCPA acknowledges in its implementation plan that transmission access cost and transmission congestion cost risks must be considered in any bid evaluation if the delivery point for electricity is outside of OCPA's load zone.

The figure below shows the projected average annual renewable power costs based on current reported renewable contract prices from other load-serving entities, including California CCAs

and municipal utilities.[11] The Implementation Plan assumes a flat price of $34 per MWh for renewables across all years (orange line). The price used in the Implementation Plan falls between expected price for a solar plus storage PPA (gray line) and a solar PPA. (yellow line). The Implementation Plan's assumed PCC1 REC price starts at about the same level as MRW's projection but escalates modestly with time.

Figure 2 Implementation Pland and MRW Renewable Price Assumptions



Overall, the Implementation Plan's forecast of renewable energy purchasing and pricing is reasonable.

Cost of Resource Adequacy. Resource Adequacy, or "RA," is a state-mandated system whereby each load-serving entity (e.g., utility, CCA) must demonstrate that they have contracted with sufficient resources to keep the state's power grid reliable. To satisfy RA standards, OCPA will need to demonstrate one year in advance that it has secured physical capacity for 90 percent of its projected peak summer loads plus a minimum 15 percent reserve margin. It must also demonstrate 100 percent of the peak load plus a 15 percent reserve margin on a month-ahead basis. Up until 2023, each load-serving entity must also ensure that a fraction of the physical resource with which it has contract are located within certain local areas ("Local RA") where transmission constraints require power plants/generators to be located within that area so as to maintain reliable service. After 2023, SCE will be in charge of purchasing the entire amount of required local RA on behalf of all load-serving entities, including any CCAs in their jurisdictions. Therefore, local RA will be purchased on behalf of OCPA and other CCAs

[11] https://emp.lbl.gov/sites/default/files/2020_utility-scale_solar_data_update.pdf

by SCE within its service territory, and thus saving the CCAs the cost of procuring this resource themselves.

Although OCPA acknowledges that a portion of their capacity requirements must be procured locally (from the SCE jurisdictional area), its implementation plan does not take into account the transition to SCE as the procurer of local RA after 2023.change in Local RA policy. This means that the Implementation Plan is overstating the costs for RA in 2023 and thereafter.

The Implementation Plan's projected costs for RA are based on publicly available documents from the CPUC.[12] While this is the best publicly available source, the amount the CCA's have had to pay for RA in in 2019 and 2020 are about 20-30% higher than the Implementation Plan's assumption. Thus, MRW finds the Implementation Plan's RA cost assumptions to be at the low end of reasonableness, but not conservative.

Administrative Costs The administrative and operating costs estimated by ESS for its pro forma analysis (2021 – 2031) for the Implementation Plan include costs for data management, a scheduling coordinator, SCE fees, consulting services, staffing, general & administrative expenses, and debt service payment on financing. The OCPA Implementation Plan thoroughly presents what types of activities a new CCA program should expect along with providing reasonably detailed estimates for the costs of those activities.

Financing. OCPA anticipates "one or more rounds of financing, inclusive of prospective direct term loans between OCPA and its Member Agencies, will be necessary to support OCPA Program implementation," with any subsequent capital requirements met through OCPA's accrued financial reserves. MRW understands that "loans from its Member Agencies" refers to the $2.5 million loan from the City of Irvine. OCPA currently projects repaying this loan by 2027, subject to change based on final power prices. OCPA projects that its full start-up and working capital requirements will be $15.5 million, or $13 million beyond the Irvine loan. The OCPA Implementation Plan assumes that the remaining financing will be primarily via a short-term loan or letter of credit, which would allow OCPA to draw cash as required. Requisite financing would need to be arranged no later than the first quarter of 2021.

MRW finds the start-up cost estimate to be reasonable, but the working capital amount to be low. The OCPA Implementation Plan assumes 30 days of cash or line of credit. MRW expects that a financer would require at least 60 days of working cash. Second, MRW notes that in addition to the loan by Irvine, OCPA's financer will likely require a guarantor to any short-term loan or line of credit. This responsibility will likely have to be taken upon by an OCPA Member or Members.

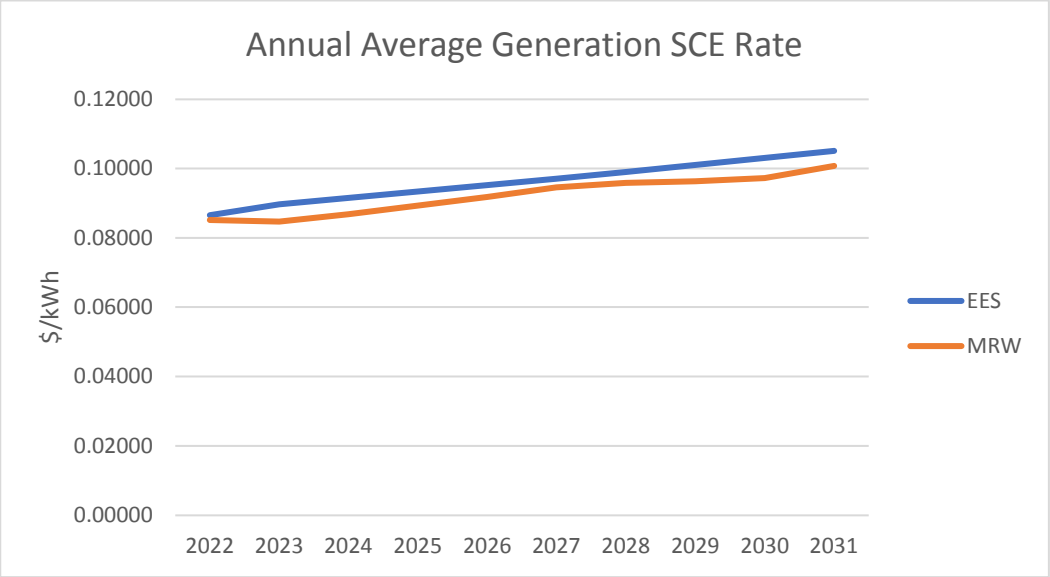
SCE Generation Rates. OCPA's goal is to offer customers competitive electric rates compared to SCE. OCPA plans to offer rate options for a higher proportion of renewable energy and reduced GHG emissions compared to SCE while also offering rates that are lower than SCE's

[12] CPUC Energy Division, "Calculation of the Market Price Benchmarks for the Power Charge Indifference Adjustment Forecast and True Up," November 2, 2020

bundled rates. The base rate tariff offered OCPA will meet the state's renewable energy mandate, while the other tariff options will offer customers electricity based on 50% or 100% renewable energy. The initial rates offered by OCPA will be set at a discount to SCE's rates, with the discount level depending on the default product chosen by the member agencies of OCPA.[13] Any rate differences between customer classes will be based on the rates charged by SCE and costs differences in serving each class. Additionally, rate benefits may differ among customers based on OCPA's rate designs.

The figure below shows the forecasted annual average generation rate for SCE estimated in the OCPA Implementation Plan and by MRW. It is important to note that the SCE generation rate estimate likely does not reflect the advent of SCE as the central procurement entity for local RA on OCPA's behalf after 2023. While the two are relatively consistent, MRW's is about 0.4¢/kWh lower than that shown in the implementation plan. A 0.4¢/kWh decrease in rates translates to a $13 million decrease in CCA revenue, which could, in some years, hamper the OCPA's ability to offer its target rate savings. However, as discussed below, these lower generation rates would be offset by the Implementation Plan's very conservative PCIA assumption.

Figure 3. Implementation Plan and MRW Projections of SCE Generation Rate



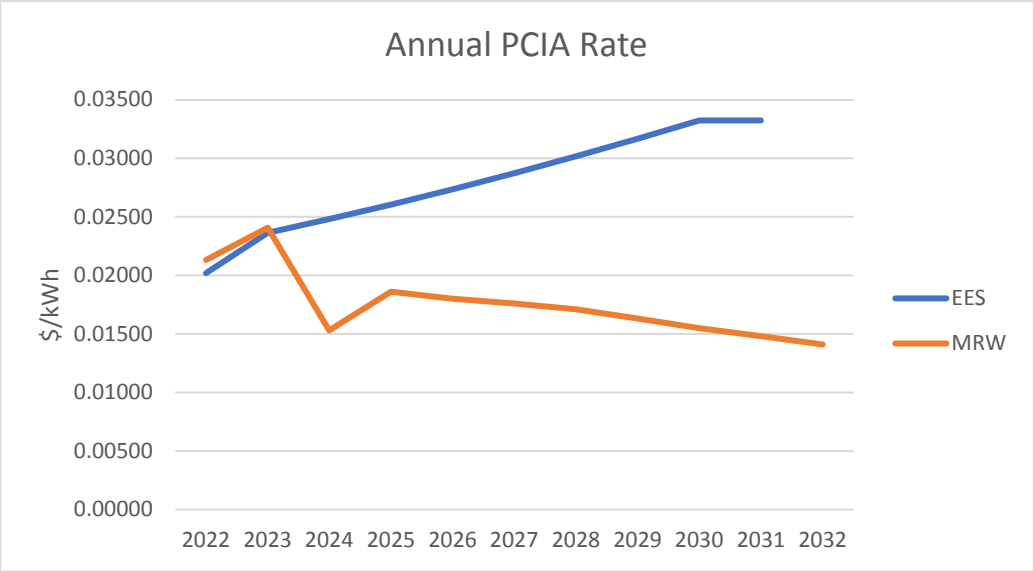
Power Charge Indifference Adjustment (PCIA). The PCIA is a fee charged to CCA customers by SCE (and other incumbent utilities) to ensure that remaining utility customers are not impacted by cost increases due to customers who have departed for CCA service. More

[13] OCPA plans to base its initial rates at launch on default SCE TOU rates.

specifically, it pays for the above-market costs of SCE generation resources that were acquired, or which SCE committed to acquire, prior to the customer's departure to CCA. Bundled customers also pay the PCIA, but it is embedded into the commodity portion of their total rate. The value of the PCIA charged to customers is dependent on the year that they departed or "vintage." CCAs are sensitive to the value of the PCIA since high values could potentially cause CCA customers to pay more for electric service than if they stayed with SCE.

The figure below shows the forecasted annual PCIA rate contained in the Implementation Plan compared to the rate estimated by MRW's forecast. The the Implementation Plan's PCIA rate is much more conservative than MRW's forecast, with the rate reflecting a straight escalation approach versus the bottoms-up modeling approach used by MRW. This conservative approach used for the Implementation Plan removes the risk that OCPA will underestimate the impacts of the PCIA on their rates.

Figure 4. Implementation Plan and MRW Projections of SCE PCIA Rate



Is the OCPA likely to be financially viable?

Based on our review of the OCPA Implementation Plan, our financial feasibility analysis of a stand-alone Lake Forest CCA to date, and our analysis conducted for the City of Huntington Beach, MRW believes that the OCPA is, in the long run, financially viable. However, we believe that OCPA's may not be able to offer rate savings in the first few years of operation. This is because of SCE rates (including the PCIA), the need to pay off its start-up debts, and the need to build up financial reserves.

Part 3: CCA Options Available to Lake Forest[14]

Lake Forest's three primary options for community choice aggregation (CCA) are: joining the Orange County Power Authority (OCPA); forming a stand-alone Lake-Forest only enterprise-based CCA; or forming a Lake Forest CCA and joining the CalChoice Energy Authority. The primary benefits of either of the Lake Forest-only CCA options are more local control over procurement practices and budgets and services better tailored to Lake Forest. The primary benefits of joining with OCPA are foregoing the need to provide upfront financing for the CCA's startup process, less potential financial exposure to the City as the JPA will be a financially distinct entity, economies of scale which can translate into lower average operating costs and reduced administrative burdens.

Both the city enterprise model and the JPA create entities that are independent of the City's finances and offer protections to the city's general fund. The JPA model's independence is demonstrated by a number of CCAs[15] getting investment grade credit ratings independent of their member cities and counties. Still, no CCA has experienced serious financial difficulties, so how much a CCA could financially lean on its constituent members has never been tested.

Forming a Single City Agency

In a sole jurisdiction approach, the City maintains full flexibility—and responsibility—for developing policies and procedures. This means that they can be specifically tailored to and responsive to the City's stakeholders and constituents and based upon their own objectives. The City would be responsible for setting policy priorities in general and making specific decisions about power generation, staffing policies, local economic development activities and strategies, formulation of financial and debt policies, and development of customer-focused programs, such as those promoting energy efficiency, electric vehicles (EV), and distributed generation (e.g., rooftop solar PV). Along with greater autonomy, the City would assume all risk, liability, and costs associated with operating the CCA. In this case, the likely path would be for the City to establish the CCA as an enterprise, and work with appropriate legal counsel to explore options for controls and structural safeguards to financially insulate the CCA and minimize risk to the City's general fund.

Enterprises are commonly used for public utilities such as electric, water and wastewater, or other city functions where a public service is operated and provided in a manner similar to a separate business enterprise. Fees and charges are collected for services provided and accounting and budgeting are separate from a city's general fund. Establishing an enterprise provides management and CCA customers with visibility and accountability, and the ability to more easily separate and measure performance, analyze the impact of management decisions,

[14] This chapter is generally duplicative of the analogous chapter in MRW's report, "Technical Assessment of Community Choice Energy for the City of Lake Forest."
[15] E.g., Marin Clean Energy (Fitch "BBB+"), Central Coast Community Energy (S&P "A"), Peninsula Clean Energy (Moody's "Baa2")

determine the cost of providing electric service, and use this information to develop electric rates and services. Enterprise accounting would allow the City to demonstrate to customers, the public, and other stakeholders that the cost of power is being recovered through its rates, and not being subsidized or comingled with other City funds or functions.

Within the city-only option, the Lake Forest CCA would have to determine if it is to be a fully in-house operation with existing or added City staff, or if the City would outsource some of or all of the activities, with the City only administering contracts and managing vendors. Examples of some of the categories of operating activities that would need to be performed in-house or outsourced:

- Power procurement and operations
- Finance, budgeting, and accounting
- Coordinating with SCE on billing
- Customer service
- Communications, outreach, and public relations
- Customer service programs (EE, EV, or rooftop solar PV)
- Regulatory monitoring and compliance (e.g., CPUC filings)

The likely best short-term option would be to outsource the highly technical functions and maintain some of the management, planning, and other public-facing functions, like communications, in-house. The range of options depends upon the degree of operating control the City wishes to maintain, the costs associated with maintaining those functions, and the degree of risk it is willing to accept on its own, or delegate to third-party providers to assume these responsibilities.

If the Lake Forest CCA were to pursue additional services, it would require at least one or two managers, supported by analyst professionals, some of whom could be shared with other Lake Forest departments.

Joining a Joint Powers Agency (generically)

The second option would be the formation of a JPA, where the JPA is an independent agency that operates on behalf of the public agencies which are party to its creation. In this approach, the City effectively shares responsibility with the other agencies participating in the JPA. The divisions of these responsibilities and the sharing of decision-making authority would be determined at the time the JPA is created. Other critical ‘ground rules’ are negotiated and memorialized, such as financial and possibly staffing commitments of each participating agency, and the composition of the board and voting procedures.

The JPA structure reduces the risks of implementing a CCA program for the City by completely separating its books from the financial assets and liabilities of the City and the other participating agencies, and distributing the risks and costs associated with the CCA among the participating entities. It could also provide the benefits of scale and economy for certain aspects of CCA operation, such as power procurement or back office billing and accounting functions.

Key tradeoffs to the benefits of a JPA are that decision making is allocated amongst the parties and management independence is diminished. Objectives of participating agencies will likely differ, and reduced autonomy can manifest when setting priorities for local generation, economic development activities, and importance of support programs.

Joining CalChoice Energy Authority

CalChoice Energy Authority (CCEA) is described as a "hybrid" JPA, where the JPA provides requested services to its member CCAs but does not control any of its general policies or programs.[16] More specifically, CCEA provides to its members, as desired:

- Power, including contract procurement, portfolio management, load forecasting and scheduling, and complying with and demonstrating procurement-related regulatory requirements (e.g., resource adequacy, renewables, etc.).
- Regulatory and compliance support, including preparing and filing compliance reports to the California Public Utilities Commission, the California Energy Commission, and the California Independent System Operator; and general regulatory advocacy.
- Billing and data management, including interface with SCE and call center operations.
- Treasury, including CAISO invoice validation, rate design development, and risk management.

Thus, CCEA is effectively a non-profit outsource for all of the detailed activities of a CCA. This is a good match for smaller cities who are interested in local control of the CCA but not interested in bringing in-house the day-to-day management needed to operate a CCA.

CCEA members that are providing power are: Lancaster Choice Energy, San Jacinto Power, Pico Rivera Innovative Municipal energy, Rancho Mirage Energy Authority, and Apple Valley Choice Energy, Baldwin Park Resident Owned Utility District and Pomona Choice Energy. The cities of Commerce, Palmdale and Santa Barbara are members but have yet to begin service.

All of the city-only CCAs in SCE's territory are CCEA members. This makes sense, in that they are all small. Only one, Lancaster Choice Energy, serves more load than would be served by a Lake Forest CCA.

Were it to join CCEA, Lake Forest would be responsible for setting policies, setting rates, marketing and customer outreach, and the implementation of any desired local programs. It would also still have to provide any start-up loans and any collateral or loan guarantees needed to acquire financing.

The CCEA Board of Directors is the Lancaster City Council. The actual services provided by CCEA are via contractors and consultants supervised by City of Lancaster personnel (e.g., Lancaster City Manager, Lancaster Choice Energy's Executive Director.) Thus, CCEA's administrative simplicity (the city not having to acquire expertise or expert contractors) is a traded off against the fact that Lake Forest would have to accept the contractors and service

[16] *See*, https://californiachoiceenergyauthority.com/

providers selected by CCEA. The bottom line is that CCEA is by design more of a client-Lake Forest would remain fully in control of the power that the JPA purchased on its behalf as well as which services the JPA provides to the City.

Comparison of Lake Forest Options

The table below qualitatively compares Lake Forest's three CCA options against remaining with SCE. First, MRW cannot project any quantifiable difference in rate or GHG savings between the three CCA options. The stand-alone and CCEA options offer greater flexibility and control, but at the price of higher start-up costs, greater staff effort, and higher financial risk. Lastly, remaining with OPCA is the quickest option, allowing CCA formation at least one year sooner than the other two options.

Table 3. Comparison of Lake Forest CCA Options

Criterion	Join OCPA	Use CCEA JPA	Stand-alone Enterprise	Stay with SCE
Rates	Comparable/ modestly lower	Comparable/ modestly lower	Comparable/ modestly lower	Base
GHG Reduction Potential Over Forecast Period	Some	Some	Some	Base
Local Control/Governance	Some	Greater	Greatest	None
Local Economic Benefits	Some	Greater	Greatest	Minimal
Start Up Costs/Cost to Join	None	Some	Greatest	None
Level of Effort	Minimal	Some	Greatest	None
Timing (earliest)	2022	2023	2023	N/A

ATTACHMENT 2

Technical Assessment of Community Choice Energy for the City of Lake Forest

Prepared by:

MRW & Associates, LLC
1736 Franklin Street, Ste 700
Oakland, CA 94612

February 11, 2021

This report was prepared by MRW & Associates. MRW has been working on Community Choice Aggregation (CCA) issues since they were authorized by the California State Legislature in 2002. MRW has prepared and critiqued numerous CCA feasibility plans and is providing rate forecasting and other ongoing support to CCAs throughout the state.

This Study is based on the best information available at the time of its preparation, using publicly available sources for all assumptions to provide an objective assessment regarding the prospects of CCA operation in the City. It is important to keep in mind that the findings and recommendations reflected herein are substantially influenced by current market conditions within the electric utility industry and state regulations, both of which are subject to sudden and significant changes.

Table of Contents

Executive Summary i
- **Main Findings** i
- **CCA Background** ii
- **Lake Forest and OCPA's Electric Loads** ii
- **Financial Results** iii
- **Lake Forest Only CCA Versus Joining OCPA** iv

Introduction 1
- **Background** 1
  - What is a CCA? 1
  - Typical CCA Objectives 2
  - How are CCAs financially competitive with the utilities? 3
- **Status of CCAs in California** 4
  - CCA Sizes and Organization 4
  - CCA Rate Competitiveness 7
  - CCA Programs 8

Chapter 2. MRW Financial Study Methodology and Key Inputs 10
- **Loads and Load Forecasts** 10
- **CCA Power Supplies** 13
  - Power Supply Portfolio and Cost Assumptions 13
- **Other Cost Elements** 17
  - Startup Costs 17
  - Reserves 18
  - Administrative and General Cost Inputs 19
- **SCE Rate and PCIA Forecasts** 19
  - SCE Generation Rates 19
  - PCIA 20

Chapter 3. Financial Analysis Results 22
- **Base Results** 22
- **Sensitivity to Key Inputs** 25
- **Comparison of Stand-Alone Lake Forest CCA to OCPA** 26

CCA Options Available to Lake Forest 29
- **Forming a Single City Agency** 29
- **Joining a Joint Powers Agency (generically)** 30
- **Joining CalChoice Energy Authority** 31
- **Comparison of Lake Forest Options** 32

Appendix: CCA Regulatory Procurement Requirements 34

List of Acronyms

AB	Assembly Bill
BNI	Binding Notice of Intent
C&I	Commercial and Industrial
CAISO	California Independent System Operator
Cal-CCA	California Community Choice Association
CCA	Community Choice Aggregator/Aggregation
CCEA	California Choice Energy Authority
CEC	California Energy Commission
CO2e	Carbon Dioxide Equivalent
CPA	Clean Power Alliance
CPUC	California Public Utilities Commission
CRS	Cost Responsibility Surcharge
CTC	Competition Transition Charge
DA	Direct Access
DEG	Distributed Energy Generation
DOE	Department of Energy
EE	Energy Efficiency
ESP	Energy Service Provider
EV	Electric Vehicle
FERC	Federal Energy Regulatory Commission
FiT	Feed-in-Tariff
GGRP	Greenhouse Gas Reduction Program
GHG	Greenhouse Gas
GTSR	Green Tariff Shared Renewable
GTSR-GR	Green Tariff Shared Renewable - Green Rate
GWh	Gigawatt Hour
IOU	Investor-Owned Utility
IRP	Integrated Resource Planning
kW	Kilowatt
kWh	Kilowatt Hour
LSE	Load Serving Entity
MCE	Marin Clean Energy

MT	Metric Ton
MWh	Megawatt Hour
NREL	National Renewable Energy Laboratory
O&M	Operations and Maintenance
OCPA	Orange County Power Authority
PCIA	Power Charge Indifference Adjustment
PG&E	Pacific Gas & Electric
POLR	Provider of Last Resort
PPA	Power Purchase Agreement
PPP	Public Purpose Program
PSPS	Public Safety Power Shutoffs
PV	Photovoltaic
RA	Resource Adequacy
REC	Renewable Energy Credit
RFP	Request for Proposal
RPS	Renewable Portfolio Standard
SB	Senate Bill
SC	Scheduling Coordinator
SCE	Southern California Edison
SDG&E	San Diego Gas and Electric
SJCE	San Jose Clean Energy
SVCEA	Silicon Valley Clean Energy Authority

Executive Summary

The City of Irvine has extended an invitation to Lake Forest to become a member of the new Community Choice Aggregation (CCA) program it is spearheading, the Orange County Power Authority (OCPA).[1] Other cities which have committed to the OCPA include Fullerton, Huntington Beach, and Buena Park. Like Lake Forest, they too have the opportunity to withdraw from the JPA on or before April 1 (originally March 1).

Lake Forest retained MRW & Associates (MRW) to review the technical elements of the OCPA foundational documents provided to the City. This analysis is provided in the report, "Review of Orange County Power Authority Foundational Documents and CCA Options for the City for Lake Forest." The City also tasked MRW to analyze the feasibility of Lake Forest forming its own stand-alone CCA rather than joining OCPA. This report addresses that second task.

Main Findings

The general conclusions of this study are as follows:

1. MRW's analysis finds that a stand-alone Lake Forest only CCA program could be financially feasible. That is, over the long run the CCA would likely be able to offer its residents and businesses power that is priced at or a few percent lower than that offered by Southern California Edison (SCE).

2. The financial margins are the smallest during the first years of operation, due to the initial investment in startup costs, loan repayments, and SCE rates. In fact, under some assumption sets—higher than forecast wholesale power prices or lower than forecast SCE rates—the Lake Forest CCA might not be able to meet SCE's rates in the first one to three years.

3. Because of economies of scale, our analysis suggests that the Orange County Power Authority would likely have slightly lower average costs to serve than a stand-alone Lake Forest CCA. On the other hand, there is no correlation between the size of the existing CCAs and the rate discounts that they currently offer. This suggests that other operational decisions have a larger impact on the rate savings that the CCA's size.

4. CCA formation is not risk-free. A Lake Forest CCA will be participating in a competitive power market and subject to evolving state requirements and regulations. While a rate discount should be achievable in the long run, market prices and SCE rate volatility could combine to, in some isolated years, occasionally prevent the CCA from offering lower rates than SCE.

5. Lake Forest has a number of CCA options beyond remaining in OCPA. First, Lake Forest can withdraw from OPCA now and potentially join it a few years later after OCPA has demonstrated its viability. Doing so would forgo the opportunity to have a

[1] CCA is also called "Community Choice Energy," or "CCE."

seat on the OCPA Executive Committee as well as not share in any rate discounts that OCPA might achieve in its first years.

If Lake Forest choses the city-only CCA path, it will need to carefully weight the financial implications for the city, as it would have to provide start-up funding and loan collateral and guarantees, against the independence and control that a Lake Forest only CCA would afford.

CCA Background

California Assembly Bill 117, passed in 2002, established Community Choice Aggregation (or Community Choice Energy) in California, for the purpose of providing the opportunity for local governments or special jurisdictions to procure and provide electric power for their residents and businesses. Under existing rules administered by the California Public Utilities Commission (CPUC) an investor-owned utility (IOU), such as Southern California Edison (SCE), must use its transmission and distribution system to deliver the electricity supplied by a CCA in a non-discriminatory manner. That is, it must provide these electricity delivery services at the same price and at the same level of reliability to customers supplied by a CCA as it does for its own full-service customers.

CCAs are now quite common in California. There are currently 23 CCAs providing power in the State, with at least another half-dozen planning on doing so in the next two years. CCAs are expected to serve over 63 gigawatt-hours (GWhs) in the State by the end of 2021, with some projecting that by the mid-2020s between 50 to 80 percent of the load in the three main IOU service territories will be served by non-utility entities (CCAs and Direct Access providers).

Lake Forest and OCPA's Electric Loads

Table ES-1 shows that Lake Forest's and OCPA customer count and load. Lake Forest's customers are predominantly residential: 85% of the accounts and 40% of the load. Unlike OCPA, Lake Forest has very little large commercial/industrial load: only about 15% versus almost 25% for OCPA.

Table ES-1. Potential Lake Forest and OCPA Customers and Associated Load (2019)

	Lake Forest		OCPA (Total)	
	Customers	Annual Load (MWh)	Customers	Annual Load (MWh)
Residential	28,534	182,617	288,041	1,579,280
Small Commercial	3,477	39,995	32,138	368,188
Medium Commercial	636	149,515	6,216	1,452,384
Large Commercial & Industrial	20	78,249	191	1,028,396
Other*	331	8,548	4,032	82,769
Total	32,998	458,925	330,617	4,511,017

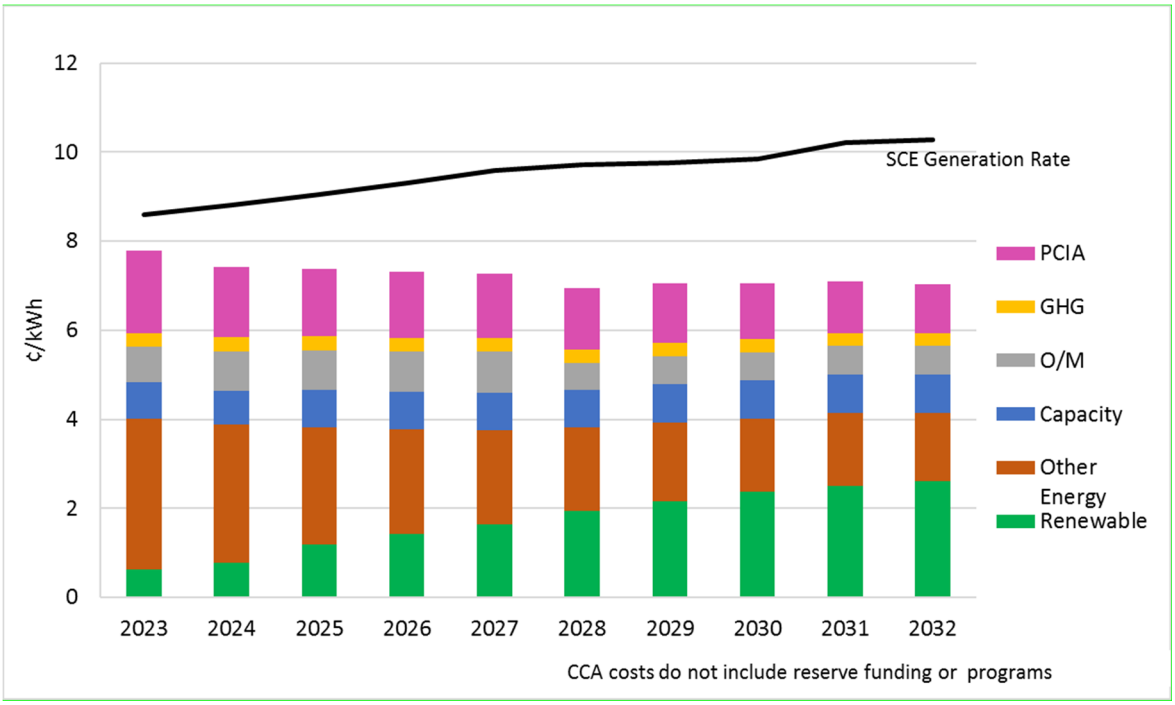
*e.g., streetlights, traffic control, agriculture/pumping.

Financial Results

Figure ES-3 shows the forecast of average MRW-modeled OCPA costs and SCE's generation rates. The bars in the chart show the forecasts of the major cost components of CCA operation, while the single line shows the forecast of SCE's generation rate. When the bars are below the black line, the CCA's average operating costs will be below the SCE generation rate; meaning that it can offer power to customers at a rate lower than or competitive with SCE. As is clearly seen in the figure, the average cost of power provided by the CCA is consistently below the SCE generation rate, although much closer in the first few years of OCPA operation.

The bottom-most green segment represents the cost of renewable power to the CCA. The brown segment is for the costs of non-renewable, wholesale market power. This segment slowly decreases, as renewable power increases. (Because renewables are currently more costly than market power, the analysis assumes OCPA will initially meet the State's minimum renewable power content requirement and ramp up as the requirements increase). The light blue segment is for capacity. That is, the CCA must demonstrate that it has the generating capacity (in megawatts) to ensure that it can serve all its load. The gray segment is for debt service, operations, franchise fees, and uncollectibles. The yellow segment is for carbon cap and trade allowances. Note that for practical purposes, the cost of carbon cap-and-trade allowances would be built into the purchase price of natural gas-fired market resources. However, because it is an important variable on its own, the costs are shown separately.

Figure ES-3. Average Lake Forest CCA Cost Projection versus SCE Generation Rate



The top-most pink segment is for the Power Charge Indifference Adjustment (PCIA), a fee paid to SCE to ensure that the operation of the CCA does not strand SCE's remaining bundled customers with costs associated with power purchased on behalf of customers who have shifted to the CCA.

Table ES-2 shows the "margin" between the CCA's costs (including the PCIA) and SCE's generation rate (i.e., the difference between the top of the CCA cost columns and the SCE generation rate line in the above figure). The margin between the CCA's cost and SCE's generation rates need not go fully to offering rate savings. In fact, during the first few years, the CCA's set their rates so that most of the margin between their ongoing costs and SCE's generation rates is set aside for financial reserves and paying down the initial startup loans. Once the financial reserve targets are met and the start-up loans paid off, CCAs typically use a portion of the margin for programs serving their residents and businesses, purchasing greater amounts of renewable power, and providing greater rate discounts that could be offered during the first years. It is up to the CCA Board of Directors to balancing these competing uses (i.e., rate discounts, programs, financial reserves, and greener power).

Table ES-2. Projected Lake Forest CCA Margins*

	2023	First 3 years (2023-2025)	First 5 years (2023-2027)	2nd 5 years (2028-2032)	10-Years (2023-2032)
¢/kWh (average)	0.8	1.3	1.6	2.9	2.3

*Without rate savings, reserve contributions or program funding

Lake Forest Only CCA Versus Joining OCPA

Lake Forest's three primary options for CCA are: joining the OCPA; forming a stand-alone Lake Forest-only enterprise-based CCA; or forming a Lake Forest CCA and joining the CalChoice Energy Authority (CCEA). CCEA is a "hybrid" JPA, where the JPA provides services to its member CCAs but does not control any of its general policies or programs.[2] This is a good match for smaller cities who are interested in local control of the CCA but not interested in bringing inhouse the day-to-day management needed to operate a CCA.

The primary benefits of either of the Lake Forest-only CCA options are more local control over procurement practices and budgets, and services better tailored to Lake Forest. Joining with CCEA greatly reduces the administrative burden relative to keeping all the CCA activities in-house in Lake Forest. The primary benefits of joining with OCPA are foregoing the need to provide upfront financing for the CCA's startup process, less potential financial exposure to the

[2] *See*, https://californiachoiceenergyauthority.com/

City as the JPA will be a financially distinct entity, economies of scale which can translate into lower average operating costs and reduced administrative burdens.

Because stand-alone Lake Forest CCA would be a relatively small CCA while OPCA would be one of the largest, the question arises if there significant scall economies to be captured via OCPA. In principle, OCPA would be better positioned than a Lake Forest CCA as a wholesale power buyer, as it could negotiate larger deals and be able to diversify its portfolio more easily than a small Lake Forest CCA. Additionally, OCPA would be able to spread common fixed costs across greater load and thus reduce the average impact on rates of fixed costs.

For the City of Huntington Beach, MRW conducted an analogous financial analysis for the full OCPA.[3] That analysis and the one presented here for Lake Forest differed in the assumed load and customer type, start date, and administrative cost, but used the same underlying power costs and SCE rates. Thus, by comparing the results of the two analyses, we can see any potential scale economy benefits of OCPA relative to Lake Forest.

A comparison of the key results is shown in Table ES-3. The table shows that because of economies of scale, the OCPA would have modestly lower average cost of service than the much smaller Lake Forest.

Table ES-3 Forecast Costs, OCPA and Lake Forest CCA (first five years, aveage)

	OCPA	Lake Forest
Annual Load GWhs	4,500	460
Average Cost, ¢/kWh		
Debt Service on startup loan	0.3	0.4
Admin Cost	0.2	0.5
Power Cost	4.9	5.0
Annual Cost of Service*	5.4	5.9
Avg. SCE Generation Rate, c/kWh	8.9	9.1
Avg. SCE PCIA, c/kWh	1.6	1.6
Avg. margin, CCA – SCE, c/kWh**	**1.9**	**1.6**

*Does not include contributions to financial reserves or programs.
**Includes PCIA and reflects different weighted average SCE generation rates

[3] This analysis was conducted for the City of Huntington Beach and can be found at: https://huntingtonbeach.legistar.com/View.ashx?M=F&ID=9094702&GUID=3503CBC4-6DB2-445F-81E0-7820DCEF5821

Introduction

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Background

What is a CCA?

California Assembly Bill 117, passed in 2002, established Community Choice Aggregation in California, for the purpose of providing the opportunity for local governments or special jurisdictions to procure and provide electric power for their residents and businesses.

Under existing rules administered by the California Public Utilities Commission, an investor-owned utility (IOU) must use its transmission and distribution system to deliver the electricity supplied by a CCA in a non-discriminatory manner. That is, it must provide these delivery services at the same price and at the same level of reliability to customers supplied by a CCA as it does for its own full-service customers. By state law, an IOU also must provide all metering and billing services, its customers receiving a single electric bill each month from the IOU, which would differentiate the charges for generation services provided by the CCA as well as charges for IOU delivery services. Money collected by the IOU on behalf of the CCA must be remitted in a timely fashion (e.g., within 3 business days).

As a power provider, the CCA must abide by the rules and regulations placed on it by the state and its regulating agencies, such as maintaining demonstrably reliable supplies and fully cooperating with the State's power grid operator. However, the State has no rate-setting authority over the CCA; the CCA may set rates as it sees fit so as to best serve its constituent customers. This is in contrast to SCE, which requires approval by the California Public Utility Commission to set its rates.

Per California law, when a CCA is formed all the electric customers within its boundaries will be placed, by default, onto CCA service. However, customers retain the right to return to SCE service at will, subject to whatever administrative fees the CCA may choose to impose—typically $5 for a residential customer and $25 for a non-residential customer.

[4] CCA is also called "Community Choice Energy," or "CCE."

Typical CCA Objectives

The feasibility of a CCA program is a function of that program's ability to meet the sponsoring city's or JPA's goals and objectives. This section lays out the typical CCA goals and objectives and how they might apply to Lake Forest.

Rate Competitiveness and Financial Stability

Like most CCAs, OCPA has set a goal to offer rates that are competitive with the projected generation rates offered by the incumbent electric utility, Southern California Edison (SCE). "Competitive" here means that the CCA, over the long run, could offer rates that are equal to or less than those offered by SCE. It does not mean that in every year a specific rate savings is offered. In fact, some CCAs have had to offer rates slightly higher than those offered by their host utilities during one or more of their first few years. We note that they did not experience significant opt-outs because of this.

CCAs also intend to offer long-term rate stability to its customers as well as maintain its own financial condition. This could be accomplished through conservative phasing in of customers and projects; establishing and maintaining appropriate lines of credit and financial reserves; and contracting with only experienced and financially solid providers of goods and services.

Greenhouse Gas Reduction

Particularly for the early CCAs, reducing carbon emissions has been a priority. Some, such as Silicon Valley Clean Power, plan to offer only 100% renewable power to their customers by the end of the decade. A CCA, if it is financially able and so chooses, can contribute to the City and regional greenhouse gas (GHG) reduction goals.

It must be noted that California is moving toward a carbon-free electricity policy. Senate Bill 100, which was signed into law by Governor Brown on September 17, 2018, increases the renewable power content requirement of all retail power providers, including utilities and CCAs, from 50% to 60% by 2030. The bill also says, "that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045," and that all state agencies regulating electricity build this goal into their planning. This effectively means that the difference between the electricity carbon content of the CCA following the City's CAP and remaining with status quo utility service may not be significant.

Additional Objectives

In addition to reducing costs and GHG emissions, a CCA can also serve as a vehicle to pursue other objectives that benefit the City, its residents, and businesses. Examples of additional objectives could include the following:

Economic development. A CCA can potentially contribute to local economic development in two ways. First, if the CCA offers reduced electricity rates, additional dollars can flow into the local economy as households and businesses spend their incomes on items and services other

than electricity. Second, the CCA can offer programs that allow households and businesses to reduce their power consumption, such as energy efficiency and distributed energy resources.

Local jobs and employment. Beyond the potential jobs that could result from the economic stimulus of possibly lower rates, the CCA can more directly incentivize and support local job creation. This includes employing residents in CCA administration, using local contractors for energy efficiency programs, and distributed energy generation (e.g., rooftop solar installers and maintainers). The CCA can also partner with local community colleges and/or trades apprenticeship programs to support quality local job opportunities.

Prioritization of renewable power development. Beyond support of locally sited distributed energy generation ("DEG," e.g., rooftop solar), a CCA may prioritize siting larger, grid connected DEG and utility-scale renewable projects locally.

Local citizen input and participation. A primary purpose of a CCA is to better reflect its community's interests and values than a large-scale, investor-owned utility like SCE can. This is illustrated in the CCA's objective of supporting the City's CAP. However, it can go beyond this; the CCA can commit to creating opportunities for citizens to provide input into its programs and policies.

How are CCAs financially competitive with the utilities?

All but two active CCAs in California currently offer rates that are at or lower than their incumbent utility, be it SCE, Pacific Gas & Electric (PG&E), or San Diego Gas & Electric (SDG&E). CCAs' ability to do this, even with the exit fees (PCIA), is attributable to three factors. The two CCAs with rates currently higher than their incumbent utility, both emphasis environmental benefits and local services over rate savings. Even so, most of the tine even these two CCAs offer rates no higher than their utility.

First, the CCAs serving coastal areas do not have to serve as much air conditioning load as their incumbent utilities as a whole. (SCE serves inland regions that are much warmer than coastal areas, while coastal CCAs do not.) Because air conditioning loads often occur at the times of the day with the highest priced wholesale power, they are more costly to serve.

Second, the incumbent utilities have in their portfolios some relatively expensive, generally renewable, power purchase contracts. This raises the utilities' rates, but also begs the question of what happens when those contracts expire. Two things happen. Firstly, the Power Change Indifference Amount (PCIA) fee is reduced because it is the mechanism to capture the above-market costs of these expensive power contracts and pass them on to customers who were on utility service when the contracts were signed. Secondly, at worst, the utility will be participating equally in the same wholesale power and renewable markets as the CCA.

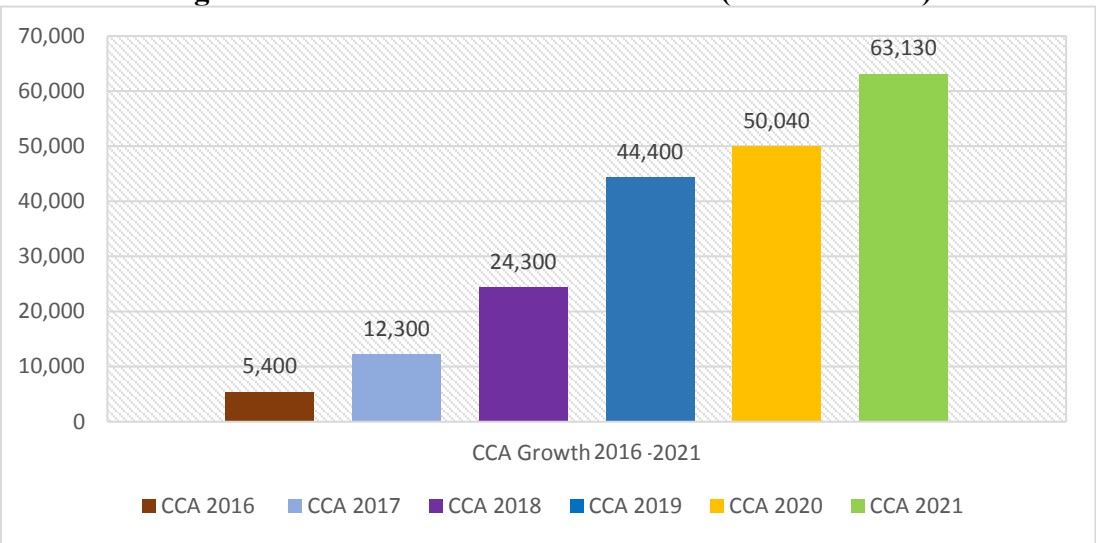
Third, the incumbent utilities are still under the jurisdiction of the California Public Utilities Commission (CPUC). This means that each and every power purchase contract the utility enters into goes through a cumbersome vetting process and must be approved by the full CPUC. Furthermore, the utilities must often comply with non-economic directives from the CPUC, which is why they have the expensive contracts in their portfolio in the first place. CCA

procurement is not so tightly bound by the state; they can be nimbler in responding to market movement and have much greater control over their purchasing, hedging, and risk management than the incumbent utilities. It is these latter points that give the existing CCAs confidence that they will be able to compete even after the higher-priced contracts in the incumbent utilities' portfolios expire.

Status of CCAs in California

Even though the enabling legislation was enacted in 2002, the first CCA to provide power, Marin Clean Energy (MCE), did not enroll customers until 2010. For the next five years, others investigated CCA formation, with a few early adopters stepping up in 2014 through 2016. As shown in Figure 1, once these early adopters showed that CCAs could work, the flood gates opened in 2017. By the end of 2021, CCAs are expected to serve over 63 gigawatt-hours (GWhs), with some projecting that by the mid-2020s between 50 to 80 percent of the load in the three main investor-owned utility service territories will be served by non-utility entities (CCAs and Direct Access providers).

Figure 1. California CCA Load Growth (2021 Forecast)



CCA Sizes and Organization

Table 2 lists the active CCAs in California, including those that have announced intended launches in 2021, along with their location and governance structure. As the table shows, most of the current CCAs are in PG&E's service area, but the growth in 2020 came from new CCAs in SCE's territory. Currently, there is only one small CCA in SDG&E's territory, Solana Energy Alliance, but two large JPAs in the San Diego region are intending to begin service in 2021.

The table also shows that the majority of CCAs are organized as joint powers authorities (JPAs). There are also many smaller cities in SCE's area that use the "JPA Light" model, in

which the CCA is technically a city enterprise that relies upon the California Choice Energy Authority (CCEA) to provide the technical operations. There are also three stand-alone city CCA enterprises, King City, San Francisco, and San Jose.

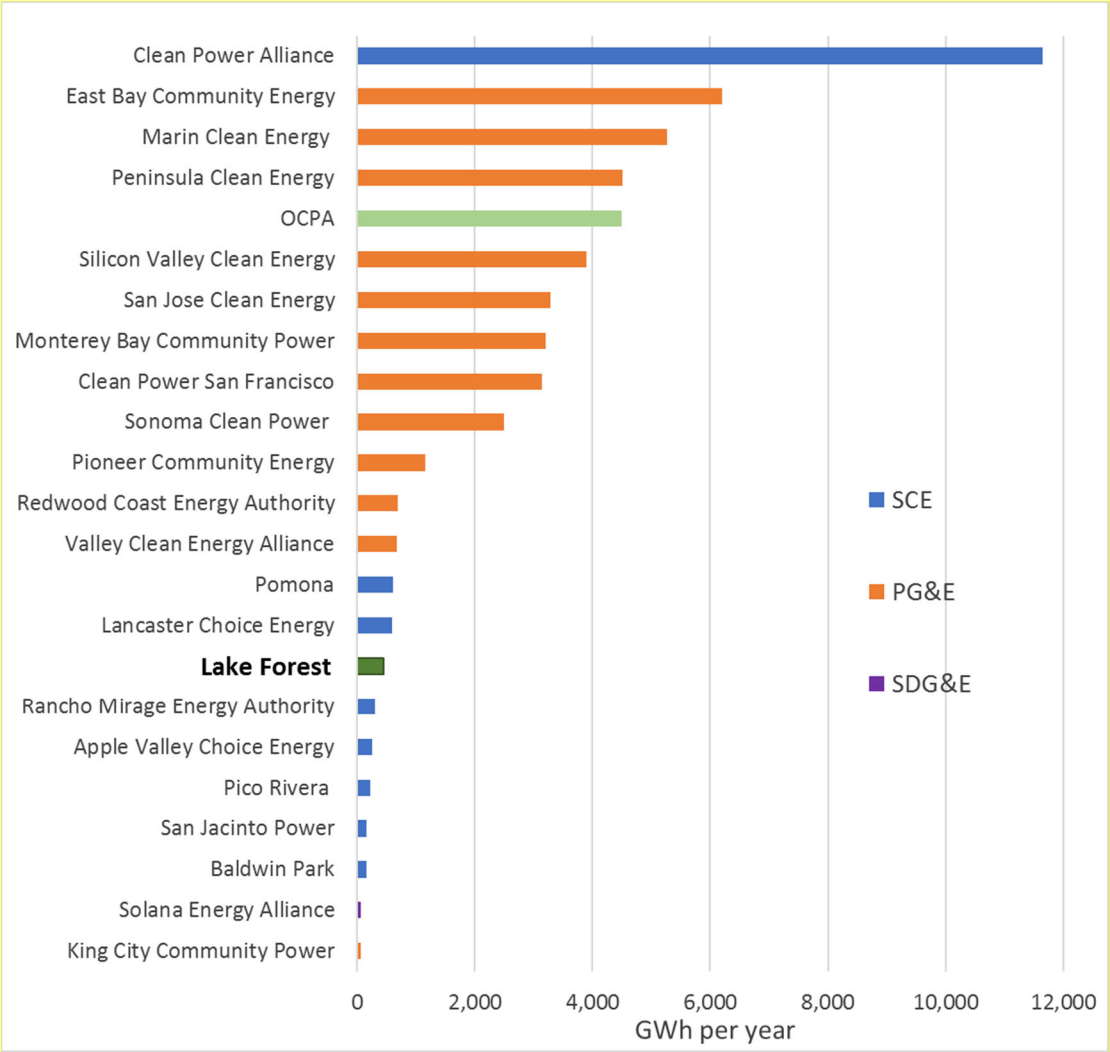
Table 2: CCAs in California

CCA	IOU	Type	Began Service	Load, GWh
CCAs Currently Delivering Power in California				
Clean Power San Francisco	PG&E	City	May 2016	3,135
East Bay Community Energy	PG&E	JPA	Jan.2018	6,200
Marin Clean Energy	PG&E	JPA	May 2010	5,275
Central Coast Community Energy	PG&E	JPA	March 2018	3,202
Peninsula Clean Energy	PG&E	JPA	Oct. 2016	3,600
Pioneer Community Energy	PG&E	JPA	2018	NA
Redwood Coast Energy Authority	PG&E	JPA	May 2017	699
San Jose Clean Energy	PG&E	City	Sept. 2018	3,286
Silicon Valley Clean Energy	PG&E	JPA	April 2017	3,898
Sonoma Clean Power	PG&E	JPA	May 2014	2,502
Valley Clean Energy Alliance	PG&E	JPA	Dec. 2016	682
King City Community Power	PG&E	City	July 2018	35
Clean Power Alliance	SCE	JPA	Feb. 2018	10,295
Apple Valley Choice Energy	SCE	City; CCEA	April 2017	260
Lancaster Choice Energy	SCE	City; CCEA	May 2015	600
Pico Rivera Innovative Muni'l Energy	SCE	City; CCEA	Sept. 2017	220
Rancho Mirage Energy Authority	SCE	City; CCEA	May 2018	300
San Jacinto Power	SCE	City; CCEA	April 2018	170
Desert Community Energy	SCE	JPA	April 2020	640
Western Community Energy	SCE	JPA	April 2020	1,285
Baldwin Park	SCE	City; CCEA	Oct. 2020	255
Pomona	SCE	City; CCEA	Oct. 2020	655
Solana Energy Alliance	SDG&E	City	June 2018	37
Planned Launch				
Orange Co. Power Authority	SCE	JPA	2022	4,000
San Diego Community Power	SDG&E	JPA	2021	6,800
Hanford	SCE	City; CCEA	TBD	285

CCA	IOU	Type	Began Service	Load, GWh
Drafted Ordinances for Implementation as Soon as 2022				
North SD County CCA	SDG&E	JPA	2022	2,750
City of Montebello	SCE	City; CCEA	2022	
Butte County	PG&E	JPA	2022	1,080

Figure 2 shows the 2019 annual loads of several active California CCAs. The light green bar shows OCPA's potential load, while the dark green bar showing the load of Lake Forest. While Lake Forest's load is small comparted to OCPAs, there are six operating CCAs with smaller loads. If all of the current communities remain with to OCPA, it would be the one of the larger CCAs.

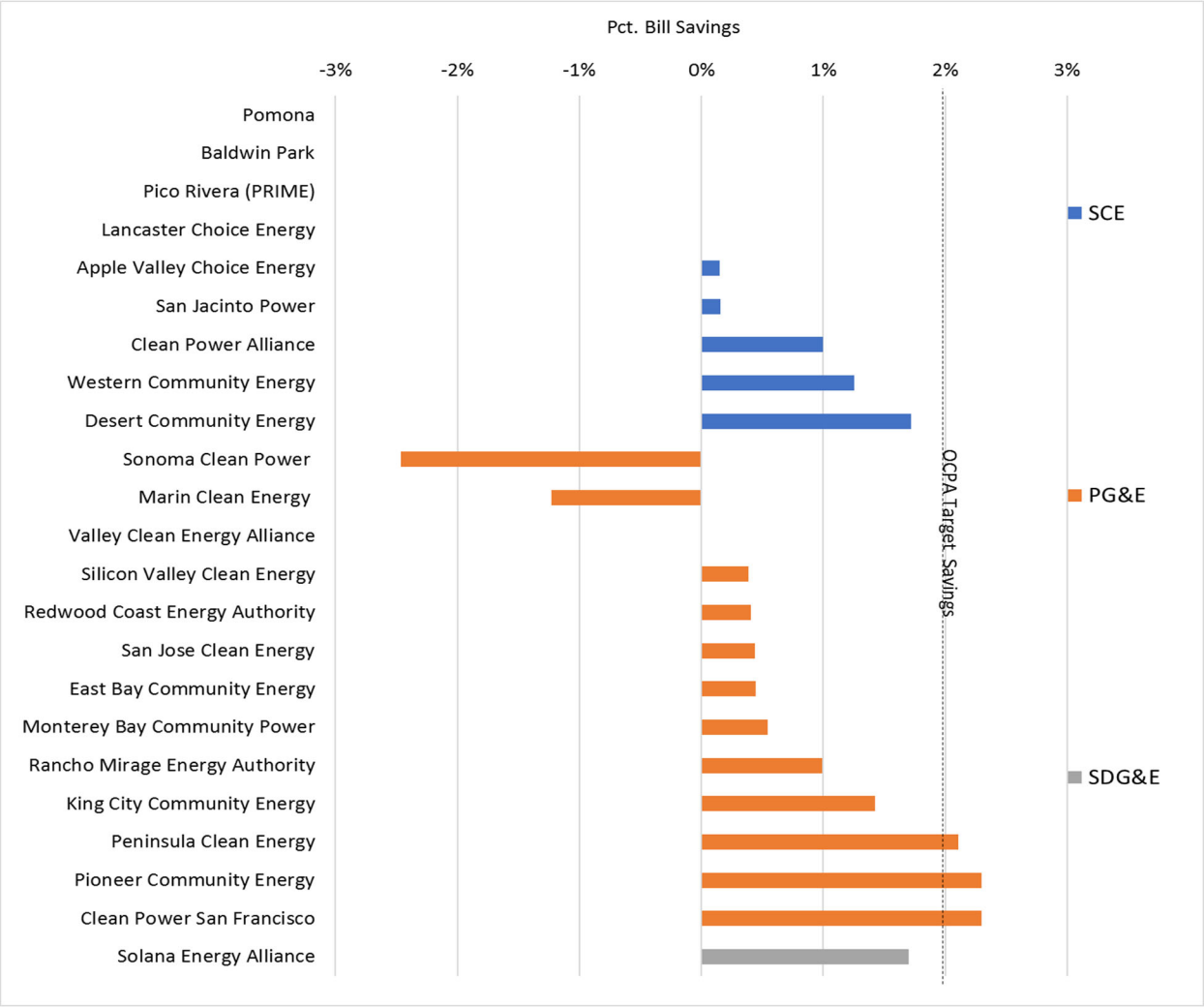
Figure 2. California Active CCA Loads (Annual GWhs, 2019)



CCA Rate Competitiveness

Figure 3 shows the residential rate savings offered by California CCAs as of January 15, 2021. The topmost CCAs in the figure, from Pomona to Desert Community Energy (blue bars), are CCAs in SCE's territory and thus compete against SCE rates, as would OCPA. These CCAs' currently offer rate savings of 0% to 1.7%, averaging 0.5%. When one includes the CCAs in the rest of the state, the greatest rate savings offered is 2.3% from CleanPowerSF and Pioneer Community Energy. There are two CCAs that offer rates greater than their incumbent utility: Sonoma Clean Power and Marion Clean Energy. Both of these CCAs have prioritized carbon reduction and programs over rate savings, so them having a higher rate than PG&E should not be completely surprising.

Figure 3. Residential Rate Savings Offered by CCAs (January 15, 2021)[5]



[5] These data are from each CCA's Joint Rate Comparison (JRC). JRCs are a common template that shows each CCAs rate offering to that of their incumbent utility. For this figure, we looked at the CCA's least cost residential rate and compared it against their incumbent utility's default rate.

As part of the review of the Irvine CCA Feasibility Study, MRW surveyed the rates offered by CCAs in May 2020. The rate savings offered by CCAs during that time are markedly higher than the more current rates shown in the figure above. In May 2020, CCAs in SCE's service area averaged rate savings of 1.8%, with one, PRIME, offering a 4.9% discount. Statewide, the average discount was 1.7%, with all CCAs either meeting or beating their incumbent utility's rates.

This decrease in rates between May 2020 and now should not be seen as a trend. Rather, it illustrates the fact that the savings offered by CCAs can change year-to-year, depending upon the wholesale market prices, the contracts that the CCAs have for power, the incumbent utilities' generation rates, and most importantly, the PCIA.

CCA Programs

Over the first years of operation, many California CCAs have been evolving from a simple commodity procurement entity—providing power at a competitive rate. After a year or two, many CCAs have expanded into providing targeted and specialized customer programs that while customized for their communities, are variations of services provided by their host IOU. Examples of this include CCAs like MCE, which has exercised its right to apply for energy efficiency (EE) program funding from the CPUC.[6] To do so, it must file various plans explicitly detailing what they intend to do in their EE program along with reporting requirements and protocols to verify that the energy savings that is projected will occur. If approved, the CCA receives money that is collected in IOU rates through the Public Purpose Program (PPP) rate element. Another example of this second phase of CCA evolution is offering rooftop solar programs and feed-in-tariffs (FiTs) for local renewable generation projects that connect "in front of" the customer meter. A third example is installing additional electric vehicle (EV) charging stations and encouraging EV purchasing and leasing.

The third phase in evolution observed in California CCAs is the movement into innovative and less common power-related programs and services. These are programs that are not common in California or elsewhere and may be more in the "demonstration" part of the program/technology lifecycle. Examples of these programs include Sonoma Clean Power's efforts to electrify the areas that were destroyed in wildfires (i.e., work with PG&E to perhaps not provide gas service to these areas) or the microgrid programs being pursued by Redwood Coast Energy Authority and Monterey Bay Community Power (now known as Central Coast Community Energy).

Table 3, below, shows a range of the programs being pursued by some California CCAs. These non-commodity program offerings are becoming the focus of CCAs in the state. At the Business of Local Energy Symposium, a large CCA-oriented conference held in June 2019 in Irvine, CA, the speakers, panels, and presentations overwhelmingly focused on innovation that CCAs can do and are doing.[7] None of these addressed power procurement or cost competitiveness.

[6] Customers taking commodity service from a CCA are still eligible to participate in EE programs administered by their host IOU.
[7] https://theclimatecenter.org/the-business-of-local-energy-symposium-2019-presentations/

Table 3. Sample California CCA Program Offerings[8]

CALCCA ADVANCING LOCAL ENERGY CHOICE	Apple Valley Choice Energy	Central Coast Community Energy	Clean Power Alliance	CleanPowerSF	East Bay Community Energy	King City Community Power	Lancaster Choice Energy	MCE	Peninsula Clean Energy	Pioneer	PRIME	Rancho Mirage Energy Authority	Redwood Coast Energy Authority	San Jacinto Power	San Jose Clean Energy	Silicon Valley Clean Energy	Solana Energy Alliance	Sonoma Clean Power	Valley Clean Energy
Budget Billing				*In dev.*			✔												
Battery Storage Rate				*In dev.*	✔ *(pilot)*			✔								✔ (Same as PG&E)		*In dev.*	
Battery Storage Incentives								✔								*In dev.*		✔	
Demand Response		✔	✔	✔				*In dev.*	*In dev.*							*In dev.*		✔	✔
EV Rate		✔	✔	✔	✔ (Same as PG&E)		✔	✔	✔	✔ (Same as PG&E)	✔		✔		✔ (Same as PG&E)	✔ (Same as PG&E)	✔	✔	✔ (Same as PG&E)
EV Bus Program		✔		✔			✔		✔									✔	
EV Incentives (vehicles and/or charging)		✔					✔	✔	✔				✔		*In dev.*	✔		✔	*In dev.*
EV Load Shifting								✔								✔ *(pilot)*		✔	
Energy Efficiency				*In dev.*			✔	✔		*In dev.*			✔			*In dev.*		✔	✔
Energy Efficiency Data Sharing					✔														
Feed-In Tariff		*In dev.*		*In dev.*				✔					✔					✔	
Building Electrification		✔			*In dev.*			✔	*In dev.*				✔			✔		✔	*In dev.*
Low-Income & Multifamily EE		✔						✔	*In dev.*		✔		✔						
Solar Incentives												✔	✔						
On-Bill Repayment				*In dev.*				✔										*In dev.*	
Education, Outreach, and/or Innovation Grants			✔		✔				✔	*In dev.*						✔		✔	
Low-Income Solar Incentives		✔	*In dev.*	✔	✔	✔		✔	*In dev.*		✔								
Customer Load Shifting			✔	✔				✔								*In dev.*		✔	
Microgrid Development		✔					✔			*In dev.*			✔						
Citizen Sourcing			✔				✔						✔						
Energy Education in Local Schools				*In dev.*					✔						✔			✔	
Dividend Program		✔																	✔
Solar Referral Service			✔													✔			
Solar+Storage Offerings			*In dev.*		✔			✔	✔		*In dev.*		✔			✔		✔	
Advancing Reach Codes		✔			✔				✔							✔		✔	
Advanced Energy Rebuild								✔										✔	
TOU Rates				✔	✔ (Same as PG&E)		✔	✔		✔ (Same as PG&E)			✔		✔ (Same as PG&E)	✔ (Same as PG&E)	✔	✔ (Same as PG&E)	✔ (Same as PG&E)
Customer C&I Clean Power Offerings																✔			
Workforce Education & Training								✔								✔		✔	
Emissions Inventory Support for Member Agencies		✔														✔			
Property Assessed Clean Energy (PACE)										✔									

[8] https://cal-cca.org/cca-programs/

Chapter 2. MRW Financial Study Methodology and Key Inputs

This chapter summarizes the key inputs and methodologies used to evaluate the cost-effectiveness and cost-competitiveness of a Lake Forest CCA relative to SCE under different scenarios. It considers the regulatory requirements that Lake Forest would need to meet (e.g., compliance with renewable portfolio standard (RPS) requirements), the resources that the City has available or could obtain to meet these requirements, and the SCE rates against which the CCA would compete. It also describes the pro forma analysis methodology that is used to evaluate the financial feasibility of the CCA.

The load and rate forecasts go out 10 years: from 2023, the earliest the CCA could be formed, through 2032. While all forecasting contains uncertainty, the years beyond 2030 are particularly uncertain and should be seen as broadly indicative and not predictive.

Loads and Load Forecasts

A fundamental operational role of a CCA is to forecast customer electricity needs in the short, medium, and long terms. Power procurement and day-to-day decision-making rely heavily on short-term forecasts of consumer demand for power, while procurement planning requires forecasts of longer-term loads. Procurement must also account for the risks associated with demand forecasting and develop appropriate risk mitigation strategies. Though it is not possible for any entity to predict with absolute certainty future energy demand; logical, data-driven, industry-standard methodologies for load forecasting will be used to provide the foundation of future procurement.

Because a Lake Forest CCA is still hypothetical and has yet to serve any customers, the CCA's estimated load to be served is based on historical consumption data from SCE. Of course, if the CCA moves forward the load forecast will be continually updated and refined to reflect ongoing economic development and changes in load from energy efficiency and distributed generation in Lake Forest.

As shown in Table 4, Lake Forest has a total annual electric load of 460 GWh in 2019 with about 33,000 customer accounts, compared to OCPA's 331,000 customers and 4,500 GWh of load demand. As shown in both the table and in Figure 4, Lake Forest has a higher percentage of residential and medium commercial and industrial load compared to the other OCPA cities and a lower percentage of small commercial and the "other" category (street and traffic lights, pumping, agriculture).

Table 4. Potential Lake Forest and OCPA Customers and Associated Load for 2019

	Lake Forest		OCPA	
	Customers	Annual Load (MWh)	Customers	Annual Load (MWh)
Residential	28,534	182,617	288,041	1,579,280
Small Commercial	3,477	39,995	32,138	368,188
Medium Commercial & Industrial	636	149,515	6,216	1,452,384
Large Commercial & Industrial	20	78,249	191	1,028,396
Other*	331	8,548	4,032	82,769
Total	32,998	458,925	330,617	4,511,017

*e.g., streetlights, traffic control, agriculture/pumping.

Figure 4. Lake Forest Load Distribution 2019

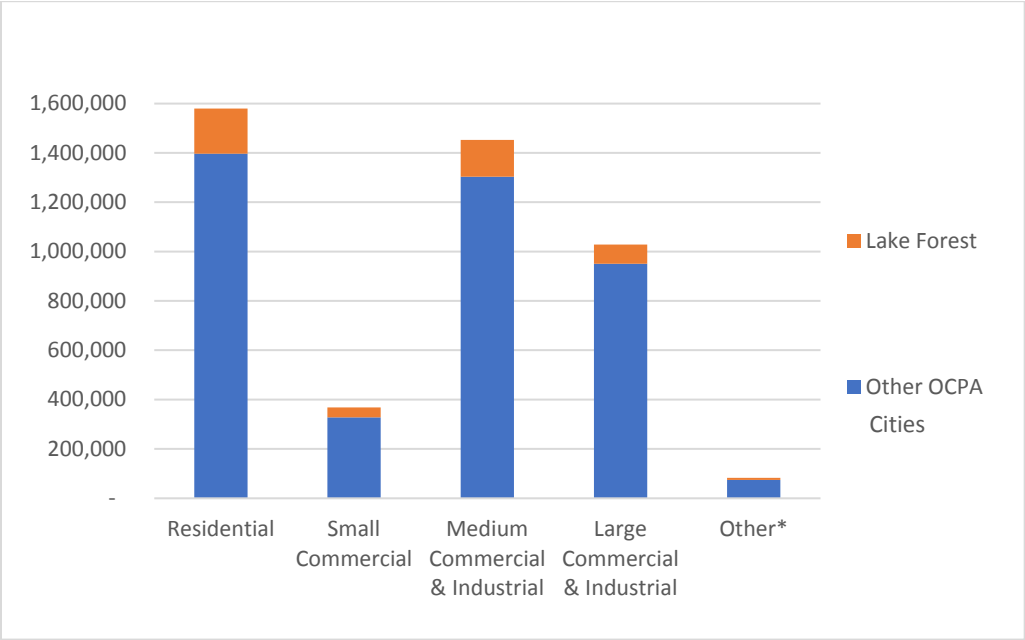
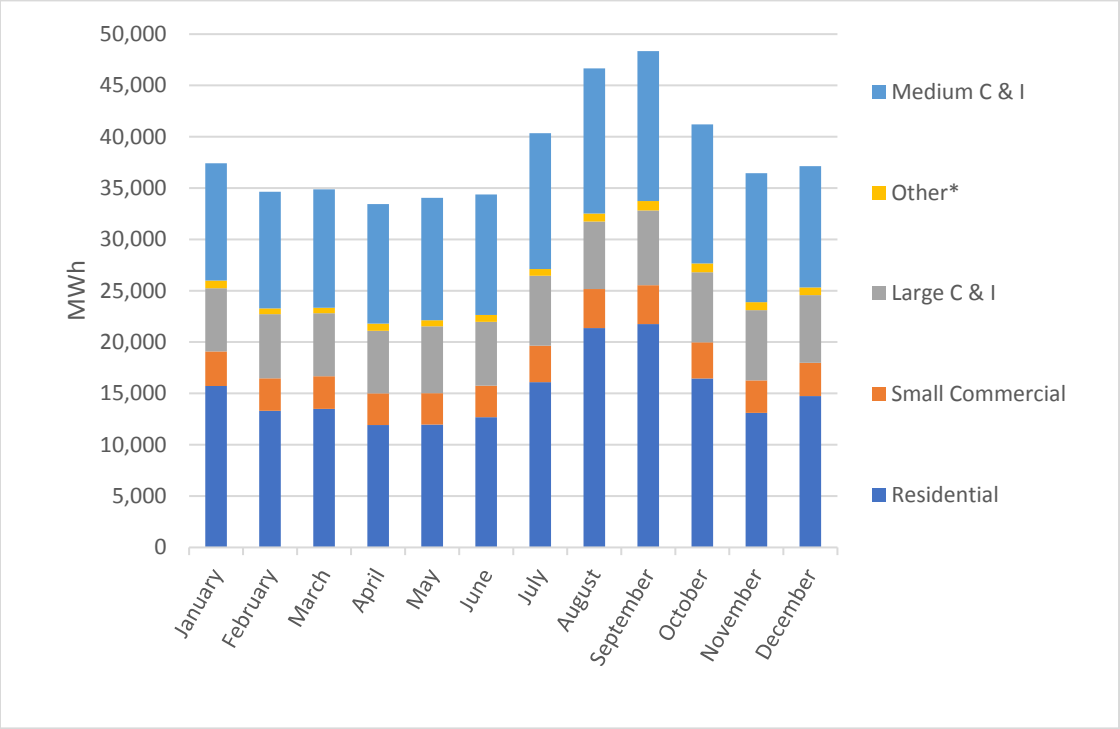


Figure 5 below shows the potential monthly load for a Lake Forest CCA. The highest load months are in the summer, while the lowest are in the spring. This is attributable to customers in Lake Forest using air conditioning in the summer. There is a 44% difference between the

highest load month and lowest load month. This means Lake Forest will need to acquire less "resource adequacy" capacity to cover their summer peaking loads compared to other CCAs.[9]

Figure 5. Lake Forest Load (Monthly, 2019)

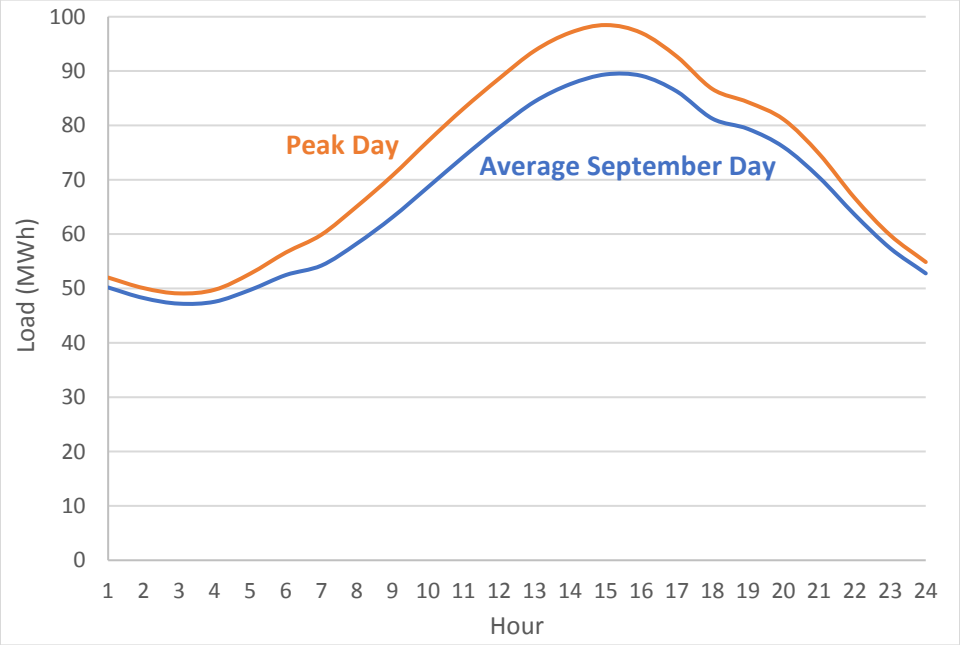


To be able to project the cost of buying power for the CCA, one must not only know how much must be purchased, but when. This is accomplished using load profiles: the breakdown of the total load into hourly consumption values. SCE provided an hourly load profile for different rate classes and monthly data for each city.

Figure 6 below illustrates the 24-hour load curve for Lake Forest. It compares the average day in the highest load month of September with the peak day of the year, September 4th. The peak hour was 3 pm on September 4th with a load of 98 MWh. This is the maximum capacity needed for the CCA and is the basis for the Lake Forest's resource adequacy requirement in September. Compare this to the peak on an average September day where the peak hour was also 3 pm and the peak load was 89 MWh. The difference between the two maximum loads highlights the load volatility in the CCA. It is also interesting that the load peaks so early in the day, an afternoon peak will pair well with solar resources.

[9] The ratio of the usage in the highest-load month to the lowest-load month for Lake Forest is 1.4; for the City of Riverside, a municipal utility, the ratio of the highest-load month to the lowest-load month is 1.7. (City of Riverside Public Utilities, 2018 Integrated Resource Plan, September 26, 2018. page 2-2.)

Figure 6. Lake Forest Load Shape Peak Day Vs Peak Month



The CCA's base load forecast through 2032 reflects the annual average growth rate from the California Energy Commission's most recent electricity demand forecast for SCE's planning area. The CCA's load is forecasted to have a slight decline. The net growth rate from 2023 to 2032 is 0.25% per year.

CCA Power Supplies

The cost to provide power is by far the largest expenditure a CCA makes. A CCA the size of Lake Forest should expect to spend $20 million per year for wholesale power. The Lake Forest power supply plan will be guided by legislative requirements, regulatory mandates, and CCA policies, as well as future market dynamics.

Power Supply Portfolio and Cost Assumptions

Operating within the regulatory framework described In Appendix 1, MRW developed sample electric supply portfolios evaluating the economics of a Lake Forest CCA. These sample portfolios are a proxy for a working portfolio that would be developed using a more rigorous assessment of costs and risk attributes developed as part of an implementation plan and ultimately through direct engagement with market participants via a request for proposals process. With RPS requirements increasing to 62% of load during the period of analysis, renewable resource assumptions are the primary driver of portfolio costs. After accounting for the hourly CCA load shape and the generation profile of resources in the renewable energy portfolio, the residual net short is assumed to be met with market purchases at hourly market prices forecast by S&P Global. Likewise, resource adequacy requirements are estimated based

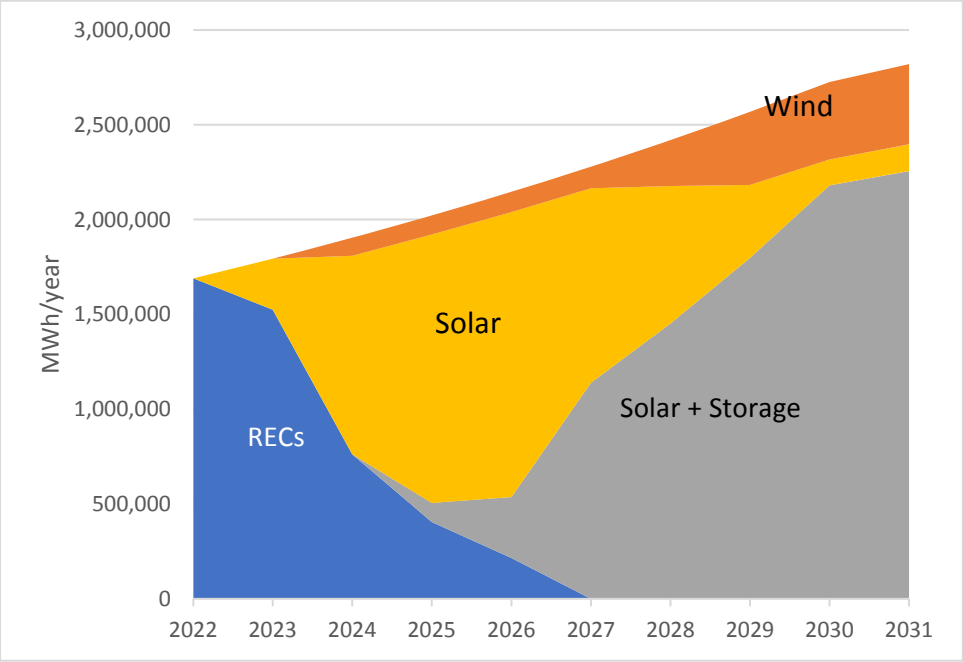
on peak loads and after accounting for net qualifying capacity from renewable resources. The remaining capacity need is assumed to be purchased at a forecasted market price as described below.

Renewable

The cost of renewable energy from solar photovoltaic (PV) facilities has steadily fallen since the establishment of the California RPS mandate in 2002. Looking forward, solar PV prices are expected to continue to decline, although perhaps at a slower rate as the technology matures and if import tariffs continue to be applied. At the same time, the incremental value of solar energy is decreasing as more and more solar resources are added to the electrical system, leading at times to conditions where solar energy must be curtailed to avoid overgeneration. Thus, there are advantages to a diversified supply portfolio including wind, geothermal and biomass, as well as energy storage.

Figure 7 below shows the assumed mix of renewable resources in Supply Scenario 1: meeting but not exceeding the State's renewable portfolio requirement, e.g., 50% by the end of 2026, with incremental hydroelectric power so that the CCA has the same net GHG output as SCE. In the first few years, the RPS requirement will be met using contracts for unspecified in-state renewable generation, with some generation from power purchase agreements (PPAs) with existing solar resources. Over time, the reliance on unspecified in-state renewables decreases and is replaced with PPAs with specific wind resources as well as PPAs with solar bundled with storage facilities. This reflects a reasonable balance of renewable resources: wind and solar are generally complementary in California—that is, when solar output is high, wind output is low.

Figure 7. Renewable Power Generation by Source



Assumed renewable power prices are shown in Figure 10. The 2023 prices are consistent with current reported renewable contract prices from other load-serving entities, including California CCAs and municipal utilities.[10]

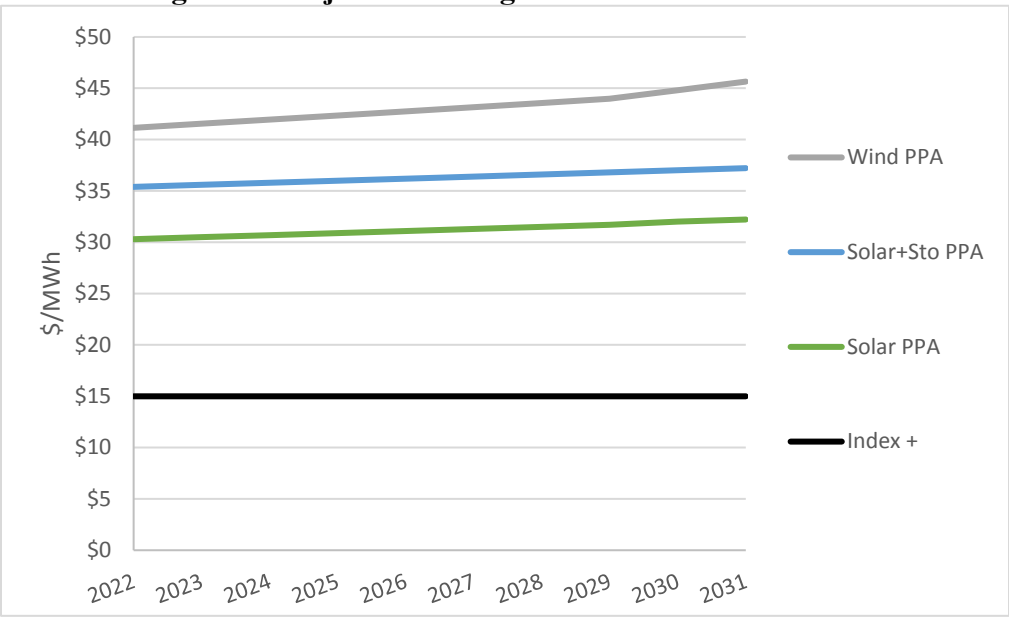
With the rate of utility-scale solar PV cost declines flattening in recent years, we assume a slight increase in solar PV costs over the forecast period. Based on data provided by Lawrence Berkeley Laboratory, solar combined with battery storage is assumed to be available at a $5/MWh premium relative to solar-only projects and to follow the same trends as utility-scale solar. For local solar and solar plus storage, we assume projects are likely to be commercial scale (i.e., large rooftop), so we relied on NREL's U.S. Solar Photovoltaic System Cost Benchmark and Cost-Reduction Roadmap for Residential Solar Photovoltaics Report for Commercial PV, which show declines from 2020 costs through 2030.[11]

For wind prices we relied on the DOE's Wind Vision report to establish a forecasted price for 2020 through 2040 and continued the price trend for subsequent years.[12]

"Index+" refers to the cost of a Bundled Renewable Energy Credit ("Bucket 1" REC) whose associated energy is priced at the CAISO hourly market price. The REC value is assumed to be $15/MWh, remaining level in nominal dollars.

Alternative renewable energy costs are explored in the sensitivity scenarios.

Figure 8. Projected Average Renewable Power Costs



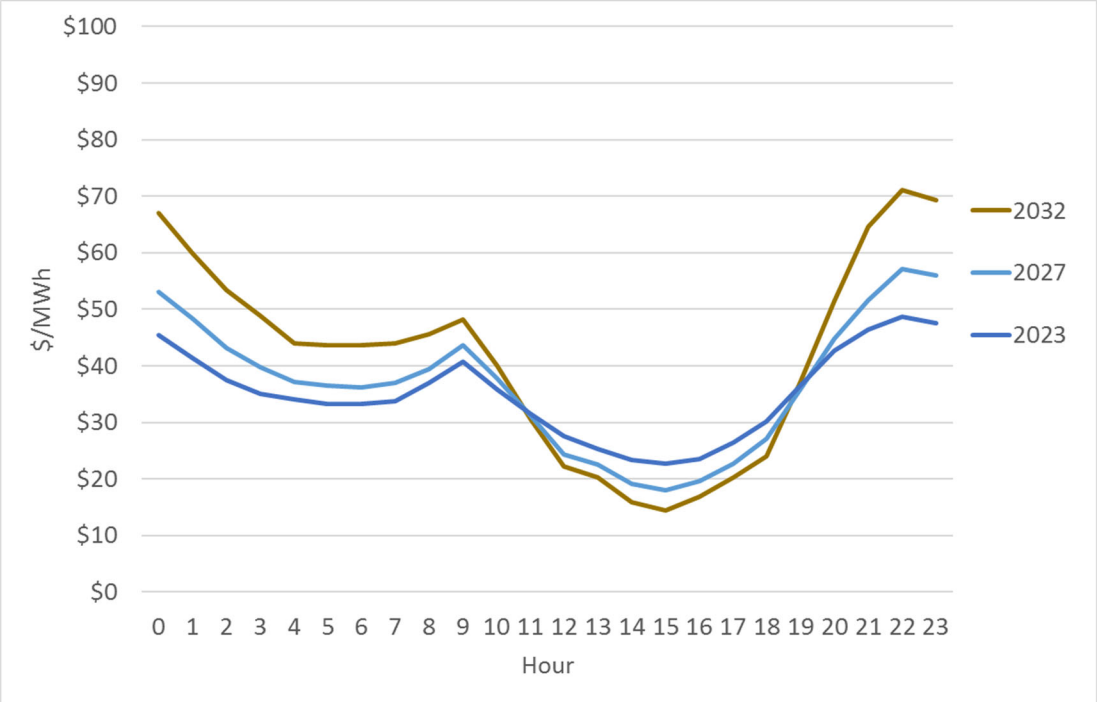
[10] https://emp.lbl.gov/sites/default/files/2020_utility-scale_solar_data_update.pdf
[11] https://www.energy.gov/eere/solar/sunshot-2030
[12] https://www.energy.gov/sites/prod/files/WindVision_Report_final.pdf, Figure 3-12.

Wholesale Power Costs

The residual net load after accounting for renewable energy supplies is assumed to be supplied from wholesale market purchases, either from the day-ahead market operated by the CAISO or through bilateral contracts with similar market pricing. To forecast market prices, we used S&P Global Market Intelligence's 2020 3rd Quarter Forecast for CAISO SP15 Hourly Energy Prices. S&P Global provides 20-year forward-looking wholesale electricity and capacity price projections based on forward market prices and fundamentals-based modeling relying on data from regulatory filings, planning guidelines, coal plant retirements, firm construction plans, and additions of renewable energy.

Figure 9 shows the annual average hourly price of power for three selected years. This figure shows that as increased renewables are built over the 10-year period, the mid-day prices (hours 12 -18) during high solar hours are anticipated to get more depressed and evening prices are forecast to rise.

Figure 9. Assumed Annual Average Market Prices by Hour



Capacity Costs

As noted above, CCAs are also responsible for complying with Resource Adequacy (RA) obligations. These products are typically contracted on a short-term basis (e.g., year-ahead). There has historically been an excess supply of both system and flexible capacity in the market,

leading to depressed prices for these products. This changed dramatically in 2019, when RA prices doubled. MRW predicts that the system RA price will continue to fluctuate between $6.00/kW-month to $9.00/ kW-month, but that the flexible RA price will remain stable.

Traditionally, CCAs have also bought local RA, but as of 2023, CCAs in SCE's territory will no longer be responsible for acquiring local RA. SCE will purchase and allocate local RA to CCAs. The specifics of this new process are still being worked out in regulatory filings and future analysis will be needed to see how this new model will affect costs.

Other Cost Elements

This section outlines the main elements of the pro forma analysis, the assumptions underlying the elements and the output results. The analysis also includes a comparison between the generation-related costs that would be paid by Lake Forest customers and the generation-related costs that would be paid by SCE bundled service customers. Costs paid by CCA customers include all CCA-related costs (i.e., supply portfolio costs and administrative and general costs) and exit fee payments that CCA customers will be required to make to SCE.

Startup Costs

Startup costs are the costs Lake Forest will incur before operations begin. Table 5 shows the estimated CCA startup costs. They are based on the experience of existing CCAs as well as from other CCA technical and feasibility assessments. If Lake Forest were to move forward with doing a CCA, these values would be refined based on more detailed projections.

Typically, the city forming a CCA would directly pay for the initial start-up costs, such as the technical study. Once the CCA is formed by a City Council action, the CCA would issue an RFP for banking services. These would set up a short-term loan or line of credit to pay back the city its CCA expenditures and fund ongoing start-up costs until the CCA is operational. At that point, the short-term loans could be rolled into a longer-term loan that would also include working capital.

Working capital reflects the fact that a business will have bills to pay prior to receiving payment from its customers. This amount would cover the timing lag between when invoices for power purchases (and other account payables) must be remitted and when income is received from the customers. Per industry standard, total working capital is set to equal three months of CCA revenue, or approximately $ 4 million when the Lake Forest CCA is fully operational (i.e., serving all potential customers).[13] Initially, the working capital is provided by a bank on credit to the CCA. Typical power purchase contracts require payment for the prior month's purchases by the 20th of the current month. Customers' payments are typically received 60 to 90 days from when the power is delivered.

[13] CCAs frequently "phase-in" their service, initially offering service to a smaller subset of customers and then expanding service to the remaining customers over the following months or years.

These startup costs are assumed to be financed over 5 years at 5% interest.[14]

Table 5. Estimated Start-Up (2022-3) Costs

Item	Cost
Professional Services/Consulting	$150,000
Staffing	$125,000
Administrative and General costs	$25,000
SCE Fees	$10,000
CAISO deposit	$500,000
Power contracting, portfolio and rate design, scheduling	$25,000
Integrated Resource Plan/Long-Term Procurement	$150,000
Marketing strategy and brand development	$75,000
Website	$20,000
PR/Advertising	$25,000
Customer Notifications	$27,000
Community Sponsorships, etc.	$5,000
General Counsel Services	$100,000
Legal review of power supply and other vendor contracts	$75,000
Cal-CCA Membership	$50,000
Regulatory Monitoring, Reporting and Compliance	$100,000
Total:	$1,400,000
Working Capital (3 months cash flow at full service)	~$4,300,000
Total:	$5.7 million

Reserves

CCAs to date have all committed to setting aside revenues into a reserve fund to account for times in the short-term when its costs may not allow it charge rates that are competitive to SCE. For this study, we assume that the CCA will endeavor to set aside revenues until a reserve fund reaches an amount equal to 50% of its annual revenue (e.g., 50% of $24 million = a reserve fund goal of $12 million). After the reserve target is met, it is held at the target level or drawn upon so that the desired CCA rate is achieved. If the reserve is drawn upon, the rate reserve is replenished in the next year in which headroom is available.

[14] 5% is currently equal to the prime rate plus 175 basis points.

Administrative and General Cost Inputs

Administrative and general costs cover the everyday operations of the CCA, including costs for billing, data management, customer service, employee salaries, contractor payments, and fees paid to SCE. Table 6, below summarizes the assumed ongoing administrative and general costs. These costs are assumed to trend with inflation.

Table 6. Ongoing Administrative and General Costs

	2022	2023	2024	2025
SCE Fees, $/cust./month	n/a	$0.13	$0.14	$0.14
Data Management Fees $/cust./mo.		$1.00	$1.00	$1.00
Administration – Labor	$325,000	$690,027	$1,159,262	$1,188,311
Administration- Non-Labor	$25,000	$138,054	$82,832	$84,908
Outreach-communications	$80,000	$85,593	$35,894	$36,793
Professional Services	$150,000	$325,000	$303,718	$311,329
Data Management Fees	$0	$250,387	$383,624	$383,747
SCE Metering and Billing Fees	$0	$50,077	$51,101	$52,347
Total	$580,000	$918,138	$2,016,431	$2,057,435

SCE Rate and PCIA Forecasts

SCE Generation Rates

Forecasts of SCE's generation rates and exit fees are necessary to compare the projected rates that customers would pay as Lake Forest customers to the projected rates and fees they would pay as bundled SCE customers.

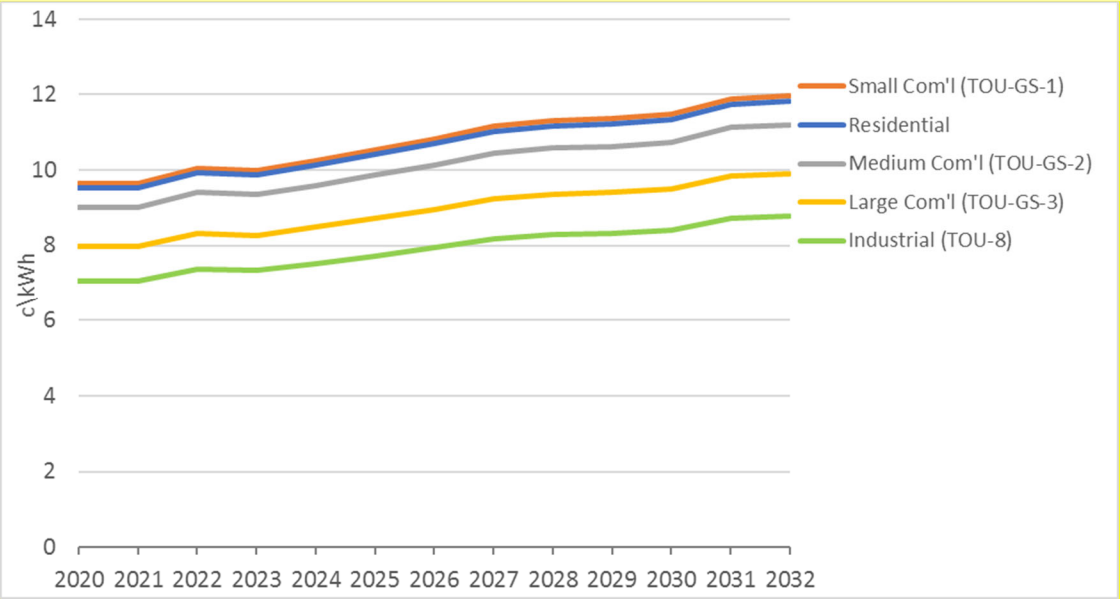
To ensure a consistent and reliable financial analysis, a 10-year bottoms-up forecast of SCE rates was developed using market prices that are consistent with those used in the forecast of the Lake Forest's supply costs. The forecasted costs include the cost of SCE's existing resource portfolio, adding in market purchases only when necessary to meet projected demand.

To develop this forecast, the key cost drivers of each of SCE's generation rate components were examined, separately evaluating costs for renewable and non-renewable energy purchases, for SCE-owned generation facilities, and for capacity purchases. The study assumed that near-term changes to SCE's generation portfolio would be driven primarily by modest increases in

underlying gas market prices. In 2028-2030, consistent with the Lake Forest forecast, the SCE must pay higher prices for incremental capacity and resource adequacy, reflecting the tightening of the capacity market at that time.

The forecast further assumes that SCE is compliant with the renewable and carbon-free requirements ordered in Senate Bill 100: a minimum of 60% renewable content in 2030 and a trajectory that would, when extrapolated, result in carbon-free power in 2045. In fact, given the current SCE renewable portfolio and the loss of load from the Lake Forest CCA, SCE would need minimal if any new renewables to meet the 2030 goal.

Figure 10. Forecast SCE Average Generation Rates



The forecast for SCE's generation resources is based on publicly available data and forecasts. We relied on the market price forecast produced by S&P Global to estimate the cost of market purchases, along with known and anticipated outcomes of ongoing CPUC rate proceedings.

Over the 10-year period, the study forecasts that SCE's generation rates will escalate by an average of 3% per year. This forecast is show in Figure 10, below.

PCIA

The Power Charge Indifference Adjustment (PCIA) is a fee charged by SCE intended to prevent customers that remain with SCE bundled service from paying for energy generation procured on behalf of customers that have since switched to CCA service. More specifically, it pays for the above-market costs of SCE generation resources that were acquired, or which SCE committed to acquire, prior to the customer's departure to CCA. The total cost of these resources is compared to a market-based price benchmark to calculate the "stranded costs" associated with

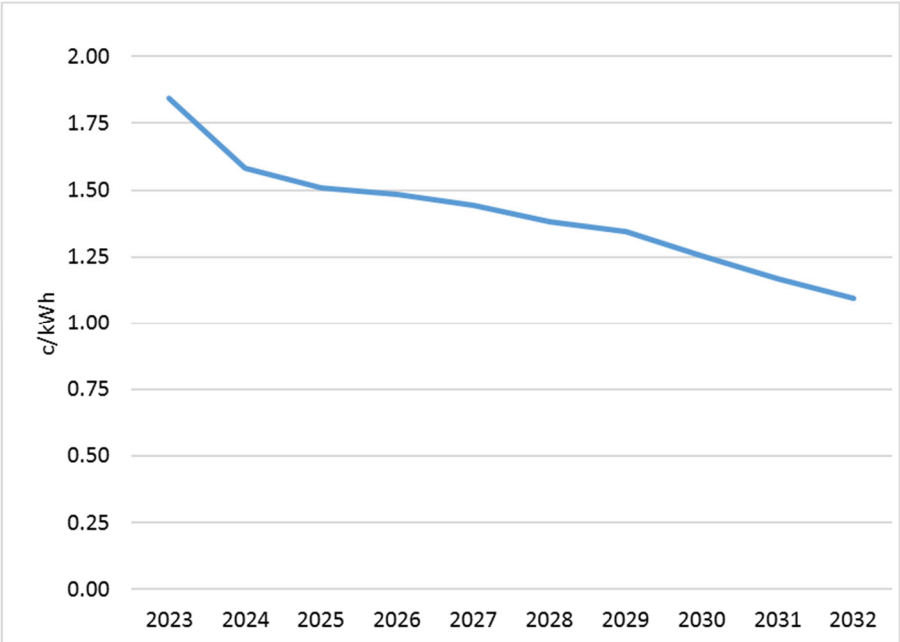
these resources, and CCA customers are charged what is determined to be their fair share of the stranded costs through the PCIA. Bundled customers also pay the PCIA, which is embedded into their commodity portion of their total rate.

The PCIA is not paid directly by the CCA, but by the individual customers taking CCA service. Thus, it does not appear explicitly on the CCA's books, however it must be accounted for in any CCA cost analysis. While both CCA customers and customers that choose to remain in SCE bundled service pay this fee, it appears as a separate line item for CCA customers and is embedded in the energy generation costs of SCE bundled customers.

To forecast the PCIA, this study used the formula and approach dictated by the Alternative Proposed Decision of Assigned Commissioner Carla Peterman in Commission Rulemaking 17-06-026, which was approved by the Commission on October 11, 2018. In addition, the market price and SCE portfolio assumptions used in the PCIA calculations are consistent with those used to forecast SCE's generation rates.

This study forecasts the PCIA charge by directly modeling expected changes to PCIA-eligible resources and to the market-based price benchmark. Based on our modelling, we expect the PCIA to remain close to 2¢ per kWh through 2023. After 2023, the PCIA is forecast to decrease markedly to about 1.5¢ per kWh and to continue a steady decline through 2032. The decline is mainly caused by the expiration of many of the costlier renewable power contracts entered into by SCE, which decreases the total stranded costs. MRW's forecast of the PCIA charge through 2032 is shown in Figure 11.

Figure 11. Forecast Average PCIA



Chapter 3. Financial Analysis Results

Costs and benefits are evaluated by comparing total average cost to serve the CCA customer (cents per kWh or dollar per MWh) (including PCIA) to SCE generation rates. The pro forma results for the first 10 years of the Lake Forest are summarized in this chapter.

Base Results

The CCA power supply assumes that the Lake Forest simply complies with the State's requirements concerning renewable power. It starts in 2023 with 39% of its power being met using renewable resources and escalates this faction to 64% by 2032. The non-renewable output is assumed to be met using system power from the CAISO.

Figure 12 shows the forecast of average CCA costs and SCE's generation rates, assuming that all customers are served. The bars in the chart show the forecasts of the major cost components of CCA operation, while the single line shows the forecast of SCE's generation rate. When the bars are below the line, the CCA's average operating costs will be below the SCE generation rate; meaning that it can offer power to customers at a rate lower than or competitive with SCE.

The bottom-most green segment represents the cost of renewable power to the CCA. The renewable power costs ramp up with increasing renewable content, as required by SB 100.

The brown segment is for the costs of non-renewable, wholesale market power. This segment slowly decreases, as renewable power increases.

The light blue segment is for capacity. That is, the CCA must demonstrate that it has the generating capacity (in megawatts) to ensure that it can serve all its load, even if the "intermittent" renewable resources are not generating at their optimal rate (e.g., solar on rainy days). The more intermittent renewables—solar and wind—that are added to the CCA's generating mix, the more back-up capacity is needed to ensure reliability.

The gray segment is for debt service, operations, franchise fees and uncollectibles. The loans associated with the start-up costs are paid down. Once that debt is retired, the operation costs decrease markedly. Franchise fees are those collected by SCE and paid to the City for the right to operate the electric monopoly franchise in the city. It is paid as a percent of each customer's total bill and is automatically built into SCE's rates. So that cities remain financially whole when customers' power is provided by a CCA, SCE charges CCA customers a "franchise fee surcharge" known as the Generation Municipal Surcharge.[15] Lastly, as with any business, a certain fraction of the CCA's bills will not be paid and are treated as "uncollectible."

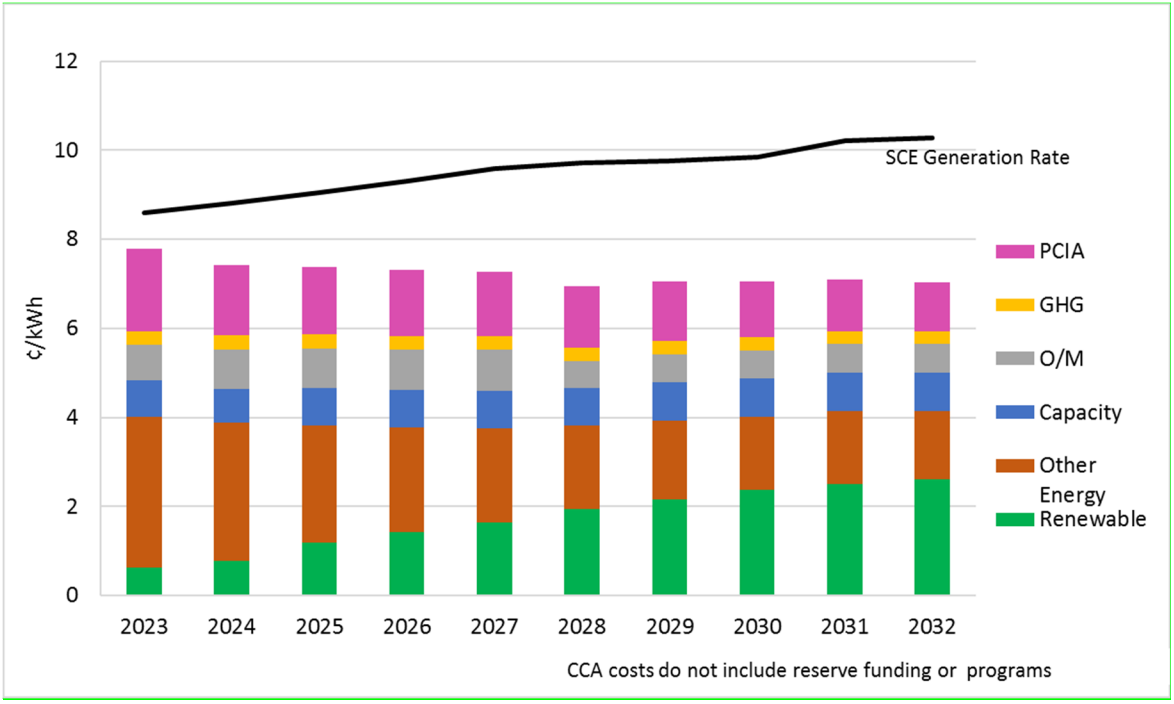
The yellow segment is for carbon cap and trade allowances. Note that for practical purposes, the carbon cap-and-trade allowances would be built into the purchase prices of natural gas-fired market resources. However, because it is an important variable on its own, the costs are shown separately.

[15] See SCE Tariff Schedule GMS.

The top-most pink segment is for the Power Charge Indifference Adjustment (PCIA), a fee paid to SCE to ensure that the operation of the CCA does not strand SCE's remaining bundled customers with costs associated with power purchased on behalf of customers who have shifted to the CCA.

The black line represents SCE's average generation rate. To forecast SCE's generation rates, the comparison model used information regarding SCE's utility-owned generation, power contracts, power market costs, and by closely tracking changes in SCE revenues and costs through its filings in several CPUC proceedings. In particular, it takes the most recent SCE filing of generation rates and applies the known and anticipated changes to the wholesale power market prices and SCE's power purchase contracts.

Figure 12. Average Lake Forest Cost Projection



As shown in Figure 12, the costs of CCA operation are consistently below that of the SCE rate. This difference between the top of the CCA cost columns and the SCE rate line represents the operating "margin." In 2023, this "margin" between the CCA average cost and the SCE rate is about 0.8¢/kwh, increasing to about 3.2¢/kwh in 2032. Table 7, below, shows the average margin for different time periods of the analysis.

Table 7. Projected OCPA Margins*

	2023	First 3 years (2023-2025)	First 5 years (2023-2027)	2nd 5 years (2028-2032)	10-Years (2023-2032)
¢/kWh (average)	0.8	1.3	1.6	2.9	2.3

*Without rate savings, reserve contributions or program funding

Note that this does not mean that the CCA can or will fully pass on this margin as rate savings to its customers. The CCA may do a combination of one or more of three things with this margin:

- **Rate Savings:** The CCA can keep its rates as the cost of operations and allow the margin to flow fully to customers through lower electric rates. (i.e., if the margin is 0.5¢/kWh, then the CCA could offer rates that are 0.5¢/kWh less than SCE while still covering all its costs).
- **Reserves:** The CCA can change customers to the same rate as SCE to retain the margin and build up cash reserves for a rainy day.
- **Programs:** The CCA can eventually use the margin to fund other energy-related services, such as providing incentives for customers to purchase an EV, install energy-efficient home upgrades, install solar PV, etc.

GHG Impacts. For the CCA, GHG savings is achieved when the average GHG emissions from the set of generation resources used by the CCA is less than the average GHG emissions from SCE. Unless the CCA procured GHG-free power above and beyond California's renewable requirement, SCE's average GHG emission will be less than the CCAs. This result is caused by SCE not only meeting the state-requirement minimum renewable content, but also using other non-renewable but still GHG-free power sources: large hydroelectric dams and nuclear power from the Palo Verde Nuclear Generating Station, of which SCE is a partial owner. The GHG-emitting portfolios for Power Supply Scenario 1 and SCE are shown in Table 8.

Table 8. 2023 CCA (Supply Scenario 1) and 2019 SCE Power Content

	Lake Forest	SCE[16]
Renewable	39%	35%
Hydro		8%
Nuclear		8%
GHG-Free	**39%**	**51%**
Gas		16%
System	61%	33%
TOTAL	100%	100%

Sensitivity to Key Inputs

The results shown in the scenarios above reflect expected market conditions and outcomes with variations only in the amount and type of renewable generation. However, it is unlikely that the conditions assumed in these scenarios will occur exactly as assumed. In order to evaluate the robustness of the analysis, the key variables were identified, and analyses conducted with other assumptions for those key variables to "stress test" the assumptions. The five sensitivity scenarios are shown in Table 9.

Table 9. Sensitivity Case Definitions

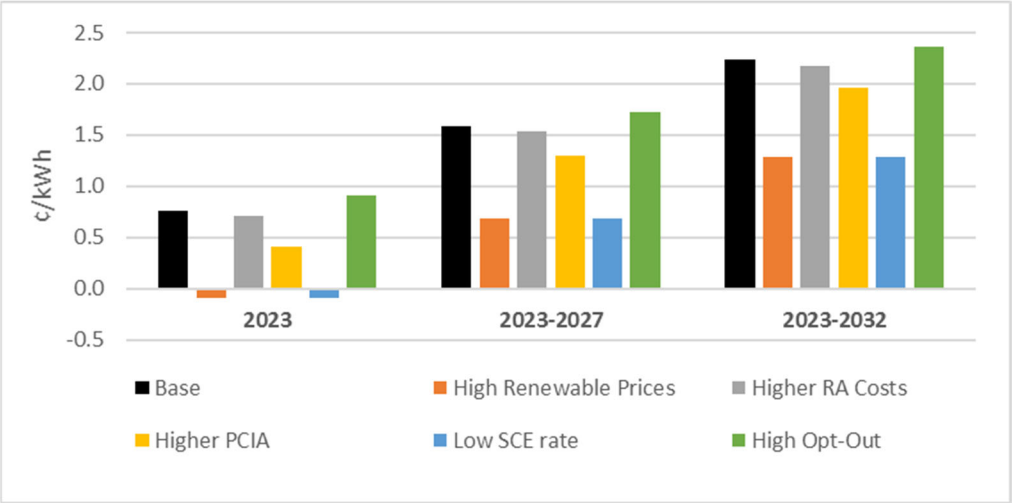
Sensitivity Case	Definition
Base	Supply Scenario 1
Higher Renewable Costs	Renewable costs 25% higher than Base
Higher PCIA	PCIA 33% higher than calculated in Base
Lower SCE Rate	SCE rates 10% lower than in Base
Higher Opt-Out	30% opt-out versus 5-10% opt-out in Base
Higher RA Costs	RA costs 33% Higher

Figure 13 summarizes the CCA margins resulting from the modeling of the sensitivity cases. The figure shows the margin in cents per kilowatt-hour between the SCE rate and the average

[16]SCE Power Mix from SCE's 2019 Power Content Label Template_v2

cost for the CCA to serve its load, including the PCIA, but without any rate discounts or contributions to reserves. When the bar is positive, then the CCA's cost of service is less than SCE's generation rates, which means the CCA can offer a rate discount, contribute to reserves, or fund programs. The figure suggests that during the first year a Lake Forecast CCA's cost of service might exceed the SCE generation rate (i.e., not be able to offer any discount) if the Higher Power Price or Low SCE Generation Rate assumptions came to pass.

Figure 13. Sensitivity Results



Comparison of Stand-Alone Lake Forest CCA to OCPA

Because a stand-alone Lake Forest CCA would be relatively small while OPCA would be one of the largest, the question arises, "is significant scall economies to be captured via remaining with OCPA?" In principle, OCPA would be better positioned than a Lake Forest alone as a wholesale power buyer, as it could negotiate larger deals and be able to diversify its portfolio more easily than Lake Forest. Additionally, OCPA would be able to spread common fixed costs across greater load and thus reduce the average impact on rates of fixed costs.

For the City of Huntington Beach, MRW conducted an analogous financial analysis for the full OCPA.[17] That analysis and the one presented here for Lake Forest differed in the assumed load and customer type, start date, and administrative cost, but used the same underlying power costs and SCE rates. Thus, by comparing the results of the two analyzes, we can see any potential scale economy benefits of OCPA relative to Lake Forest.

[17] This analysis was conducted for the City of Huntington Beach and can be found at: https://huntingtonbeach.legistar.com/View.ashx?M=F&ID=9094702&GUID=3503CBC4-6DB2-445F-81E0-7820DCEF5821

Table 10 shows some key results of the two analyses. The top portion of the table shows the average annual costs for OCPA and a Lake Forest CCA while the bottom portion shows the same costs expressed as an average cents per kilowatt-hour. The table shows that because of economies of scale, the OCPA would have modestly lower average cost of service than the much smaller Lake Forest CCA. However, the Lake Forest average SCE generation rate against which the CCA costs are compared are lower than that of OPCA. This is because of the customer make-up of the two. Lake Forest's load is predominantly residential and small commercial while OCPA's load has a significant portion of large commercial and industrial load. SCE's large commercial and industrial rates are markedly less than its residential and small commercial rates (see Figure 10. Forecast SCE Average Generation Rates). This means that the load-weighted average SCE rate associated with OCPA load will be lower than the load-weighted average load-weighted average SCE rate associated with Lake Forest load.

When all these factors are accounted for, our analysis suggests that OCPA's margin would be roughly 0.3¢/kWh higher that that of a Lake Forest CCA.

Table 10. MRW Estimates of Key Metrics (2023-2027)

	OCPA	Lake Forest
Annual Load GWhs	4,500	460
Average Annual Costs ($millions)		
Start-up (including working capital)	$64	$6
Debt Service on startup loan	$14.2	$1.7
Admin Cost	$10.0	$2.5
Power Cost	$220	$23
Annual Cost of Service*	$242	$27
Average Cost, ¢/kWh		
Debt Service on startup loan	0.3	0.4
Admin Cost	0.2	0.5
Power Cost	4.9	5.0
Annual Cost of Service*	5.4	5.9
Avg. SCE Generation Rate, c/kWh	8.9	9.1
Avg. SCE PCIA, c/kWh	1.6	1.6
Avg. margin, CCA – SCE, c/kWh**	**1.9**	**1.6**

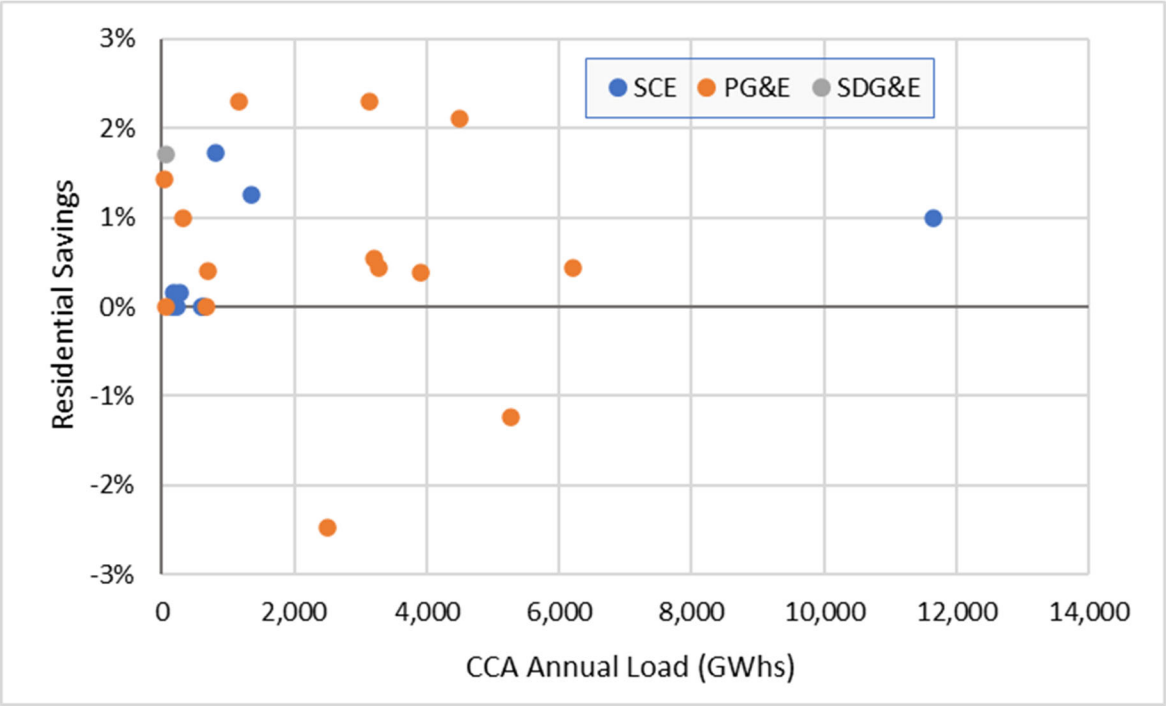
*Does not include contributions to financial reserves or programs.

**Includes PCIA and reflects different weighted average SCE generation rates

A second, empirical way of looking at scale economies of California CCAs is to compare the rate savings offered by CCAs against their size. If there are marked economies of scale, one would expect to see a correlation between size are rate savings: the bigger the CCA, the lower the costs due to economies of scale and thus the greater the rate savings.

To test this hypothesis, we compared the reported residential rate savings of active CCAs relative to their incumbent utility's the default rates. For the CCAs, we used their lowest cost offering, so as not to skew the results by comparing 100% green CCA products against standard utility ones. This analysis is shown in Figure 14, with the rate savings shown on the vertical axis against the CCA size on the horizontal axis. As the figure shows, there is no correlation between CCA size and rate savings.

Figure 14. Residential Bill Savins Versus CCA size



Because of the simplicity of this analysis, one should not necessarily assume that there are no economies of scale, as the CCAs faces different utility rates, amount of time in operation, and internal goals. For example, the two CCAs with negative savings. i.e., whose rates are higher than their incumbent utilities, both explicitly emphasis environmental and local benefits over rate savings. Still, if there were strong economies of scale one would have expected to see some kind of size-rate correlation, which this data set does not.

CCA Options Available to Lake Forest[18]

Lake Forest's three primary options for community choice aggregation (CCA) are: joining the Orange County Power Authority (OCPA); forming a stand-alone Lake-Forest only enterprise-based CCA; or forming a Lake Forest CCA and joining the CalChoice Energy Authority. The primary benefits of either of the Lake Forest-only CCA options are more local control over procurement practices and budgets and services better tailored to Lake Forest. The primary benefits of joining with OCPA are foregoing the need to provide upfront financing for the CCA's startup process, less potential financial exposure to the City as the JPA will be a financially distinct entity, economies of scale which can translate into lower average operating costs and reduced administrative burdens.

Both the city enterprise model and the JPA create entities that are independent of the City's finances and offer protections to the city's general fund. The JPA model's independence is demonstrated by a number of CCAs[19] getting investment grade credit ratings independent of their member cities and counties. Still, no CCA has experienced serious financial difficulties, so how much a CCA could financially lean on its constituent members has never been tested.

Forming a Single City Agency

In a sole jurisdiction approach, the City maintains full flexibility—and responsibility—for developing policies and procedures. This means that they can be specifically tailored to and responsive to the City's stakeholders and constituents and based upon their own objectives. The City would be responsible for setting policy priorities in general and making specific decisions about power generation, staffing policies, local economic development activities and strategies, formulation of financial and debt policies, and development of customer-focused programs, such as those promoting energy efficiency, electric vehicles (EV), and distributed generation (e.g., rooftop solar PV). Along with greater autonomy, the City would assume all risk, liability, and costs associated with operating the CCA. In this case, the likely path would be for the City to establish the CCA as an enterprise, and work with appropriate legal counsel to explore options for controls and structural safeguards to financially insulate the CCA and minimize risk to the City's general fund.

Enterprises are commonly used for public utilities such as electric, water and wastewater, or other city functions where a public service is operated and provided in a manner similar to a separate business enterprise. Fees and charges are collected for services provided and accounting and budgeting are separate from a city's general fund. Establishing an enterprise provides management and CCA customers with visibility and accountability, and the ability to more easily separate and measure performance, analyze the impact of management decisions,

[18] This chapter is generally duplicative of the analogous chapter in MRW's report," "Review of Orange County Power Authority Foundational Documents and CCA Options for the City for Lake Forest." However, additional materials are added at the end.

[19] E.g., Marin Clean Energy (Fitch "BBB+"), Central Coast Community Energy (S&P "A"), Peninsula Clean Energy (Moody's "Baa2")

determine the cost of providing electric service, and use this information to develop electric rates and services. Enterprise accounting would allow the City to demonstrate to customers, the public, and other stakeholders that the cost of power is being recovered through its rates, and not being subsidized or comingled with other City funds or functions.

Within the city-only option, the Lake Forest CCA would have to determine if it is to be a fully in-house operation with existing or added City staff, or if the City would outsource some of or all of the activities, with the City only administering contracts and managing vendors. Examples of some of the categories of operating activities that would need to be performed in-house or outsourced:

- Power procurement and operations
- Finance, budgeting, and accounting
- Coordinating with SCE on billing
- Customer service
- Communications, outreach, and public relations
- Customer service programs (EE, EV, or rooftop solar PV)
- Regulatory monitoring and compliance (e.g., CPUC filings)

The likely best short-term option would be to outsource the highly technical functions and maintain some of the management, planning, and other public-facing functions, like communications, in-house. The range of options depends upon the degree of operating control the City wishes to maintain, the costs associated with maintaining those functions, and the degree of risk it is willing to accept on its own, or delegate to third-party providers to assume these responsibilities.

If the Lake Forest CCA were to pursue additional services, it would require at least one or two managers, supported by analyst professionals, some of whom could be shared with other Lake Forest departments.

Joining a Joint Powers Agency (generically)

The second option would be the formation of a JPA, where the JPA is an independent agency that operates on behalf of the public agencies which are party to its creation. In this approach, the City effectively shares responsibility with the other agencies participating in the JPA. The divisions of these responsibilities and the sharing of decision-making authority would be determined at the time the JPA is created. Other critical ‘ground rules’ are negotiated and memorialized, such as financial and possibly staffing commitments of each participating agency, and the composition of the board and voting procedures.

The JPA structure reduces the risks of implementing a CCA program for the City by completely separating its books from the financial assets and liabilities of the City and the other participating agencies, and distributing the risks and costs associated with the CCA among the participating entities. It could also provide the benefits of scale and economy for certain aspects of CCA operation, such as power procurement or back office billing and accounting functions.

Key tradeoffs to the benefits of a JPA are that decision making is allocated amongst the parties and management independence is diminished. Objectives of participating agencies will likely differ, and reduced autonomy can manifest when setting priorities for local generation, economic development activities, and importance of support programs.

Joining CalChoice Energy Authority

CalChoice Energy Authority (CCEA) is described as a "hybrid" JPA, where the JPA provides requested services to its member CCAs but does not control any of its general policies or programs.[20] More specifically, CCEA provides to its members, as desired:

- Power, including contract procurement, portfolio management, load forecasting and scheduling, and complying with and demonstrating procurement-related regulatory requirements (e.g., resource adequacy, renewables, etc.).
- Regulatory and compliance support, including preparing and filing compliance reports to the California Public Utilities Commission, the California Energy Commission, and the California Independent System Operator; and general regulatory advocacy.
- Billing and data management, including interface with SCE and call center operations.
- Treasury, including CAISO invoice validation, rate design development, and risk management.

Thus, CCEA is effectively a non-profit outsource for all of the detailed activities of a CCA. This is a good match for smaller cities who are interested in local control of the CCA but not interested in bringing in-house the day-to-day management needed to operate a CCA.

CCEA members that are providing power are: Lancaster Choice Energy, San Jacinto Power, Pico Rivera Innovative Municipal energy, Rancho Mirage Energy Authority, and Apple Valley Choice Energy, Baldwin Park Resident Owned Utility District and Pomona Choice Energy. The cities of Commerce, Palmdale and Santa Barbara are members but have yet to begin service.

All of the city-only CCAs in SCE's territory are CCEA members. This makes sense, in that they are all small. Only one, Lancaster Choice Energy, serves more load than would be served by a Lake Forest CCA.

Were it to join CCEA, Lake Forest would be responsible for setting policies, setting rates, marketing and customer outreach, and the implementation of any desired local programs. It would also still have to provide any start-up loans and any collateral or loan guarantees needed to acquire financing.

The CCEA Board of Directors is the Lancaster City Council. The actual services provided by CCEA are via contractors and consultants supervised by City of Lancaster personnel (e.g., Lancaster City Manager, Lancaster Choice Energy's Executive Director.) Thus, CCEA's administrative simplicity (the city not having to acquire expertise or expert contractors) is a traded off against the fact that Lake Forest would have to accept the contractors and service

[20] *See*, https://californiachoiceenergyauthority.com/

providers selected by CCEA. The bottom line is that CCEA is by design more of a client-Lake Forest would remain fully in control of the power that the JPA purchased on its behalf as well as which services the JPA provides to the City.

Comparison of Lake Forest Options

The table below qualitatively compares Lake Forest's three CCA options against remaining with SCE. First, MRW cannot project any meaningful difference in rate or GHG savings between the three CCA options. The stand-alone and CCEA options offer greater flexibility and control, but at the price of higher start-up costs, greater staff effort, and higher financial risk. Lastly, remaining with OPCA is the quickest option, allowing CCA formation at least one year sooner than the other two options.

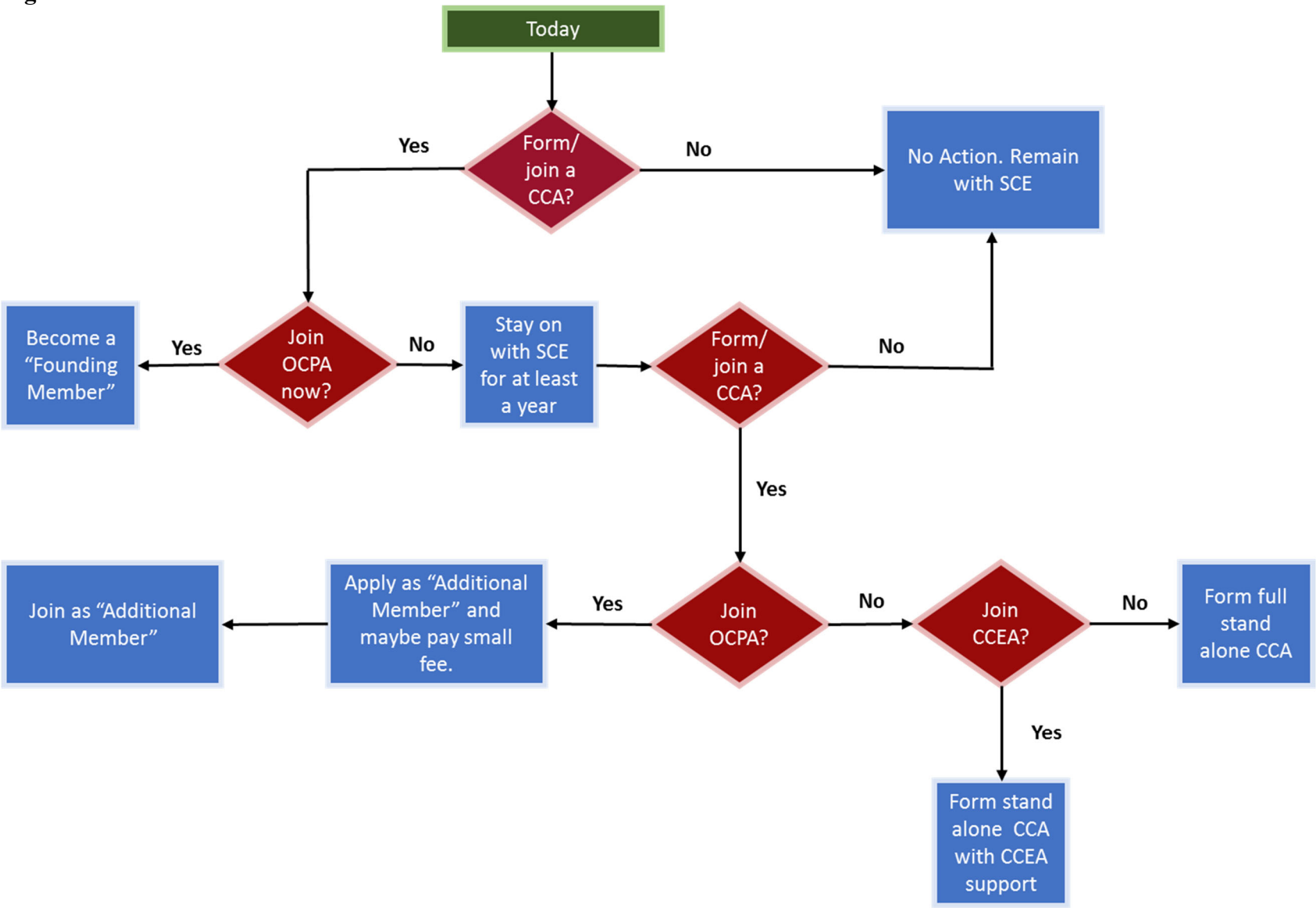
Table 11. Comparison of Lake Forest CCA Options

Criterion	Join OCPA	Use CCEA JPA	Stand-alone Enterprise	Stay with SCE
Rates	Comparable/ modestly lower	Comparable/ modestly lower*	Comparable/ modestly lower*	Base
GHG Reduction Potential Over Forecast Period	Some	Some	Some	Base
Local Control/Governance	Some	Greater	Greatest	None
Local Economic Benefits	Some	Greater	Greatest	Minimal
Start Up Costs/Cost to Join	None	Some	Greatest	None
Level of Effort	Minimal	Some	Greatest	None
Timing (earliest)	2022	2023	2023	N/A

*To be verified by MRW's Lake Forest only CCA financial analysis.

Figure 15 shows a flowchart of the possible CCA options for Lake Forest. If the City wants CCA service quickly—as soon as 2022, then joining OCPA is its only option. However, if the City is willing to wait a year or two, the stand-alone options open up, as well as potentially joining OCPA as an Additional Member.

Figure 15. Available CCA Paths for Lake Forest



Appendix: CCA Regulatory Procurement Requirements

California places a number of important power-procurement requirements on all "load serving entities" (LSEs) in California (e.g., utilities like SCE and CCAs). These requirements apply to all LSEs and thus can limit the options that a CCA can pursue to lower costs or implement lower-GHG emitting power portfolios.

Renewable Energy. One of these requirements is the renewable portfolio standard (RPS). This requirement has been in place since 2002 with passage of Senate Bill (SB) 1078, which set a requirement that 20% of retail electricity sales be served by renewable resources by 2017. Since then, the RPS requirement has been accelerated and expanded by subsequent legislation, most recently by SB 100 passed in 2018. SB 100 requires all LSEs to procure 50% of their power from renewable resources by 2026 and 60% by 2030.[21] SB 100 also sets a state-wide policy goal of having 100% of the electric power met by renewable or carbon-free resources (e.g., large hydroelectric dams) by 2045.

This means that SCE is subject to the same renewable resource mandates under SB 100 as Lake Forest will be. Unless Lake Forest makes an explicit decision to exceed the state requirements, it would be offering no incremental renewable "benefits" to the City. This is why many existing CCAs' goals are often to accelerate the implementation of green power above and beyond the state's mandates and goals.

Energy Storage. Assembly Bill (AB) 251 requires LSEs to procure energy storage capacity. The storage mandate was implemented by the California Public Utility Commission (CPUC) through a requirement that CCAs procure energy storage equal to one percent of their forecasted 2020 peak load. CCAs must demonstrate progress towards meeting this target in biennial advice letter filings and must have the energy storage capacity in place by 2024. Some energy storage technologies, especially lithium-ion batteries, have fallen steeply in cost in recent years, though they are still relatively expensive compared to supply resources and demand response. Battery costs are expected to continue to fall, suggesting there is a benefit to deferring procurement until required by the mandate.

Resource Adequacy. Since 2006, all LSEs, including CCAs, that are participants in the CAISO balancing area and under the jurisdiction of the CPUC are responsible for complying with Resource Adequacy (RA) obligations required under Assembly Bill 380 (codified as Section 380 of the Public Utilities Code and implemented by CPUC rulemaking). There are three components to the RA compliance program:

1) **System** capacity requirements to meet expected peak loads in the entire CAISO balancing area.

[21] In practice, the utility code establishes multi-year compliance periods ending in 2020, 2024, 2027 and 2030, with the average renewable energy supply as a percentage of retail sales for each compliance period required to be 33%, 44% 52% and 60%, respectively.

2) **Local** capacity requirements to meet contingency needs in locally constrained areas; and
3) **Flexible** capacity requirements to meet the largest continuous three-hour ramp in each month.

Specifically, to meet the System RA requirement, load serving entities must contract for 115% of their projected monthly peak demand as determined by the CPUC in consultation with the California Energy Commission (CEC) load forecasts. The peak demand forecasts are based on a 1-in-2 (average) weather year. Year-ahead filings must show that the LSE has contracted for 90% of the projected System RA requirement in summer months (May-September). The forecasts must be updated on a month-ahead basis and show that 100% of the requirement has been contracted.

The Local RA requirement must be met by LSEs with customers in 10 local reliability areas identified by the CAISO. The Local RA requirement is based on the CAISO's assessment of the generation needed in the local area. Beginning with the 2020 compliance year,[22] the Local RA requirements are set three years ahead and updated each year.[23]

On June 11, 2020, the CPUC adopted a framework (D. 20-06-002) that designated a central buyer for the procurement of multi-year Local RA in the SCE and SCE distribution areas, beginning in 2021. Currently, both SCE and SCE serve as central procurement entities for their distribution service areas and have begun procuring Local RA for the 2023 compliance year. Therefore, SCE would act as the Local RA procurer for any future CCA that served Lake Forest.

The CAISO also determines the required Flexible RA needs operating criteria. Currently there are three flexible capacity categories with varying must-offer obligations, energy limits and number of starts, with associated requirements for how much of each category may be used to meet the LSE's obligation. LSEs must demonstrate the purchase of 90% of their flexible RA requirement in their annual RA filing, and 100% of the requirement in their monthly RA filings.[24]

There is a bilateral market for RA capacity, with standardized products for each type of RA capacity.

Integrated Resource Planning (IRP). In addition to its role as the authority for implementing the state's RA program, the CPUC also has an active rulemaking to "Develop an Electricity Integrated Resource Planning Framework and to Coordinate and Refine Long-Term Procurement Planning Requirements" (R. 16-02-007). This program requires each California LSE to file a procurement plan that demonstrates that it is contributing its pro rata share to

[22] The "compliance year" is the year in which the RA resources are used to meet the LSE's RA requirements for that year. For example, an LSE must demonstrate in 2019 that it has adequate RA capacity under contract for the 2020 RA compliance year.
[23] Note that Local RA capacity is a substitute for System RA capacity. However, the converse is not always true, meaning that System RA capacity might not help an LSE meet its Local RA requirements.
[24] Flexible RA can substitute for System RA and possibly for Local RA but the converse is not always true: System and Local RA resources might not help an LSE meet its Flexible RA obligations.

meeting the State's GHG reduction goals while maintaining sufficient generating and storage capacity to maintain a reliable power grid.

On November 11, 2019, the CPUC issue a decision (D.19-11-016) that addressed the potential for system resource adequacy shortages in SCE's area due to the impending retirement of 3,750 MW of once-through cooled (OTC) generation by December 31, 2020 as well as the risk of additional non-OTC retirements. The decision recommended that the State Water Resources Control Board extend OTC compliance deadlines for the impacted power plants and required additional procurement of 3,300 MW of system-level RA capacity by all LSEs serving load within the CAISO balancing area. Because this analysis assumes that Lake Forest begins service in 2023, it will not need to take any special action to comply with these directives.

ATTACHMENT 3

Q20	The City of Lake Forest is considering offering electricity services directly to residents and businesses in the near future. Under this potential new program, residents will have the option to purchase electricity from the City or continue to purchase electricity from Southern California Edison. As I read several features of the City's electricity program, I'd like to know how they may impact your likelihood of purchasing your electricity from the City. Here is the (first/next) one: _____. Would this make you more or less likely to purchase electricity from the City? *Get answer, then ask:* Would that be much (more/less) likely or somewhat (more/less) likely?						
	Randomize	Much more likely	Somewhat more likely	Somewhat less likely	Much less likely	Not Sure	Prefer not to answer
A	The rates charged would be lower	63%	22%	2%	4%	8%	2%
B	The rates charged would be more stable over time	40%	36%	5%	5%	14%	1%
C	A greater amount of the electricity would be produced through renewable sources like solar, wind and biomass	45%	27%	5%	7%	13%	2%
D	There would be local control over the type of electricity offered	28%	33%	6%	8%	24%	2%
Q21	If the cost of electricity were the **same**, who would you prefer to be your electricity provider: _____ OR _____? *Randomize Order.*						
	1	The City of Lake Forest	38%				
	2	Southern California Edison	29%				
	98	Not sure	31%				
	99	Prefer not to answer	2%				

ATTACHMENT 4

CITY OF LAKE FOREST

Mayor
Scott Voigts

Mayor Pro Tem
Robert Pequeño

Council Members
Doug Cirbo
Neeki Moatazedi
Mark Tettemer

City Manager
Debra DeBruhl Rose

February 3, 2021

Mr. Mike Carroll, Chair of the Board
Orange County Power Authority
15642 Sand Canyon Avenue
P.O. Box 54283
Irvine, CA 92619

Dear Chair Carroll,

Over the past several months the Lake Forest City Council has carefully reviewed issues related to the Orange County Power Authority ("OCPA"). This process has included numerous public meetings, the formation of an ad hoc committee, and hours of conversations with OCPA staff and representatives. We recognize and appreciate the time and attention given by OCPA representatives as we have worked through issues related to joining the OCPA.

As part of the City's due diligence, the City Council and its appointed ad hoc committee have carefully reviewed the OCPA joint powers agreement to ensure that the interests of Lake Forest and the OCPA are aligned. The City's review of the joint powers agreement has focused in on six key issues, which are detailed below. The City requests that the OCPA Board consider amending the joint powers agreement as explained further below.

Requested Joint Powers Agreement Amendments and Explanations

1. Term of Office

- *Requested Amendment*: Amend Section 3.3 of the agreement to provide for a two-year term of office instead of a four-year term.

- *Explanation*: The current four-year term will result in appointees serving terms that exceed those of appointing council members. In the case of an appointed council member, the result could be that a council member serves on the OCPA Board long after his or her council term has ended. The City Council would like greater control over its OCPA appointees. Appointees are restricted to those that match the OCPA election cycle.

2. Director Compensation

- *Requested Amendment*: Amend Section 3.8 of the agreement to decouple Board Director compensation from the Orange County Sanitation District.

- *Explanation*: Tying Director compensation to a third-party agency puts the Board at a governance disadvantage, subjecting it to the whims of that agency. The City would prefer giving control over compensation issues to the Board itself, putting the onus for compensation decisions on the Board and not a third party.

3. Voting Shares Vote

- *Requested Amendment*: Eliminate the possibility of a voting shares vote by removing Sections 3.9.2 and 3.9.3.

- *Explanation*: The voting shares vote puts Lake Forest at a significant disadvantage relative to bigger cities. OCPA representatives have repeatedly stated that they are not aware of a voting shares vote ever occurring with other CCA JPAs. If that is the case, and this process would not be utilized, the City would appreciate its removal from the agreement.

4. Allocation of Revenue and Debts, Liabilities, and Obligations

- *Requested Amendment*: Amend the agreement to provide that revenues and debts, liabilities, and obligations be allocated to member cities based on each member city's load.

- *Explanation*: A key motivation for the City of Lake Forest to join the OCPA is potential energy cost savings to residents and businesses. Cost savings will arise in substantial part from OCPA revenues and how those revenues are utilized. The City would like to retain as much local control as possible as a member of the OCPA. Having the ability to determine how best to utilize OCPA revenues furthers the goal of local control. Similarly, the member cities' debts, liabilities, and obligations will differ according to size and should be likewise allocated according to size.

5. Board Meeting Schedule

- *Requested Amendment*: Amend Section 3.11 to provide that Board meetings shall be held in the evening.

- *Explanation*: More than possibly any other Orange County public agency, the OCPA directly impacts residents and businesses finances and will be closely scrutinized. Holding Board meetings in the evening results in a larger pool of potential board members due to their availability. This will also provide the most residents and businesses access to the Board that is making decisions that directly impact their finances, resulting in greater transparency.

We recognize that amending the JPA agreement requires following a somewhat time-consuming process. With that in mind, we respectfully request that the Board discuss the requests outlined in this letter at its February 9, 2021 Board Meeting and vote to provide OCPA staff with direction to immediately begin the JPA amendment process.

The City has spent considerable time working through the JPA agreement and focusing in on those issues that are of most importance to it. Again, we recognize the time spent by OCPA on the City's concerns to date. We are hopeful that we will continue to be able to work together towards a resolution of these issues.

Sincerely,

Scott Voigts
Mayor
City of Lake Forest

ATTACHMENT 5

MINUTE EXCERPT
LAKE FOREST CITY COUNCIL REGULAR MEETING
JANUARY 19, 2021, ITEM 10, COMMUNITY CHOICE AGGREGATION

COMMUNITY CHOICE AGGREGATION

The following voicemail comments were received for the record:

Martin Deutschman – supports the City in joining a CCA
Walter Nobrego – does not support the City in joining the CCA.

ACTION: Senior Analyst Adrian Grijalva gave a presentation along with consultant Mark Fulmer the principal of MRW & Associates.
After the presentation by Senior Analyst Grijalva and consultant Fulmer, Mayor Voigts opened the floor to his Council colleagues for questions about the presentation. Discussion ensued. Many questions were asked and answered. Mayor Voigts thanked staff for the presentation. The information was received and filed. No vote was taken.

Council Member Tettemer requested consensus from his Council colleagues to discuss the possibility of bringing a ballot initiative to the voters to procure energy through OCPA. Minority consensus was received by Mayor Pro Tem Pequeño. The matter will be placed on the February 2, 2021, City Council agenda for discussion.