Board of Directors Meeting

Wednesday, October 19, 2022
6:00pm

In person:
The Lake Merritt Room
Cal State East Bay - the Oakland Center
In the Transpacific Centre
1000 Broadway, Suite 109
Oakland, CA 94607

or via Zoom:
https://us02web.zoom.us/j/87023071843
Dial(for higher quality, dial a number based on your current location): US: +1 669 900 6833 or +1 346 248 7799 or +1 253 215 8782 or +1 929 205 6099 or +1 301 715 8592 or 888 475 4499 (Toll Free) or 877 853 5257 (Toll Free)
Webinar ID: 870 2307 1843

Meetings are accessible to people with disabilities. Individuals who need special assistance or a disability-related modification or accommodation to participate in this meeting, or who have a disability and wish to request an alternative format for the meeting materials, should contact the Clerk of the Board at least 2 working days before the meeting at (510) 906-0491 or cob@ebce.org.

If you have anything that you wish to be distributed to the Board of Directors, please email it to the clerk by 5:00 pm the day prior to the meeting.

1. **Welcome & Roll Call**

2. **Pledge of Allegiance**

3. **Public Comment**
   This item is reserved for persons wishing to address the Board on any EBCE-related matters that are not otherwise on this meeting agenda. Public comments on matters listed on the agenda shall be heard at the time the matter is called. As with all public comment, members of the public who wish to address the Board are customarily limited to two minutes per speaker and must complete an electronic speaker slip. The Board Chair may increase or decrease the time allotted to each speaker.

CONSENT AGENDA

4. **Approval of Minutes from September 21, 2022**

5. **AB 361 - Finding for Continued Remote Meetings**
   Find that conducting in person meetings of the Board would present imminent risks to attendees' health and authorize the Board to continue meeting via teleconferencing pursuant to Government Code Section 54953(e).

6. **Contracts entered into (Informational Item)**

7. **Treasurer's Report**
   Present EBCE's cash position as of September 30, 2022

8. **Printing and Mailing Services**
   Seek approval to amend contract with Pacific Printers for printing and mailing services

REGULAR AGENDA

9. **CEO REPORT**
   A. Executive Committee Report
   B. New Staff
   C. Heath-E Communities Partnership Update

10. **Community Advisory Committee Report**

11. **Legislative Update (Informational Item)**
    Informational update on the 2022 state and federal legislative process

12. **Integrated Resource Planning (IRP) Analysis & Approval of CPUC Filing (Action Item)**
    Review of IRP compliance filing and overview of EBCE-focused additional analysis. Board must review and approve EBCE's compliance filing before its submittal on November 1

13. **Long Term Energy and Resource Adequacy Contracts for Approval (Action Item)**
    Review of long-term power purchase agreements and energy storage agreements prior to execution

14. **Update to Net Energy Metering (NEM) Policy (Action Item)**
    Seek approval for proposed changes to the Net Energy Metering Policy to include an annual true-up option

15. **Board Member and Staff Announcements including requests to place items on future Board agendas**

16. **Adjournment** to Wednesday, November 16, 2022 at 6:00pm.

Draft Minutes
Board of Directors Meeting
Wednesday, September 21, 2022
5:00 pm
https://us02web.zoom.us/j/87023071843
Dial(for higher quality, dial a number based on your current location): US: +1 669 900 6833 or +1 346 248 7799 or +1 253 215 8782 or +1 929 205 6099 or +1 301 715 8592 or 888 475 4499 (Toll Free) or 877 853 5257 (Toll Free)
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1. **Welcome & Roll Call**
Present: Directors: Tiedemann (Albany), Harrison (Berkeley), Kumagai (Dublin), Cox (Fremont), Marquez (Hayward), Munro (Livermore), Hannon (Newark), Cavenaugh (Piedmont), Arriola (Tracy), CAC Chair Eldred, Vice-Chair Lopez (San Leandro) and Chair Martinez (Emeryville)

Excused: Directors: Valle (Alameda County), Kalb (Oakland), Narum (Pleasanton), Patino (Union City)

Director Cox served as an Alternate for Director Mei (Fremont).

2. **Pledge of Allegiance**

3. **Public Comment**
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Jane Kelly spoke regarding EBCE's seven-year plan to create a carbon-free default product, stating that this timeline should be accelerated. Jane Kelly noted that other

Northern California CCAs are already within percentage points of carbon-free electricity.

Blair Beekman stated that the nuclear energy in EBCE's power content mix is not discussed sufficiently. Blair Beekman also urged EBCE to invest in nuclear-free clean energy technologies.

Jessica Tovar, East Bay Clean Power Alliance, stated that EBCE should focus its investments in the development of clean energy technologies for the local communities in its service area.

Tom Kelly spoke regarding EBCE's Power Content Label, noting that the carbon emissions for EBCE's Bright Choice product compares unfavorably to PG&E. Tom Kelly stated that he hopes to work with local cities to create 100% renewable programs that are also nuclear-free.

Alan Marling (read from written statement):

"I am in favor of nuclear energy. There is a large amount of fear regarding the technology, due to the availability heuristic and the fixation on past disasters on outdated equipment. Nuclear power plants made to new standards are safe and will help avert the climate crisis.

This is not to say we should pursue nuclear energy exclusively but instead as part of a green energy portfolio, with wind and solar. I mentioned this because NIMBY's against solar farms will often show up and say that nuclear energy is better. I suspect they also attend planning meetings for nuclear power plants to say solar energy is far safer. The reality is we will need both."

Chair Martinez moved that Item 15 - Update on Integrated Resource Planning Analysis (Informational Item) be heard after Item 11 - Stockton JPA Membership.

CONSENT AGENDA

4. **Approval of Minutes from July 20, 2022 and July 25, 2022**

6. **Contracts entered into (Informational Item)**

8. **Resolution to Authorize CEO to Negotiate and Execute Lease for EBCE HQ (1999 Harrison)**
   Requesting the Board to delegate authority to EBCE CEO to complete negotiations and sign the contract

Chair Martinez moved Item 5, AB 361 - Finding for Continued Remote Meetings, from the Consent Agenda to the Regular Agenda.

Community Advisory Committee (CAC) Chair Eldred moved Item 7, 2021 Power Source Disclosure Annual Report and Power Content Label, from the Consent Agenda to the Regular Agenda.

Vice-Chair Lopez motioned to approve Consent Agenda Items 4, 6, and 8. Director Arriola seconded the motion. The motion passed 11/0. Excused: Directors Valle, Kalb, Narum, and Patino.

Jim Lutz spoke regarding Consent Agenda Item 6, Contracts Entered Into, stating that more information should be provided about contracts.

Blair Beekman spoke regarding EBCE's power content label and urged EBCE to increase its transparency and accountability to the public.

REGULAR AGENDA

5. AB 361 – Finding for Continued Remote Meetings

Find that conducting in person meetings of the Board would present imminent risks to attendees' health and authorize the Board to continue meeting via teleconferencing pursuant **to** Government Code Section 54953(e).

The Board Discussed:

- The ongoing risk of contracting COVID
- Alternative hybrid meeting locations in Fremont and Pleasanton
- Preferences for in-person meeting times
- Hybrid meeting options
- Questions about the ability of Board members to participate while maintaining privacy about health matters
- Community Advisory Committee future meeting arrangements
- Identifying best practices

Vice Chair Lopez motioned to approve the findings for continued remote meetings. Director Harrison seconded the motion, which passed 11/0. Excused: Directors Valle, Kalb, Narum, and Patino.

7. 2021 Power Source Disclosure Annual Report and Power Content Label

Requesting the Board to accept and attest to the 2021 Power Source Disclosure Report and Power Content Label

The Board Discussed:

- Clarification of "unspecified energy" in the Bright Choice power content label
- Power content label public education and outreach

Director Munro motioned to approve the 2021 Power Source Disclosure Annual Report and Power Content Label. Director Cox seconded the motion, which passed 11/0. Excused: Directors Valle, Kalb, Narum, and Patino.

9. CEO REPORT

A. Executive Committee Meeting
B. Finance, Administration and Procurement Subcommittee Meeting
C. Marketing, Regulatory and Legislative Subcommittee Meeting
D. New Staff
E. Marketing and Account Services Update

10. Community Advisory Committee Report

- CAC Chair Eldred reported that Member Jane Franch had stepped down from the CAC, effective September 19, 2022. Lisa Hu accepted the appointment from CAC alternate to member representing the North region.
- CAC Chair Eldred stated that the CAC has two alternate positions open with no at-large alternates to fill these positions.
- CAC Chair Eldred stated that the CAC received public comment regarding Tom Kelly's public records request about the proposed $15 million grant to UCSF Benioff Hospital.
- CAC Chair Eldred stated that CAC members have requested information about EBCE job creation, including union job creation, and the progress of EBCE's Diversity, Equity, and Inclusion goals.

11. Stockton JPA Membership (Action Item)

Board to vote to add Stockton to JPA and EBCE Service Territory

City of Stockton Council Member Dan Wright (read from written statement):
"Chair Martinez, Vice Chair Lopez, and members of the Board,

My name is Dan Wright, councilmember from the City of Stockton. I am sorry I am unable to speak in person tonight, but I am in Washington, DC, advocating for the San Joaquin Valley as a member of the San Joaquin Valley Regional Policy Council.
I enthusiastically support your approval of Item 11: Stockton JPA Approval. Our council unanimously approved this request earlier this month, and we feel Stockton will be an active and supportive member of the Joint Powers Authority. We examined many JPAs before beginning our collaboration with your agency, and I truly believe our partnership will be synergistic and mutually beneficial. Special thanks go to Board member Arriola, CEO Nick Chaset, and staff members Scott Haggerty and Alex DiGiorgio for their guidance as Stockton sought membership in EBCE. I look forward to your approval of Item 11 and am ready to begin work toward full implementation immediately. Thank you for your consideration."

Jim Lutz asked if the Community Advisory Committee would be expanded as a result of the inclusion of Stockton in EBCE's Joint Powers Authority.

Tom Kelly spoke in opposition to the inclusion of Stockton in EBCE's Joint Powers Authority, stating that the Board should not approve Stockton's application unless EBCE can guarantee that the City of Stockton's carbon dioxide emissions from Bright Choice will be lower than PG&E's offer.

Blair Beekman spoke in support of developing organizational techniques that maximize openness, transparency, and public accountability.

Aleta Dupree spoke in support of the inclusion of Stockton in EBCE's Joint Powers Authority, stating that this expansion would provide an opportunity for EBCE to move solar power resources to the Central Valley and offer more clean energy options to its residents.

Larry Walter (read from written statement):
"This is to support accepting Stockton's request for membership in the East Bay community energy coverage area. I think it's important to expand access to affordable clean energy as widely as possible in California. Thank you."

Marcie Kates (read from written statement):
"I am a happy EBCE electricity payer. I strongly support including Stockton in the EBCE service area because I believe that all communities -- especially communities that have been traditionally underserved -- should have the opportunity to get clean, sustainable energy. Stockton should have the benefit of EBCE's expertise, just as I do. Thank you."

Matt Renner (read from written statement):
"I support including Stockton in the JPA because it's time to support Central Valley frontline communities in our excellent community choice program. Equity must be a central tenant of climate action and Stockton is an ideal community to support and help benefit from the powerful CCE we've built here in the east bay. Thank you!"

Trudy Garber (read from written statement):
"I support EBCE including the City of Stockton within our service area."

Enrico DiGiorgio (read from written statement):
"I support EBCE including the City of Stockton within our service area."

Miriam Walter (read from written statement):
"Dear East Bay Community Energy. I believe it is important to bring community-controlled energy choices to as many cities as possible. Therefore, I support allowing Stockton to join."

David Oppenheimer (read from written statement):
"I write to congratulate you on expanding the East Bay clean energy project to Stockton. This is an important step toward addressing climate change. Your foresight is admirable."

The Board Discussed:

- The financial stress test and the impacts on the rest of the CCAs.
- Options for Central Valley communities other than EBCE or PG&E.
- Potential shares vote changes
- Timeline for Stockton seat inclusion on the Board of Directors.

Director Cox motioned to adopt two resolutions:

1. **To authorize the City of Stockton to join the EBCE as a member agency and signatory to the JPA Agreement, with customer enrollments to begin in 2024; and**
2. **To authorize staff to update EBCE's Implementation Plan to reflect the inclusion of the City of Stockton, and to submit the updated Implementation Plan to the California Public Utilities Commission (CPUC) before the end of calendar year 2022.**

Director Arriola seconded the motion, which passed 11/0. Excused: Directors Valle, Kalb, Narum, and Patino.

12. Credit Facility Approval (Action Item)

Request the Board approve the new credit facility with Union Bank

Aleta Dupree spoke in favor of approval of the credit facility with Union Bank, stating that the contract will lower interest rates and carrying costs, and would favorably impact EBCE's credit rating.

Director Hannon motioned to authorize staff to move forward with financing and executing a revolving credit agreement with Union Bank. Director Marquez seconded the motion, which passed 10/0. Excused: Directors Valle, Kalb, Cavenaugh, Narum, and Patino.

13. Legislative Update (Informational Item)

Informational update on the 2022 state and federal legislative process

Jim Lutz spoke regarding SB 846. Jim Lutz requested information about the permits that Diablo Canyon will need to continue operation for another five years. Mr. Lutz also asked about the impact of Diablo Canyon's continued operation on the Power Charge Indifference Adjustment (PCIA).

Blair Beekman stated that he hopes that the operation of Diablo Canyon will not be extended beyond the current five-year term.

The remainder of Item 13 was deferred to the October 19, 2022 EBCE Board of Directors meeting.

14. Update on EBCE's Electric Vehicle Fast Charging Network Development (Informational Item)

Informational update on progress on EBCE's EV fast charging network including strategy, coordination with JPA member cities, selection of financing partners, and next steps

Aleta Dupree spoke in support of developing an EV fast charging network, stating that this network will provide increased options for renters who own electric vehicles. Aleta Dupree also stated that EBCE's EV fast charging network will provide clean and inexpensive energy, and lower demand on the grid.

Jim Lutz, spoke in support of developing an EV fast charging network, and asked about the availability of daytime commuter parking facilities that can provide access to cheap and clean daytime power. Looking forward, Jim Lutz also asked if the network that is being developed can incorporate the vehicle-to-grid-technology advances that will be developed in the next five years.

Blair Beekman spoke in support of EBCE's EV fast charging network, stating that the network will provide access to EV charging for renters and residents of low-income neighborhoods.

The Board Discussed:

- Infrastructure development
- Investment plan for municipalities
- Plan for community feedback
- Ratio of EV charging stations on private property to the total number of units
- Cost of electric vehicle structures located on private property
- Potential rate structure and pricing.
- Modeling locations for EV charging stations relative to multi-family hot spots
- Live price signaling models

15. **Update on Integrated Resource Planning Analysis (Informational Item)**
Informational update on progress in IRP analysis ahead of October meeting in which Board must review and approve EBCE's compliance filing, due November 1

Blair Beekman requested to know what information related to the Integrated Resource Plan can be made publicly accessible in 2023 and in the future.

The remainder of Item 15 was deferred to the next Executive Committee meeting.

16. **Board Member and Staff Announcements including requests to place items on future Board Agendas**

Chair Martinez requested that staff provide an analysis of possible impacts of the passage of SB 846 on the PCIA and power mix. Chair Martinez also requested for staff to provide a contextual brief for legislators.

CAC Chair Eldred requested for staff to assess the feasibility of finding a sponsor for a trailer bill that can provide relief to CCAs for PCIA charges related to the extension of Diablo Canyon's operational lifespan.

17. **Adjournment** to Wednesday, October 19, 2022 between 5:00pm and 6:00pm

Consent Item 5

TO: East Bay Community Energy Board of Directors

FROM: Inder Khalsa, General Counsel

SUBJECT: **Adoption of Imminent Risks Findings Pursuant to AB 361 and Authorization to Continue Meeting via Teleconferencing**

DATE: October 19, 2022

Recommendation

Find that conducting in-person meetings of the Board would present imminent risks to attendees' health and authorize the Board to continue meeting via teleconferencing pursuant to Government Code Section 54953(e).

Background and Discussion

On March 4, 2020, Governor Gavin Newsom proclaimed a state of emergency related to COVID-19, pursuant to Government Code Section 8625, which is still in effect. On March 10, 2020, the Alameda County Board of Supervisors ratified the County Health Officer's declaration of a local health emergency due to COVID-19.

The Brown Act allows legislative bodies to meet by "teleconference," but only if the agenda listed the remote location of each member, the agenda was posted at all remote locations, and the public could access any of the remote locations. Additionally, a quorum of the legislative body had to be within the legislative body's jurisdiction. *See* Government Code Section 54953(b)(3)

Due to the COVID-19 pandemic, the Governor issued Executive Order N-29-20, suspending certain sections of the Brown Act. Pursuant to the Executive Order, legislative bodies no longer needed to list the location of each remote attendee, post agendas at each remote location, or allow the public to access each location. Further, a quorum of the legislative body does not need to be within the legislative body's

jurisdiction. After several extensions, Executive Order N-29-20 expired on September 30, 2021.

On September 16, 2021 Governor Newsom signed AB 361, new legislation that amends the Brown Act to allow local agencies to meet remotely during Governor declared emergencies under certain conditions. AB 361 took effect immediately as an urgency measure, but the Governor subsequently suspended application of the legislation – with limited exceptions – until October 1, 2021. The provisions of AB 361 relevant to local agencies are codified at Government Code Section 54953(e).

AB 361 authorizes local agencies to continue meeting remotely without following the Brown Act's standard teleconferencing provisions if the meeting is held during a state of emergency proclaimed by the Governor and either of the following applies: (1) state or local officials have imposed or recommended measures to promote social distancing; or (2) the agency has already determined or is determining whether, as a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees.

The legislative body must make the required findings every 30 days, until the end of the state of emergency or recommended or required social distancing.

AB 361 also requires legislative bodies to make remote public meetings accessible telephonically or otherwise electronically to all members of the public seeking to observe and to address the local legislative body, and to make reasonable efforts to adhere as closely as reasonably possible to the provisions of the Brown Act. AB 361 adds new procedures and clarifies the requirements for conducting remote meetings. A legislative body that meets remotely must allow members of the public to access the meeting via a call-in option or an internet-based service option, and the agenda for the remote meeting must provide an opportunity for members of the public to directly address the body in real time.

Due to the rise in COVID-19 cases caused by the Delta Variant, Alameda County is still impacted by the effects of the COVID-19 emergency. The Centers for Disease Control (CDC) recommends physical distancing of at least six (6) feet whenever possible, avoiding crowds, and avoiding spaces that do not offer fresh air from the outdoors, particularly for people who are not fully vaccinated or who are at higher risk of getting very sick from COVID-19. The CDC also recommends that people who live with unvaccinated people avoid activities that make physical distancing hard.

EBCE's public-meetings are held at indoor facilities not designed to ensure circulation of fresh or outdoor air, particularly during periods of cold and/or rainy weather, and were not designed to ensure that attendees can remain six (6) feet apart. Additionally, holding in-person meetings may encourage community members to come to EBCE facilities to participate in EBCE meetings in-person, and some of them could be at high risk of getting very sick from COVID-19 and/or live with someone who is at high risk. At this point in time, there are few in-person locations available for the EBCE to meet in, since most of the agencies in Alameda County are still holding remote meetings.

In-person meetings could also tempt community members who are experiencing COVID-19 symptoms to leave their homes in order to come to EBCE Board meetings to participate. Attendees may need to use ride-share services and/or public transit to travel to in-person meetings, thereby putting them in close and prolonged contact with additional people outside of their households.

For these reasons, staff recommends that the Board adopt findings that, as a result of the state of emergency caused by COVID-19, meeting in person would present imminent risks to the health and safety of attendees.

Staff will continue to monitor the situation and will return to the Board every 30 days or as needed with additional recommendations related to the conduct of public meetings.

Attachments

- Proclamation of Governor Newson of a State of Emergency due to COVID-19
- Resolution No. R-2020-91 of the Alameda County Board of Supervisors Ratifying the Declaration of a Local Health Emergency due to COVID-19

EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

PROCLAMATION OF A STATE OF EMERGENCY

WHEREAS in December 2019, an outbreak of respiratory illness due to a novel coronavirus (a disease now known as COVID-19), was first identified in Wuhan City, Hubei Province, China, and has spread outside of China, impacting more than 75 countries, including the United States; and

WHEREAS the State of California has been working in close collaboration with the national Centers for Disease Control and Prevention (CDC), with the United States Health and Human Services Agency, and with local health departments since December 2019 to monitor and plan for the potential spread of COVID-19 to the United States; and

WHEREAS on January 23, 2020, the CDC activated its Emergency Response System to provide ongoing support for the response to COVID-19 across the country; and

WHEREAS on January 24, 2020, the California Department of Public Health activated its Medical and Health Coordination Center and on March 2, 2020, the Office of Emergency Services activated the State Operations Center to support and guide state and local actions to preserve public health; and

WHEREAS the California Department of Public Health has been in regular communication with hospitals, clinics and other health providers and has provided guidance to health facilities and providers regarding COVID-19; and

WHEREAS as of March 4, 2020, across the globe, there are more than 94,000 confirmed cases of COVID-19, tragically resulting in more than 3,000 deaths worldwide; and

WHEREAS as of March 4, 2020, there are 129 confirmed cases of COVID-19 in the United States, including 53 in California, and more than 9,400 Californians across 49 counties are in home monitoring based on possible travel-based exposure to the virus, and officials expect the number of cases in California, the United States, and worldwide to increase; and

WHEREAS for more than a decade California has had a robust pandemic influenza plan, supported local governments in the development of local plans, and required that state and local plans be regularly updated and exercised; and

WHEREAS California has a strong federal, state and local public health and health care delivery system that has effectively responded to prior events including the H1N1 influenza virus in 2009, and most recently Ebola; and

WHEREAS experts anticipate that while a high percentage of individuals affected by COVID-19 will experience mild flu-like symptoms, some will have more serious symptoms and require hospitalization, particularly individuals who are elderly or already have underlying chronic health conditions; and

WHEREAS it is imperative to prepare for and respond to suspected or confirmed COVID-19 cases in California, to implement measures to mitigate the spread of COVID-19, and to prepare to respond to an increasing number of individuals requiring medical care and hospitalization; and

WHEREAS if COVID-19 spreads in California at a rate comparable to the rate of spread in other countries, the number of persons requiring medical care may exceed locally available resources, and controlling outbreaks minimizes the risk to the public, maintains the health and safety of the people of California, and limits the spread of infection in our communities and within the healthcare delivery system; and

WHEREAS personal protective equipment (PPE) is not necessary for use by the general population but appropriate PPE is one of the most effective ways to preserve and protect California's healthcare workforce at this critical time and to prevent the spread of COVID-19 broadly; and

WHEREAS state and local health departments must use all available preventative measures to combat the spread of COVID-19, which will require access to services, personnel, equipment, facilities, and other resources, potentially including resources beyond those currently available, to prepare for and respond to any potential cases and the spread of the virus; and

WHEREAS I find that conditions of Government Code section 8558(b), relating to the declaration of a State of Emergency, have been met; and

WHEREAS I find that the conditions caused by COVID-19 are likely to require the combined forces of a mutual aid region or regions to appropriately respond; and

WHEREAS under the provisions of Government Code section 8625(c), I find that local authority is inadequate to cope with the threat posed by COVID-19; and

WHEREAS under the provisions of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this order would prevent, hinder, or delay appropriate actions to prevent and mitigate the effects of the COVID-19.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes, including the California Emergency Services Act, and in particular, Government Code section 8625, **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist in California.

IT IS HEREBY ORDERED THAT:

1. In preparing for and responding to COVID-19, all agencies of the state government use and employ state personnel, equipment, and facilities or perform any and all activities consistent with the direction of the Office of Emergency Services and the State Emergency Plan, as well as the California Department of Public Health and the Emergency Medical Services Authority. Also, all residents are to heed the advice of emergency officials with regard to this emergency in order to protect their safety.

2. As necessary to assist local governments and for the protection of public health, state agencies shall enter into contracts to arrange for the procurement of materials, goods, and services needed to assist in preparing for, containing, responding to, mitigating the effects of, and recovering from the spread of COVID-19. Applicable provisions of the Government Code and the Public Contract Code, including but not limited to travel, advertising, and competitive bidding requirements, are suspended to the extent necessary to address the effects of COVID-19.

3. Any out-of-state personnel, including, but not limited to, medical personnel, entering California to assist in preparing for, responding to, mitigating the effects of, and recovering from COVID-19 shall be permitted to provide services in the same manner as prescribed in Government Code section 179.5, with respect to licensing and certification. Permission for any such individual rendering service is subject to the approval of the Director of the Emergency Medical Services Authority for medical personnel and the Director of the Office of Emergency Services for non-medical personnel and shall be in effect for a period of time not to exceed the duration of this emergency.

4. The time limitation set forth in Penal Code section 396, subdivision (b), prohibiting price gouging in time of emergency is hereby waived as it relates to emergency supplies and medical supplies. These price gouging protections shall be in effect through September 4, 2020.

5. Any state-owned properties that the Office of Emergency Services determines are suitable for use to assist in preparing for, responding to, mitigating the effects of, or recovering from COVID-19 shall be made available to the Office of Emergency Services for this purpose, notwithstanding any state or local law that would restrict, delay, or otherwise inhibit such use.

6. Any fairgrounds that the Office of Emergency Services determines are suitable to assist in preparing for, responding to, mitigating the effects of, or recovering from COVID-19 shall be made available to the Office of Emergency Services pursuant to the Emergency Services Act, Government Code section 8589. The Office of Emergency Services shall notify the fairgrounds of the intended use and can immediately use the fairgrounds without the fairground board of directors' approval, and

notwithstanding any state or local law that would restrict, delay, or otherwise inhibit such use.

7. The 30-day time period in Health and Safety Code section 101080, within which a local governing authority must renew a local health emergency, is hereby waived for the duration of this statewide emergency. Any such local health emergency will remain in effect until each local governing authority terminates its respective local health emergency.

8. The 60-day time period in Government Code section 8630, within which local government authorities must renew a local emergency, is hereby waived for the duration of this statewide emergency. Any local emergency proclaimed will remain in effect until each local governing authority terminates its respective local emergency.

9. The Office of Emergency Services shall provide assistance to local governments that have demonstrated extraordinary or disproportionate impacts from COVID-19, if appropriate and necessary, under the authority of the California Disaster Assistance Act, Government Code section 8680 et seq., and California Code of Regulations, Title 19, section 2900 et seq.

10. To ensure hospitals and other health facilities are able to adequately treat patients legally isolated as a result of COVID-19, the Director of the California Department of Public Health may waive any of the licensing requirements of Chapter 2 of Division 2 of the Health and Safety Code and accompanying regulations with respect to any hospital or health facility identified in Health and Safety Code section 1250. Any waiver shall include alternative measures that, under the circumstances, will allow the facilities to treat legally isolated patients while protecting public health and safety. Any facilities being granted a waiver shall be established and operated in accordance with the facility's required disaster and mass casualty plan. Any waivers granted pursuant to this paragraph shall be posted on the Department's website.

11. To support consistent practices across California, state departments, in coordination with the Office of Emergency Services, shall provide updated and specific guidance relating to preventing and mitigating COVID-19 to schools, employers, employees, first responders and community care facilities by no later than March 10, 2020.

12. To promptly respond for the protection of public health, state entities are, notwithstanding any other state or local law, authorized to share relevant medical information, limited to the patient's underlying health conditions, age, current condition, date of exposure, and possible contact tracing, as necessary to address the effect of the COVID-19 outbreak with state, local, federal, and nongovernmental partners, with such information to be used for the limited purposes of monitoring, investigation and control, and treatment and coordination of care. The

notification requirement of Civil Code section 1798.24, subdivision (i), is suspended.

13. Notwithstanding Health and Safety Code sections 1797.52 and 1797.218, during the course of this emergency, any EMT-P licensees shall have the authority to transport patients to medical facilities other than acute care hospitals when approved by the California EMS Authority. In order to carry out this order, to the extent that the provisions of Health and Safety Code sections 1797.52 and 1797.218 may prohibit EMT-P licensees from transporting patients to facilities other than acute care hospitals, those statutes are hereby suspended until the termination of this State of Emergency.

14. The Department of Social Services may, to the extent the Department deems necessary to respond to the threat of COVID-19, waive any provisions of the Health and Safety Code or Welfare and Institutions Code, and accompanying regulations, interim licensing standards, or other written policies or procedures with respect to the use, licensing, or approval of facilities or homes within the Department's jurisdiction set forth in the California Community Care Facilities Act (Health and Safety Code section 1500 et seq.), the California Child Day Care Facilities Act (Health and Safety Code section 1596.70 et seq.), and the California Residential Care Facilities for the Elderly Act (Health and Safety Code section 1569 et seq.). Any waivers granted pursuant to this paragraph shall be posted on the Department's website.

I FURTHER DIRECT that as soon as hereafter possible, this proclamation be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this proclamation.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 4th day of March 2020.

GAVIN NEWSOM
Governor of California

ATTEST:

ALEX PADILLA
Secretary of State

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
COLLEEN CHAWLA, Director

AGENDA _____ March 10, 2020

OFFICE OF THE AGENCY DIRECTOR
1000 San Leandro Boulevard, Suite 300
San Leandro, CA 94577
TEL (510) 618-3452
FAX (510) 351-1367

March 6, 2020

The Honorable Board of Supervisors
County Administration Building
1221 Oak Street
Oakland, CA 94612

SUBJECT: ADOPT A RESOLUTION RATIFYING THE DECLARATION OF A LOCAL HEALTH EMERGENCY BY THE COUNTY HEALTH OFFICER RELATED TO THE 2019 NOVEL CORONAVIRUS

Dear Board Members:

RECOMMENDATION

Adopt a Resolution ratifying the Declaration of a Local Health Emergency by the County Health Officer related to the 2019 Novel Coronavirus

DISCUSSION/SUMMARY

In December 2019, an outbreak of a respiratory illness due to a novel coronavirus (a disease known as 2019 Novel Coronavirus or COVID-19) was first identified in Wuhan City, Hubei Province, China. Since then, the outbreak has spread to more than 75 countries, including the United States. As of March 5, 14 California counties have had at least one citizen infected with the virus. The County of Alameda is among those counties, as are several Bay Area counties including Contra Costa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma.

The United States Centers for Disease Control and Prevention (CDC) considers COVID-19 to present a very serious threat to public health. On January 23, 2020, the CDC activated its Emergency Response System to provide ongoing support for the response to COVID-19 across the United States. On January 31, 2020, the Secretary of the US Department of Health and Human Services declared a public health emergency in the United States.

As of March 6, 2020, the CDC has identified 164 confirmed cases of COVID-19 infection, across 19 states, including 45 in California. The number of reported cases has escalated dramatically, with more than 94,000 confirmed cases and more than 3,300 deaths worldwide.

On March 1, 2020, the California Department of Public Health confirmed that an Oakland resident had become infected with COVID-19 after providing healthcare to the Solano County COVID-19 patient. Two days later, an individual in Berkeley also tested positive for COVID-19 Infection.

California Health and Safety Code section 101080 allows a local health officer to declare a local health emergency in the health officer's jurisdiction, or any part thereof, "whenever the health officer reasonably determines that there is an imminent and proximate threat of the introduction of any contagious, infectious, or communicable disease, chemical agent, noncommunicable biologic agent, toxin, or radioactive agent." On March 1, 2020, Alameda County Interim Health Officer Erica Pan, MD, MPH, FAAP declared a local health emergency. Dr. Pan found that with "multiple cases of COVID-19 and evidence of community transmission in the region, there is an ongoing risk and likelihood of additional COVID-19 positive patients and community spread in the County of Alameda." Dr. Pan renewed this declaration of emergency on March 5, 2020.

The declaration of a local health emergency provides the following benefits: it allows other jurisdictions and state agencies to provide mutual aid; it allows the extraordinary costs of providing mutual aid to be a legal charge against the state; and it provides immunity to healthcare providers who render aid during the emergency. The declaration also provides the local Health Officer with the authority to exercise the full range of her power to protect the community's public health, which includes issuance and enforcement of orders for quarantine and isolation.

Under section 101080, your Board is required to ratify the Health Officer's declaration of emergency. Ordinarily, your Board would need to renew this ratification every thirty (30) days; however, on March 4, 2020, California Governor Gavin Newsom issued a Proclamation of a State of Emergency relating to the COVID-19 outbreak that included a waiver of the renewal requirement: "The 30-day time period in Health & Safety Code section 101080, within which a local governing authority must renew a local health emergency, is hereby waived for the duration of this statewide emergency. Any such local health emergency will remain in effect until each local governing authority terminates its respective local emergency." The Governor similarly waived the renewal requirement for a declaration of local emergency.

VISION 2026 GOAL

This Resolution meets the 10X goal pathway of **Healthcare for All** in support of our shared visions of **Safe and Livable Communities**, **Thriving and Resilient Population**, and **Healthy Environment**.

Sincerely,

DocuSigned by:
CB284AE84C50405...
Colleen Chawla, Director
Health Care Services Agency

RESOLUTION NUMBER R-2020- 91

A RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF ALAMEDA RATIFYING THE DECLARATION OF LOCAL HEALTH EMERGENCY BY THE COUNTY HEALTH OFFICER RELATED TO THE 2019 NOVEL CORONAVIRUS

WHEREAS, California Health and Safety Code section 101080 authorizes a local health officer to declare a local health emergency in the health officer's jurisdiction, or any part thereof, whenever the health officer reasonably determines that there is an imminent and proximate threat of the introduction of any contagious, infectious, or communicable disease, chemical agent, non-communicable biological agent, toxin, or radioactive agent; and

WHEREAS, on March 1, 2020 and again on March 5, 2020, the County's Health Officer declared a local health emergency based on an imminent and proximate threat to public health from the introduction of a novel coronavirus (named COVID-19) in the County of Alameda; and

WHEREAS, under Health and Safety Code section 101080, the local health emergency shall not remain in effect for more than seven (7) days unless ratified by the Board of Supervisors; and

WHEREAS, the Board of Supervisors hereby finds that there continues to exist an imminent and proximate threat to public health from the introduction of COVID-19 in the County for reasons set forth in the declaration of local health emergency by the County's Health Officer, dated March 5, 2020;

NOW, THEREFORE, BE IT RESOLVED, by the Board of Supervisors of the County of Alameda as follows:

Section 1 – The local health emergency declared by the County's Health Officer on March 5, 2020 is hereby ratified. Under authority granted by California Governor Gavin Newsom in a Proclamation of a State of Emergency issued on March 4, 2020, this declaration of local emergency shall remain in effect until the Board of Supervisors determines that the emergency condition no longer exists.

Section 2 – The Board of Supervisors hereby delegates to the County's Health Officer authority to terminate the local health emergency, pursuant to Health & Safety Code section 101080 "at the earliest possible date that conditions warrant the termination."

Section 3 – All County departments and agencies take those actions, measures, and steps deemed necessary to assure the health, safety, and welfare of County citizens and property, including requesting mutual aid to the extent such aid is necessary.

The foregoing Resolution was passed and adopted by the Board of Supervisors of the County of Alameda, State of California, at a regular meeting of the Board on the 10 day of March, 2020 by the following vote:

AYES: Supervisors Carson, Haggerty and President Valle - 3

NOES: None

EXCUSED: Supervisors Chan and Miley - 2

Richard Valle, President of the Board of Supervisors

ATTEST:
Clerk of the Board of Supervisors,
County of Alameda, State of California

By: _____
Deputy

APPROVED AS TO FORM:
Donna R. Ziegler, County Counsel

By: _____
K. Scott Dickey
Assistant County Counsel

DECLARATION OF A LOCAL HEALTH EMERGENCY

WHEREAS, Health and Safety Code section 101080 authorizes a local health officer to declare a local health emergency in the health officer's jurisdiction, or any part thereof, whenever the health officer reasonably determines that there is an imminent and proximate threat of the introduction of any contagious, infectious, or communicable disease, chemical agent, noncommunicable biologic agent, toxin, or radioactive agent;

WHEREAS, COVID-19 is a contagious, infectious, or communicable disease;

WHEREAS, the Secretary of the United States Department of Health and Human Services declared a public health emergency on January 31, 2020, for the United States;

WHEREAS, the Centers for Disease Control and Prevention announced on February 25, 2020, that community spread of COVID-19 is likely to occur in the United States;

WHEREAS, the first confirmed case of COVID-19 has now been identified in the County of Alameda;

WHEREAS, the Governor Gavin Newsom issued a Proclamation of a State of Emergency on March 4, 2020 for California;

WHEREAS, based on the United States Department of Health and Human Services declaration and the Centers for Disease Control and Prevention statements, and multiple cases of COVID-19 and evidence of community transmission in the region, there is an ongoing risk and likelihood of additional COVID-19 positive patients and community spread in the County of Alameda;

WHEREAS, based on the foregoing, the Health Officer of Alameda County does hereby find that there is an imminent and proximate threat of the introduction and spread of COVID-19 in the County of Alameda and a threat to the public health of the residents of the County of Alameda;

THEREFORE, the County Health Officer hereby declares a renewal of a local health emergency originally declared on March 1st, 2020 throughout the County of Alameda;

IT IS SO DECLARED, on this date: March 5st, 2020.

BY:

Name: Dr. Erica Pan
Title: Interim Health Officer
Public Health Department, County of Alameda

DECLARATION OF A LOCAL HEALTH EMERGENCY

WHEREAS, Health and Safety Code section 101080 authorizes a local health officer to declare a local health emergency in the health officer's jurisdiction, or any part thereof, whenever the health officer reasonably determines that there is an imminent and proximate threat of the introduction of any contagious, infectious, or communicable disease, chemical agent, noncommunicable biologic agent, toxin, or radioactive agent;

WHEREAS, COVID-19 is a contagious, infectious, or communicable disease;

WHEREAS, the Secretary of the United States Department of Health and Human Services declared a public health emergency on January 31, 2020, for the United States;

WHEREAS, the Centers for Disease Control and Prevention announced on February 25, 2020, that community spread of COVID-19 is likely to occur in the United States;

WHEREAS, the first confirmed case of COVID-19 has now been identified in the County of Alameda;

WHEREAS, the Governor Gavin Newsom issued a Proclamation of a State of Emergency on March 4, 2020 for California;

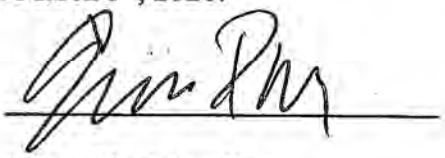
WHEREAS, based on the United States Department of Health and Human Services declaration and the Centers for Disease Control and Prevention statements, and multiple cases of COVID-19 and evidence of community transmission in the region, there is an ongoing risk and likelihood of additional COVID-19 positive patients and community spread in the County of Alameda;

WHEREAS, based on the foregoing, the Health Officer of Alameda County does hereby find that there is an imminent and proximate threat of the introduction and spread of COVID-19 in the County of Alameda and a threat to the public health of the residents of the County of Alameda;

THEREFORE, the County Health Officer hereby declares a renewal of a local health emergency originally declared on March 1st, 2020 throughout the County of Alameda;

IT IS SO DECLARED, on this date: March 5st, 2020.

BY:



Name: Dr. Erica Pan
Title: Interim Health Officer
Public Health Department, County of Alameda

Consent Item 6

TO: East Bay Community Energy Board of Directors

FROM: Nick Chaset, Chief Executive Officer

SUBJECT: **Contracts Entered Into**

DATE: October 19, 2022

RECOMMENDATION

Accept the CEO's report on contracts that EBCE has entered, as required by the Administrative Procurement Policy from September 17 to October 12, 2022;

C-2022-089 Plugshare API Evaluation Agreement, vendor will Evaluate Bulk API Raw Data Downloads - no cost.

C-2022-090 SMUD Amendment 11 to Exhibit A, Task Order 2, TOT Default Program Enrollments, cost not to exceed $65,000.

C-2022-091 Acterra Second Amendment to CSA, adds $143,625 in additional compensation for a total amount not to exceed $285,000, updates the scope of services, and extends the term of the Agreement to June 30, 2023.

C-2022-092 Hall Energy Law Second Amendment to CSA, extends the term to June 30, 2023, and adds $200,000 in compensation for the term July 1, 2022, to June 30, 2023.

C-2022-093 The Understory First Amendment to CSA, extends the term through June 30, 2023, adds additional compensation, increasing the not-to-exceed amount by $90,000 for the term running from July 1, 2022, through June 30, 2023, for a total amount not to exceed $150,000, and updates the rates of compensation.

C-2022-094 Celery Design Collaborative Fourth Amendment to CSA, extends the term through June 30, 2023, adds additional compensation, for a total amount not to exceed $1,345,000.

C-2022-095 Braun Blaising Smith Wynne First Amendment to CSA, extends the term through June 30, 2023, and to update the Scope of Work.

C-2022-096 Sixth Dimension PMCM First Amendment to CSA, adds additional compensation, increasing the not-to-exceed amount by $183,795, to add additional services to the scope of services, and extends the term through December 31, 2022.

C-2022-097 Bay Area News Group Advertising Agreement, provides for digital ads, including banners and videos, print ads in the Fremont Argus, Hayward Daily Review, and Oakland Tribune, for a term July 1, 2022 to June 30, 2023, total compensation not to exceed $96,000.

C-2022-098 City of Berkeley Second Amendment to the Kitchen Electrification Grant Agreement, adds $10,000 in additional compensation for a total amount not to exceed $58,994.38, adds additional services to the scope, and extends the term through December 21, 2023.

C-2022-099 Rae Shine Second Amendment to CSA, adds $25,000 in additional compensation and extends the term of the Agreement to December 31, 2022.

C-2022-100 Law Office of Joseph Wiedman Second Amendment to CSA, updates to scope and extends the term through June 30, 2023.

C-2022-101 Kaluza Pilot Agreement, no cost Smart Charge pilot.

C-2022-102 TRC Engineers Fourth Amendment, increases the not-to-exceed amount by $75,000 for a total amount not to exceed $365,000, to add additional services to the scope of services

C-2022-103 Two Pitchers Brewing Private Event - Service Agreement, in person meeting space for staff 9/28/22 with a cost of $2,497.61.

C-2022-104 California State University, East Bay Facility Use Agreement, provides for use of Oakland Professional Development and Conference Center for in-person Board of Director's meetings October 2022 through December 2023, at a cost of $495 each meeting.

C-2022-105 City of Oakland Charging Station License Agreement, for installation and use of EV Charing Stations in parking spots located at 1250 Martin Luther King Junior Way, Oakland.

Consent Item 7

TO: East Bay Community Energy Board of Directors

FROM: Howard Chang, Chief Operating Officer & Treasurer

SUBJECT: **Treasurer's Report (Informational Item)**

DATE: October 19, 2022

Recommendation

Receive report on EBCE's cash position.

Background and Discussion

For quarter ending September 30, 2022, EBCE has maintained a positive cash balance on all EBCE bank accounts. Below is a summary of account balances, cash received, and outstanding loan balances.

Account Balances as of 9/30/2022

Account	Amount	
Internal Operating	$	1,104,743
Operating Fund	$	107,414,216
Lockbox (Includes $2,000,000 reserve)	$	21,133,646
Operating Reserve Fund	$	7,021,482
Money Market	$	10,831,470
Insured Cash Sweep	$	48,527,870
Total	$	196,033,427

Cash Received by Month into Lockbox Account

July	2022	$ 63,586,117
August	2022	$ 83,725,557
September	2022	$ 80,137,023
Total		$227,448,697

Outstanding Loan Balances:
Barclays Credit Facility: $0.00

Customer Delinquency:
As of September 30, 2022

31 – 60 Days: $ 7,518,552
61 – 90 Days: $ 7,694,812
91 - 120 Days: $ 3,728,882
120+ Days: $ 19,883,114

More recent data has not yet been provided by PG&E and billing vendor on the date this report was generated.

Consent Item 8

TO: East Bay Community Energy Board of Directors

FROM: Dan Lieberman, Marketing Director

SUBJECT: **Printing and Mailing Services**

DATE: October 19, 2022

Recommendation

Approve a Third Amendment to the contract with FinalOption Corp., dba Pacific Printers, for printing and mailing services to extend the term through June 30, 2023, add an additional $320,000 to the compensation.

Background and Discussion

Over this fiscal year, EBCE must provide multiple different customer notifications that require the services of a printer and mailer. Notifications include:

Project	Estimate Cost
Joint Rate Mailer	$35,000
New Customer Notifications	$85,000
Power Content Label	$70,000
City-specific mailers	$115,000
Misc - print collateral	$15,000
Total	**$320,00**

In June 2018, a competitive solicitation was issued, posted to the EBCE website, circulated to the Board of Directors, and emailed to the vendors used by other Bay Area Community Choice Energy programs as well as appropriate companies that were designated as Small, Local, Emerging Businesses within Alameda County. A total of five proposals were received. A team of four EBCE staff and consultants reviewed and scored the proposal. FinalOption Corp., dba Pacific Printing, a union shop based in San Jose was among the highest scoring proposals and was ultimately selected to meet EBCE's high demand of print and mail needs.

A Consulting Services Agreement was signed effective September 26, 2018 through December 31, 2019, with compensation not to exceed $925,000, and was amended December 17th, 2019 to extend the term through June 30, 2020. That Agreement terminated June 30, 2020.

A Second Consulting Services Agreement was signed by CEO Nick Chaset on July 27, 2020 for $100,000 with a termination date of June 30, 2021. EBCE Board approved an Amendment to the Second Agreement to add an additional $305,000 in compensation to cover customer notifications through June 30, 2021. A Second Amendment was signed on May 19, 2021 to add an additional $395,000 to the Agreement.

Since then, FinalOption Corp.'s union team has executed each project to EBCE's specification and timeline.

EBCE staff are now requesting Board approval for a Third Amendment to the Consulting Services Agreement with FinalOption Corp. to add an additional $320,000 in compensation to cover customer notifications and print collateral through June 30, 2023.

EBCE retains the right to solicit competitive bids for any printing and mailing project.

Fiscal Impact

The cost of these customer notifications was included in the budget presented to and approved by the Board on June 15, 2022.

Attachments

A. Resolution of the Board of Directors Approving a Third Amendment to the Agreement for Print and Mailing Services with FinalOption Corp.
B. Third Amendment for Printing and Mailing Services with FinalOption Corp. (dba Pacific Printers)

RESOLUTION NO. R-2022-XX

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY APPROVING A THIRD AMENDMENT TO THE AGREEMENT FOR PRINTING AND MAILING SERVICES WITH FINALOPTION CORP

WHEREAS The East Bay Community Energy Authority ("EBCE") was formed as a community choice aggregation agency ("CCA") on December 1, 2016, Under the Joint Exercise of Power Act, California Government Code sections 6500 *et seq.,* among the County of Alameda, and the Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Piedmont, Oakland, San Leandro, and Union City to study, promote, develop, conduct, operate, and manage energy-related climate change programs in all of the member jurisdictions. The cities of Newark and Pleasanton, located in Alameda County, along with the City of Tracy, located in San Joaquin County, were added as members of EBCE and parties to the JPA in March of 2020.

WHEREAS in July 2018, following a public Request for Proposal process, the Board of Directors authorized the CEO to execute a Consulting Services Agreement with FinalOption Corp. for Printing and Mailing Services for the period of September 26, 2018 through December 31, 2019, in an amount not to exceed $925,000,

WHEREAS in December 2019 the Board of Directors authorized the CEO to execute a First Amendment to the Consulting Services Agreement with FinalOption Corp. for Printing and Mailing Services to extend the duration of the agreement through June 30, 2020 and update the Scope of Work,

WHEREAS in July 2020 the CEO executed a Consulting Services Agreement with FinalOption Corp. for Printing and Mailing Services for $100,000 through June 30, 2020,

WHEREAS in September 2020 the CEO executed a First Amendment to the Consulting Services Agreement with FinalOption Corp. for Printing and Mailing Services adding $305,000 in compensation,

WHEREAS in June 2021 the Board of Directors authorized the CEO to execute a Second Amendment to the Consulting Services Agreement with FinalOption Corp. for Printing and Mailing Services adding $395,000 in compensation, and extending the duration of the agreement through June 30, 2022,

WHEREAS staff has found FinalOption Corp.'s union team consistently meets or exceeds the work product expectations as outlined in the Scope of Work and continues to require its services for the printing and mailing of required customer notifications and other related services.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The Board of Directors hereby authorizes the CEO to negotiate and execute a Third Amendment to the Consulting Services Agreement with FinalOption Corp. to increase the total compensation by $320,000, with total compensation not to exceed $1,120,000 and extend the duration of the Agreement through June 30, 2023.

ADOPTED AND APPROVED this 19th day of October, 2022.

_____

Dianne Martinez, Chair

ATTEST:

_____

Adrian Bankhead, Clerk of the Board

Third Amendment to Consulting Services Agreement for Services by and Between East Bay Community Energy Authority and FinalOption Corp

This Third Amendment to the Consulting Services Agreement with FinalOption Corp for Consulting Services ("Third Amendment") is made this 19th day of October, 2022, by and between the East Bay Community Energy Authority, a Joint Powers Agency formed under the laws of the State of California ("EBCE") and FinalOption Corp (doing business as Pacific Printing) ("FinalOption"), a California corporation, for the purposes of adding additional compensation and to extend the term date.

Recitals

A. EBCE and FinalOption entered into that certain Consulting Services Agreement dated July 1, 2020 ("Agreement"), wherein FinalOption agreed to provide printing and mailing services to EBCE, with compensation not to exceed $100,000.

B. In September 2020, EBCE and FinalOption executed a First Amendment to the Agreement to add additional compensation, increasing the not-to-exceed amount by $305,000 for a total amount not to exceed $405,000.

C. In June 2021, the Board of Directors authorized the CEO to execute a Second Amendment to the Consulting Services Agreement with FinalOption Corp for Printing and Mailing Services in an amount of $395,000 and to extend the duration of the agreement through June 30, 2022, for a total amount not to exceed $800,000

D. EBCE and FinalOption now desire to amend the Agreement to add additional compensation, increasing the not-to-exceed amount by $320,000 for a total amount not to exceed $1,120,000, and to extend the term of the agreement through June 30, 2023.

Now therefore, for good and valuable consideration, the amount and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. Section 2 of the Agreement ("Term") is amended to extend the term of the Agreement through June 30, 2023.

2. Section 6 of the Agreement ("Compensation and Payment") is amended in part to increase the total compensation of the Agreement by $320,000 for a total amount not to exceed one million one hundred twenty thousand dollars ($1,120,000).

3. Exhibit E ("Compensation/Budget") of the Agreement is replaced in its entirety by Exhibit E, attached hereto.

4. All other terms and conditions in the Agreement not otherwise modified by this Third Amendment will remain in full force and effect.

In witness whereof, the Parties have entered this Amendment on the date written above.

East Bay Community Energy Authority, A Joint Powers Authority	FinalOption Corp, A California Corporation
Nick Chaset Chief Executive Officer	Name: Title: Secretary
Date: _____	Date: _____
Approved as to form:	_____ Name: Title: President
_____ EBCE General Counsel	Date: _____

Exhibit E

Compensation/Budget

Fees are based on print and mail costs. Typical fees for postcards, which are the most common print/mail from this vendor, are as follows:

- Printing of cards (based on 10,000 runs) = $.095 per piece
- Mailing of cards = $.08 per piece with $50 minimum
- Estimated Postage (Bulk Mail) = $.25 per piece
- Estimated Postage (First Class) = $.55 per piece

For all services, EBCE will be provided a written quote, email is acceptable.

The maximum compensation under this Agreement is $1,120,000.

CEO Report Item 9

TO: East Bay Community Energy Board of Directors

FROM: Nick Chaset, Chief Executive Officer

SUBJECT: **CEO Report (Informational Item)**

DATE: **October 19, 2022**

Recommendation

Accept Chief Executive Officer (CEO) report on update items below.

Executive Committee Meeting

A meeting of the Executive Committee was held on Friday, September 30, 2020 at 12 pm. Members received a presentation about the Health-E Communities Partnership, as well as an update about the Net Energy Metering Policy. Members also received an Integrated Resource Planning update. The next Executive Committee meeting is scheduled for Friday, October 28, 2022 at 12pm.

New Staff

Stephanie La Shawn - Compliance Management Associate

Stephanie joined EBCE in October 2022 as a Compliance Management Associate. As part of the EBCE Public Policy team, she works collaboratively with other teams on regulatory compliance, assisting with filings, and vendor contract origination. She brings to EBCE over 10 years of industry knowledge and experience which includes coordination and filing of procurement plans at the CPUC, compliance reporting and auditing, and managing contracts from preparation through execution and closure.

Stephanie holds a bachelor's degree in public administration from the University of San Francisco and a master's degree in jurisprudence from Loyola University Chicago. She enjoys volunteering and fundraising for nonprofits, attending musicals and museums, roller skating, and gardening.

Theresa McDermit – Head of Brand

Theresa joined EBCE's Marketing and Account Services team in September 2022 as the Head of Brand. Theresa leads brand strategy and efforts to evolve our brand to better drive consumer and commercial engagement with EBCE.

Theresa brings over 20 years of marketing, brand, and operational experience to EBCE. She has led global teams at technology companies including Atlassian and CSC, created award winning work for clients including Harley-Davidson and Mercedes Benz as an agency strategist, and run a successful independent consulting business.

Theresa holds a B.A. from the University of Michigan.

Helen Mejia - Building Electrification Program Analyst

Helen joined EBCE on September 19, 2022, as part of the Local Programs team. Helen provides support in designing and implementing building electrification programs for the EBCE community.

Prior to joining EBCE, Helen worked at Sonoma Clean Power as part of the Programs Team and Advanced Energy Center Team, with a focus on programs, education, and community engagement. Helen is an alumna of Santa Rosa Junior College and Sonoma State University. She is also fluent in Spanish**.**

Anish Patel – Director, Infrastructure Delivery

Anish joined EBCE on 10/10/22 as Director, Infrastructure Delivery. Anish is responsible to support strategy development and lead the execution of key infrastructure delivery projects driving local programs on both small and large scales, which will include at the outset implementation of electric vehicle charging infrastructure investment and behind the meter solar/battery storage residential program.

Before joining EBCE, Anish worked at Tesla Motors. At Tesla, he led facilities engineering for global workplace, global R&D, global service/retail centers and Tesla charging network for sales/service & delivery sites. He managed large-scale infrastructure development projects while fostering strong relationships with key business partners and consultants. His team has been instrumental in streamlining Tesla's growth in the last few years, including expansion of infrastructure development solutions to the entire north america and asia pacific region.

Anish holds a M.S. in Electrical Engineering from University of Southern California as well as B.E in Electrical Engineering from Nirma Institute of Technology, India.

Michael Quiroz – Regulatory Analyst

Michael joined EBCE's Public Policy team in October 2022 as a Regulatory Analyst. Michael will be supporting the team in analyzing ongoing proceedings, especially those that pertain to the PCIA and distributed energy resources.

Prior to EBCE, Michael worked in a variety of renewable energy consulting roles, including positions at Guidehouse and Ascend Analytics, often with an emphasis on data analytics and modeling.

Michael graduated from UC Berkeley in 2021 with a major in Environmental Economics & Policy and two minors in Data Science and Energy & Resources.

Niels Zellers – Director, Clean Energy Structured Finance

Niels leads EBCE's structured finance activities. Niels has over 15 years of experience evaluating, negotiating, structuring, and closing on investment and financing opportunities. Most recently, Niels served as CEO for Bright Community Capital, where he oversaw capital formation, corporate finance, and investments in distributed generation clean energy projects, particularly those in underserved communities. Prior to Bright Community Capital, Niels held investment and finance roles with investment groups such as CEI Capital Management and Fidelity Investments.

Niels holds an MBA from the University of Michigan's Stephan M. Ross School of Business, an MS in Sustainable Energy Systems from the University of Michigan's School of Natural Resources & Environment, and a BA in Mathematical Computer Science from Lewis & Clark College.

Health-E Communities Partnership Update

Presentation attached

Health-E Communities Partnership

EAST BAY COMMUNITY ENERGY

Health-E Communities Partnership Overview

Many impactful studies have been conducted that demonstrate the negative impact of natural gas combustion in homes, but there is no program we are aware of that explicitly seeks to deploy home electrification to prove out the indoor air quality and health improvements of switching to electricity for heating and cooking – yet this is an explicit goal articulated in EBCE's Local Development Business Plan

Establishing this linkage explicitly and through rigorous analysis will help unlock significant opportunity for EBCE to scale the deployment of home electrification into households and communities that need it most and potentially unlock public health dollars to co-fund home electrification in the future

-EBCE did significant outreach/engagement with PHPs when designing our medical baseline storage program where we sought to partner with PHPs to find households where EBCE's home storage could be most beneficial. Uniform response from PHPs was that they recognized the value of this partnership for the communities they serve but they lacked resources to support and implement and would require funding to support a partnership

-targeting households where residents suffer from asthma for home electrification requires a new type of partnership that does not currently exist. PHP(s) like Kaiser, CHO, or AHS do not have capabilities today to partner with electricity providers to design and deliver wrap-around programs that deliver home electrification

Health-E Communities Partnership Goals

- Deliver +1,000 home electrification retrofits into households where one or more resident suffers from asthma w/ explicit emphasis on low-income and disadvantaged communities
- Establishment necessary partnerships to reach these households
- Pair home electrification program with necessary research to support scaling up home electrification as a part of public health response to Asthma and pulmonary disease
- Serve as a scalable demonstration project for intersectionality of home electrification and public health

EAST BAY COMMUNITY ENERGY

Health-E Communities Partnership: Aligning EBCE Scope with EBCE Expertise

- Focus EBCE funding and engagement on funding electrification retrofits (induction cooking, heat pumps)
- Recruit partners that can leverage external funding to support research goals, customer/community engagement, integration of home electrification into public health services and scaling of program learnings
- Bring in external funding partners (ex: U.S. EPA, U.S. HHS, CA ARB, Health/Climate philanthropy) to fund costs of public health partner participation in program

Health-E Communities Partnership Overview

1a) Air Pollution and Indoor Air Quality Research Program	Perform a multi year study of the nexus between air pollution, indoor air quality, electrification programs and medical care (2023-2028)
1b) Indoor Air Quality Monitoring Project	Project to deploy up to 1,000 air quality monitors in homes of high acuity asthma patients to monitor indoor air quality impacts of gas appliances nad on-going benefits to indoor AQ of home electrification (2023)
1c) Health-E Home Electrification Retrofit Project	Project to deploy home electrification interventions for indoor air quality study participants (2023-2024)
1d) Community Asthma Care grant	Investment to significantly enhance capabilities to deliver frontline asthma care across the East Bay with explicit integration to home and community electrification measures (2023-2028)

EAST BAY COMMUNITY ENERGY

Health-E Communities Partnership: Indicative Participants/Roles

Program Partners	1a) Air Pollution and Indoor Air Quality Research Program	1b) Indoor Air Quality Monitoring Project	1c) Health-E Home Electrification Retrofit Project	1d) Community Asthma Care x Electrification grant
Public Health Partner(s)	lead	co-lead		co-lead
East Bay Community Energy			lead funder / co-lead	
Building Decarb Coalition	Program manager	Program manager	Program manager	
Project Delivery Partner		deployment lead	deployment lead	
Air Quality Monitoring Partner		co-lead	co-lead	
Grant/Philanthropy Partner(s)	co-funder	co-funder		co-funder
Finance Partner(s)			co-funder	

Health-E Communities Partnership Actions

- **Sept 2022 EBCE Exec Comm**: Present Health-E Communities Program Concept to EBCE Executive Committee and seek direction
- **Oct 2022 EBCE Board Meeting**: Present Health-E Communities Program as informational item
- **December 2022 EBCE Board Meeting:** Present Health-E Communities Program detailed proposal w/ initial EBCE funding levels
- **December 2022 to April 2023:** EBCE begins process of acquiring Health-E Communities partners and development Health-E Communities program agreement(s)
- **April 2023:** Seek Board approval of Health-E Communities Partnership agreements
- **May 2023:** Health-E Communities Program Launch

Staff Report Item 11

TO: East Bay Community Energy Board of Directors

FROM: Alec Ward, Associate Policy Manager

SUBJECT: **Update on EBCE's State and Federal Legislative Process (Informational)**

DATE: October 19, 2022

Recommendation

Receive an informational update on state and federal bills EBCE has been tracking and taking positions on this legislative session.

Background and Discussion

The intent of this staff report is to provide an update on the eleven state and federal bills EBCE has taken a position on this legislative session, as well as give an overview of other bills that are relevant to EBCE. The final day for California lawmakers to pass bills this year was August 31st.

Fiscal Impact

SB 846 may result in additional funding for EBCE energy reliability and an increase in customer non-bypassable charges.
AB 179 may result in additional funding for EBCE programs.
AB 209 may result in additional funding for EBCE programs.
SB 1112 may result in additional funding for lowering TOB financing costs.
HR 5376 may result in lower renewable energy costs for EBCE and benefits to EBCE customers through energy tax credits and other programs.

Attachments:

A. Presentation

OCTOBER 19, 2022

Legislative Update

EAST BAY COMMUNITY ENERGY

Key Deadlines for the 2022 State Legislative Year

- 1/3: Legislature reconvened
- 1/10: Governor submitted budget
- 1/31: Deadline to move 2-year bills out of 1st house
- 2/18: Bill introduction deadline
- 4/29: Policy cmtes to move fiscal bills to fiscal cmtes (1st house)
- 5/6: Policy cmtes to move nonfiscal bills to floor (1st house)
- 5/20: Fiscal cmtes must move bills to floor (1st house)
- 5/27: Last day for bills to be passed out of 1st house
- 6/15: Budget bill must be passed
- 7/1: Policy cmtes to meet and report bills (2nd house)
- 8/12: Fiscal cmtes to move bills to floor (2nd house)
- 8/31: Last day for each house to pass bills
- 9/30: Last day for Governor to sign/veto bills

EAST BAY COMMUNITY ENERGY

SB 846 – Diablo Canyon Power Plant Life Extension

- **Background:**
  - PG&E was to retire Diablo Canyon (DCPP) in 2024 (unit 1) and 2025 (unit 2)
  - The retirement aligned with Nuclear Regulatory Commission (NRC) license expirations
  - In August, Gov. Newsom announced intent to keep the plant open and a request to federal gov. for $1 billion for extension support (due Sept.)
  - Lawmakers initially upset by late proposal, but negotiated with Newsom for eventual wide-margin passage
- **Statute:**
  - Permits extension of DCPP for up to five years beyond planned retirement
  - Directs various cost-recovery mechanisms (covered in next slide)
  - Excludes DCPP from any future resource planning except for RA procurement compliance, which California Public Utilities Commission (CPUC) will address
  - Creates a Clean Energy Reliability Investment Plan funded at $1 billion

SB 846 – DCPP Cost Recovery

- Loans $1.4b ($600m initially) from the general fund for DCPP extension
- Most cost recovery details left to the CPUC:

The bill would require the PUC to take certain actions to enable the operator of the Diablo Canyon powerplant to recover the reasonable costs and expenses of operating the Diablo Canyon powerplant, as provided, including the imposition of a fully nonbypassable charge on all customers of electrical corporations, electric service providers, and community choice aggregators, and would require the PUC to authorize the operator to recover in rates an operating fee for each megawatthour generated by the powerplant, as specified.*

*Leg Counsel summary

Other End of Session Bills

- **AB 179 (Ting):**
  - $162 million for equitable building decarb
  - $235 million for ZEV infrastructure
  - $45 million for offshore wind
  - $200 million for transmission
- **AB 209 (Ting):**
  - Expands Demand Side Grid Services Program ($295 million) to our customers
  - Increases SGIP to $900 million
- **AB 1279 (Muratsuchi):**
  - Requires CA achieve carbon neutrality by 2045

EAST BAY COMMUNITY ENERGY

State Bill Tracker - Assembly

Bill #	Author	Description	Sponsor	Status	EBCE Position
AB 1814	Grayson	Authorizes CCAs to file applications for PUC programs and investments to accelerate widespread transportation electrification.	CalCCA	Author withdrawn	SUPPORT
AB 1960	Villapudua	Encourages the Senate and the Governor to consider permanent residents of northern, southern and the central valley regions of the state to provide more regional diversity among CPUC commissioners.		Vetoed by Gov 6/21	SUPPORT
AB 2061	Ting	Requires data disclosure on EV charging station availability for stations using public or ratepayer money and requires the CEC to assess reliability and equitable access issues.	Flo	Signed by Gov 9/16	WATCH
AB 2667	Friedman	Establishes and requires CEC to administer state IDER Fund to incentivize eligible resources to support consumer adoption of clean DERs, creates a system to award incentives.	NRG / EDF	Failed Sen floor vote 8/30	OPPOSE UNLESS AMENDED
AB 2765	Santiago	Creates a new taxpayer-funded fund to cover the costs of CPUC Public Purpose Programs including energy efficiency and conservation, and arrearage management, instead of continuing to rely on customer delivery rates. Reverts to utility ratepayers if fund isn't sufficiently funded by the legislature. Excludes CARE/FERA.	Sempra	Held in Asm Approps Cmte	SUPPORT

EAST BAY COMMUNITY ENERGY

State Bill Tracker - Senate

Bill #	Author	Description	Sponsor	Status	EBCE Position
SB 1020	Laird	Sets interim targets for meeting renewable/zero-carbon goals: 90% by end-2035, 95% by end-2040; 100% for state agencies by 2030. State agencies can comply through their LSE, but LSE procurement for the state agency must meet certain criteria. Establishes new fund to support the costs of decarbonization, clean energy, and wildfire mitigation activities with funding sources outside of electricity rates. Establishes new nonprofit public benefit corporation to administer the fund.	Senate Climate Change Working Group	Signed by Gov 9/16	SUPPORT IF AMENDED
SB 1063	Skinner	Authorizes the CEC to make standards for energy- and water-efficient appliances effective sooner than one year after adoption if there's a finding of good cause.	CEC	Signed by Gov 9/16	SUPPORT
SB 1112	Becker	Requires energy suppliers (including CCAs) offering decarb programs to record a decarb charge notice, then notice of full cost recovery, then notice of charge removal with the project's county.		Signed by Gov 9/29	SUPPORT
SB 1136	Portantino	Expedites CEQA if a project uses skilled & trained labor. It also expanded environmental review to "energy efficiency standards" and "performance standards".		Vetoed by Gov 9/28	OPPOSE UNLESS AMENDED
SB 1158	Becker	Changes the Power Source Disclosure rules to require utilities and CCAs to report comparisons of their energy and capacity purchases with their electricity demand on an hourly basis including the associated GHG emissions.		Signed by Gov 9/16	WATCH
SB 1385	Cortese	Establishes a new 1,500 MW multifamily housing local solar program that requires each large electrical corporation (IOU) to construct solar and storage systems connected to the distribution system in front of the customers' meters on or near multifamily housing.	CA State Assoc of Electrical Workers / CCUE	Held in Asm Approps Cmte	OPPOSE UNLESS AMENDED
SB 1393	Archuleta	Requires local jurisdictions to consider CEC guidance before mandating that retrofits to a bldg. must upgrade fossil appliances to electric and to file records with CEC.		Held in Asm Approps Cmte	OPPOSE

EAST BAY COMMUNITY ENERGY

Federal Bill Tracker

Attachment Staff Report Item 11

Bill #	Author	Description	Status	Recommended EBCE Position
H.R 5376	Yarmuth	Authorize renewable energy tax breaks including extending and expanding the Investment Tax Credit (ITC) and Production Tax Credit (PTC), as well as other clean energy-friendly provisions including building decarb incentives, electric vehicle tax credits, and environmental justice incentives.	Signed by President 8/16	SUPPORT

EAST BAY COMMUNITY ENERGY

Staff Report Item 12

TO: East Bay Community Energy Board of Directors

FROM: Marie Fontenot, Vice President of Power Resources

SUBJECT: **EBCE 2020 Integrated Resource Plan Compliance Filing (Action Item)**

DATE: October 19, 2022

Recommendation
Adopt a Resolution that

A. Approves the analysis and findings resulting from the 2022 Integrated Resource Planning (IRP) study process, and
B. Authorizes staff to submit to the California Public Utilities Commission (CPUC)- the required IRP Compliance documents November 1, 2022.

Background and Discussion

The IRP proceeding currently includes two primary components: the biennial study workstream and the mandated procurement workstream. This memo refers only to the biennial study workstream.

The IRP is a long-term planning proceeding that evaluates the CPUC's electric procurement policies and programs and estimates the reliability and cost-effectiveness of the CPUC-jurisdictional entities'[1] electric supply plans, with the goal of reducing the cost of achieving GHG reductions and other CPUC policy goals. The IRP proceeding forecasts and reports on the least-cost resource mix required to meet these goals while maintaining system reliability over a period of at least 10 years. This year, the IRP planning horizon spans from 2023 to 2035.

The IRP also evaluates the contribution of individual load serving entities' (LSE) resource portfolios to the State's greenhouse gas (GHG) emissions. This IRP cycle, the

[1] In the context of IRP requirements, "CPUC-jurisdictional entities" includes Investor-Owned Utilities (IOUs), Energy Service Providers (ESPs), and Community Choice Aggregators (CCAs).

CPUC requires each entity to submit portfolios that achieve emissions levels equal to or less than that entity's proportional share of two alternative statewide electric sector GHG targets. EBCE will report analysis results and proposed resource portfolios that address the question "what are the desired portfolios of resources based on a statewide electric sector goal of achieving (1) 30 million metric tons (MMT) of GHG emissions by 2030; and (2) a maximum of 25 MMT of GHG emissions by 2030." The inputs and assumptions used in the 30 MMT and 25 MMT scenario must be consistent with certain CPUC directives; the required assumptions are discussed below. Given East Bay Community Energy's (EBCE) Board of Directors' approved target of achieving an emission-free portfolio by 2030, EBCE staff sought to develop a single Preferred Conforming Portfolio that will be emission-free consistent with EBCE's goals and the emissions methodology required for use in the annual Power Source Disclosure Report (PSDR).

All CPUC-jurisdictional LSEs are required to file and serve their individual IRPs with the CPUC by November 1, 2022. The filings must use three documents provided by the CPUC: a Narrative Template, a Resource Data Template (RDT), and results from the CPUC's Clean System Power (CSP) Calculator.[2] Staff is seeking Board approval of the analysis and the submission of these required materials.

Discussion

Compliance with the CPUC's IRP filing requires completion and submittal of three documents by November 1, 2022: the IRP Narrative Template, the Resource Data Template, and the Clean System Power (CSP) Calculator. Each document is described below, followed by a discussion of the CPUC's modeling inputs and assumptions, an overview of EBCE's approach to IRP analysis and a discussion of the results of EBCE's analysis. Finally, Staff describes the next steps, including portfolio planning work beyond what is required for IRP compliance purposes.

Narrative Template

In this document, each LSE provides a narrative description of its approach in developing a long-term resource portfolio plan, results of supporting analytical work, and its planned actions based on the results of its analysis.

Resource Data Template (RDT)

In the RDT, EBCE is required to report its existing and planned energy and capacity contracts and identify the amount of energy and capacity that are indicated from the analysis as necessary to contribute to the 30 MMT and 25 MMT portfolios. The portfolios of resources must be described in terms of total annual contracted volumes by resource type. The CPUC uses this document to analyze and aggregate individual entities' IRP portfolios.

Clean System Power (CSP) Calculator

[2] CPUC Decisions 18-02-018 and 22-02-004 define these filing requirements.

The CSP Calculator is a CPUC-provided tool used to estimate GHG and other local air pollutant emissions associated with both the 30 MMT and 25 MMT resource portfolios included in the Resource Data Template. This workbook is used to calculate the implied emissions values associated with each type of generating resource using CPUC-determined assumptions. However, the calculator is not intended by the CPUC to be an after-the-fact compliance tool, but rather to provide all LSEs a simple and uniform way of estimating the emissions associated with their IRP portfolios. The CPUC uses this document to check that each LSE has a plan to meet the required GHG targets.

Required Assumptions

In this IRP cycle, the CPUC is requiring its jurisdictional entities use certain standardized inputs and assumptions. The required assumptions include:

- Load forecast: each load serving entity is required to use the CPUC-approved, California Energy Commission (CEC)-developed 2021 Integrated Energy Policy Report (IEPR) demand forecast update, with LSE-specific adjustments adopted by a CPUC administrative law judge's ruling.[3] The 2021 IEPR forecast identified annual retail sales for entities out to 2035; then added and subtracted load to reflect the CEC's forecast for the expansion of Additional Achievable Energy Efficiency (AAEE), Additional Achievable Fuel Substitution (AAFS), behind-the-meter solar PV generation, behind-the-meter combined heart & power generation, other self-generation, and time of use rate effects.

- Baseline resources: represent generating resources that are currently online or are contracted to come online during the IRP's planning timeframe. This list includes generating resources inside and outside California, but within the Western Electricity Coordinating Council (WECC).

- Candidate resources: represent resources that have not yet been built or contracted. The CPUC provides the types of future generating resources that may be included in entities portfolios. The eligible resource types are renewables (biomass, geothermal, solar PV, onshore wind, out-of-state wind, offshore wind), energy storage, natural gas generation (Aero Gas Turbines and "Advanced" Combined Cycle Gas Turbines), and demand response. The CPUC identified certain geographic assumptions related to the placement of these potential resources; the resources could be in California or out of state with eligible regions tied to existence or planned expansion of transmission lines. EBCE, like the CPUC, used the technology cost curves sourced from NREL's 2021 Annual Technology Baseline (ATB). For electricity and capacity prices, EBCE used its internal, proprietary forward curves.

[3] *ALJ Ruling Finalizing Load Forecasts and Greenhouse Gas Emission Benchmarks for 2022 Integrated Resource Plan Filings*, issued 6/15/2022 in R.20-05-003.

- Proforma Financial Model: used by the CPUC to create levelized fixed costs for each candidate resource type. These costs are then used as inputs to modeling to establish the least-cost portfolio. EBCE elected to use technology cost curves sourced from NREL's 2021 ATB in developing its single Preferred Conforming Portfolio.

- Operating Assumptions: The operating cost (fixed and variable operations and maintenance costs) of candidate resources were based on the values estimated in NREL's ATB study. Components of the operational costs are aggregated costs for classes of generation resources, unit commitment costs, costs associated with dispatching resources for energy or ancillary services, and transmission costs based on zones (i.e., costs to move electricity over the transmission system in WECC).

- Resource Adequacy Requirements: the CPUC assumptions require a planning reserve margin. In previous years the planning reserve margin was set at 15%, based on and consistent with the rules in place for System Resource Adequacy for CPUC-jurisdictional entities; in this IRP the planning reserve margin varies by forecast year ranging from 14.9% in 2022 to 22.5% in 2028 and after. The CPUC also incorporates the most recent effective load carrying capability (ELCC) assumptions for resources and differentiates between ELCCs used for resources based on year the resource obtains commercial operation, consistent with CPUC D.21-06-035.

- GHG Emissions and Renewable Portfolio Standard: the 30 MMT and 25 MMT scenarios represent two different 2030 statewide electric sector GHG constraints under which least-cost resource portfolios are developed. The emissions accounting used for the IRP analysis is consistent with the California Air Resource Board's regulation of the electric sector under California's cap and trade program. It is worth noting that EBCE uses the emission accounting methodology from the Power Source Disclosure Report to calculate and report its annual emissions which differs from the forward-looking accounting methodology of the IRP. The IRP also assigns a certain volume of emissions to each load serving entity as their allocated share of the state's combined heat and power (CHP) resources.

Preferred System Plan

The CPUC develops a Preferred System Plan (PSP) every two years, aggregating individual LSE's plans, this approach is new for the 2022 IRP but will be the process going forward. This plan represents the total mix of resources at the system-level that the CPUC modeling shows is the most cost-effective way to the achieve 30 MMT and 25 MMT scenarios while maintaining system reliability. Following adoption of the PSP, the CPUC sends the PSP as the 'best case' resource portfolio to the California Independent System Operator (CAISO) for inclusion in the annual Transmission Planning Process.

The PSP includes four important elements. First, it identifies the 2030 statewide electric sector GHG planning target (in this case, 30 MMT). Second, it recommends a portfolio of resources that the CPUC believes represents the least-cost, least risk way to achieve the GHG target (these resources are identified based on the CPUC's required inputs and assumptions, described above). Third, a GHG planning price is reported that represents the marginal cost of GHG abatement associated with the PSP; this is intended to provide a consistent way to demonstrate the value of demand and supply resources. Fourth, near-term CPUC policy actions are incorporated with the stated intention of ensuring results from the IRP modeling to inform other CPUC proceedings.

EBCE's Approach to IRP Compliance Analysis

EBCE staff developed a single Preferred Conforming Resource Portfolio to meet the CPUC's 30 MMT and 25 MMT scenarios. EBCE's recommended portfolio was developed based on the CPUC's system-level resource portfolios.

Working with our consultant, First Principles Advisory, staff incorporated details of EBCE's existing contracts as the baseline for the portfolios. First Principles employed a three-step modeling process:

Step 1 of the process begins with capacity expansion modeling (CEM) of the CAISO system in a manner similar to that taken by the CPUC's IRP instance of E3's RESOLVE model. First Principles successfully benchmarked GridPath to the CPUC's model; this enabled EBCE to conducted additional capacity expansion modeling studies of the bulk electric system using alternative assumptions for future planning exercises.

Step 2 in the modeling sequence is to take the system buildout from Step 1 and port the selected candidate resources into a production cost model to assess system reliability, emissions, and regional forward pricing conditions in a more detailed manner. EBCE assumed the same fuel and carbon price forecasts as listed in the official 2022 Inputs and Assumptions dataset. This modeling analysis was performed using Plexos, an industry known tool.

Once the Plexos modeling is finished, the analysis of the CAISO system is complete, and the modeling framework transitions into "local mode" for Step 3. In this step, the Gridpath model was used again, this time seeking to optimize EBCE's portfolio for the active planning horizon by identifying the candidate resources that, together with the existing baseline resources, will meet the agency's reliability and environmental targets in a least cost manner. GridPath is also able to account for any board-specific RPS and/or GHG goals that exceed state-mandated targets.

The baseline list of existing contract resources incorporated into the modeling and the forecasted list of resources to build out the Preferred Resource Portfolio is listed in Appendix 1, Table 1.

Results of Analyses & Recommended Compliance Portfolios

Using the approach described herein, EBCE was able to achieve compliance with its share of the CPUC GHG emissions limits. The forward calculated annual CO2 emissions from the portfolio are 0.749 million metric tons (MMT) in 2030 and 0.609 MMT in 2035, which are less than EBCE's assigned GHG benchmarks of 0.772 MMT in 2030 and 0.623 MMT in 2035 for the 25 MMT GHG scenario. EBCE forecasts a 2030 load of 7,180GWh and 7,540 GWh in 2035. It is important to note that the Preferred Conforming Portfolio does not include the addition of the city of Stockton as a EBCE customer; staff will perform supplementary work to revise the Preferred Portfolio based on the formal inclusion of Stockton to EBCE's service territory in 2024. A summary of results follows; additional details and visual aids are included as Attachment 1, "Integrated Resource Plan Compliance Results" PowerPoint.

- Forecast Costs of Portfolio: over the IRP planning horizon, the annual expense of the organization's optimal portfolio is expected to average $53/MWh (2020 USD). EBCE's reliance on the market for capacity and energy diminish over time as bundled contracts assume a larger proportions of EBCE's portfolio. The portfolio results in an average procurement cost of $400 million per year over the 2024 – 2035 planning horizon under the cost assumptions provided by the CPUC.

- Resource Mix of Portfolios: the total long-term contracted nameplate capacity associated with the Preferred Conforming Portfolio is 2,124 MW by 2035, plus an additional 890 MW of annual RA purchases. Of the 2,124 MW in long-term contracted resources, 1,550 MW represent new-build resources and 574 MW represent resources already under contract to EBCE.

- Portfolio Emissions: EBCE's Preferred Conforming Portfolio as calculated by the Clean System Power (CSP) calculator[4] meets the obligations of both the 30 MMT and 25 MMT CPUC scenarios. EBCE's assigned GHG benchmark for 2030 and 2035 are 0.772 million metric tons (MTT) and 0.623 MMT, respectively. With reported emissions of 0.749 MMT in 2030 and 0.609 MMT in 2035, EBCE's Preferred Conforming Portfolio meets both requirements. The primary sources of air pollutants represented in this portfolio are the result four things: (1) of its reliance on system power to meet some unhedged hours, (2) energy storage charging hours, (3) some additional pollutants arising as a result of the agency's VAMO allocation, and (4) the behind-the-meter combined heat and power (CHP) emissions allocated to all load serving entities.

- Risk Management associated with Portfolios
    - Overall: The Preferred Conforming Portfolio seeks to fill an energy need of approximately 7,290 GWh in 2030 and 7,540 GWh in 2035.

[4] The Clean System Power (CSP) tool is an excel-based workbook provided the CPUC that calculates emissions from CAISO system's dispatchable thermal generation and unspecified imports and allocates them to LSEs based on their planned IRP portfolios.

- This IRP analysis does not incorporate short-term transactions which comprise a portion of EBCE's hedging strategy. EBCE does not enter into long-term contracts to cover 100% of its forecast demand; rather EBCE incorporates short-term transactions and a limited amount of exposure to the CAISO spot market into it risk management strategy. Because this version of the IRP analysis does not include short-term transactions, the portfolio covers some portion of what Staff would likely hedge through short-term deals into the long-term resource portfolio and the remainder into what the model regards as purchases made in the CAISO market.
- Similar and related to the lack of short-term transactions in the IRP model, neither are the short-term renewable and carbon free energy transactions EBCE engages in to ensure it meets compliance obligations and customer commitments in a cost-effective manner incorporated, though in reality these transactions play a valuable role in EBCE's portfolio management strategy.
- Summary of Portfolios: Over the 2024-2035 study timeframe, the long-term resources that comprise the Preferred Conforming Portfolio are forecasted to provide approximately 7,134 GWh of delivered emissions-free energy in 2035 that can be used to meet demand. This provides coverage of 99% of EBCE's forecast retail demand and leaves a forecasted open position in 2035 of 21 GWh per year that are assumed to be covered in the CAISO spot market but in actuality can be covered through short-term carbon-free energy transactions.

- Reliability of Portfolios
  - Staff evaluated portfolio reliability in relation to EBCE's ability to meet its CPUC-designated Resource Adequacy obligations on an annual basis and in the month of September for every year during the study period. The results indicate that RA obligations can be achieved through a combination of existing RA contracts, long-term generation contracts (i.e. the resources described in the portfolios of Scenarios 1 and 2) and with additional RA purchases, similar to those EBCE engages in today. The analyses also evaluated the number of "forced" & "simulated" hours of portfolio market exposure. In this case, "forced exposure" represents the number of hours where generating resources and energy storage are insufficient to meet demand. "Simulated exposure" represents the number of hours with net market purchases including energy storage charging.
  - Resource Adequacy: The long-term contracts anticipated in this portfolio represent sufficient capacity to meet annual RA obligations. It is important to note that the RA paradigm is currently undergoing wholesale redesign; effectively being changed from a one target per month program to 24 different RA targets for each month. The RA program redesign will not be finalized until early 2023 at the earliest; thus this IRP analysis does not reflect these impending yet uncertain changes.

- Market Exposure: The computer-optimized portfolio and resulting storage dispatch strategy selected by the model indicates a preference for continued reliance on market purchases of energy over a strategy in which EBCE procures additional resources to completely cover customer and storage charging load in more hours. Additional contracted resources would result in an increase in the number of hours in which EBCE was selling excess generation back into the market, often at times when solar production across the state is high and CAISO energy market prices are correspondingly low.

  This reliance on market power declines over time as additional resources are brought online, but indicates a continued modeling preference for reliance on the market in the winter months and summer nights to avoid the need to resell excess power into the market on a consistent basis during the lowest price hours of the day. The following table shows the percentage of retail sales provided by renewable contracted resources over the modeled years according to the calculations in the Clean System Power (CSP) tool and in the GridPath model.

Year	2024	2026	2030	2035
CSP Delivered Renewables as % of Total Retail Sales	64.8%	76.2%	89.5%	94.6%
GridPath Delivered Renewables as % of Total Retail Sales	66.5%	75.2%	100.0%	100.0%

Next Steps

EBCE must submit its 2022 IRP Compliance filing and all required materials to the CPUC by November 1, 2022. Following timely submission, Staff proposes to undertake supplemental analysis utilizing the GridPath model. The supplemental analysis will incorporate the addition of Stockton to EBCE's service territory in 2024 and with revised assumptions that better reflect the cost of resources offered to EBCE in the current marketplace. Depending on the timing of RA program redesign, Staff may incorporate changes to the RA program in this supplemental analysis as well. Staff will provide an informational update to the Board on this supplemental analysis later in fiscal year 2023.

Fiscal Impact

There is no financial impact associated with the recommended action as this filing is intended to meet the CPUC compliance requirement and actual procurement authorization will be brought forth to the board in accordance to EBCE's risk management policies.

Attachments

- Attachment A: Resolution of the Board of Directors Approving the Results of the IRP Analysis and Authorizing Staff to Submit the Related Compliance Filing to the CPUC
- Attachment B: Integrated Resource Plan Compliance Results PowerPoint
- Attachment C: CPUC Narrative
- Attachment D: CPUC Resource Data Template – 25 MMT
- Attachment E: CPUC Resource Data Template – 30 MMT
- Attachment F: CPUC Clean System Power Calculator – 25 MMT
- Attachment G: CPUC Clean System Power Calculator – 30 MMT

Please note: Attachments D, E, F, G are not included in the agenda packet. These attachments can be accessed at the following links:

Attachment D: CPUC Resource Data Template – 25 MMT:
https://res.cloudinary.com/diactiwk7/image/upload/v1665779100/Item_12D_-_CPUC_Resource_Data_Template_-_25_MMT_qeyktg.pdf

Attachment E: CPUC Resource Data Template – 30 MMT:
https://res.cloudinary.com/diactiwk7/image/upload/v1665779128/Item_12E_-_CPUC_Resource_Data_Template_-_30_MMT_hq7zsq.pdf

Attachment F: CPUC Clean System Power Calculator – 25 MMT:
https://res.cloudinary.com/diactiwk7/image/upload/v1665779163/Item_12F_-_CPUC_Clean_System_Power_Calculator_-_25_MMT_hgyhpt.pdf

Attachment G: CPUC Clean System Power Calculator – 30 MMT:
https://res.cloudinary.com/diactiwk7/image/upload/v1665779195/Item_12G_-_CPUC_Clean_System_Power_Calculator_-_30_MMT_scrh4r.pdf

Appendix 1:

Table 1 Nameplate Capacity (MW) of EBCE's Preferred Conforming Capacity by Project Type and Technology[5]

Project Type	Tech	Project	2024	2026	2030	2035
baseline	4hr_batteries	HenriettaStorage	10	10	10	10
baseline	4hr_batteries	Sanborn	47	47	47	0
baseline	4hr_batteries	Tumbleweed	50	50	50	50
baseline	BTM_Solar	BTM_Solar	618	719	940	1,196
baseline	Demand Response	OhmConnect	10	10	0	0
baseline	Demand Response	SUN01RA2031	1	1	1	0
baseline	Geothermal	FervoFECNevada1	0	40	40	40
baseline	Hybrid	DaggettSolarPower3	50	50	50	50
baseline	Hybrid	Scarlet	100	100	100	100
baseline	In-State Wind	SummitWind	56	56	56	56
baseline	Out-of-State Wind	Tecolote	100	100	100	0
baseline	RA_Only	Aggregate	1,205	873	832	858
baseline	Solar	EdwardsSolarII	100	100	100	100
baseline	Solar	RosamondCentral	112	112	112	112
baseline	Solar	TulareSolarCenter	56	56	56	56
candidate	4hr_batteries	Arizona_Li_Battery	57	117	117	0
candidate	4hr_batteries	Northern_California_Li_Battery	44	117	117	0
candidate	4hr_batteries	Riverside_Li_Battery	49	117	117	0
candidate	6hr_batteries	Generic_6hr_battery	0	0	0	268
candidate	8hr_batteries	Generic_8hr_battery	0	47	47	47
candidate	In-State Wind	Northern_California_Wind	100	200	349	349
candidate	Offshore Wind	Humboldt_Bay_Offshore_Wind	0	0	256	638
candidate	RA_Only	Aggregate	59	16	454	590
candidate	Solar	Arizona_Solar	55	205	205	205

[5] Includes EBCE's allocated share of Cost Allocation Mechanism (CAM) and Central Procurement Entity (CPE) related capacity.

RESOLUTION NO. R-2022-XX

A RESOLUTION OF THE BOARD OF DIRECTORS

OF THE EAST BAY COMMUNITY ENERGY AUTHORITY APPROVING THE RESULTS OF THE IRP ANALYSIS AND AUTHORIZING STAFF TO SUBMIT THE RELATED COMPLIANCE FILING TO THE CPUC

WHEREAS The East Bay Community Energy Authority ("EBCE") was formed as a community choice aggregation agency ("CCA") on December 1, 2016, Under the Joint Exercise of Power Act, California Government Code sections 6500 *et seq.,* among the County of Alameda, and the Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Piedmont, Oakland, San Leandro, and Union City to study, promote, develop, conduct, operate, and manage energy-related climate change programs in all of the member jurisdictions. The cities of Newark and Pleasanton, located in Alameda County, along with the City of Tracy, located in San Joaquin County, were added as members of EBCE and parties to the JPA in March of 2020.

WHEREAS the California Public Utilities Commission (CPUC) issued Decisions 18-02-018 and 22-02-004 defining IRP filing requirements and requiring its jurisdictional load serving entities file their 2022 Integrated Resource Plans (IRP) with the CPUC on or before November 1, 2022; and

WHEREAS the CPUC further requires entities utilize three document templates to complete their filings: the Narrative Template, the Resource Data Template, and the Clean System Power (CSP) Calculator; and

WHEREAS EBCE staff worked with First Principles Advisory to perform analysis and develop IRP portfolios to meet the CPUC's requirements; and

WHEREAS EBCE staff has presented the IRP analysis performed by First Principles Advisory and EBCE staff to the Board.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The Board hereby approves the results of the IRP analysis performed by First Principles Advisory and EBCE staff and presented at this Board meeting.

Section 2. The Board hereby authorizes staff to submit the 2022 IRP compliance filing to the CPUC by November 1, 2022.

ADOPTED AND APPROVED this 19th day of October, 2022.

_____

Dianne Martinez, Chair

ATTEST:

_____

Adrian Bankhead, Clerk of the Board

OCTOBER 19, 2022

2022 Integrated Resource Plan - Review of Results & Request for Approval to File

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Background

- **Integrated Resources Plan (IRP): a biennial analysis and filing required by CPUC.**
  - Load serving entities (LSEs) submit long-term procurement plans to the CPUC
- **Evaluate LSEs' ability to contribute to emissions reduction while meeting electricity-related compliance obligations.**
- **CPUC evaluates California's resource needs for 10 coming years.**
  - Important: can result in CPUC-mandated procurement

Deliverables

CPUC

1) Analyses based on CPUC-prescribed elements & with EBCE-specified changes
2) Narrative - analyses, process, results, lessons learned, procurement targets
3) Resource Data Template - conforming and preferred portfolios
4) Clean System Power Calculator

EBCE Board

1) All CPUC materials for review and approval pre-filing
2) Understand drivers of portfolio costs
3) Evaluate macro-level resource ability
4) Identify potential threats to EBCE 0MMT 2030 portfolio; later develop mitigations

Key Takeaways

Benefits

- **Highlight hours of exposure to CAISO market volatility**
- **Ability to stress test portfolio and region**

Limitations

- **Assumptions drive outcomes**
- **Inputs do not reflect current market / regulatory conditions**
- **Impossible to achieve a 0 MMT CO2 portfolio with CPUC-mandated Combined Heat and Power (CHP) emissions assigned to each LSE**
- **Differences in emissions accounting can create confusion:**
  - EBCE uses PSDR method - incorporates all actual physical purchases in report based on *actuals*;
  - CPUC IRP accounting - *forecast* view calculates what may happen if no additional GHG-free purchases are made

Key Takeaways: Portfolio

- **Noteworthy that model suggests 6-hour batteries**
  - Background: 4-hour is “standard”; 8-hour is “long duration” & has been mandated
- **CPUC assumptions on offshore wind led to specific outcomes; highly uncertain development timeline & cost trajectory**
- **Staff have uncertainties about reliability of analysis given discrepancies between price inputs and market**

Next Steps

- **Complete CPUC compliance filing due Nov 1, 2022**
- **Re-run IRP including Stockton**
- **Incorporate new Resource Adequacy (RA) rules following the ~fall 2022 redesign of the RA program**
- **Establish an internal IRP process based on EBCE fundamentals**
- **Update EBCE Board following supplemental internal analysis**

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CPUC Requirements

Attachment Staff Report Item 12B

LSE	2035 Load (GWh)	Share of 2035 load in IOU territory	2035 GHG emissions cap - 30 MMT scenario[1]	2035 GHG emissions cap - 25 MMT scenario[1]
PG&E Bundled	29,852	36.6%	3.086 MMT	2.466 MMT
EBCE	7,540	9.2%	0.779 MMT	0.623 MMT[1]
SCE Bundled	55,276	62.2%	5.025 MMT	3.993 MMT
SDG&E Bundled	3,787	21.1%	0.479 MMT	0.386 MMT

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[1] Reflects requirement including behind the meter Combined Heat & Power emissions

Approach to Modeling

Step 1:
Capacity Expansion Modeling

What does the statewide system look like in the future?

Step 2:
Production Cost Modeling

What price patterns does the system yield?

Step 3:
Local Portfolio Optimization

What resources should EBCE procure to serve load?

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Developing Single Preferred Conforming Portfolio

CPUC compliance portfolio developed differs from CPUC's "Preferred System Plan"

Benefits:

- Different model than CPUC but benchmarked reliably
- Conforms with CPUC requirements
- Defensible: Tied to CPUC-expectations of resource availability
- Able to incorporate EBCE-views of availability & portfolio-fit

Limitations:

- Does not reflect emissions accounting & reporting used for PSDR compliance
- Resource costs (from NREL) not consistent with contracts currently available in actual market

	2024	2026	2030	2035
CAISO Load (GWh)	203,597	206,558	211,801	218,513
EBCE Load (GWh)	6,740	6,887	7,180	7,540
EBCE % of CAISO	3.31%	3.33%	3.39%	3.45%

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Preferred Conforming Portfolio - Summary

Tech	Project	2024	2026	2030	2035
Baseline Resources					
4hr_batteries	HenriettaStorage	10	10	10	10
4hr_batteries	Sanborn	47	47	47	0
4hr_batteries	Tumbleweed	50	50	50	50
BTM_Solar	BTM_Solar	618	719	940	1,196
Demand Response	OhmConnect	10	10	0	0
Demand Response	SUN01RA2031	1	1	1	0
Geothermal	FervoFECNevada1	0	40	40	40
Hybrid	DaggettSolarPower3	50	50	50	50
Hybrid	Scarlet	100	100	100	100
In-State Wind	SummitWind	56	56	56	56
Out-of-State Wind	Tecolote	100	100	100	0
RA_Only	Aggregate	1,205	873	832	858
Solar	EdwardsSolarII	100	100	100	100
Solar	RosamondCentral	112	112	112	112
Solar	TulareSolarCenter	56	56	56	56

Tech	Project	2024	2026	2030	2035
Candidate Resources					
4hr_batteries	Arizona_Li_Battery	57	117	117	0
4hr_batteries	Northern_California_Li_Battery	44	117	117	0
4hr_batteries	Riverside_Li_Battery	49	117	117	0
6hr_batteries	Generic_6hr_battery	0	0	0	268
8hr_batteries	Generic_8hr_battery	0	47	47	47
In-State Wind	Northern_California_Wind	100	200	349	349
Offshore Wind	Humboldt_Bay_Offshore_Wind	0	0	256	638
RA_Only	Aggregate	59	16	454	590
Solar	Arizona_Solar	55	205	205	205

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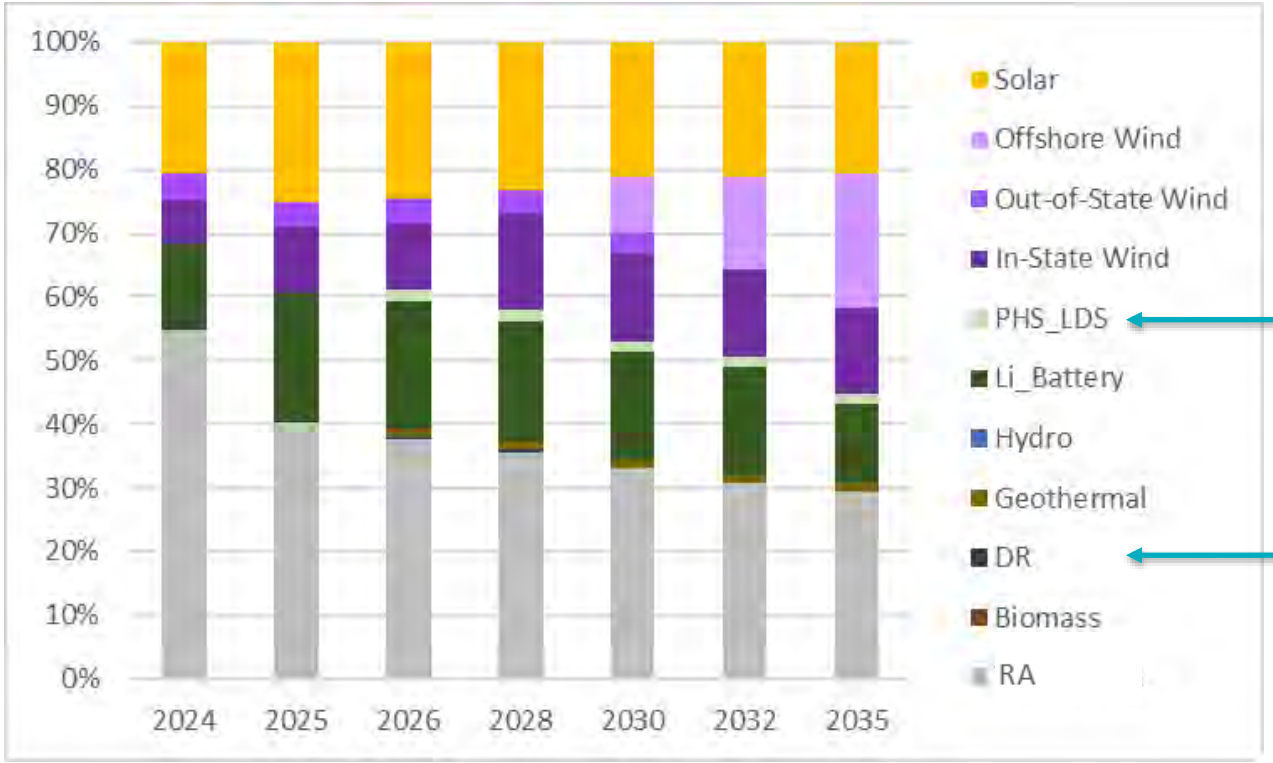
Preferred Conforming Portfolio - Capacity Allocation by Resource Type



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Preferred Conforming Portfolio – Capacity by Resource Type

Nameplate Capacity (MW) of Total Resources Selected for EBCE's Preferred Conforming Portfolio

Technology	2024	2025	2026	2028	2030	2032	2035
RA	1,264	1,001	950	954	977	910	890
Hydro	0	0	0	0	0	0	0
DR	11	11	11	11	1	0	0
Solar	472	622	622	622	622	622	622
Geothermal	0	0	40	40	40	40	40
Biomass	0	0	0	0	0	0	0
In-State Wind	156	256	256	406	406	406	406
Out-of-State Wind	100	100	100	100	100	0	0
Offshore Wind	0	0	0	0	256	434	638
PHS / LDS	0	0	47	47	47	47	47
Li_Battery	300	500	500	500	500	500	371

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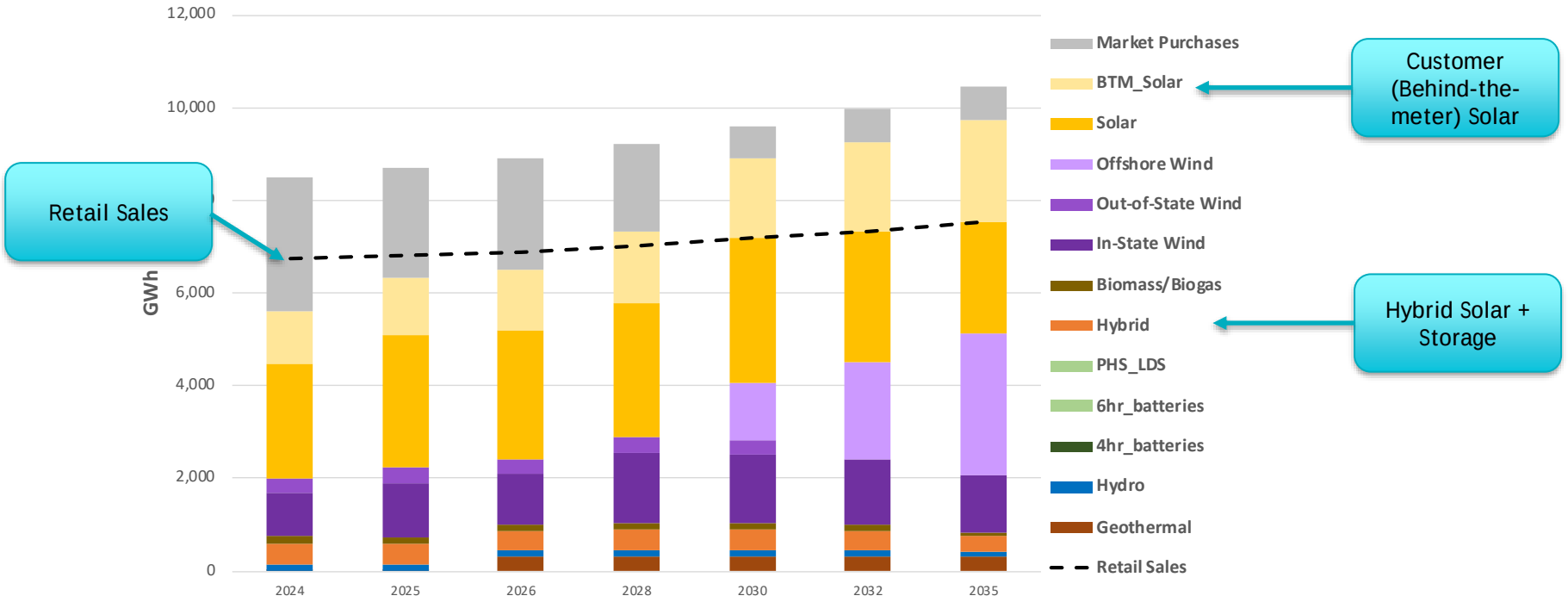
Preferred Conforming Portfolio – Energy Supply

Net Annual Generation of Preferred Conforming Portfolio



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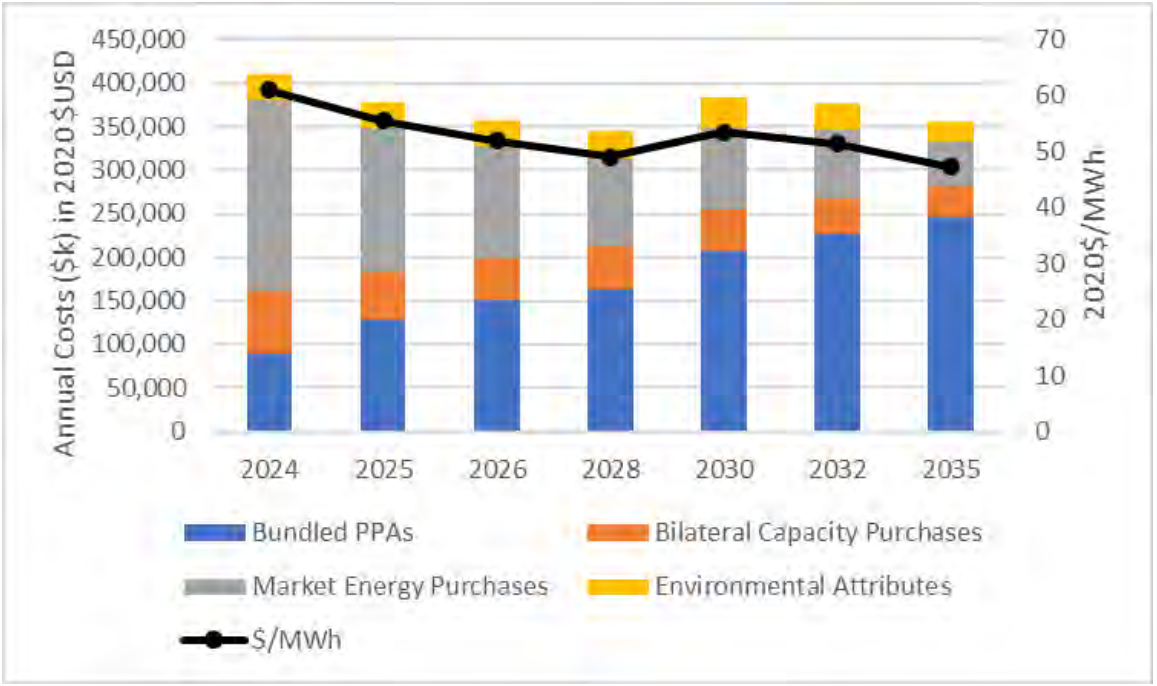
Forecast Costs & Revenues of Portfolio



What are the expected implications for customer rates?

- In the short run, EBCE will continue to peg rates to PG&E
- As a result, there is a focus on finding the “least-cost” portfolio to maximize contributions to reserves / BC discount
- A transition to cost-based pricing would allow EBCE to pass cost savings directly along to customers through rates

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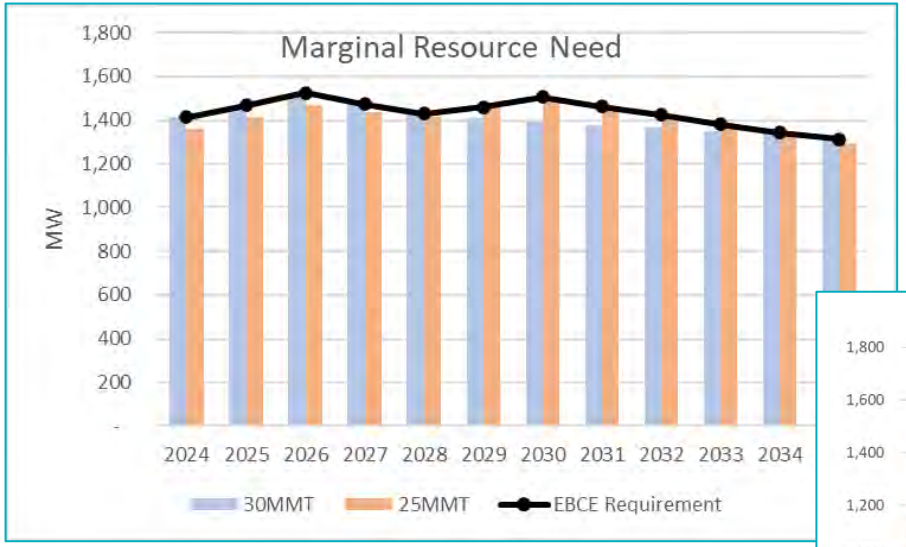
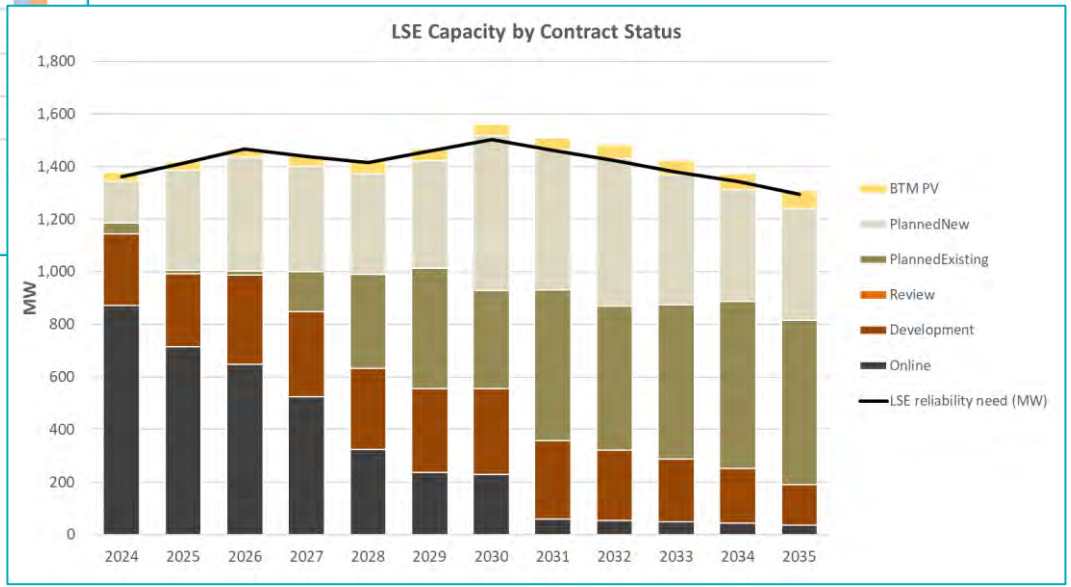
Preferred Conforming Portfolio - Contribution to Reliability



25MMT Scenario



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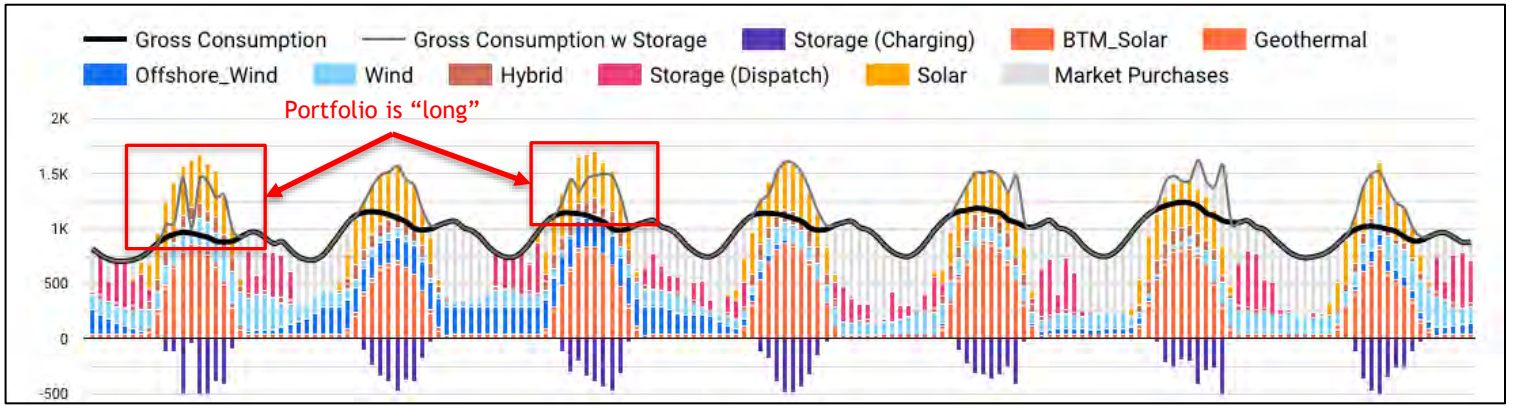
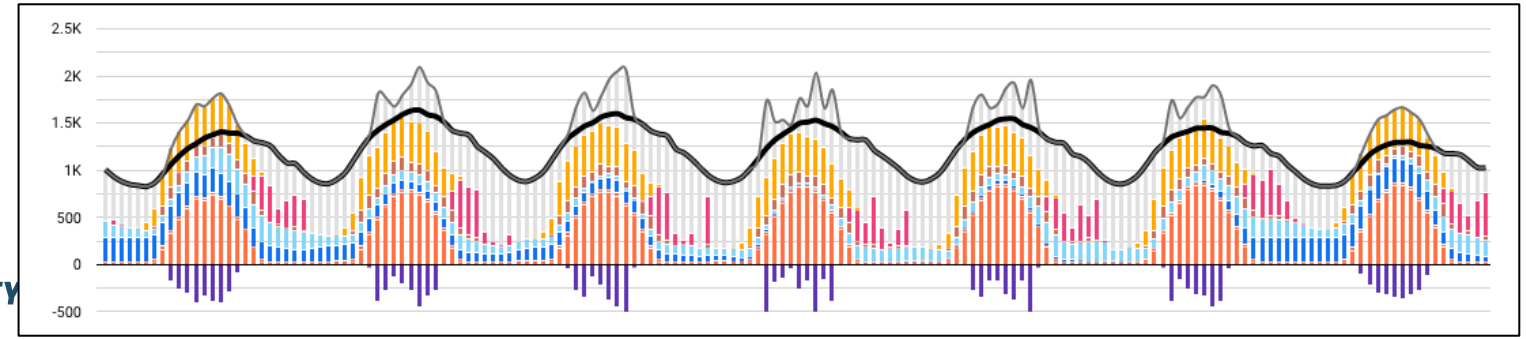
Preferred Conforming Portfolio – Market Exposure

Modeling exhibits a preference for portfolios that, on average, limit EBCE's sales of excess electricity into the market. This leads to periods of market reliance in "high load" months to limit exposure to low / negative prices in "lower load" months

Sample week – April 2030



Sample week – July 2030



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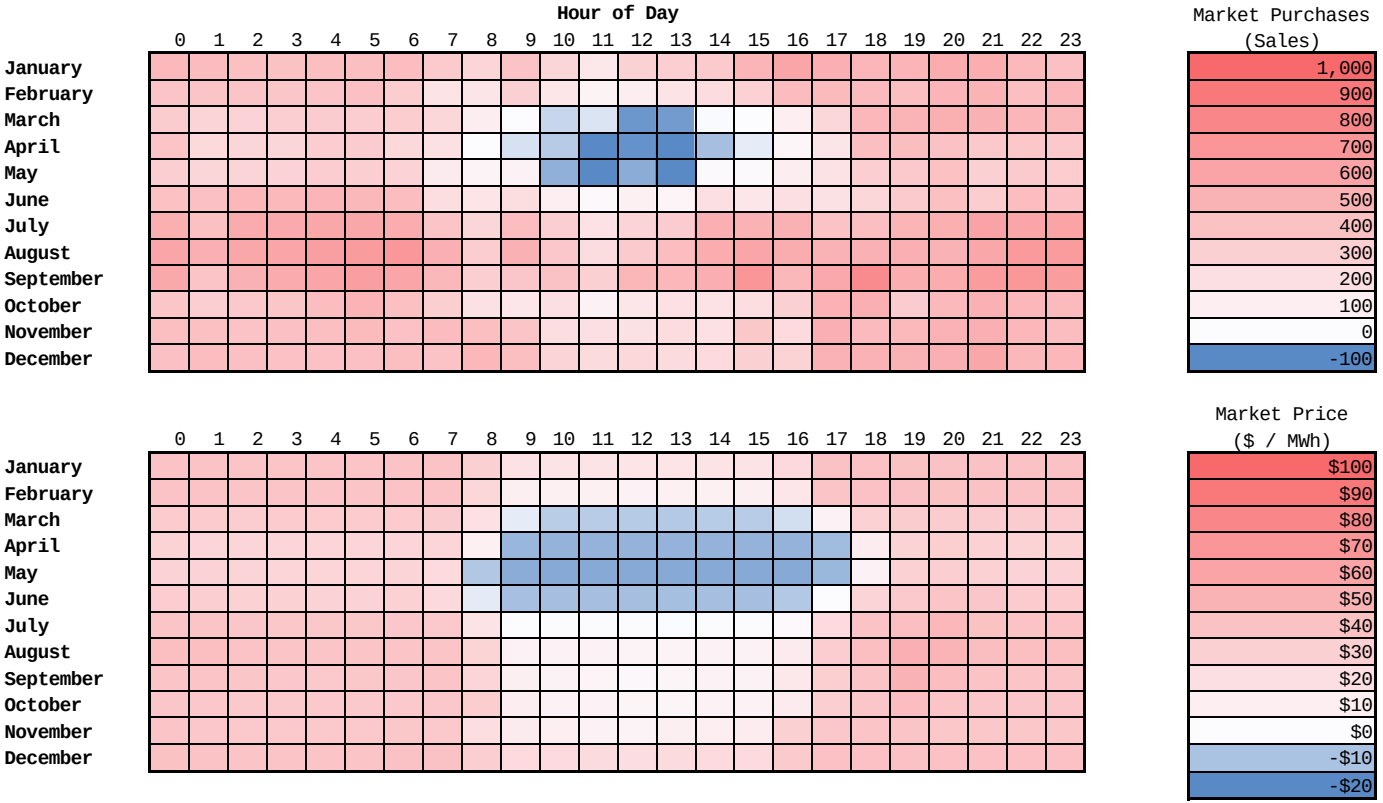
Portfolio Market Exposure - 2030

Attachment Staff Report Item 12B



Emissions Accounting Methodologies

Power Source Disclosure Report (PSDR)

- Measures and reports on total purchases by generation type as percent of total sales across a calendar year
- Doesn't consider when power is generated relative to customer demand, no method for hourly emission accounting
- The Board adoption of zero emissions power in 2030 would have a goal of zero reported emissions as measured through the PSDR
- 100% of the purchases (relative to retail sales) would be from either renewable or carbon free sources and reported on the Power Content Label (PCL)
- PSDR values are based on actual energy delivered, rather than “modeled” curtailment and market interactions used in the CSP
- Specification of the GridPath model focused on imitating the PSDR accounting

Emissions Accounting Methodologies

CPUC's Clean System Power (CSP) Tool

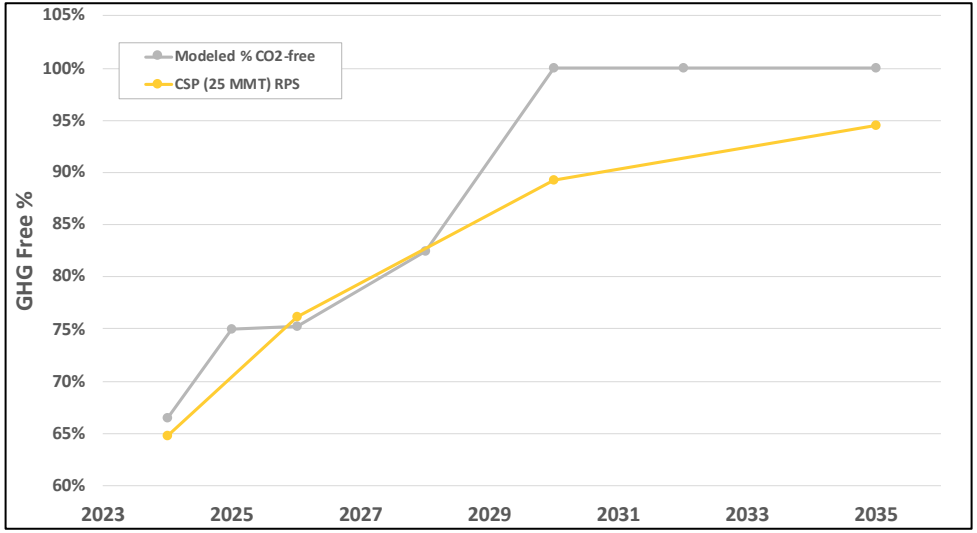
- **Hourly emissions accounting based on resource profiles and assumptions in the CPUC 30 and 25 MMT cases**
  - EBCE's emissions driven by model's preference for market power in the shoulder hours over additional long-term contracts that would increase the hours in which EBCE was a net seller into the market
- **Mismatch between curtailment in GridPath and CSP**
  - GridPath optimization ensured 100% RPS *as calculated by GridPath,* but does not have capability at this time to incorporate the method used in CSP
- **Difficult to get to 0 MMT CO_2 due to allocation of emissions from system resources**
- **CSP calculates emissions based on wholesale power and the timing of generation and demand, the PSDR does not include losses nor considers demand and generation coincidence for emissions accounting**

Preferred Conforming Portfolio – Compliance with RPS

	2024	2026	2030
Compliance Period	4	5	6
State RPS Requirement %	43.8	49.2	60.0
State RPS Requirement GWh	2,952	3,388	4,308
Delivered RPS (CSP)	4,370	5,253	6,415
State RPS Long-term Requirement (%)	65.0	65.0	65.0
State RPS Long-term Requirement (GWh)	1,919	2,203	2,800
Delivered LT RPS (CSP)	4,129	5,063	6,296

- Iterating between the two models to achieve a 100% RPS in the CSP is possible, but does not necessarily change emissions as reported in PSDR
- Staff will monitor progress toward the Board-specified goals as projects become operational and statewide resource mix develops; staff will present Board with opportunities to exceed current targets and meet affordability objectives

- GridPath modeling achieves 100% RPS by 2030, including curtailment
- CSP RPS calculation contains its own assumptions about extent to which renewable generation is deliverable



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Preferred Conforming Portfolio – Emissions

CO_2	*Unit*	2024	2026	2030	2035
Coal	*MMt/yr*	0.000	0.000	0.000	0.000
CHP	*MMt/yr*	0.163	0.162	0.159	0.098
Biogas	*MMt/yr*	0.000	0.000	0.000	0.000
Biomass	*MMt/yr*	0.000	0.000	0.000	0.000
System Power	*MMt/yr*	1.129	0.853	0.597	0.518
Asset Controlling Supplier	*MMt/yr*	0.000	0.000	0.000	0.000
Total	***MMt/yr***	**1.292**	**1.015**	**0.756**	**0.616**
Average emissions intensity	*tCO2/MWh*	0.192	0.147	0.105	0.082
Oversupply Emissions Credits	*MMt/yr*	0.16	0.18	0.10	0.22

Reminder of 2035 emission caps:
30MMT: 0.779 MMT
25 MMT: 0.623 MMT

Renewable and GHG-Free %	Unit	2024	2026	2030	2035
Retail Sales	GWh	6,740	6,887	7,180	7,540
RPS-Eligible Delivered Renewable	GWh	4,370	5,253	6,415	7,125
GHG free	GWh	4,370	5,253	6,418	7,134
RPS-Eligible Delivered Renewable Percentage	% of retail sales	65	76	89	94
GHG-free Percentage	% of retail sales	65	76	89	95

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Thank You!

Questions? Give us a call:

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Appendix Slides

Attachment Staff Report Item 12B

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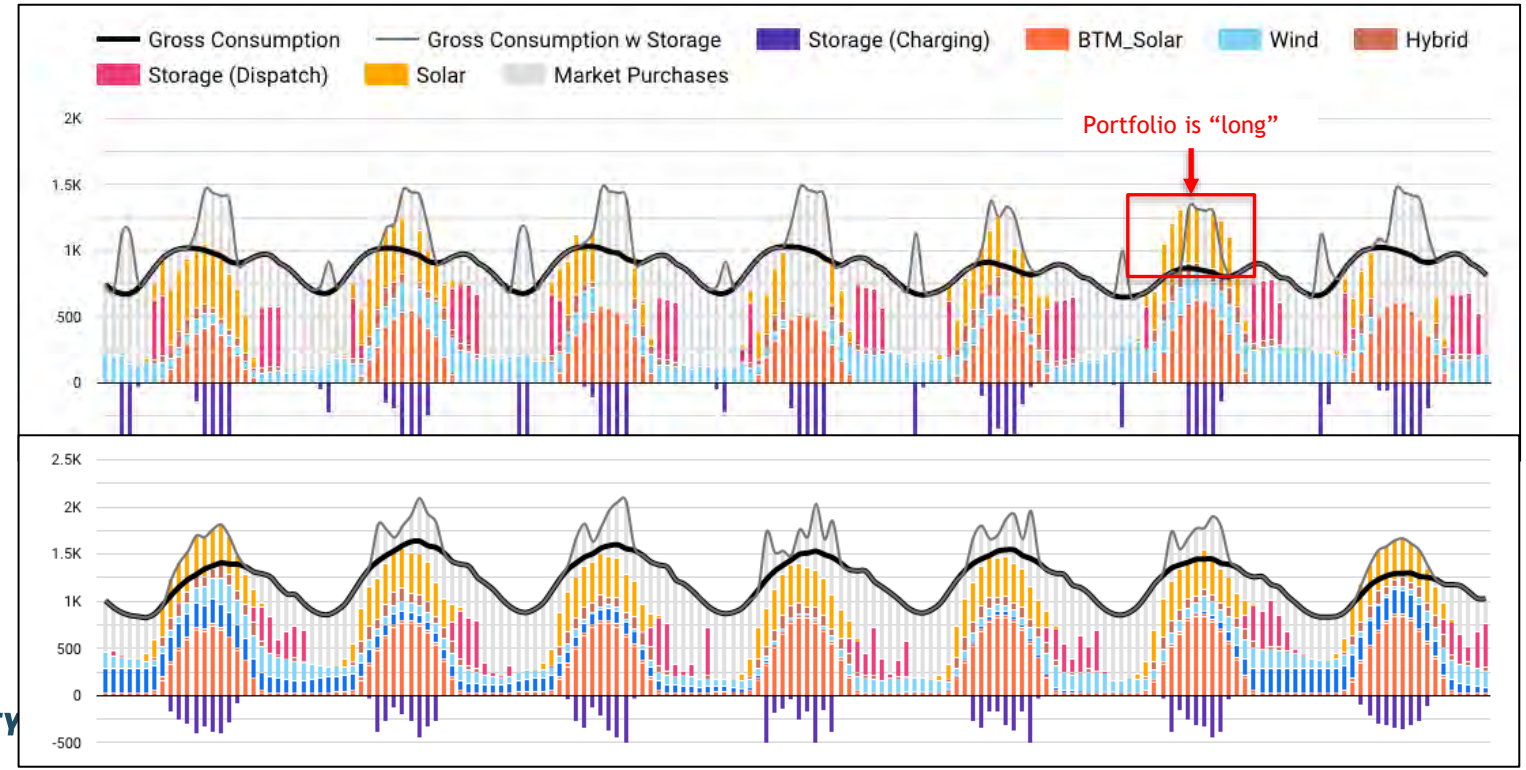
Preferred Conforming Portfolio – Market Exposure

Modeling exhibits a preference for portfolios that, on average, limit EBCE's sales of excess electricity into the market. This leads to periods of market reliance in "high load" months to limit exposure to low / negative prices in "lower load" months

Sample week - April 2025

Sample week - July 2025



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Portfolio Market Exposure - 2025

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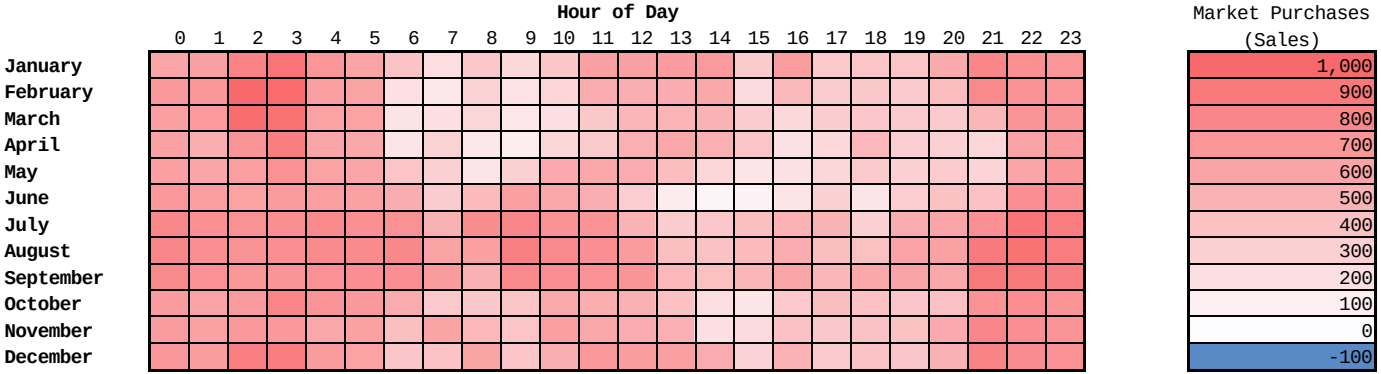
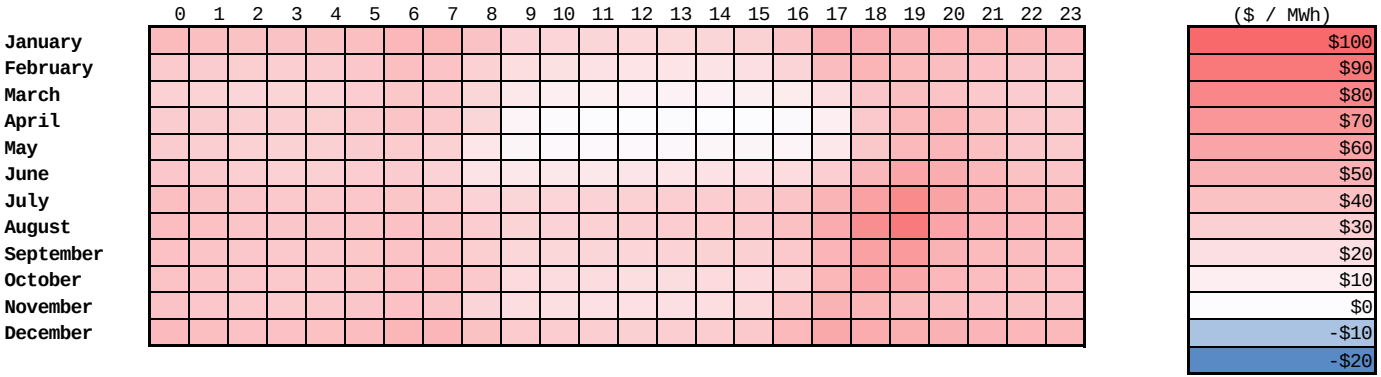


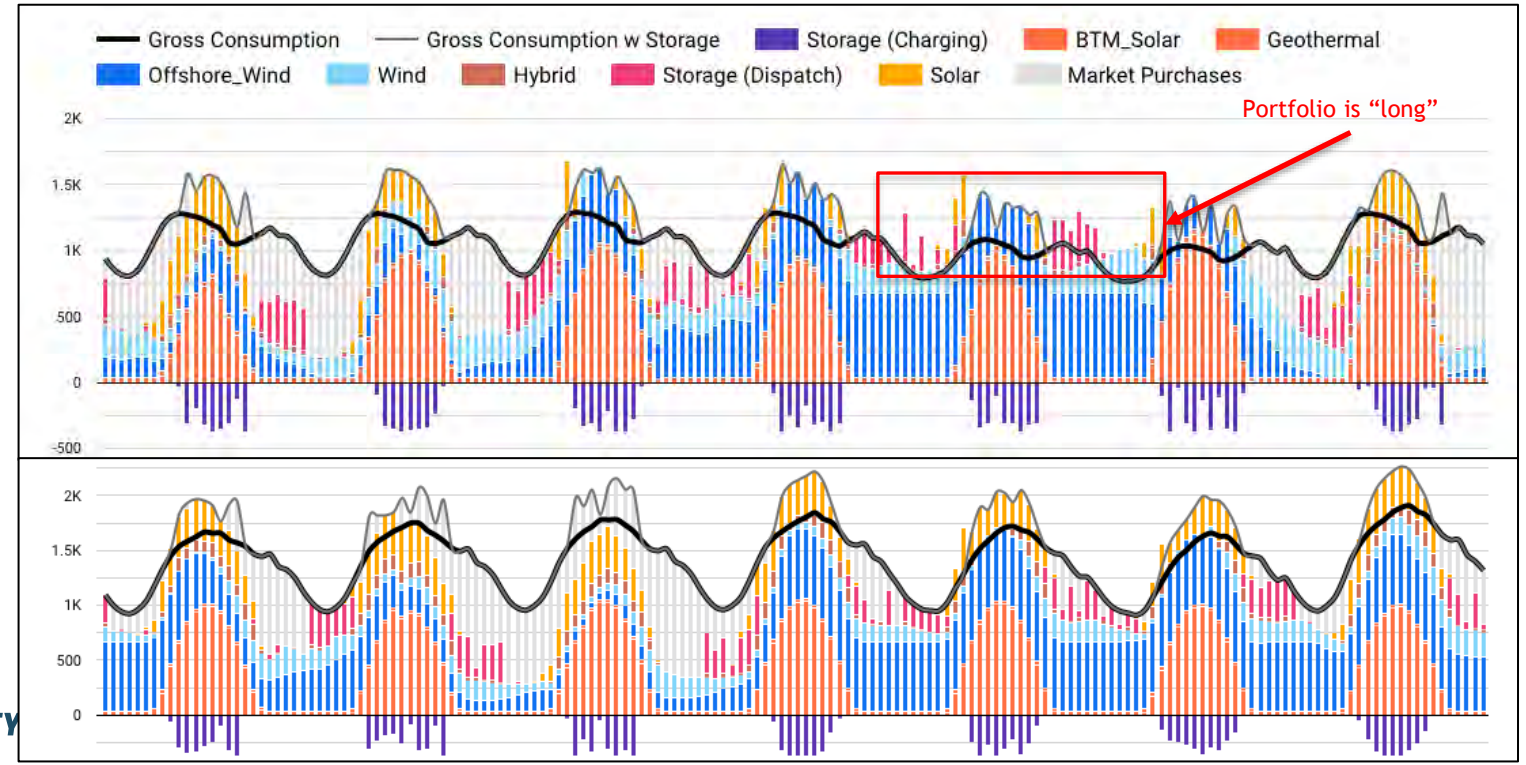


Preferred Conforming Portfolio – Market Exposure

Modeling exhibits a preference for portfolios that, on average, limit EBCE's sales of excess electricity into the market. This leads to periods of market reliance in "high load" months to limit exposure to low / negative prices in "lower load" months

Sample week - April 2035

Sample week - July 2035



EAST BAY COMMUNITY ENERGY

Portfolio Market Exposure - 2035

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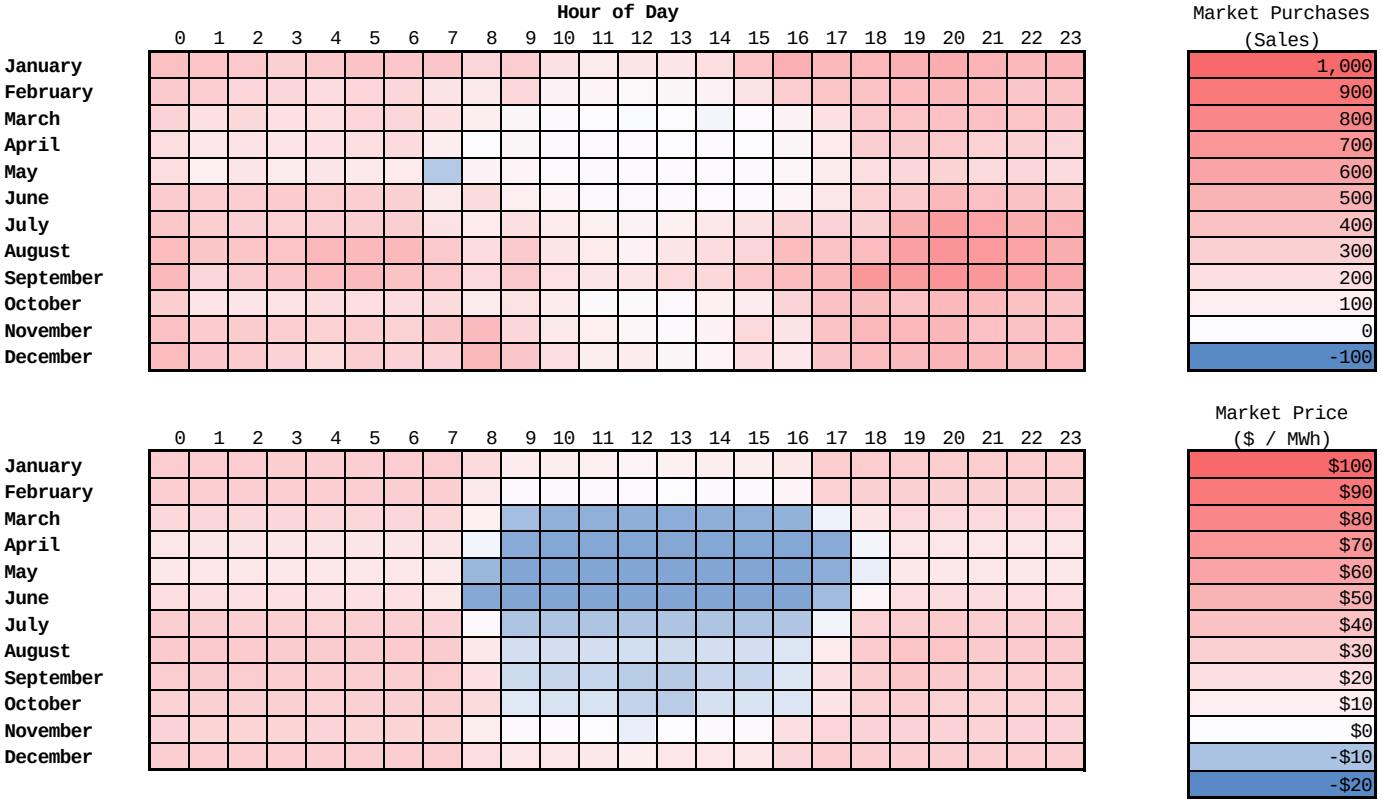

Standard LSE Plan

East Bay Community Energy Authority

2022 Integrated Resource Plan

November 1, 2022

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I. Executive Summary

The East Bay Community Energy Authority (EBCE), a Community Choice Aggregator (CCA) and public Load Serving Entity (LSE) governed by elected officials from its 15 member communities,[1] is pleased to participate in the Integrated Resource Planning (IRP) process. EBCE is proud to serve one of the most dynamic and diverse communities in the State of California, with a clear mandate to spur the transition to a clean, greenhouse gas (GHG)-free energy economy while providing affordable energy to our customers.

This IRP narrative presents EBCE's Preferred Conforming Portfolio that meets all applicable reliability constraints and assigned GHG benchmarks for the 2022 IRP cycle. Together with the accompanying Resource Data Templates (RDTs) and Clean System Power (CSP) workbooks for both the 30MMT and 25MMT 2035 GHG scenarios, this narrative satisfies the IRP filing requirements defined by the California Public Utilities Commission (CPUC or Commission). [Expected:] On October 19, 2022, EBCE's Board of Directors (Board) approved the analysis and delegated final review of filing materials to EBCE's CEO.

For the 2021–2022 IRP cycle, EBCE partnered with First Principles Advisory to build a bespoke modeling framework that optimizes the goals of reliability, GHG-emission reductions, and affordability of different resources. Leveraging the benefits afforded by this modeling framework, EBCE identified an optimized least-cost portfolio that surpasses the emission reduction targets from the CPUC and meets the requirements for GHG-free procurement adopted by EBCE's Board. With no current plans to include new large hydro contracts or an allocation of nuclear power in its future portfolio, EBCE's entire supply of GHG-free energy in 2030 would be made up of qualifying renewable resources. As a result, EBCE exceeds the California State goal that LSEs serve at least 60% of retail sales with qualifying renewable sources by 2030. Additionally, at least 39% of the renewable generation in EBCE's Preferred Conforming Portfolio would be from resources with which EBCE had signed long-term contracts.

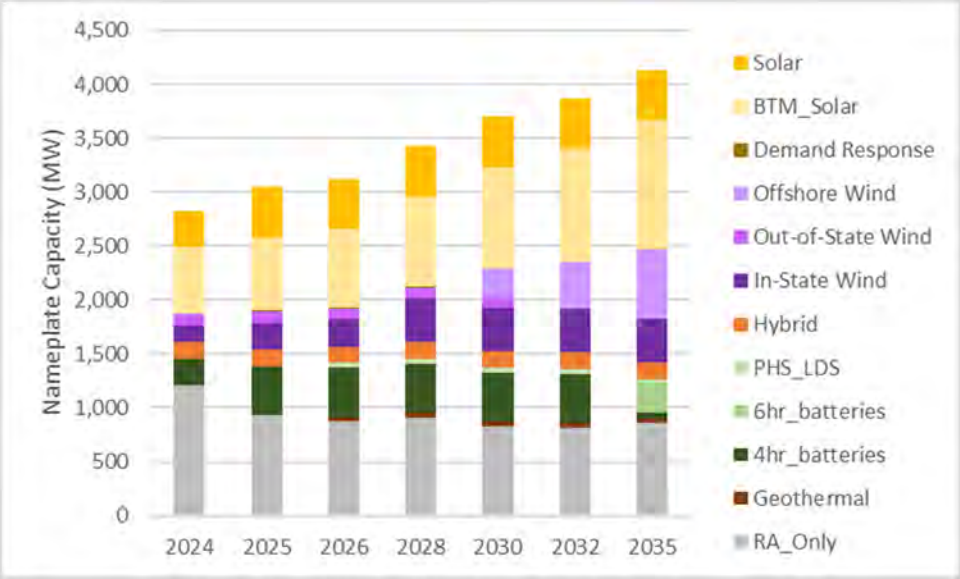
Actual procurement decisions may vary from EBCE's Preferred Conforming Portfolio due to prevailing market conditions, changes in direction from EBCE's Board, or CPUC action. Shortly after EBCE's completion of the modeling for this filing, the City of Stockton and EBCE's Board of Directors voted on and approved the City of Stockton's inclusion in EBCE's service territory starting in 2024. Required implementation filings to the CPUC have not been completed at this time, which means EBCE could not include Stockton's demand in the Preferred Conforming

[1] EBCE's current members are Alameda County and the Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, Tracy, and Union City. The City of Stockton is scheduled to join EBCE in 2024.

Portfolio.[2] Nonetheless, EBCE staff view this IRP filing as an opportunity to communicate the overall direction of its procurement roadmap over the medium- and long-term horizons to EBCE's governing boards, customers, and regulatory agencies, while also recognizing a need for subsequent analysis that incorporates the additional electric demand from Stockton customers. EBCE encourages stakeholders to view the Preferred Conforming Portfolio as the organization's directional view on likely procurement decisions regarding resource types, amounts, locations, and timing of future portfolio additions.

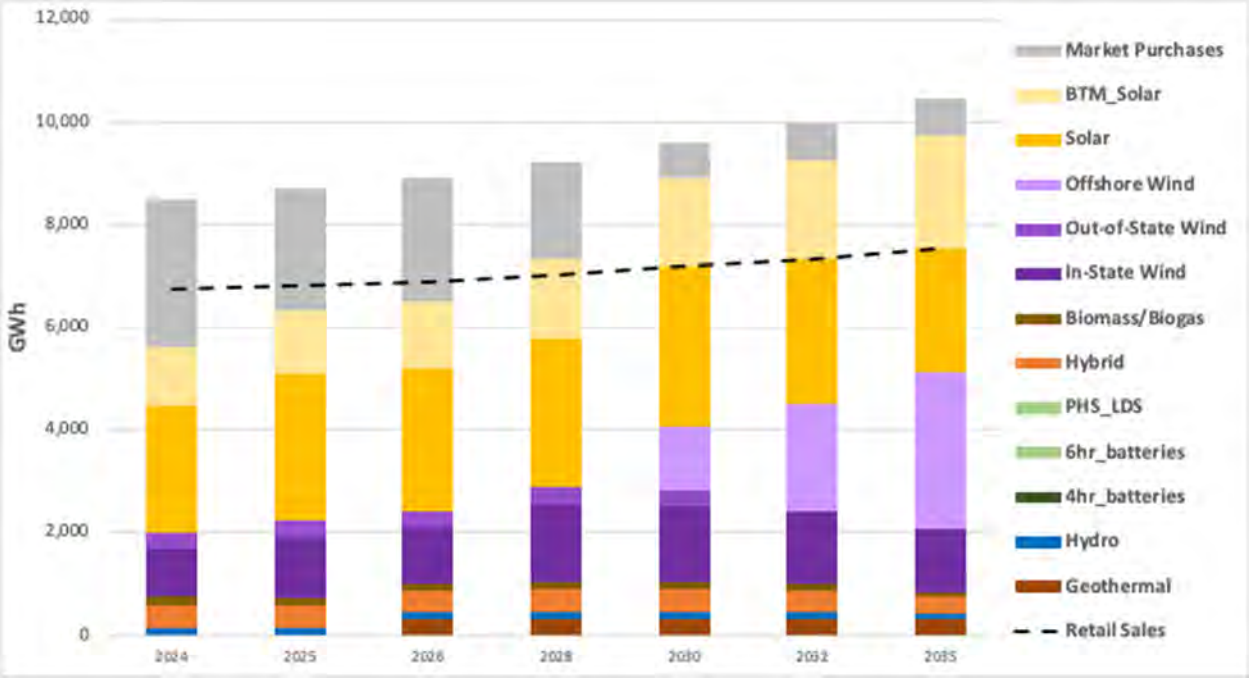
The total resource mix for EBCE's Preferred Conforming Portfolio is broken down by resource type in Figure 1 and Figure 2 below. These charts include EBCE's baseline resources, (i.e., resources already under contract), candidate resources (i.e., incremental resources added to the portfolio as part of this IRP exercise), environmental attributes (e.g., the Voluntary Allocation and Market Offer [VAMO]), and expected future market transactions (e.g., Resource Adequacy [RA]-Only contracts, fixed price Inter-Scheduling-Coordinator Trades [ISTs], and Day-Ahead Market purchases).

Figure 1 Nameplate Capacity of EBCE's Preferred Conforming Portfolio



[2] The CPUC determines the requirements for what constitute a "Conforming Portfolio" and specifies the retail sales forecast that each LSE must use for their filing to meet this definition. Nevertheless, EBCE appreciates that the Commission continues to allow LSEs to recommend modifications to the LSE-specific breakdown of the IEPR load forecast as part of the IRP cycle.

Figure 2 Annual Net Generation of EBCE's Preferred Conforming Portfolio[3]



To improve the applicability of the results from this IRP, EBCE staff supplemented the inputs and assumptions provided by the Commission with internal, proprietary forecasts on expected future market pricing conditions. The CPUC-provided values can be found in the 2022 Unified RA and IRP Modeling Datasets.[4] This dataset includes the 2021 California Energy Commission (CEC) Integrated Energy Policy Report (IEPR) load forecast, technology cost curves from NREL's 2021 Annual Technology Baseline (ATB), and the Effective Load Carrying Capacity (ELCC) values from the CPUC's latest loss-of-load-probability (LOLP) studies published in partnership with Energy and Environmental Economics, Inc. (E3), and Astrapé Consulting. EBCE staff relied on internal assumptions for the following: EBCE's actual procurement to date, expectations on future RA market pricing conditions and resource availability, and information germane to EBCE's local customer programs. All load-modifying resources, including BTM solar and storage, were modeled based on IEPR assumptions.

Once EBCE completed the modeling exercise to identify the optimal portfolio, staff transferred the results into the CPUC's RDT and CSP workbooks to verify that the portfolio conformed with all the applicable reliability and environmental requirements. As shown in the RDTs submitted

[3] Listed volumes include EBCE's VAMO allocations.

[4] https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/long-term-procurement-planning/2022-irp-cycle-events-and-materials/unified-ra-and-irp-modeling-datasets-2022

with this IRP Plan, EBCE's Preferred Conforming Portfolio satisfies its share of the system's Marginal Resource Needs in each year from 2024 – 2035 for both GHG scenarios. In addition, the calculated annual CO_2 emissions from the portfolio are 0.751 million metric tons (MMT) in 2030 and 0.614 MMT in 2035, which are less than EBCE's assigned GHG benchmarks of 0.772 MMT in 2030 and 0.623 MMT in 2035 for the 25 MMT GHG scenario.

II. Study Design

A. Objectives

Tracking the CPUC's IRP cycle, EBCE performs an IRP analysis exercise every two years to inform its mid-term and long-term procurement strategy. An integral part of EBCE's IRP analysis is to ensure that the planned resource mix can achieve the milestones assigned by EBCE's Board of Directors. Another key objective of this planning exercise is to identify a portfolio that satisfies CPUC requirements related to system reliability and GHG-reduction targets across the entire IRP planning horizon, which currently looks forward to 2035. The resulting portfolio not only is feasible to adopt and implement but may also assist EBCE in balancing the goals of reliability, decarbonization, and economics. Equally important, the IRP compliments the Commission's efforts to identify cost-effective resource choices that support system grid reliability and other statewide policy goals. The resource portfolio submitted for this IRP is the joint outcome of a series of fundamental modeling exercises as well as discussions with EBCE's Board, advisory committee, and other stakeholders.

The objectives for the analytical work described herein include:

- Satisfy the goals set forth by EBCE's Board;
- Satisfy the regulatory requirements of PU Code Section 454.52(a)(1);
- Satisfy all CPUC specifications for required conforming portfolios;
- Demonstrate how future portfolios achieve EBCE's 30 MMT and 25 MMT 2030 GHG Benchmarks;
- Demonstrate continuous progress towards meeting or exceeding the State's RPS targets;
- Show how EBCE's future portfolios will contribute to overall system reliability, particularly between the hours of 5 p.m. and 9 p.m.; and
- Provide insight into how State policy mandates and GHG emission reductions change EBCE customer costs over time.

B. Methodology

i. Modeling Tool(s)

For this IRP cycle, EBCE contracted with First Principles Advisory to design, build, and conduct the modeling analysis. To generate its Preferred Conforming Portfolios, EBCE and its consultant used a suite of modeling tools to account for all the critical modeling aspects related to planning: (1) capacity expansion modeling, (2) production cost modeling, and (3) local portfolio optimization. For capacity expansion modeling and local portfolio optimization, EBCE used Blue Marble Analytics' GridPath modeling software.[5] For production cost modeling of the California Independent System Operator (CAISO) system and broader WECC region, EBCE used Energy Exemplar's Plexos modeling program, an industry-leading fundamental modeling software.[6]

GridPath is an open-source fundamental modeling tool built and maintained by Blue Marble Analytics. The program can perform a variety of functions relevant to the IRP process, including regional capacity expansion modeling for CAISO and its surrounding balancing area (BA) regions. For this IRP exercise, GridPath was modified from its latest public release (version 14.1) to mimic the functionality available in RESOLVE. Specifically, two primary modifications were made: (1) an ELCC storage surface was added alongside the existing wind-solar ELCC surface; and (2) transmission deliverability constraints for peak primary, peak secondary, and off-peak time periods were also added to the linear problem (LP) formulation. In addition, GridPath was also modified to handle the CPUC-issued marginal ELCC values for each technology type across all years in the planning horizon. This last modification enabled EBCE to account for the annual reliability constraint in the RDT when generating its optimal portfolio.

For production cost modeling of the CAISO system and its surrounding BA neighbors, EBCE used Plexos. Working with First Principles Advisory, EBCE updated its Plexos' WECC zonal database with the Inputs and Assumptions for the 2022 IRP cycle and cross-referenced its database with the databases maintained by Energy Exemplar, the CEC and CAISO. The version of Plexos used for this modeling exercise was v9.0 R09.

ii. Modeling Approach

The modeling framework used to create EBCE's Preferred Conforming Portfolio is a multi-step process that begins with investment and operational decision modeling and concludes with local portfolio optimization. By individually addressing each of the key stages that constitute a robust

[5] See https://github.com/blue-marble/gridpath (latest available public codebase available at this website address).

[6] See https://www.energyexemplar.com/

IRP planning methodology, EBCE acquired greater clarity on potential future states of the grid and what the likely impacts would be to its portfolio. In addition, EBCE was able to conduct a detailed assessment of the trade-offs between its long-term goals and associated costs of such targets, and as a result, EBCE is better positioned to make timely, orderly, and cost-efficient procurement decisions for its customers.

Step 1 of the process begins with capacity expansion modeling (CEM) of the CAISO system in a manner similar to that taken by the CPUC's IRP instance of E3's RESOLVE model. Using the same inputs and spatiotemporal settings, GridPath was run by First Principles Advisory to conduct a benchmarking exercise with the CPUC's June 2022 Preferred System Plan (PSP). Although comparable results between the two models were attained, EBCE used the official results from RESOLVE to eliminate the introduction of modeling basis error downstream. Nevertheless, with GridPath successfully benchmarked to RESOLVE, EBCE is now capable of conducting additional capacity expansion modeling studies of the bulk electric system using alternative assumptions for future planning exercises.

Step 2 in the modeling sequence is to take the system buildout from Step 1 and port the selected candidate resources into a production cost model to assess system reliability, emissions, and regional forward pricing conditions in a more detailed manner. Similar to Step 1, EBCE assumed the same fuel and carbon price forecasts as listed in the official 2022 Inputs and Assumptions dataset. To map the candidate resources to the appropriate geographic region, First Principles Advisory leveraged the results of the CPUC's Resource-to-Busbar methodology defined for the 2021-2022 Transmission Planning Process (TPP)[7]. Once the setup of the Plexos model was complete, the model was run to ensure there was sufficient reliability across all hours and generated 8760 pricing for all the primary load zones in California. For this IRP cycle, EBCE only ran deterministic studies in Plexos and did not conduct any stochastic runs. EBCE will investigate the added utility in including stochastic runs to augment its reliability and pricing analysis for future IRP filings.

Once the Plexos modeling is finished, the analysis of the CAISO system is complete. The modeling framework then transitions into "local mode" for Step 3. In this step, Gridpath seeks to optimize EBCE's portfolio for the active planning horizon by identifying the candidate resources that, together with the existing baseline resources, will meet EBCE's reliability and environmental targets in a least cost manner. At this stage, financial markets for both energy and capacity are defined in Gridpath and the model implements a price-taking assumption on behalf of EBCE. The

[7] https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/long-term-procurement-planning/2019-20-irp-events-and-materials/portfolios-and-modeling-assumptions-for-the-2021-2022-transmission-planning-process.

instantiation of these markets enables GridPath to assist EBCE in identifying the optimal tradeoff between bundled energy power purchase agreements (PPAs) and energy storage agreements (ESAs)[8], RA-only contracts, and market exposure to the CAISO's Day-Ahead (DA) market. In addition to these economic considerations, GridPath is also able to account for any Board-specific RPS and/or GHG goals that exceed state-mandated targets.

The figure below conceptually outlines each step of the modeling framework.

[8] Hereinafter all long-term agreements that include multiple products, whether in the form of an ESA, PPA or other form of contract, are referred to as "bundled PPAs" for ease of reference.

Figure 3 Graphical Depiction of EBCE's IRP Modeling Methodology

Step	Stage: Region	Methodology Description
1	System CEM (GridPath)	Using the official I&A values, GridPath replicated the CPUC's June 2022 PSP generated in RESOLVE. **Note:** for this IRP cycle, EBCE did not evaluate alternative system-wide buildout scenarios and used the official published results for 30 MMT and 25 MMT base cases for the sake of consistency. For this IRP cycle, GridPath was primarily run to benchmark its results to RESOLVE. 
2	System PCM (Plexos)	Taking the official results from the June 2022 version of RESOLVE for the 30 MMT and 25 MMT cases, a zonal configuration of WECC—with an emphasis on the CAISO BA— is modeled for select calendar years from 2024-2035 to assess system adequacy, generate indicative forward pricing, and estimate system wide GHG emissions. 
3	Local Portfolio Optimization (Gridpath)	Using the results from Step 2 along with the relevant CPUC-administered inputs for RA and GHG targets, GridPath identifies a portfolio with the optimal selection of candidate resources that will—along with the existing baseline resources— satisfy all the requirements LSEs must meet for a Conforming Portfolio as well as any additional LSE-specific constraints that exceed the requirements of the IRP proceeding. 

III. Study Results

A. Conforming and Alternative Portfolios

Pursuant to ALJ Ruling, an LSE is permitted to submit a single preferred portfolio where that LSE intends to go below its proportional share of both the 2030 30 MMT benchmark and the 2035 25

MMT benchmark.[9] EBCE intends to achieve a lower portfolio emissions level than its expected share of both the 30 MMT and 25 MMT 2035 benchmark. Therefore, EBCE elected to develop a single conforming portfolio for the 2022 IRP cycle. Table 1 lists the resources and corresponding nameplate capacities for the calendar years explicitly modeled in GridPath. For additional project related information, please refer to the RDT attachments.

Table 1 Nameplate Capacity (MW) of EBCE's Preferred Conforming Capacity by Project Type and Technology[10]

Project Type	Tech	Project	2024	2026	2030	2035
baseline	4hr_batteries	HenriettaStorage	10	10	10	10
baseline	4hr_batteries	Sanborn	47	47	47	0
baseline	4hr_batteries	Tumbleweed	50	50	50	50
baseline	BTM_Solar	BTM_Solar	618	719	940	1,196
baseline	Demand Response	OhmConnect	10	10	0	0
baseline	Demand Response	SUN01RA2031	1	1	1	0
baseline	Geothermal	FervoFECNevada1	0	40	40	40
baseline	Hybrid	DaggettSolarPower3	50	50	50	50
baseline	Hybrid	Scarlet	100	100	100	100
baseline	In-State Wind	SummitWind	56	56	56	56
baseline	Out-of-State Wind	Tecolote	100	100	100	0
baseline	RA_Only	Aggregate	1,205	873	832	858
baseline	Solar	EdwardsSolarII	100	100	100	100
baseline	Solar	RosamondCentral	112	112	112	112
baseline	Solar	TulareSolarCenter	56	56	56	56
candidate	4hr_batteries	Arizona_Li_Battery	57	117	117	0
candidate	4hr_batteries	Northern_California_Li_Battery	44	117	117	0
candidate	4hr_batteries	Riverside_Li_Battery	49	117	117	0
candidate	6hr_batteries	Generic_6hr_battery	0	0	0	268
candidate	8hr_batteries	Generic_8hr_battery	0	47	47	47
candidate	In-State Wind	Northern_California_Wind	100	200	349	349
candidate	Offshore Wind	Humboldt_Bay_Offshore_Wind	0	0	256	638
candidate	RA_Only	Aggregate	59	16	454	590
candidate	Solar	Arizona_Solar	55	205	205	205

[9] *ALJ Ruling Finalizing Load Forecasts and GHG Targets for the 2022 IRP LSE Plans,* issued June 15, 2022 at pp. 12, 15.

[10] Baseline "RA_Only" resources include EBCE's allocated share of Cost Allocation Mechanism (CAM) and Central Procurement Entity (CPE) related capacity.

Rather than assuming a proportional share of the June 2022 PSP, EBCE leveraged the capabilities of its modeling framework to identify a portfolio that was better suited to satisfy both state-mandated and EBCE-specific requirements. Table 2 lists the planned resources the organization would have selected had EBCE taken its proportional share of the PSP Portfolio[11]. To facilitate a comparative analysis, Table 3 summarizes EBCE's planned resources that GridPath selected for the Preferred Conforming Portfolio using a similar classification scheme.[12] Table 4 and Table 5 provide a similar comparison for the entire portfolio – including both baseline (i.e., existing) and candidate (i.e., planned) resources.

Table 2 EBCE's Pro-Rate Share of Planned Resources (MW) from 2022 PSP (25 MMT Scenario)

Technology	2024	2025	2026	2028	2030	2032	2035
DR	21	24	24	24	24	24	24
Solar	229	324	337	369	706	706	819
Geothermal	3	3	33	33	33	33	33
Biomass	2	3	3	4	4	4	4
In-State Wind	76	126	126	126	126	126	126
Out-of-State Wind	0	0	0	142	142	142	142
Offshore Wind	0	0	4	6	6	91	139
PHS / LDS	0	0	6	30	30	30	30
Li_Battery	298	349	349	357	429	473	584

Table 3 Candidate (i.e., Planned) Resources (MW) Selected for EBCE's Preferred Conforming Portfolio

Technology	2024	2025	2026	2028	2030	2032	2035
DR	0	0	0	00	0	0	0
Solar	55	205	205	205	205	205	205
Geothermal	0	0	0	0	0	0	0
Biomass	0	0	0	0	0	0	0
In-State Wind	100	200	200	349	349	349	349
Out-of-State Wind	0	0	0	0	0	0	0
Offshore Wind	0	0	0	0	256	434	638
PHS / LDS	0	0	47	47	47	47	47
Li_Battery	150	350	350	350	350	350	268

[11] EBCE staff assumed 2.95% of total system load for this exercise.

[12] Table includes only bundled resources and excludes market-related transactions (e.g., RA-only or IST contracts). These volumes can be found in Table 5.

Table 4 EBCE's Pro-Rate Share of Total Resources (MW) from 2022 PSP (25 MMT Scenario)

Technology	2024	2025	2026	2028	2030	2032	2035
RA	869	809	804	804	804	793	777
Hydro	293	293	293	293	293	293	293
DR	86	89	89	89	89	89	89
Solar	713	809	821	853	1,190	1,190	1,190
Geothermal	50	50	80	80	80	80	80
Biomass	26	27	27	28	28	28	28
In-State Wind	282	332	332	332	332	332	332
Out-of-State Wind	0	0	0	142	142	142	142
Offshore Wind	0	0	4	6	6	91	139
PHS / LDS	56	56	62	86	86	86	86
Li_Battery	357	408	408	416	487	531	642

Table 5 Nameplate Capacity (MW) of Total Resources Selected for EBCE's Preferred Conforming Portfolio

Technology	2024	2025	2026	2028	2030	2032	2035
RA	1,264	1,001	950	954	977	910	890
Hydro	0	0	0	0	0	0	0
DR	11	11	11	11	1	0	0
Solar	472	622	622	622	622	622	622
Geothermal	0	0	40	40	40	40	40
Biomass	0	0	0	0	0	0	0
In-State Wind	156	256	256	406	406	406	406
Out-of-State Wind	100	100	100	100	100	0	0
Offshore Wind	0	0	0	0	256	434	638
PHS / LDS	0	0	47	47	47	47	47
Li_Battery	300	500	500	500	500	500	371

As shown in Figure 4 and Figure 6 below, EBCE's Preferred Conforming Portfolio exhibits noteworthy differences when compared to its pro-rata share of the PSP. One of the principal distinctions between the two portfolios is the Preferred Conforming Portfolio's greater preference for wind energy over solar energy. While multiple assumptions in the GridPath model promote this resource type preference, the primary drivers are wind's resource profile during favorable LMP hours and greater per-unit reliability benefits thanks to the higher assigned ELCC factors from the CPUC. The other salient difference between the two portfolios is the selection between RA-only contracts and storage with tolling benefits. Similar to the wind-solar tradeoff,

multiple assumptions affect the model's evaluation of RA-only and storage contracts for the portfolio. The primary ones, however, are the market price of RA, forecasted hourly energy prices, storage CAPX costs, and the required minimum contract length for both candidate resources.

Figure 4: Percent Allocation of EBCE's Portfolio Assuming Pro-Rate Share of 2022 PSP (25 MMT Scenario)

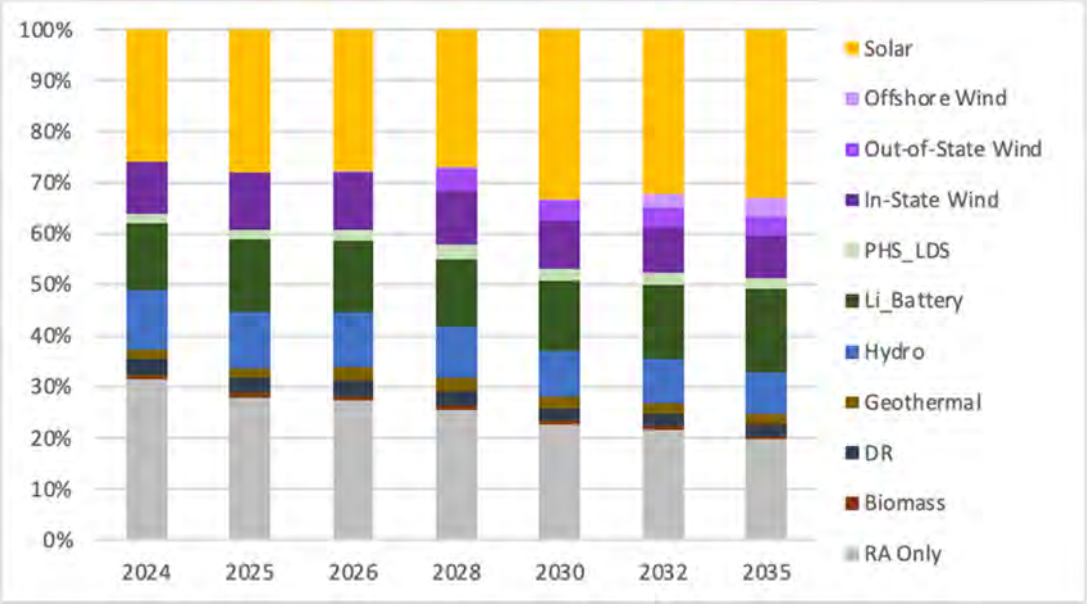
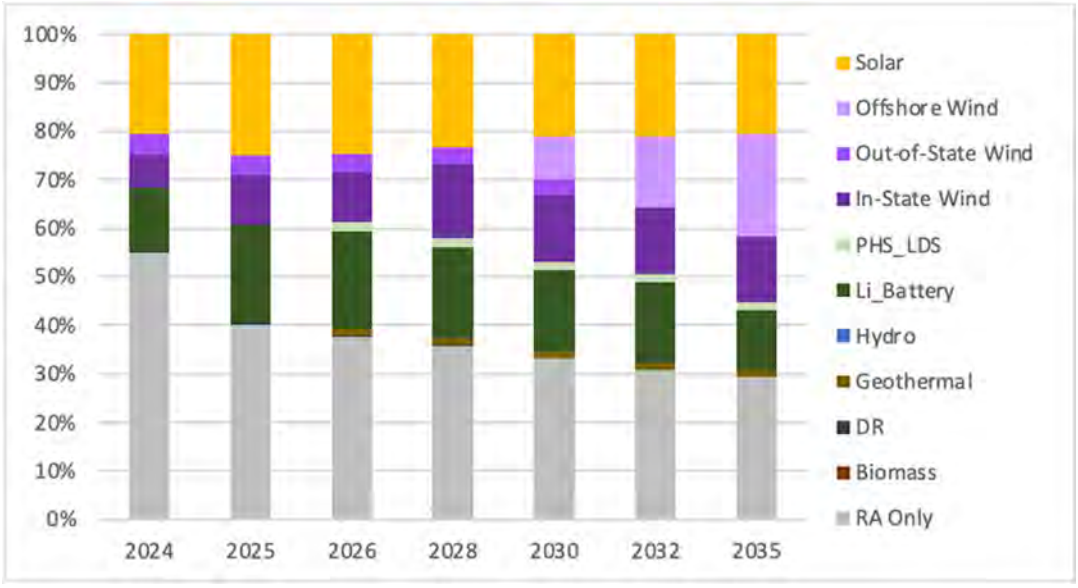


Figure 5: Percent Allocation of EBCE's Preferred Conforming Portfolio



iii. EBCE's existing and contracted resources

EBCE began executing long-term offtake agreements in 2019 and has released three RFOs since its inception. Presently, five of EBCE's long-term contracted assets are operational resources and numerous additional resources are scheduled to achieve commercial operation in the next few years. These resources are described below as physical, in development resources, consistent with the definitions provided in the Resource Data template. To date, EBCE has contracted with nine RPS-eligible generating resources of varying types and in some cases with co-located energy storage, to reduce emissions and to cover our load. These contracts are not included in the CPUC's Baseline resource list and were added to the Resource Data Templates as physical resources in development for EBCE's 30 MMT and 25 MMT conforming portfolios to ensure completeness.[13]

- **Scott Haggerty Wind Energy Center**: The project is a 57.5 MW wind facility under contract with Greenbacker Energy; PPA executed on July 9, 2019. It is solely a wind facility and is located in Alameda County, making it the first in-county generating facility with energy off-take that EBCE contracted. The facility achieved Commercial Operation Date (COD) on July 20, 2021 and the term of the PPA is 20 years.
- **Golden Fields Solar**: The project is a 112 MW solar facility developed by Clearway Energy Group; PPA executed on July 26, 2019 . It is solely a solar facility and is located in Kern County. The facility achieved COD on December 22, 2020 and the term of the PPA is 15 years.
- **Henrietta D Storage**: The project is a 10 MW, 4-hour duration energy storage (40 MWh) resource developed by Convergent Energy and Power; ESA executed on July 30, 2021. It is solely an energy storage facility and is located in Kings County. The facility achieved COD under its contract on January 1, 2022. The term of the PPA is 15 years.
- **Tecolote Wind**: This project is a wind facility developed by Pattern Energy; PPA executed on December 20, 2021. It is solely a wind facility and is located in Torrance and Guadalupe counties, New Mexico. The facility achieved COD on December 20, 2021 and the term of the PPA is 10 years.
- **Tulare Solare Center**: This project is a 55.8 MW solar facility under contract with Idemitsu Renewables; PPA executed June 10, 2019. It is solely a solar facility and is located in Tulare County. The facility achieved COD on April 30, 2022 and the term of the PPA is 15 years.
- **Scarlet I Solar Park**: This project is a 100 MW solar plus 30 MW 4-hour duration energy storage (120 MWh) resource developed by EDP Renewables North America; amended and restated PPA+ESA executed on March 21, 2022. It will be located in Fresno County. The expected COD is March, 2023 and the term of the PPA is 20 years.
- **Edwards Energy Center**: This project is a 100 MW solar facility developed by Terra-Gen; PPA executed on September 25, 2019. It is solely a solar facility and will be located in Kern County. The expected COD is December, 2022 and the term of the PPA is 15 years.

[13] *See* Attachment 3a (Resource Data Template – 25 MMT) and Attachment 3b (Resource Data Template – 30 MMT).

- **Sanborn Storage**: This project is a 47 MW 4-hour duration energy storage (188 MWh) resource developed by Terra-Gen; ESA executed on September 3, 2021. It is solely and energy storage facility and will be located in Kern County. The expected COD is December, 2022 and the term of the ESA is 12 years.
- **Daggett 3**: This project is a 50 MW solar and 12.5 MW 4-hour duration energy storage (50 MWh) resource developed by Clearway Energy; PPA+ESA executed on September 29, 2021. The facility will be located in San Bernadino County. The expected COD is July, 2023 and the term of the PPA+ESA is 15 years.
- **Oberon II**: This project is a 125 MW solar and 125 MW 4-hour duration energy storage (500 MWh) resource developed by Intersect Power with an executed PPA + RA Agreement on September 3, 2021. The facility will be located in Riverside County. The expected COD is January, 2024 and the term of the contract is 10 years.
- **Tumbleweed Energy Storage**: This project is a 500 MW 4-hour duration energy storage (200 MWh) resource developed by REV Renewables with an executed ESA on September 20, 2021. The facility will be located in Kern County. The expected COD is June, 2024 and the term of the contract is 15 years.
- **FEC Nevada 1**: This project is a40 MW geothermal facility developed by Fervo Energy; PPA executed on April 6, 2022.It is solely a geothermal facility and will be located in Churchill County, Nevada. The expected COD is June, 2026 and the term of the contract is 15 years.

Table 6 EBCE's current list of contracted long-term generation ("development resources")

Seller	Project Name	Technology	Nameplate MW	Storage MW	County	Expected COD	Term (Years)
Greenbacker Energy	Scott Haggerty Wind Energy Center	Wind	57.5	N/A	Alameda	7/20/2021	20
Clearway Energy Group	Golden Fields Solar	Solar	112	N/A	Kern	12/22/2021	15
Idemitsu Renewables	Tulare Solar Center	Solar	55.8	N/A	Tulare	4/30/2021	15
EDP Renewables North America	Scarlet I Solar Park	Solar + Storage	100	30MW/120MWh	Fresno	3/31/2022	20
Terra-Gen	Edwards Energy Center	Solar + Storage	100	TBD	Kern	12/31/2022	15
Clearway Energy Group	Daggett 3	Solar + Storage	50	12.5MW/50MWh	San Bernadino	7/30/2023	15

Seller	Project Name	Technology	Nameplate MW	Storage MW	County	Expected COD	Term (Years)
Intersect Power	Oberon II	Solar + Storage	125	31.25MW/125MWh	Riverside	1/1/2024	15
Pattern Energy	Tecolote Wind	Wind	100		Guadalupe & Torrance, NM	12/20/2021	10
Fervo Energy	FEC Nevada 1	Geothermal	40		Churchill, NV	5/01/2026	15
Convergent Energy and Power	Henrietta D	Storage		10MW/40MWh	Kings	01/01/2022	15
REV Renewables	Tumbleweed Energy Storage	Storage		50MW/200MWh	Kern	6/01/2024	15
Terra-Gen	Sanborn Storage	Storage		47MW/188MWh	Kern	12/28/2022	12

B. Preferred Conforming Portfolios

EBCE's Preferred Conforming Portfolio meets the CPUC's requirements of "conforming" and is consistent with the relevant statutory requirements of PU Code Section 454.52(a)(1). Below is a description of how EBCE's planned resource mix satisfies each of those requirements.

- The GHG reduction targets established by the State Air Resources Board for the electricity sector are set such that economywide GHG emissions reductions of 40 percent from 1990 levels by 2030 are achieved. By EBCE meeting its assigned GHG benchmarks for the 30MMT and 25 MMT scenario—as reflected in the accompanying CSP Calculators, this requirement is satisfied.
- Article 16 (commencing with Section 399.11) of Chapter 2.3 requires LSEs to meet at least 60 percent of retail sales with eligible renewable energy resources by December 31, 2030. Based on CSP accounting methodologies, EBCE's conforming portfolio is expected to meet 89% of retail sales with eligible RPS energy by 2030.
- Along with its current projections on future market pricing conditions, EBCE uses the costs assumptions provided by the CPUC. The organization's IRP modeling methodology applies these assumptions and identifies the least-cost portfolio that satisfies all defined reliability, GHG, and RPS constraints. As a result, EBCE's Preferred Conforming Portfolio fulfills its obligation to serve customers at just and reasonable rates and minimizes impacts on ratepayer's bills.

- By satisfying the reliability constraint defined in the RDT for both the 30MMT and 25MMT GHG scenario, EBCE believes it has demonstrated how its Preferred Conforming Portfolio meets the near-term and forecast long-term resource adequacy requirements of Section 380.
- Net of expected curtailments, EBCE's planned resource mix is scheduled to provide at least 65 percent of its RPS requirement for each compliance period from contracts of 10 years or more in duration. Please see the following table for supporting values.
- EBCE's planned resource mix is a diverse mix of resources that spans multiple technology types. In instances in which transmission upgrades are possible or likely (e.g., offshore wind) the organization will work with the appropriate stakeholders to assess commercial viability in a timely and costly manner.
- Enhance demand-side energy management.
- EBCE will continue to monitor the cost and availability of alternative supply-side and demand-side resources that can minimize air pollutant emissions, particularly in disadvantaged communities.

Table 7 Required RPS Portfolio Level and CSP Tool Modeled RPS Generation

	2024	2026	2030
Compliance Period	4	5	6
State RPS Requirement %	43.8	49.2	60.0
State RPS Requirement GWh	2,952	3,388	4,308
Delivered RPS (CSP)	4,370	5,253	6,415
State RPS Long-term Requirement (%)	65.0	65.0	65.0
State RPS Long-term Requirement (GWh)	1,919	2,203	2,800
Delivered LT RPS (CSP)	4,129	5,063	6,296

C. GHG Emissions Results

This section discusses the emissions results for EBCE's Preferred Conforming Portfolio as calculated by the Clean System Power (CSP) calculator.[14] Because EBCE is submitting a single portfolio that satisfies both GHG scenarios, the values listed below are from the 25 MMT version of the CSP.

While EBCE's portfolio meets the accepted definition of a 100% Renewable/CO2-Free Portfolio (eligible renewable or carbon-free resources as a share of *retail* sales, calculated on an annual basis), the modeling specifications developed by staff allowed the use of system power to shape the renewable output and account for transmission and distribution losses. When the resulting Preferred Conforming Portfolio was input into the CSP, which takes an hourly view of emissions associated with a given portfolio, the system power portion of EBCE's portfolio is calculated as emitting 0.597 million metric tons (MMT) in 2030 and 0.518 MMT in 2035. Additionally, the CSP assigns each LSE a share of the system emissions from Combined Heat and Power (CHP) resources. Table 8 shows EBCE's CPUC-assigned GHG benchmarks for 2030 and 2035 at 0.772 MMT and 0.623 MMT, respectively. With reported emissions of 0.749 MMT in 2030 and 0.609 MMT in 2035, EBCE's Preferred Conforming Portfolio is compliant with the CPUC's targets in both years.

Table 8 CO_2 Emissions Summary of EBCE's Preferred Conforming Portfolio[15]

CO_2	*Unit*	2024	2026	2030	2035
Coal	*MMt/yr*	0.000	0.000	0.000	0.000
CHP	*MMt/yr*	0.163	0.162	0.159	0.098
Biogas[16]	*MMt/yr*	0.000	0.000	0.000	0.000
Biomass[16]	*MMt/yr*	0.000	0.000	0.000	0.000
System Power	*MMt/yr*	1.130	0.854	0.590	0.511

[14] The Clean System Power (CSP) tool is an excel-based workbook provided the CPUC that calculates emissions from CAISO system's dispatchable thermal generation and unspecified imports and allocates them to LSEs based on their planned IRP portfolios.

[15] CHP emissions shown in Table 8 represent EBCE's pro rata share of behind-the-meter Combined Heat and Power (CHP) interconnected to the CAISO-controlled electric grid. CHP emissions are determined by the CSP calculator as a function of LSE load, unrelated to the 'actual' GHG-emission profile of any specific LSE's resource portfolio. EBCE is required to include this allocation in its CSP.

[16] As shown in the section below, EBCE is allocated particulate emissions associated with the VAMO allocation of Biomass / Biogas attributes. However, the CSP assigns no CO2 emissions for these resources.

Asset Controlling Supplier	*MMt/yr*	0.000	0.000	0.000	0.000
Total	***MMt/yr***	**1.293**	**1.015**	**0.749**	**0.609**
Average emissions intensity	*tCO_2/MWh*	0.192	0.147	0.104	0.081
Oversupply Emissions Credits	*MMt/yr*	0.15	0.17	0.10	0.22

- The only inputs specified by EBCE for the CSP workbook were the CPUC-issued retail sales and BTM solar forecasts and EBCE's supply portfolio information, which are copied over from the RDT. For this exercise, EBCE did not include any custom hourly load shapes or user-specified production profiles.
- Table 9 provides a summary of the amount of EBCE's portfolio that is provided by RPS and GHG-F resources according to the methodology used in the CSP. While GridPath modeling indicates that EBCE would achieve 100% of retail sales from GHG-free resources in 2030 and beyond, the CSP calculator expects curtailment beyond that shown in GridPath. This modeled curtailment lowers the percentage of retail sales from GHG-free resources to 89% and 95% in 2030 and 2035, respectively. Please refer to the CSP calculator file for more information on the emission calculations used to generate the results shown in Table 8 and Table 9.

Table 9 CSP Summary of EBCE's Preferred Conforming Portfolio

Renewable and GHG-Free %	Unit	2024	2026	2030	2035
Retail Sales	GWh	6,740	6,887	7,180	7,540
RPS-Eligible Delivered Renewable	GWh	4,365	5,249	6,425	7,136
GHG free	GWh	4,365	5,249	6,428	7,147
RPS-Eligible Delivered Renewable Percentage	% of retail sales	65	76	89	95
GHG-free Percentage	% of retail sales	65	76	90	95

D. Local Air Pollutant Minimization and Disadvantaged Communities

i. Local Air Pollutants

The following tables provide a breakdown of the air pollutant emissions (e.g., Particulate Matter (PM) 2.5, SO_2, and NO_X) associated with EBCE's Preferred Conforming Portfolio as calculated by the CSP. As previously mentioned, EBCE's primary source of air pollutants are the result of its reliance on system power, with some additional pollutants arising from EBCE's VAMO

allocation[17]. To minimize the generation of local air pollutants and their corresponding impacts on disadvantaged communities, EBCE will continue to monitor the cost and availability of alternative candidate projects as well as the percentage of total supply for the portfolio made up by market purchases.

Table 10 Preferred Conforming Portfolio of PM 2.5 Emissions

PM2.5	Unit	2024	2026	2030	2035
Coal	tonnes/yr	0.00	0.00	0.00	0.00
CHP	tonnes/yr	9.16	9.09	8.95	5.50
Biogas	tonnes/yr	4.35	4.34	4.11	1.27
Biomass	tonnes/yr	36.95	35.04	26.08	19.87
System Power	tonnes/yr	28.85	21.28	16.58	13.88
Total	tonnes/yr	79.30	69.76	55.72	40.52
Average emissions intensity	kg/MWh	0.01	0.01	0.01	0.01

Table 11 Preferred Conforming Portfolio SO_2 Emissions

SO2	Unit	2024	2026	2030	2035
Coal	tonnes/yr	0.00	0.00	0.00	0.00
CHP	tonnes/yr	0.97	0.97	0.95	0.58
Biogas	tonnes/yr	3.17	3.15	3.06	0.95
Biomass	tonnes/yr	14.21	13.48	10.03	7.64
System Power	tonnes/yr	2.70	1.99	1.54	1.29
Total	tonnes/yr	21.05	19.59	15.58	10.47
Average emissions intensity	kg/MWh	0.00	0.00	0.00	0.00

Table 12 Preferred Conforming Portfolio NO_x Emissions

NOx	Unit	2024	2026	2030	2035
Coal	tonnes/yr	0.00	0.00	0.00	0.00
CHP	tonnes/yr	42.68	42.04	40.70	21.70
Biogas	tonnes/yr	14.25	14.18	13.76	4.29
Biomass	tonnes/yr	111.48	105.97	79.24	60.35
System Power	tonnes/yr	34.58	25.26	21.27	17.72
Total	tonnes/yr	203.00	187.45	154.97	104.06
Average emissions intensity	kg/MWh	0.03	0.03	0.02	0.01

[17] Biogas and Biomass emissions appear in Local Air Pollutants Tables 10, 11, and 12 as a result of EBCE accepting the VAMO allocation.

ii. Focus on Disadvantaged Communities

There are 11 zip codes in EBCE's service area that are considered Disadvantaged Communities (DACs) according to the IRP definition that relies on CalEnviroScreen 4.0. These communities represent a total population of 137,029 ratepayers, or roughly 6% of EBCE's total number of customers. The identified zip codes are as follows:

1. 94601 – Oakland
2. 94621 – Oakland
3. 94603 – Oakland
4. 94607 – Oakland
5. 94606 – Oakland
6. 94577 – San Leandro
7. 94608 – Emeryville
8. 94609 – Oakland
9. 94578 – San Leandro
10. 95376 – Tracy
11. 94612 – Oakland

While CalEnviroScreen 4.0 is a useful tool to provide information on EBCE's customers living in areas of environmental and socioeconomic burdens, it is not the only resource. CalEnviroScreen 4.0 looks at the entire state and provides useful comparative information between significantly different regions across California. EBCE's service territory is significantly smaller. The variations in our territory do not resolve in a useful way while using the CalEnviroScreen 4.0 tool. To provide ourselves with more useful information applicable to our smaller portion of the State, EBCE collects its own data to provide a more complete picture of its communities. For example, EBCE is closely tracking disconnection and arrearage data based on zip code to inform program design that supports residents in need through its Connected Communities Program. EBCE is collaborating with UC Berkeley to conduct an evaluation of different programs supporting customer billing and debt-relief efforts. The purpose of the study is to measure program efficacy so EBCE can build robust programming under the Connected Communities Pilot. In addition to using arrearage data, EBCE integrates CARE- and FERA data in local programs, marketing campaigns, and policy efforts. There are roughly 120,000 CARE- and FERA-enrolled accounts in EBCE's service area, which makes up about 19% of total accounts served.

EBCE is committed to serving its DACs through numerous cross-organizational efforts, including in areas of procurement, local program development, increased customer engagement, and equitable policies. Of importance to EBCE is increasing the deployment of clean energy resources in areas typically overburdened by air pollution. EBCE's DAC Green Tariff (DAC-GT) and Community Solar Green Tariff (CSGT) programs advance access to renewables in DACs. The DAC-

GT program allows EBCE to procure 5.72 MW of solar nameplate capacity and the CS-GT permits 1.56 MW of solar nameplate capacity. Currently, there are about 1,800 customers subscribed to the DAC-GT program. The CSGT program prioritizes community stakeholder engagement by collaborating and partnering with a community sponsor. This structure not only strengthens EBCE's relationships with its communities, but also encourages the development of just, clean energy economies. In addition to the DAC-GT and CSGT programs, EBCE has engaged in a variety of efforts to prioritize benefits to low-income residents and disadvantaged communities, including its Health-e Home program[18] in partnership with BlocPower and Revalue.io. This program provides low- to moderate-income homeowners with affordable financing options to gain access to the health and safety benefits of transitioning to clean energy and electric appliances. Energy efficient whole home upgrades can propel the clean energy just transition. EBCE's efforts to support increased EV adoption will reduce criteria air pollutants improving human health outcomes for all residents, especially those in the most vulnerable communities located along interstate corridors. These programs can be a model for intentional procurement of emission-free power to displace fossil-fueled generation and transportation fuel on behalf of our communities most at-risk of environmental injustices.

Equity is also a single thread guiding EBCE's transportation electrification initiatives. Since 2019, EBCE has analyzed transportation electrification gaps, needs, and opportunities in our service territory. Nearly half of the residents in our area are renters in multi-family properties that currently do not have access to at-home charging infrastructure. Significantly, home charging access is often complicated by the age of the properties where renters live. EBCE found that almost all the multi-family properties in our service territory are over 50 years old, meaning that many of these properties would require costly electrical upgrades above and beyond the cost of installing home charging equipment. Moreover, renters may not have the authority to make the upgrades needed to install home charging equipment because they do not own the property.

Recognizing these systematic challenges to EV adoption for nearly half the residents in our service area, EBCE is prioritizing deployment of reliable, convenient, and cost-effective public fast charging network. EBCE's EV fast charge network will establish equitable access for community-members who cannot charge at home to ensure that *all* residents in EBCE's service area, especially renters, can join in and benefit from the transition to clean energy transportation.[19]

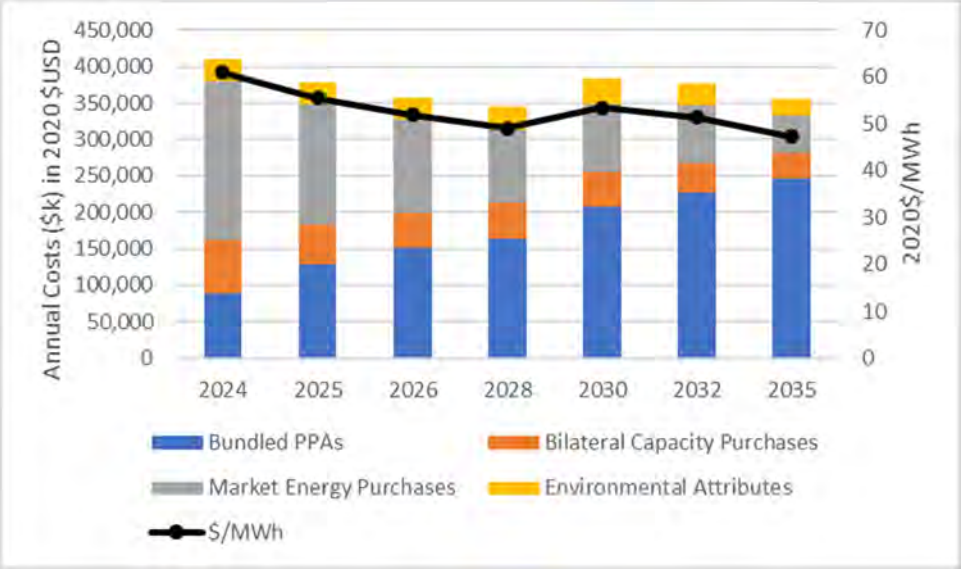
[18] *See infra*, AICP, p. 43; *see also infra*, DCFC Hub Network, p. 44.

[19] *See infra* at 43.

E. Cost and Rate Analysis

Recognizing that affordability is a key component of our long-term procurement strategy, EBCE incorporated timely technology costs assumptions and market conditions forecasts into its IRP process to ensure the optimal portfolio reflected EBCE's prevailing expectations on the future business landscape. EBCE's technology cost curves are sourced from NREL's 2021 Annual Technology Baseline (ATB). For electricity and capacity prices, EBCE used its internal, proprietary forward curves. The figure below provides an estimate of the inflation-adjusted total net costs[20] of the Preferred Conforming Portfolio listed in real 2020 USD for select calendar years with a breakdown of the total by major cost category. Over the IRP planning horizon, the annual expense of the organization's optimal portfolio is expected to average $53/MWh (2020 USD). EBCE's reliance on the market for capacity and energy diminishes over time as bundled PPAs assume a larger role in the portfolio.

Figure 6 Inflation-Adjusted Expenses (2020 $USD) of EBCE's Preferred Conforming Portfolio



Currently, EBCE offers its customers two different product choices: (1) Bright Choice, which offers a fixed percentage savings[21] relative to PG&E's generation rates for an electricity mix containing a larger percentage of renewables than the baseline PG&E product; and (2) Renewable 100, which offers a 100% renewable electricity mix at a small fixed per-kWh premium relative to PG&E's generation. Though EBCE is investigating a move toward cost-of-service-based pricing in

[20] Total net costs equals expenditures to serve load in CAISO plus payments to counterparties EBCE has signed PPAs and other bilateral agreements with minus offsetting revenue from generation scheduled into the CAISO market.

[21] Over the course of EBCE's operating history, this discount has ranged from 1% to 3%.

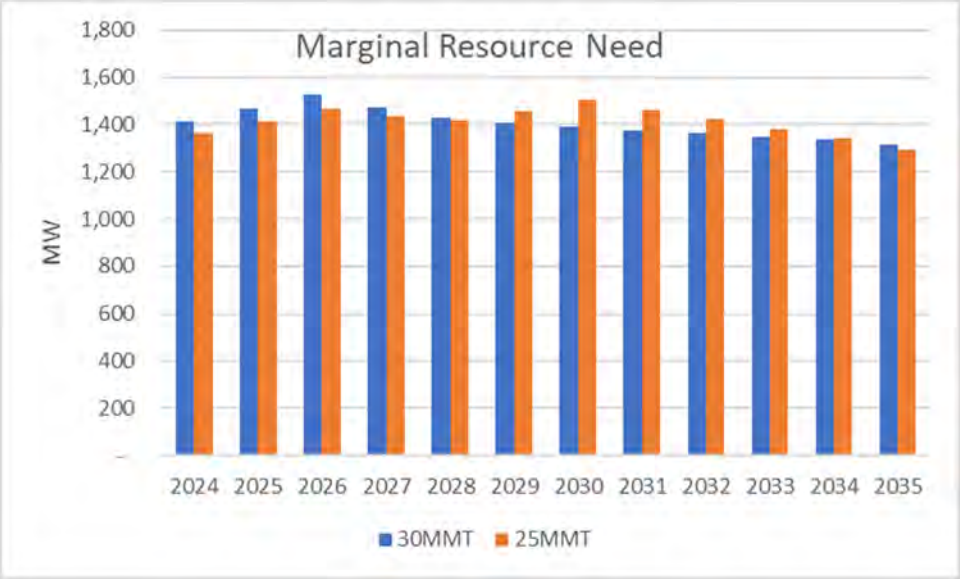
the coming years, the timing of such a move will depend on our internal analytical capabilities, the rate at which we are able to build up the operating reserves necessary to ensure our long-term financial health, and the direction provided by EBCE's Board.

EBCE strives to maintain stable costs for our customers while collecting sufficient revenues by conducting extensive planning and risk-management to intelligently safeguard against the risks of extreme fluctuations in future energy prices.

F. System Reliability Analysis

EBCE's Preferred Conforming Portfolio satisfies system reliability requirements for both the 30 MMT and 25MMT GHG scenarios and illustrates how EBCE contributes its commensurate share of system reliability to the grid. As a part of its IRP filing requirements, every CPUC-jurisdictional entity must demonstrate how it plans to meet its annual reliability requirements for every year in the IRP planning horizon. This reliability requirement is based on a Marginal Resource Need (MRN) to better account for the annual peak in net load shifting later into the evening due to the increasing penetration of solar. As shown below in Figure 7, the MRN EBCE must meet is a function of the GHG scenario.

Figure 7 EBCE's Marginal Resource Need (MW) for the 30MMT and 25MMT GHG Scenarios



EBCE can satisfy its MRN requirement by either procuring bundled PPAs or RA-Only contracts; the amount of nameplate capacity that qualifies as firm is determined by the underlying physical resource backing the contract. In the 2022 IRP cycle, the CPUC updated its methodology when assigning firm capacity ratings to facilities by introducing dynamic marginal Effective Load

Carrying Capacities (ELCCs) that are based on a "Perfect Capacity" construct. These ELCCs vary by year and reflect the ability of the resource type to provide reliable capacity during periods of high demand in net load. These ratings also account for the grid-level interactions of a given resource type with another, which is becoming increasingly more important as the grid sources more of its firm MWs from renewable and energy-limited resources. For additional information on these changes, please refer to the CPUC website.[22] A sample of ELCC assignments for certain resource types and select calendar years for both GHG scenarios are listed below.

Figure 8 Marginal ELCC Assignments (30MMT Scenario)

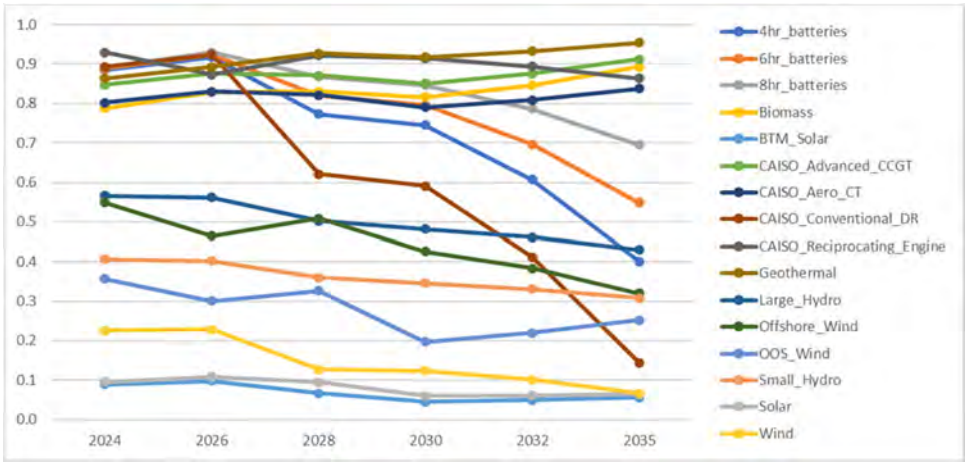
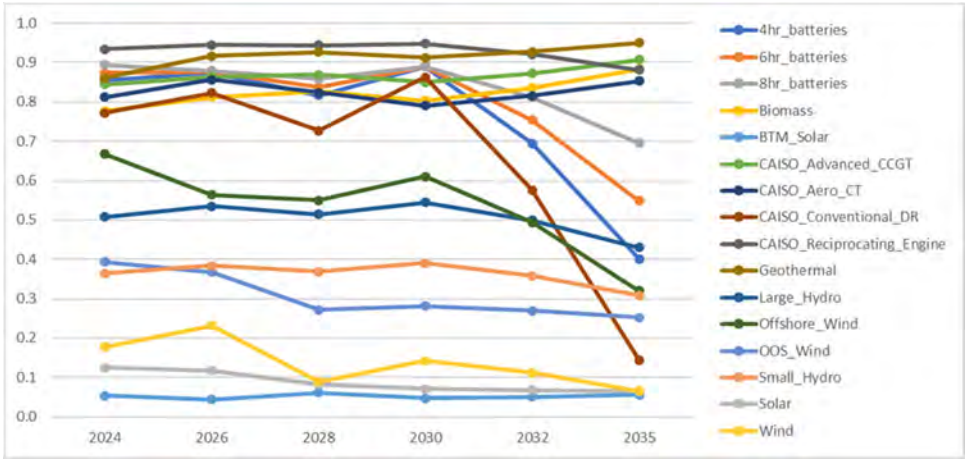


Figure 9 Marginal ELCC Assignments (25MMT Scenario)



[22] *See* CPUC presentation, available at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/2022-irp-cycle-events-and-materials/20220719-fr-and-reliability-mag-slides.pdf.

Because the MRN requirements and ELCC assignments are both a function of the active GHG scenario, EBCE's portfolio is dependent, to a degree, on which GHG reduction target the state ultimately selects. To reduce this dependency, EBCE crafted a Preferred Conforming Portfolio that is compliant with both GHG scenarios by assuming the more conservative values for the MRNs and ELCCs in each calendar year. The corresponding MRN and ELCC values that resulted from this assumption and were used by EBCE during the modeling exercises are shown in Figure 10 and Figure 11.

Figure 10 EBCE's Effective Annual MRN Requirement

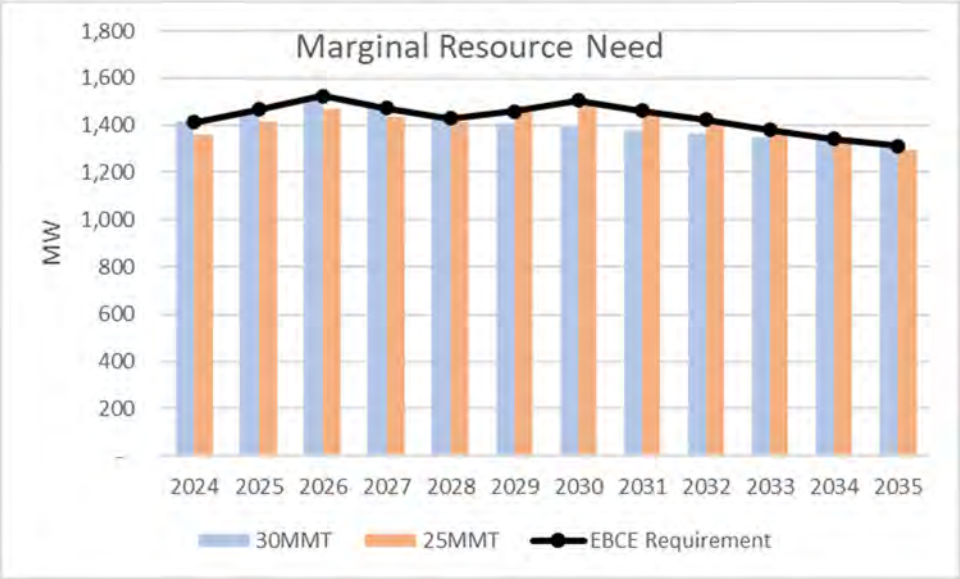
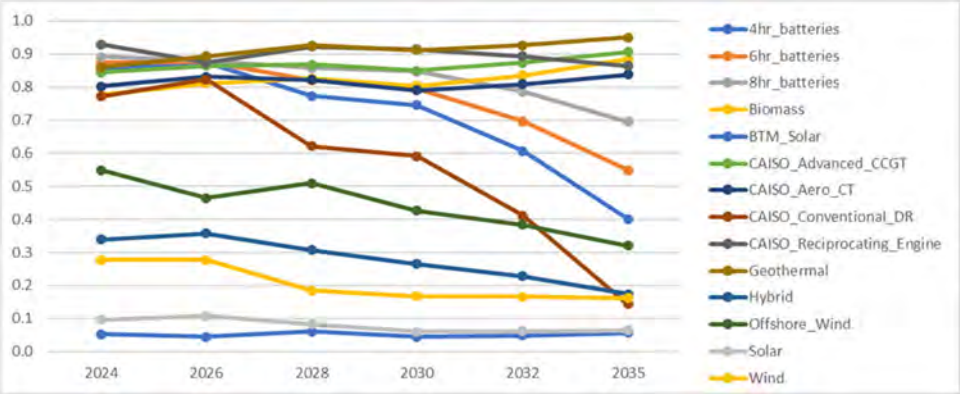


Figure 11 EBCE's Effective Marginal ELCC Assignments



The tables and charts below display the annual marginal reliability need EBCE must satisfy and the corresponding composition of its marginal ELCC supply by contract type for both the 30MMT and 25MMT scenarios. Although the same portfolio is shown for both GHG scenarios, the total supply of effective MWs shows slightly different amounts between the 30 MMT and 25MMT case

due to the functional dependency of ELCCs on the active GHG scenario.[23] EBCE acknowledges that there is an increasing amount of project development risk in its portfolio, given that the percentage of its IRP portfolio of RA supply from projects that have not yet achieved commercial operation increases over time. Some of this risk can be managed through prudent procurement: for example, EBCE would seek to diversify its contracts across multiple developers, resource types, and expected CODs. EBCE will continue to monitor this risk factor and update the CPUC with any material updates related to project delays in a timely manner.

Figure 12 RDT Reliability Need and Effective Supply (30 MMT GHG Scenario)

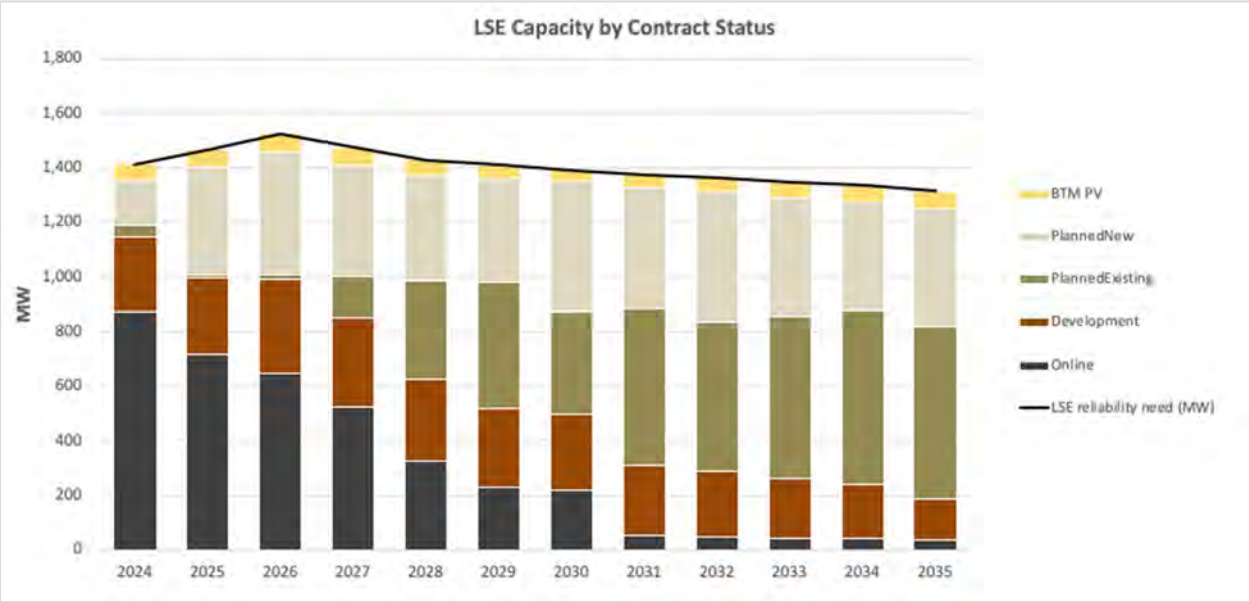


Table 13 Load and Resource Table by Contract Status (30 MMT GHG Scenario)

ELCC by contract status (effective MW)	2024	2026	2028	2030	2032	2034	2035
Online	876	649	325	219	48	40	37
Development	271	344	301	280	240	201	153
PlannedExisting	43	16	359	373	549	637	629
PlannedNew	168	448	390	479	476	396	428
BTM PV	55	71	55	42	52	62	67
LSE total supply (effective MW)	1,412	1,527	1,430	1,393	1,364	1,336	1,314
LSE reliability need (MW)	1,412	1,525	1,430	1,393	1,364	1,336	1,313
Net capacity position	0	2	0	0	0	0	0

[23] *See* narrative, *supra*, p. 26.

Figure 13 RDT Reliability Need and Effective Supply (25 MMT GHG Scenario)

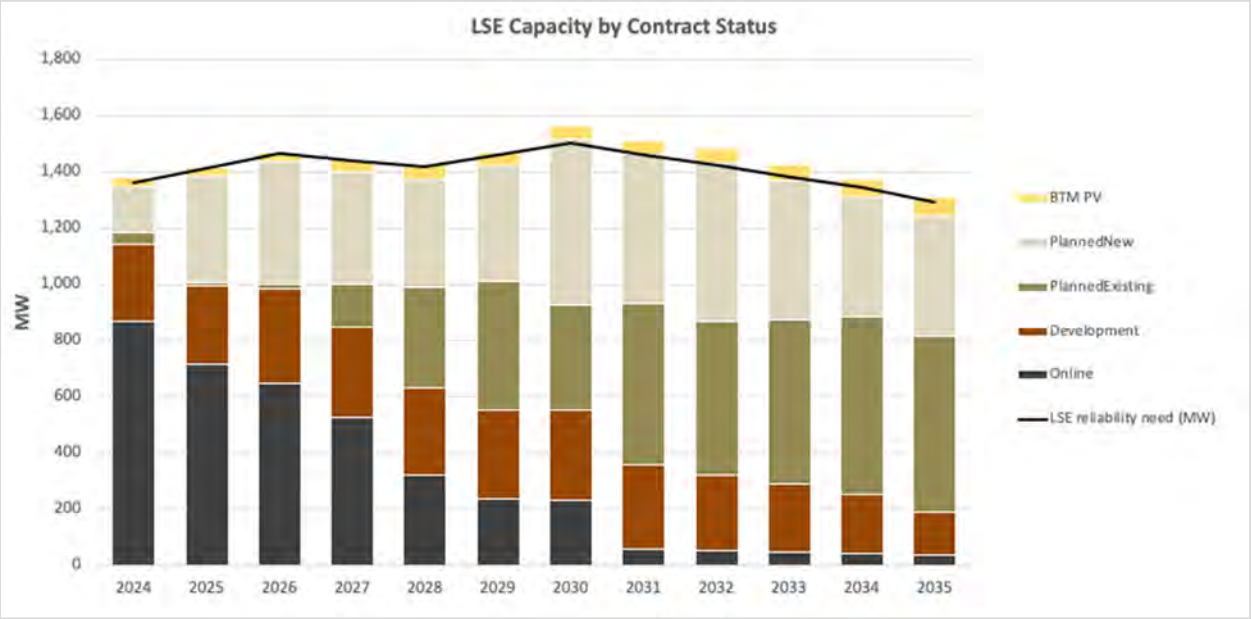


Table 14 Load and Resource Table by Contract Status (25 MMT GHG Scenario)

ELCC by contract status (effective MW)	2024	2026	2028	2030	2032	2034	2035
Online	871	648	323	229	54	42	37
Development	273	339	309	326	268	210	153
PlannedExisting	43	16	358	372	547	634	625
PlannedNew	159	433	384	590	562	424	428
BTM PV	33	32	50	44	53	62	67
LSE total supply (effective MW)	1,378	1,466	1,425	1,562	1,484	1,373	1,309
LSE reliability need (MW)	1,362	1,466	1,417	1,504	1,424	1,343	1,295
Net capacity position	16	0	8	57	60	29	14

G. High Electrification Planning

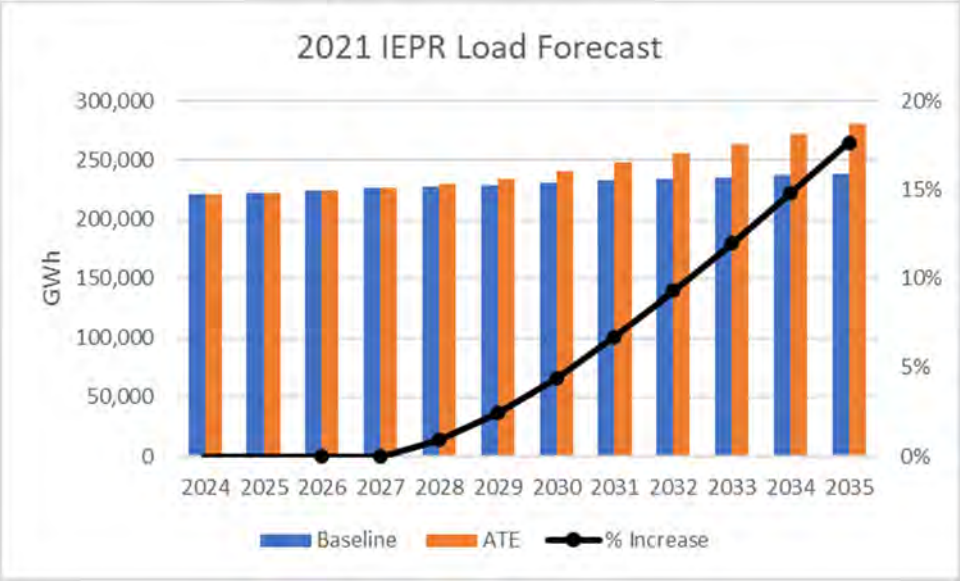
Guided by the direction in the June 15 Ruling,[24] EBCE analyzed the CECs Additional Transportation Electrification (ATE) scenario in its modeling framework to estimate the impacts from additional demand for electricity on its Preferred Conforming Portfolio. EBCE recognizes that over time this secular trend can have a material impact on EBCE's annual retail sales, peak demand, and aggregate load profile shape. To quantify the impacts of these changes on EBCE's procurement

[24] See *ALJ Ruling Finalizing Load Forecasts and GHG Targets for 2022 IRP LSE Plans*, issued June 15, 2022, p. 3.

strategy, EBCE leveraged its modeling framework to conduct a separate portfolio optimization exercise with revised inputs to reflect this high electrification scenario.

Figure 14 below illustrates the increase in CAISO demand relative to the Mid Baseline Scenario (AAEE Scenario 3; AAFS Scenario 3) from the 2021 IEPR. Starting in 2028, the ATE scenario reflects an increase in annual demand, primarily as the result of greater than expected EV charging demand relative to what is assumed in the baseline scenario. By 2035, cumulative effects of this incremental load are forecasted to result in an 18% increase in annual demand relative to the baseline IEPR scenario.

Figure 14 Percent Increase in CAISO Annual Load Assuming High Electrification



To map these systemwide impacts to its local service territory, EBCE applied the percent increase in CAISO load to its own 2022 IRP load forecast. Table 15 lists this information.

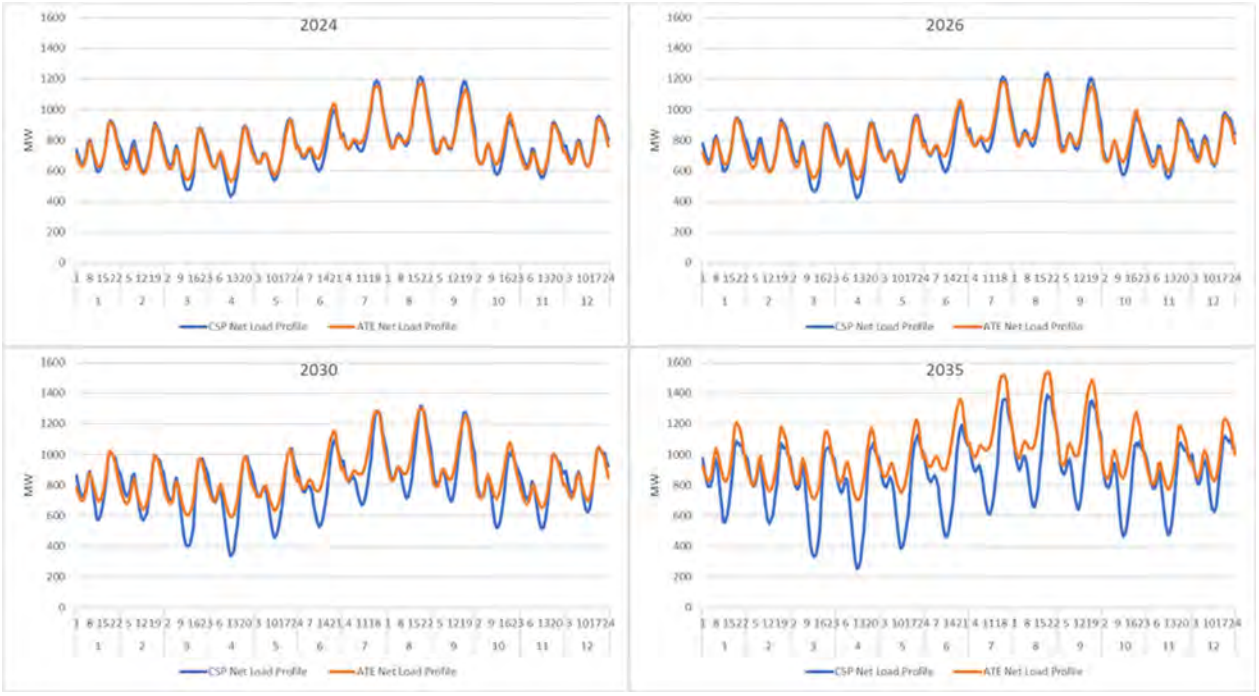
Table 15 EBCE Annual Demand for Baseline and Electrification Scenario

Service Area	LSE Name	YEAR	Baseline IRP Sales Forecast (GWH)	ATE IRP Sales Forecast (GWH)
PGE	East Bay Community Energy	2024	6,740	6,740
PGE	East Bay Community Energy	2025	6,816	6,816
PGE	East Bay Community Energy	2026	6,887	6,887
PGE	East Bay Community Energy	2027	6,955	6,955
PGE	East Bay Community Energy	2028	7,027	7,090
PGE	East Bay Community Energy	2029	7,101	7,271

PGE	East Bay Community Energy	2030	7,180	7,496
PGE	East Bay Community Energy	2031	7,259	7,746
PGE	East Bay Community Energy	2032	7,326	8,007
PGE	East Bay Community Energy	2033	7,394	8,281
PGE	East Bay Community Energy	2034	7,461	8,565
PGE	East Bay Community Energy	2035	7,540	8,867

In addition to modeling the increase in annual load, EBCE substituted the weather-normalized load profiles provided by the CSP calculator with the Managed Net Load profile defined in the IEPR's ATE scenario. Figure 15 shows the assumed EBCE load profile shapes for the High Electrification sensitivity case for select years. By 2030, the increase in load from daytime EV charging becomes significant and partially offsets BTM solar generation. In 2035, these effects become more pronounced. On balance, EBCE's load profile for the ATE scenario realizes a shallower trough in the middle of the day relative to the baseline load profile shape defined in the CSP.

Figure 15 EBCE Load Profile Shape for Preferred Conforming Portfolio and High Electrification Planning Portfolio



After updating the model with these changes, EBCE ran another study to identify a least-cost portfolio that satisfies the applicable reliability and environmental constraints. The results of that analysis are listed below.[25]

Table 16 Incremental Resources Selected for High Electrification Planning Scenario

Resource Type	MWs	Annual GWh	2035 GHG target	Transmission Zone	Substation / Bus	Alternative location	Note
Solar_2024	150	438	25MMT	SCE		PGE	
Solar_2025	150	438	25MMT	SCE		PGE	
Solar_2030	260	759	25MMT	SCE		PGE	
In-State Wind_2024	100	257	25MMT	PGE		SCE	
In-State Wind_2025	100	257	25MMT	PGE		SCE	
In-State Wind_2028	62.5	160	25MMT	PGE		SCE	
In-State Wind_2030	393	1,009	25MMT	PGE		SCE	
Offshore Wind_2032	268	1,290	25MMT	PGE		SCE	
Offshore Wind_2035	372	1,794	25MMT	PGE		SCE	
4hr storage_2024	88	n/a	25MMT	PGE		SCE	
4hr storage_2024	200	n/a	25MMT	PGE		SCE	
6hr storage_2035	295	n/a	25MMT	PGE		SCE	
8hr storage_206	47	n/a	25MMT	PGE		SCE	

H. Existing Resource Planning

EBCE, like most CCAs, has a preference for energy produced by non-GHG emitting resources. Given our Board-approved goal of achieving an emissions-free portfolio for EBCE's retail demand by 2030, EBCE has no plans to enter into long-term contracts with GHG-emitting resources. As such, existing in- and out-of-state hydro resources would generally be attractive to EBCE.[26] Staff actively monitors the market to identify opportunities to contract with existing hydro resources—either through short term transactions or through long-term contracts. EBCE has been successful

[25] EBCE's current modeling resolution is zonal, so the methodology does not capture busbar-specific issues such as expected congestion and/or deliverability availability. As a result, regional locations are listed for indicative purposes and are not final.

[26] *C.f. infra*, p. 34.

in entering into short-term transactions with existing hydro resources to date and does not have any long-term hydro resources in its portfolio at this time. If such resources became available in the coming years, EBCE would evaluate those resources for portfolio fit and consider adding these resources to its portfolio. However, EBCE recognizes the demand for these resources and increasing uncertainty associated with their fuel supply as the western United States faces unprecedented droughts and other effects of climate change. Given the uncertainty of hydro resource availability, existing hydro resources are not assumed to contribute to EBCE's Preferred Conforming Portfolio. EBCE does not assume existing wind, solar, or battery storage resources in its portfolios but will evaluate existing resources for cost competitiveness in relation to generation profile in future procurements as these resources roll off their long-term contracts. EBCE assumes 0% of its portfolio will be served by contracted coal or nuclear resources, consistent with Board-approved organizational goals.

While EBCE will evaluate opportunities to contract with existing clean resources, there are currently no specific existing CAISO resources EBCE has plans to contract with in the future. Due to the limited and uncertain availability, EBCE's approach to contracting with existing resources should be regarded as opportunistic and resulting from such resources submitting offers for long-term or short-term contracts to EBCE at a price and forecasted net present value that is competitive with new-build resources.

I. Hydro Generation Risk Management

EBCE's Preferred Conforming Portfolio does not include any expectations of long-term hydro asset contracts, whether with in-state or out-of-state hydro resources.[27] EBCE does hope to opportunistically enter into short-term transactions for carbon-free electricity, likely from out-of-state resources, to help EBCE achieve its goals of having an emission-free portfolio by 2030, but EBCE's ability to meet RPS and RA compliance obligations is unrelated to and unthreatened by its ability to procure *excess* carbon-free energy from hydro assets.

California and the Western North America are seeing increased levels of extreme heat duration and intensity. Concurrently, precipitation in the form of rain and snow are proving to be a less consistently reliable as 'fuel source' for hydro power across this same area. EBCE's potential exposure to the impact of drought and other climate-related hydro generation conditions lies in the impact prolonged drought has on the CAISO energy market and forward prices for electricity. Because EBCE procures a portion of its energy needs through short-term transactions, persistent drought will increase market forward prices and result in higher prices being offered for forward

[27] *See* Table 5, *supra*, p. 13.

transactions than would be associated with average or above average hydro years. Any EBCE demand exposed to the CAISO day-ahead and real-time market will be subjected to greater price volatility in hours of exposure.

EBCE manages its exposure to high forward market prices by implementing its Board- and Risk Oversight Committee-approved Risk Management Regulations ("Risk Regs"). The Risk Regs mandate that EBCE transact following a dollar cost averaging approach such that EBCE procures specified amounts of electricity on a forward basis on a pre-determined schedule, thus minimizing exposure to short-term price fluctuations. In high level terms, EBCE manages the risk of CAISO price volatility in by incorporating the PCIA into hedging strategy and minimizing its open position in hours subject to high demand prices and likely high volatility.

J. Long-Duration Storage Planning

In February 2022, EBCE released a joint RFO with San Jose Clean Energy (SJCE); the RFO seeks opportunities to enter into long-term contract(s) with new, incremental resources to contribute to EBCE's obligation under D.21-06-035 ("MTR"). EBCE is currently engaged in negotiation with long duration storage resources that were offered in the RFO and expects to meet its MTR ordered obligation of 37 MW as a result of this effort. Notably, EBCE's Preferred Conforming Portfolio selects a total of 47 MW (i.e., 10 MW in excess of the MTR obligation).

EBCE recognizes that widespread plans for expansion of intermittent renewable resources creates needs for storage that goes beyond the 4-hour standard energy storage product that exists in today's market. EBCE's IRP analysis suggests that energy storage of sub-8-hour duration will be most favored in the near- to mid-term. This is driven by the assumed availability of different technologies and ability to develop sub-8-hour resource. Longer term, EBCE's IRP analysis suggests that longer-duration energy storage could play a larger role in supporting EBCE's as well as the State's resource needs. However, the availability of long-duration storage resources is not assured. Even with procurement mandates and other incentives, the technology may not become available due to other constraints including but not limited to transmission planning and the scarcity of deliverability. Load serving entities contracting with resources at this time lack certainty that barriers to deliverability will improve in near-mid-long term, meaning the transmission system may not be able to accommodate the amount of storage we anticipate may be necessary. Finally, it is also noteworthy that while the IRP analysis indicates portfolio value of 6-hour and some 8-hour duration storage, long-term forward curves common to the California market do not all assume the same value. At this time, it is difficult to justify investment in long duration storage based only on project economics as forward curves prefer 4-hour duration

storage and storage dispatched in the CAISO market today continues to be incentivized to be used for the ancillary services market.

EBCE will meet its MTR long duration storage obligation in the near term. EBCE expects that it will release another all source RFO in early 2023 and will seek additional storage and generation resources to achieve commercial operation in the mid to late 2020s at that time. EBCE is also in a fortunate position that its largest contracted hybrid solar plus storage projects include a contractual right to extend duration on the existing storage capacity in future years by adding incremental lithium batteries at future installation costs. EBCE will continually evaluate the merit to calling on this contractual right versus contracting with new resources.

K. Clean Firm Power Planning

EBCE received multiple offers for geothermal resources that fit the Clean Firm Power requirements in its 2020 Renewable Energy and Storage RFO.[28] Though EBCE elected not to execute contracts with any of the geothermal resources offered in the RFO, when the CPUC released the MTR procurement order EBCE was able to initiate bilateral negotiations with one of the projects that had been previously offered. In April 2022, EBCE executed a contract with FEC Nevada 1 for a 40 MW geothermal facility which will be constructed in Churchill Country, Nevada. The facility is scheduled to achieve commercial operation in June 2026. This resource will contribute value firm renewable generation to EBCE's portfolio and serve as a baseload resource and hedge against price volatility. EBCE also looks forward to incorporating the high capacity factor RA into its RA position. EBCE must obtain import allocation rights (IAR) to ensure energy generated by the resource is fully deliverable into the CAISO and that the resource will provide RA value, thus there is some risk associated with the project. EBCE is working closely with the developer, Fervo Energy, to monitor CAISO transmission planning and evaluate probability that IAR will be available at the intended delivery point. If in EBCE and Fervo's estimation the ability to obtain IARs at the intended point is at risk, EBCE has some contractual ability to change the delivery point to a different CAISO branch group.

L. Out-of-State Wind Planning

Cost declines in solar resources from the early 2000s until approximately 2021 have largely resulted in lower costs for solar generation, on a levelized basis, as compared to wind. However, the diurnal production profile of solar means that wind resources can act as an important

[28] https://ebce.org/2020-rfo/

complementary resource in LSEs' portfolios, supplementing renewable production in overnight and winter hours and reducing the need for load shifting from battery or demand-side resources.

EBCE has one, energy-only (no RA) out-of-state wind resource in its portfolio and generating electricity at this time. While the out-of-state wind resource type was not selected within EBCE's IRP analysis, EBCE is aware of and following CAISO's Transmission Planning Process (TPP) solicitation of interest regarding Idaho-area out-of-state wind and in the CAISO's corollary to its TPP, the 20-year Transmission Outlook in which transmission projects that support access to out-of-state resources are evaluated. EBCE is interested in out-of-state wind resources should their project economics appear more favorable than the economic assumptions underpinning the IRP analysis and will provide updates on any long-term contracts EBCE enters into should that come to pass.

M. Offshore Wind Planning

EBCE recognizes the significant interest in offshore wind (OSW) development in the California and Pacific Coast region. EBCE's portfolio analysis suggests that offshore wind (OSW) resources may be a valuable contribution to EBCE's portfolio in outer years of the forecast.[29] At this time, EBCE determined that, of the candidate OSW resources, North Coast OSW had greater value than Central Coast resources. However, the selection of *any* OSW resources in EBCE's portfolio is highly dependent on the availability of OSW resources (resource uncertainty is this case is driven by both construction risk and risks associated with the development of transmission to interconnect the OSW resources) within the time frame anticipated by mandated IRP modeling assumptions, as well as anticipated costs associated with OSW resources.

As is well known, OSW resources are not yet available, and their future availability is contingent on successful navigation of complex layers of Federal and State processes.[30] Given the uncertainty of the timeline and barriers to developing OSW off the coast of California, EBCE will continue to monitor the progress of OSW development and evaluate inclusion of these resources in our portfolio within the broader market context. If OSW development does not progress along the timeline necessary to incorporate these resources in its portfolio, EBCE will select other resources to achieve commensurate energy hedge, RA value, and renewable energy to meet its

[29] Table 5, *supra*, p. 13.

[30] *See, e.g.*, the October 6, 2022, CEC Workshop on Assembly Bill 525: Preparing a Strategic Plan for Offshore Wind Development. Workshop materials available under CEC Docket 17-Misc-01 and at https://www.energy.ca.gov/event/workshop/2022-10/workshop-assembly-bill-525-preparing-strategic-plan-offshore-wind.

customers' needs. As described below,[31] EBCE expects to further explore the potential value of OSW resources.

N. Transmission Planning

Recognizing that transmission upgrades can constitute cost-effective investments in firm power, a key part of EBCE's IRP plan includes looking for opportunities to increase the deliverability of existing and new generation facilities. Based on the information available at this time, EBCE does not expect to incur any transmission-related restrictions on its procurement strategy for either baseline or planned resources.

Currently, there are no baseline resources with a "Development" status that require any transmission upgrades to achieve FCDS. As for planned resources, the only resource category in EBCE's portfolio that may require an upgrade to the existing transmission system is offshore wind. Starting in 2030, EBCE will look to procure significant amounts of procure offshore wind in either the Morro Bay or Humboldt Bay region, depending on costs, availability, and other considerations. As listed in the June 2022 PSP modeling results, RESOLVE flags the need to invest in transmission upgrade projects for additional deliverability of firm power in both these regions in 2032 and 2035.[32] EBCE assumes that either one or both of these deliverability projects will be built and that it will be able to secure a slice of these offshore projects at or near the current projected CAPX price for offshore wind in those future years. As for its plan to procure wind in the near-term horizon, EBCE conducts procurement RFOs to assess market conditions related to costs, location, and timing of new resources. It will emphasize the addition of wind to the portfolio, but the final amount, location, and timing will ultimately depend on the market pricing offered by project developers.

While, EBCE strives to execute contracts for long-term resources across a diverse geographic area to mitigate risks associated with congestion and limited deliverability in select load pockets, EBCE currently has no firm restrictions regarding the location of any of its planned candidate resources, as long as full capacity deliverability (FCDS) status is attainable.[33] The modeling framework used in this year's IRP has limited ability to account for transmission related constraints (e.g., congestion and interconnection capability) during the optimization stage. Moreover, the model

[31] *See infra*, p. 43.

[32] Currently, Morro Bay has up to 200 MW of unclaimed deliverability capacity, whereas Humboldt Bay has no existing spare deliverability capacity.

[33] A limited exception to EBCE's preference for geographically diverse resources is that EBCE does have a preference for projects sited in its own service territory for their contribution to local reliability, local air pollution reduction, and to minimize basis risk.

assumes that any additional costs stemming from an Area Distribution Network Upgrade (ADNU) project are accounted for in the CapEx assumptions. EBCE recognizes these limitations and will evaluate opportunities to mitigate the impacts of these limitations in future modeling exercises. At this time EBCE has no stated objection to the CPUC or CAISO relocating their candidate projects, assuming similar availability and costs for any given replacement project.

IV. Action Plan

The biennial IRP study is a valuable planning tool and provides guidance that contributes to EBCE's procurement strategy. However, neither EBCE's IRP analysis nor the make-up of its Preferred Conforming Portfolio should be viewed as an explicit roadmap or firm commitment for future procurement. While EBCE values the lessons learned through the IRP analysis, EBCE will make procurement decisions and enter into contracts based on the resources available in the market and the cost and value proposition of those resources based on current and forward market projections at the time the resources in question are offered to EBCE. EBCE also notes that there remains significant uncertainty around the availability and timing of new resource types such as offshore wind. Significantly, since the COVID pandemic began in 2020, the world has experienced massive supply chain disruptions causing price increases and reducing the availability of core components needs for renewable and conventional power plants resulting in significant project delays. While EBCE hopes the supply chain landscape will return to a more normal state no load serving entity has the ability to correct this ongoing disruption and as a result we find ourselves on an ongoing period of great uncertainty related to resource availability and timeliness of construction.

A. Proposed Procurement Activities and Potential Barriers

The following sections describe EBCE's planned procurement activities flowing from the IRP portfolio analysis and Preferred Conforming Portfolio, as well as potential barriers to those actions.

i. Resources to meet D.19-11-016 procurement requirements

Table 17 EBCE Near Term IRP Procurement

Resource Name	Expected or Actual COD	Procurement from which it was contracted	Notes
Golden Fields Solar	3/03/2021	2018 California Renewable Energy RFO	
Scott Haggerty Wind Energy Center	7/01/2021	2018 California Renewable Energy RFO	

Henrietta D Energy Storage	1/01/2022	2020 Renewable Energy and Storage RFO	
OhmConnect DR	1/01/2020	Bilateral negotiation	
CPA High Desert	4/01/2022	Bilateral negotiation	
SunRun OCEI	1/01/2022	Oakland Clean Energy Initiative RFO	
Tulare Solare	4/30/2022	2018 California Renewable Energy RFO	
Sanborn Storage	1/16/2023	2020 Renewable Energy and Storage RFO	Portion counted to D.21-06-035

EBCE is on track to fulfill its D.19-11-016 requirements through the long-term contracted resources listed in Table 17, above. This list of resources is consistent with the list EBCE has provided to the CPUC in the required IRP compliance filings.[34] There are no changes or updates to note at this time.

ii. Resources to meet D.21-06-035 procurement requirements, including:

Table 18 EBCE Mid-Term Reliability IRP Procurement

Resource Name	**Expected or Actual COD**	**Procurement from which it was contracted**	**Notes**
Sanborn Storage	1/16/2023	2020 Renewable Energy and Storage RFO	Portion counted to D.19-11-016
Edwards Solar	4/30/2023		
Scarlet 1 Solar+Storage Park	3/31/2023	Amended & Restated PPA executed 3/21/2022	
Daggett 3 Solar+Storage	7/30/2023	2020 Renewable Energy and Storage RFO	
Oberon	1/1/2024	2020 Renewable Energy and Storage RFO	
Aramis	4/01/2024	Bilateral negotiation	
Tumbleweed Storage	6/01/2024	2020 Renewable Energy and Storage RFO	
FEC Nevada 1	5/01/2026	Bilateral negotiation	
Other Resources Currently Under Negotiation		EBCE/SJCE 2022 Long-Term Resource RFO	

EBCE has entered into multiple long-term contracts that will contribute to its D.21-06-035 requirements; executed agreements are listed inTable 18, above; however EBCE has not executed all agreements needed to fulfill its obligation. To ensure EBCE fulfills its obligation, EBCE partnered with SJCE and released a joint RFO in February of 2022. This procurement effort, titled

[34] *E.g.*, *see* EBCE's IRP Compliance Filing submitted August 1, 2022.

the "EBCE/SJCE 2022 Long-Term Resource RFO" was explicitly designed to procure resources that will fulfill the D.21-06-035 procurement mandate. Negotiations are ongoing and EBCE plans to bring contracts to its Board for approval over the following months, with the first wave of contracts to be brought for approval in October, 2022, concurrent to the review of this IRP Plan filing.

In the unlikely event that EBCE does not execute sufficient contracts to meet its D.21-06-035 obligations through this RFO, EBCE will then engage in bilateral negotiations to close the remaining open position.

a. 1,000 MW of firm zero-emitting resource requirements

Table 19 EBCE Mid-Term Reliability IRP Procurement – Firm Zero-Emitting Resources

Resource Name	Expected or Actual COD	Procurement from which it was contracted	Notes
FEC Nevada 1		Bilateral negotiation	

In February of 2022, EBCE executed a long-term contract with Fervo Energy to meet its Firm Zero-Emitting Resource requirements under D.21-06-035. EBCE's 40 MW FEC Nevada 1 project is expected to achieve COD in June 2026. At this time the resource is on schedule to achieve that operational date however EBCE stays in close touch with the developer as this is a long-lead time resource and the project is pursuing financing through a loan program backed by the Department of Energy. If EBCE perceives any potential delay to the financing of the project, it will notify the CPUC and seek an extension to permit the resource coming online before 2028—but at this time there are no such delays that EBCE is aware of.

EBCE is also actively monitoring the CAISO TPP with the project developer, Fervo. The contract identifies a point of delivery to EBCE tied to a specific CAISO branch group and EBCE is evaluating opportunities to obtain IAR at that branch group so the resource would have sufficient deliverability to meet the RA requirements of D.21-06-035. Both EBCE and Fervo are willing to modify the point of delivery if necessary to ensure the resource meets its RA obligations.

b. 1,000 MW of long-duration storage resource requirements

Table 20 EBCE Mid-Term Reliability IRP Procurement - Long-Duration Energy Storage

Resource Name	Expected or Actual COD	Procurement from which it was contracted	Notes
Other Resources Currently Under Negotiation		EBCE/SJCE 2022 Long-Term Resource RFO	

EBCE shortlisted long-duration storage projects in its EBCE/SJCE 2022 Long-Term Resource RFO and is in active negotiations with these resources at the time of the IRP filing

c. 2,500 MW of zero-emissions generation, generation paired with storage, or demand response resource requirements

Table 21 Zero Emission, Co-located, and DR Procurement Activities

Resource Name	Expected or Actual COD	Procurement from which it was contracted	Notes
Scarlet 1 Solar+Storage Park	3/31/2023	Amended & Restated PPA executed 3/21/2022	
Daggett Solar+Storage	7/30/2023	2020 Renewable Energy and Storage RFO	
Other Resources Currently Under Negotiation		EBCE/SJCE 2022 Long-Term Resource RFO	

EBCE has fulfilled a portion of this requirement and is actively negotiating additional contracts to fulfill the obligation. EBCE will keep the CPUC updated on its progress through the twice-yearly IRP compliance filings and the ongoing informal summer reliability update filings. In the unlikely event that EBCE fails to execute contracts that fulfill this obligation as a result of its EBCE/SJCE 2022 Long-Term Resource RFO, then the organization will engage in bilateral negotiations to ensure it meets or exceeds this obligation.

d. All other procurement requirements

As previously mentioned, EBCE is actively negotiating contracts shortlisted in its EBCE/SJCE 2022 Long-Term Resource RFO and will seek approval to execute contracts from its Board of Directors beginning in October 2022 and likely on a monthly basis through the end of 2022 or early 2023.

EBCE is currently evaluating its next procurement effort and will decide between pursuing bilateral negotiations for targeted resources in early 2023 or releasing its next all source solicitation in Q1 2023. If EBCE pursues bilateral negotiations, they will be targeted to achieve compliance with D.21-06-035 procurement mandates. At this time, EBCE anticipates releasing an all-source solicitation in Q1 2023 or after completing procurement for D.21-06-035 with the goal of this next solicitation being to contract new resources to contribute energy, renewable energy and attributes, and RA to cover EBCE's increased demand as the City of Stockton joins EBCE's service territory in 2024.

iii. Offshore wind

EBCE's IRP analysis supports adding OSW resources to the portfolio beginning in 2030. Given the newness of the resource type in California and long-lead time to develop these assets, EBCE anticipates beginning preliminary evaluation of potential projects in the 2023–2024 timeframe and plans to release an OSW request for information (RFI) to begin its education on the costs and development process for these assets. The timing of actual procurement will be informed by lessons learned in the RFI.

iv. Out-of-state wind

Although the Preferred Conforming Portfolio does not explicitly select out-of-state wind for inclusion in EBCE's portfolio, EBCE is aware of development efforts underway in Idaho, Wyoming, and New Mexico that may prove to be of value to EBCE's portfolio if necessary transmission is developed to enable the interconnection of these assets to California load. EBCE is actively monitoring the CAISO TPP and will evaluate out-of-state wind resources offered to the organization through upcoming solicitations or bilateral outreach by project developers.

v. Other renewable energy not described above

None at this time.

vi. Other energy storage not described above

None at this time.

vii. Other demand response not described above

None at this time.

viii. Other energy efficiency not described above

EBCE has received CPUC approval to elect to administer Energy Efficiency programs for three years, (between 2023 and 2026). EBCE forecasts the current approved program to deliver approximately 30 GWh of energy savings over the Effective Useful Life (EUL). EBCE will be focused on providing additional incentives from EBCE funds to developers that can deliver energy savings and durable flexible load during evening peak hours. EBCE expects to continue investing in Energy Efficiency programs beyond 2026.

ix. Other distributed generation not described above

EBCE has developed the Resilient Home program[35] to deliver solar and storage to single and multi-family residential customers with the solar company Sunrun. Over 1,000 customers are

[35] See https://ebce.org/resilient-home/.

currently enrolled in the program which is contracted to deliver 2MW/8MWh of energy during EBCE's 4 evening peak hours. EBCE will continue to develop programs to contract with battery storage resources in our territory to create flexible assets.

EBCE is currently negotiating with PPA providers to deliver solar + storage resources for municipal critical facilities in four Cities. These PPAs will provide 2–3 MW of solar generation and 2–6 MWh of BESS to increase resilience of City Services. EBCE will use these BESS systems to reduce peak load during evening hours. EBCE will issue a second RFO for an additional 5-7 Cities in Fall/Winter of 2023 for additional solar and storage projects. EBCE expects to aggregate these resources to reduce peak load during high-cost evening hours.

EBCE has over 40,000 existing NEM systems installed across our service area. Increasing battery installations on existing DG Solar systems and contracting those batteries to deliver energy during evening peak hours will be a priority for EBCE as we continue to develop mechanisms to build flexible renewable DERs.

x. Transportation electrification, including any investments above and beyond what is included in Integrated Energy Policy Report (IEPR)

EBCE has multiple transportation electrification efforts underway. What follows is a high-level summary of several of these activities.

a. Alameda County Incentive Project (ACIP)

EBCE has partnered with the CEC's Electric Vehicle Incentive Project (CALeVIP)[36] to develop and co-fund the Alameda County Incentive Project (ACIP).[37] The ACIP is distributing $17.3 million to incentivize the deployment of publicly accessible, shared Level 2 and direct current fast chargers (DCFCs). The program launched December 1, 2021, with demand rapidly outstripping supply.

EBCE prioritized equity in designing the ACIP. A minimum of 50% of all funding is required to be invested in DAC/low income community (LIC) applications in Alameda County. This minimum investment is for both DCFC and Level 2 technology types. Because nearly half of the residents in EBCE's service territory are renters without access to EV charging where they live, EBCE worked with the CEC to require that 50% of the budget dedicated for fast charging infrastructure had to

[36] CEC's CALeVIP is funded by the CEC and provides incentives for EV charger installations throughout California, working to improve air quality, combat climate change, and reduce petroleum use.

[37] See https://calevip.org/incentive-project/alameda-county.

be for projects deployed in EBCE-defined multi-family "hotspots" or areas with a *dense concentration of multi-family housing units*.[38]

In developing this project, EBCE also looked at our service territory comprehensively and not solely through the lens of the State's CalEnviroScreen 4.0 and AB 1550 geographic boundaries.[39] EBCE found that the DAC/LIC boundaries often exclude many *affordable* multi-family properties which by definition serve low-income residents because residents must meet income eligibility requirements to qualify for this type of housing. This was an issue in designing the requirements for the ACIP as the CEC's CALeVIP pillar requirements for multi-family incentive "adders" only applied to properties in DAC/LIC boundaries. EBCE saw an equity gap in how the CEC's CALeVIP funding was reaching community members. Affordable housing providers statewide had been in a position of investing in an amenity that helps some of their low-income tenants realize the benefits of EVs but not others. Yet all of these properties serve *the same low-income eligible populations* as those within DAC geographic boundaries. EBCE wanted to ensure that *all* affordable multi-family property owners had equal access to ACIP incentive adders regardless of where they were located geographically. In turn, we mapped affordable multi-family properties throughout our service area and were able to show the CEC that its pillar requirements for incentive adders were not equitable and needed to be expanded. The CEC reviewed EBCE's data analysis, approved expanding the incentive adder eligibility, and made a systematic change to their pillar requirements statewide.

Throughout 2021, in anticipation of the program launch, EBCE also provided affordable multifamily property managers/developers with free technical assistance to help them prepare for the ACIP. EBCE's budget allowed for the assessment of up to 75 multifamily properties in our service territory. EBCE provided technical assistance in the form of site visits, site charging infrastructure reports, and a concierge service to help property managers apply for ACIP incentives.

b. DCFC Hubs

EBCE is investing in deployment of the densest regional network of public DCFC infrastructure to deliver charging throughout our service area. EBCE is prioritizing development of this network to ensure all EBCE customers are served and establish EBCE's Joint Power Authority member communities as leaders in affordable and accessible EV fast charging. EBCE's goal is to facilitate regional adoption of EVs in excess of the regional share of the California goal of 5 million zero-

[38] See https://www.google.com/maps/d/u/0/viewer?mid=1IiJxkT5Rgg7wdcTRpOxplX6f0-tJjuEQ&ll=37.68066537992609%2C-121.9214665&z=10

[39] Boundaries determined in accordance with CalEnviroScreen 4.0 and AB 1550 requirements.

emission vehicles on the road by 2030. To support this goal, EBCE plans to build and operate as many as 50 public fast charging hubs, each with a minimum of 10 dual port DCFCs that have the capability of charging 20 EVs simultaneously. EBCE is focused on siting its hubs in areas with a dense population of renters.

EBCE's first such project is on the border of West Oakland and Downtown Oakland, in a municipal parking garage. The location is within the Bay Area Air Quality Management District AB617 boundary for West Oakland. EBCE anticipates that this DCFC hub will be the largest in Oakland and the second largest in Alameda County. More importantly, within two square miles of the DCFC hub are approximately 1,000 multi-family properties with over five units at each premises including over 100 in West Oakland specifically. This project will enable 60 minutes of free garage access for community members while charging, and all DCFCs will be powered by EBCE's Renewable 100 electricity product.

EBCE is working to develop additional projects throughout its service area including but not limited to the Cities of Berkeley, Hayward, Livermore, Pleasanton, and San Leandro.

c. Zero-Emission Medium- and Heavy-Duty Goods Movement Blueprint

As part of a 2-year, CEC-funded project, EBCE is developing a Zero-Emission Medium- and Heavy-Duty (MD/HD) Goods Movement Blueprint (Blueprint) to guide our comprehensive approach to MD/HD transportation electrification. The Blueprint focuses on five areas: (1) Vehicles, (2) Infrastructure, (3) Financing, (4) Workforce Development, and (5) Community Benefit and will serve as the regional plan on how to transition this ecosystem to zero-emission Class 3-6 and Class 7-8 vehicles by 2030 and 2045 respectively.

EBCE has also developed a technical assistance pilot program that is providing targeted MD/HD goods movement stakeholders with free fleet electrification assessments and a rebate application concierge service.

CALSTART is EBCE's technical consultant/partner for both the Blueprint as well as the technical assistance pilot program.

Blueprint Financing

To support Blueprint financing related actions and strategies, EBCE issued a Request for Offers solicitation that will provide $3M in MD/HD Goods Movement (vehicles and/or charging

infrastructure) loans to eligible applicants. Project proposals were due October 17, 2022.[40] EBCE is providing the funds for these loans as part of EBCE's Local Development program approved by its Board of Directors. The funds are not associated with the CEC Blueprint grant funding.

Blueprint Workforce Development

Building upon internal analysis, as well as research from several partner organizations, EBCE will target charging infrastructure and other transportation electrification investments to support a paradigm shift in how goods move in and through our service territory. We know that a successful transition to zero emission vehicles will require enough service technicians who know how to maintain electric vehicles and install and service the associated charging infrastructure. This will require growing out the technical skills development of both medium- and heavy-duty vehicle service technicians and electric vehicle charging technicians, which ultimately means resourcing technical skills instruction to cover these new skill sets. Some of the challenges we have identified in expanding the workforce to support zero emission vehicles are lack of curriculum, whether in formal educational programs or through trade skills development, and lack of medium- and heavy-duty zero emission vehicle training resources in the forms of training vehicles, facilities, certified instructors, and general funding to develop and sustain programming. We are working with educational institutions to understand and advocate for improvements to the educational pipeline starting at the high school and community college level to expand the awareness and capability of zero emission vehicle maintenance services in the East Bay. We are also looking at the role community-based organizations and organized labor can play in driving interest, engagement, and training opportunities to contribute to equipping the local workforce with relevant technical skills.

d. Commercial VGI Pilot Project

PG&E is partnering with EBCE on a Commercial Vehicle-to-Everything (V2X) pilot that targets the adoption of bidirectional charging among MD/HD fleets through customer incentives.

PG&E's pending V2X pilot will leverage EBCE's MD/HD goods movement scopes of work to engage applicable stakeholders with the goal of signing up 200+ bidirectional MD/HD zero-emission vehicles and charging stations. PG&E intends to demonstrate the value of V2X MD/HD technology and show how this technology can reduce the total cost of ownership once barriers are overcome. The pilot aims to prove out five value-streams: backup power; followed by customer bill management, system real-time energy, grid upgrade deferral and EV export for grid

[40] Current RFO available at https://res.cloudinary.com/diactiwk7/image/upload/v1664499492/REVISED_9.27.22_-_RFO_for_ZERO-EMISSION_MEDIUM_AND_HEAVY-DUTY_GOODS_MOVEMENT_PROJECT_LOANS_9.12_-_Copy_kfqviw.pdf (retrieved 10/11/2022). EBCE's prior solicitations can be accessed at https://ebce.org/solicitations-archive/.

services (such as system resource adequacy, system capacity) in 2023. The pilot will also address barriers such as lack of real-world experience; incremental costs for charging infrastructure with V2X capabilities; lack of market signals for deployment; lack of information about costs; programs/rules that incentivize stationary storage but not EVs that export to the grid; lack of customer education and need for a system to aggregate pricing signals and communicate them to market actors. Throughout 2022, PG&E and EBCE have been coordinating on development of a pilot scope of work for our collaboration. The pilot has a targeted end date in 2024.

e. Municipal Fleet Electrification Technical Assistance Program

EBCE is providing free technical assistance to develop municipal fleet electrification plans to its Joint Power Authority member cities and counties. EBCE is also providing local government partners with a Charging-as-a-Service product so they can focus their annual budgeting efforts on vehicle procurement.

f. Brownfield Revitalization DCFC Project Development

EBCE is developing a service area wide inventory of brownfields and conducting in-depth feasibility assessments of specific sites for potential revitalization as DCFC hubs to serve two reuse cases: 1) Light-duty passenger vehicles and 2) MD/HD Goods Movement vehicles. This scope of work is funded by the United States Environmental Protection Agency (EPA). EBCE was the first public or private sector entity in the United States to develop this concept and methodology for assessing brownfields for revitalization as fast charging hubs. In recognition of this work, in 2022 EBCE received the EPA's National Notable Achievement Award. The award reflects EBCE's outstanding performance in support of the EPA's most significant priorities and recognizes EBCE's accomplishment as one of the most noteworthy nationwide.

g. FreeWire Technologies CEC Grant

EBCE is a partner to FreeWire Technologies, Inc., on a CEC grant awarded in 2021. The project will specifically add the following advancements to FreeWire's Boost Charger: 1) Resilient EV charging even when grid power is unavailable; 2) Backup supply to power on-site loads as a microgrid; 3) On-site power demand management to reduce the overall energy costs for a Site Host; 4) Direct integration with on-site renewable sources, such as solar, to increase the efficiency of the solar plus storage system and reduce its total cost; 5) Bi-directional power flow to support charger-to-grid power flow, and 6) Utility integration to support demand response, grid load balancing and other grid services. EBCE provided match funding to the project and will own and test FreeWire's Boost Charger to understand how this functionality could be deployed at EBCE JPA member's municipal critical facilities in the future.

h. EBCE Smart Charge App

EBCE and leading energy software platform, Kaluza launched a pioneering VGI program to boost grid resilience, reduce energy costs and mitigate carbon emissions associated with electric vehicle (EV) charging using the EBCE Smart Charge app.[41]

The EBCE Smart Charge app, developed by Kaluza, will begin by servicing more than 1,000 electric vehicle drivers in EBCE's service area. As part of the initiative, Kaluza will enable drivers to easily 'set and forget' when they need their car ready via the mobile app and optimize vehicle charging to occur when electricity has a higher renewable energy content and is more cost effective. EBCE and Kaluza estimate that the service could enable the average EV driver to save over $550 a year and reduce their charging carbon emissions by 36%.

The EBCE Smart Charge app will leverage real-time price signals to enable cars to store energy during off-peak times creating 2-3GWh of flexible charging per year, thereby enabling EBCE to maximize its contracted wind and solar capacity and accelerate local system decarbonization.

xi. Building electrification, including any investments above and beyond what is included in Integrated Energy Policy Report (IEPR)

EBCE has developed the Health-e Home program[42] to provide electrification and energy efficiency improvements to Low and Moderate income households in our service area. The Health-e Home program also supports health and safety improvements such as wiring upgrades and roofing repairs—all to help reduce indoor air pollution, increase resiliency during extreme weather events, and potentially increase home value. The Health-e Home program will retrofit 60 households by July 2023 and, if the model is successful, will scale up from there. The first installed projects will allow EBCE to create a baseline for the change in energy usage of these projects in order to forecast the impacts to load of future programs of this nature.

xii. Other

EBCE has worked with several of its member cities to develop and achieve Climate Action Plans, where cities transition their default energy service to EBCE's Renewable 100. EBCE's Renewable 100 service is sourced from California wind and solar facilities, including a new wind farm in Livermore. As EBCE's service area grows and more member cities adopt their own Climate Action Plans, EBCE will continue to maintain a portfolio that achieves 100 percent clean energy for customers in this service.

[41] *See* https://ebce.org/news-and-events/ebce-and-kaluza-launch-charging-service-to-slash-bills-for-ev-drivers/.

[42] See https://ebce.org/health-e-home/.

Recent legislative and other developments significantly alter the near-term procurement planning landscape. [List of changed circumstances: DCPP extension; DWR Strategic Reliability Reserve; EBCE expansion to incorporate residents of Stockton in 2024]

In light of the California state legislation seeking to extend operation of the Diablo Canyon Power Plant and pending further clarification of the implications of how this single large baseload resource may alter the relative costs and preferability of other resources, EBCE's Preferred Conforming Portfolio (as well as those of other LSEs') may not fully reflect EBCE's portfolio needs.

EBCE is monitoring developments regarding the California Department of Water Resources' (DWR) actions to establish a Strategic Reliability Reserve.[43] It is not yet clear how the development of the Strategic Reserve will affect other LSEs' ability to procure existing and planned resources. It seems likely that DWR's procurement activity may result in less availability of some existing resources to other LSEs to satisfy portfolio requirements.

B. Disadvantaged Communities

EBCE demonstrates its commitment to deploying equitable policies and programs for its constituents in Alameda County and the City of Tracy. Equity is a through-line in EBCE's approach to some of the community-focused programs included below.

- Disadvantaged Green Tariff (DAC-GT) and Community Solar Green Tariff (CSGT)
- Healthy-e Homes program
- Resilient Home program
- Connected Communities pilot
- Covid-19 Grants for Community-Based Organizations
- Arrearage Management Plan (AMP) and California Arrearage Payment Program (CAPP)

The first four programs deploy robust marketing, education, and outreach strategies to meet our low-income, multi-family customers. EBCE integrates thorough data analytics to best meet the needs of our disadvantaged communities. EBCE intends to ensure that those who have been historically excluded in the clean energy movement, have access to these programs to propel a just, all-electric transition. For example, EBCE's Resilient Home program, partnered with Sunrun offers home solar and battery back-up systems at a pre-negotiated prices. Through this effort, EBCE's teams have targeted multi-family developments. As of August 2022, EBCE has installed systems covering 418 tenant units. EBCE intends to expand the program to include more multi-

[43] AB 205, available at https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB205.

family dwellings to bridge the accessibility gap for multi-family tenants. In addition to targeting specific customer segments, EBCE provides in-language marketing material for multilingual customers or non-English readers.

Additionally, EBCE implements programs and payment plans aimed at removing economic barriers for ratepayers in our service area. EBCE currently participates in the CPUC- and state-funded programs: Arrearage Management Plan (AMP) and the California Arrearage Payment Plan (CAPP). The aim is to reduce utility debt accumulated during the Covid-19 pandemic. EBCE understands that there are compounding injustices such as economic inequities that prevent customers from paying their bills, causing greater stress and anxiety. AMP and CAPP are aimed to reduce those stressors. Furthermore, EBCE donated dollars to local relief efforts directly in our communities as a response to the Covid-19 pandemic. In the past years, EBCE contributed over $2 million to local organizations. Some of the awardees included small to large non-profits, food banks, and healthcare organizations. EBCE recognizes that both short-term and long-term funding are necessary to elevate energy equity issues in our service area.

Furthermore, EBCE's governance structure allows community input through the Community Advisory Committee (CAC), which consists of twelve members, plus five alternatives. Formed in 2016, EBCE's CAC advises the Board on all subjects related to our operations. The committee acts as a liaison between key stakeholders and our Board, holding public committee meetings on a regulator basis. Having diverse community members is important to EBCE, including geographic diversity.

C. Commission Direction of Actions

EBCE encourages the Commission to consider the following items.

First, the Commission should strive to reduce the volume of regulatory changes occurring simultaneously to allow the IRP process to serve as a meaningful guide for LSE and statewide resource procurement.

EBCE is concerned that the range of changes occurring in multiple regulatory programs render the results of EBCE's, and perhaps other LSEs', IRP analysis less useful. The changing regulatory and statutory landscape has been recognized by the Commission already.[44] For example, the Resource Adequacy program is undergoing a fundamental change in program design by moving

[44] See *ALJ Ruling Seeking Comments on Staff Paper on Procurement Program and Potential Near-Term Actions to Encourage Additional Procurement*, issued September 8, 2022 (hereafter, 9/8 ALJ Ruling) at p. 8 (noting changes to the RA program, Strategic Reliability Reserve, DCPP operation extension, and carbon neutrality requirements).

towards a monthly 24-hour slice of day paradigm;[45] simultaneously, the Commission is considering making urgent changes to the framework of procurement orders that have been issued in the IRP program over the past 3 years while *also* establishing an ongoing IRP Procurement Program that would, potentially, replace the entire IRP procurement paradigm.[46]

EBCE is still determining how the RA program reforms will affect EBCE's portfolio needs. It has not been within the scope of EBCE's IRP analysis to anticipate or prejudge these impacts. Nevertheless, the RA program reform is a known area of uncertainty for EBCE's long-term resource planning.

The proposed changes in the IRP program[47] are potentially less well understood as they may affect EBCE's long-term portfolio planning. The proposed Near-Term Actions reflected in the September 8 Ruling may alter EBCE's near-term portfolio needs, by changing which resources may count towards EBCE's incremental Near Term and Mid-Term Reliability procurement obligations. Coupled with this is the prospect of additional procurement directives before even the February 1, 2022, IRP Compliance Filing.[48] The IRP Procurement Program, as reflected in the Staff Paper, may further add complexity to EBCE's growing portfolio analysis efforts. EBCE simply has not been able to incorporate these potential changes into its IRP analysis. The amount of uncertainty that these changes inject into the LSE long-term resource planning is not helpful.

Second, the Commission should impose greater discipline on the timing and release of IRP filing requirements, inputs, and assumptions. As further described in the Lessons Learned section, the Commission continued to revise the materials used to develop the IRP LSE Plan filing until as late as September 29, 2022. While EBCE appreciates the Energy Division Staff's responsiveness and effort to provide useful guidance and materials in a timely manner, there needs to be a recognition that the IRP is a planning exercise that should inform and guide, but not necessarily dictate, LSE procurement over the planning horizon. Modifying the filing materials long after they were expected to be fixed is an issue that can and should be avoided.

Third, the IRP is an imprecise forecast of LSE portfolio needs using assumptions about the future state of resource costs, timely interconnection with available deliverability, and load forecasts.

[45] D.22-06-050, issued June 23, 2022 (adopting 24-hour framework, workshop series, and timing to adopt with 2024 test year and 2025 implementation).

[46] 9/8 *ALJ Ruling* at p. 1.

[47] *Id.*

[48] 9/8 ALJ Ruling at p. 8 ("the [9/8 ALJ] ruling is focused on . . . additional changes the Commission could make . . . prior to [the] next formal need assessment [i.e., IRP Compliance Filing in February, 2023] . . . and prior to the implementation of" an IRP Procurement Program).

The conclusions of an LSE's IRP analysis provide more or less useful directional guidance about how their portfolio needs may change and what steps they may need to take in the future. In EBCE's case, several landscape changes have occurred since we started our IRP analysis. These include significant regulatory process changes underway in the RA and IRP proceedings; the extension of the Diablo Canyon Power Plant operation for several years; the development of California's Strategic Reliability Reserve by the Department of Water; and the addition of residents of the City of Stockton in 2024. With all these new uncertainties changes, EBCE anticipates that its portfolio needs in the future will differ from its Preferred Conforming Portfolio. The Commission should not expect nor insist that LSEs precisely follow the procurement plans reflected in their IRP portfolios.

V. Lessons Learned

As EBCE has matured, we are looking further ahead to determine the best resource portfolio that will achieve our organizational goals while contributing to system reliability and emission reduction goals for the State. To succeed, we need to manage our portfolio effectively, adding clean energy resources with the appropriate attributes to meet our portfolio needs over time. Striving to achieve EBCE's Board-established a goal of providing 100% clean energy on a net-annual basis by 2030,[49] EBCE purposefully sought to expand and improve the capability of our long-term portfolio planning both in preparation for the 2022 IRP LSE Plan submittal as well as to improve our own long-term portfolio management. We have adopted markedly different tools and methodologies we used for this year's IRP plan from previous cycles.[50] We did this to establish an enhanced baseline of long-term analytical capability that can be adapted and repeated more frequently that the current CPUC IRP cycle requires. EBCE's ultimate long-term portfolio strategy is to provide 24/7, coincident clean energy to our customers. EBCE's expanded long-term planning will be a critical tool in guiding our procurement strategy to manage portfolio needs over time.

As EBCE's long-term portfolio analysis continues to improve, we have identified several areas that warrant improvement.

[49] *See supra*, n. **Error! Bookmark not defined.**

[50] *See supra* at p. 8.

D. Commission Should Recognize the Needs of Public Agency LSEs to Develop IRP Plans

EBCE notices that there appears to be an awareness gap between the CPUC's development of the IRP filing requirements and materials on the one hand, and EBCE's (like other public agencies) required internal governance process on the other. Namely, while the filing deadline to submit an IRP LSE Plan is established by the Commission (e.g., for this year it is November 1, 2022), EBCE must obtain filing authority from its Board well in advance of the CPUC's filing date. As a public agency, EBCE must comply with public meeting notice requirements such as the duty to publish Board meeting materials in advance of regularly scheduled meetings. While EBCE is governed by a Board comprised of elected officials from every municipality within our service territory, our Board is advised by a Community Advisory Committee in addition to EBCE Staff. EBCE must comply with public meeting notice requirements for our advisory committee as well. To ensure that our Community Advisory Committee *and* our Board have a meaningful opportunity to review and approve our IRP LSE plan, EBCE must complete its IRP analysis and plan development approximately one month prior to the CPUC's filing deadline. EBCE, like other public agencies participating in the IRP proceeding, therefore has less time to develop and prepare our IRP analysis than the Commission appears to perceive. EBCE asks that the Commission consider the process to which public agencies must adhere when setting IRP cycle milestones, fixing the closed system of planning parameters, and establishing IRP LSE Plan filing deadlines.

Considering the IRP development timeline described above, much of which is dictated by EBCE's status as a public agency, EBCE was dismayed to see that the Commission continued to make revisions, however seemingly minor, to the filing requirements and materials as late as September 29, 2022.[51] EBCE's IRP analysis, like many other LSEs, is the culmination of several months' effort. While EBCE has made best efforts to accommodate these and other changes, it is not reasonable to expect such flexibility from all LSEs in every IRP cycle.

[51] See the Commission's *Aggregated CAM Resources for LSEs Plan Development* workbook, published September 29, 2022, available at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/2022-irp-cycle-events-and-materials/aggregated_cam_resources.xlsm; see also the updated Resource Data Template, Version 3, published September 23, 2022, available at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/2022-irp-cycle-events-and-materials/rdtv3_092322.xlsm.

E. Transmission Congestion and Interconnection Deliverability Slow Incremental Resource Development

EBCE anticipates that the challenges of bringing incremental generating resources online will continue in light of congested transmission capacity across the CAISO system and scarce interconnection deliverability for new resources connecting to the grid. The Commission should consider what steps it may take to support efforts by CAISO and others to alleviate transmission congestion and deliverability scarcity for generation interconnection projects serving California load.

F. IRP-Directed Procurement Risks Displacing LSE Portfolio Management and Procurement Goals

EBCE is concerned that the CPUC's IRP process may have the effect of displacing EBCE's own portfolio management autonomy. Recognizing that the Commission is eager to encourage additional procurement beyond LSE need,[52] given EBCE's relatively small size within the broader LSE landscape, the Commission's procurement direction risks overwhelming EBCE's ability to procure resources that reflect our mission and guidance from our Board.

EBCE is cognizant of its place within the broader LSE landscape. EBCE fully appreciates our obligation to serve load with a resource portfolio that complies with EBCE Board guidance as well as State reliability and emission requirements. However, EBCE notes that the Commission's conclusions based on its analysis of individual LSE-submitted resource portfolios has often resulted in significant additional procurement requirements for EBCE, and other LSEs generally. EBCE has a responsibility to manage its resource portfolio in accordance with the direction set by EBCE's member city and municipal representatives. Yet EBCE's IRP analysis, and the resulting preferred conforming portfolio, are based on assumptions regarding EBCE's load change over time, availability of transmission capacity over the planning horizon, relative market energy prices, and costs associated with procurement of then-existing or new resources across the Western Interconnection. In other words, EBCE's IRP portfolio is highly dependent on these assumptions and projections. Whether a particular resource or technology best suits EBCE's future portfolio needs within the IRP planning context should guide but not constrain EBCE's portfolio management decision-making or strategy.

Where EBCE receives a directive from the Commission to procure capacity or energy from specific resource technologies, this 'forced portfolio adjustment' risks displacing other procurement EBCE

[52] *See* 9/8 ALJ Ruling at p. 8.

might have undertaken. EBCE ultimately is striving to achieve a 24/7 coincident clean energy portfolio to meet its customers' load. Commission procurement direction constrains EBCE's procurement autonomy.

Glossary of Terms

Alternative Portfolio: *LSEs are permitted to submit "Alternative Portfolios" developed from scenarios using different assumptions from those used in the Preferred System Plan with updates. Any deviations from the "Conforming Portfolio" must be explained and justified.*

Approve (Plan)*: the CPUC's obligation to approve an LSE's integrated resource plan derives from Public Utilities Code Section 454.52(b)(2) and the procurement planning process described in Public Utilities Code Section 454.5, in addition to the CPUC obligation to ensure safe and reliable service at just and reasonable rates under Public Utilities Code Section 451.*

Balancing Authority Area (CAISO): *the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.*

Baseline resources: *Those resources assumed to be fixed as a capacity expansion model input, as opposed to Candidate resources, which are selected by the model and are incremental to the Baseline. Baseline resources are existing (already online) or owned or contracted to come online within the planning horizon. Existing resources with announced retirements are excluded from the Baseline for the applicable years. Being "contracted" refers to a resource holding signed contract/s with an LSE/s for much of its energy and capacity, as applicable, for a significant portion of its useful life. The contracts refer to those approved by the CPUC and/or the LSE's governing board, as applicable. These criteria indicate the resource is relatively certain to come online. Baseline resources that are not online at the time of modeling may have a failure rate applied to their nameplate capacity to allow for the risk of them failing to come online.*

Candidate resource: *those resources, such as renewables, energy storage, natural gas generation, and demand response, available for selection in IRP capacity expansion modeling, incremental to the Baseline resources.*

Capacity Expansion Model: *a capacity expansion model is a computer model that simulates generation and transmission investment to meet forecast electric load over many years, usually with the objective of minimizing the total cost of owning and operating the electrical system. Capacity expansion models can also be configured to only allow solutions that meet specific requirements, such as providing a minimum amount of capacity to ensure the reliability of the system or maintaining greenhouse gas emissions below an established level.*

Certify (a Community Choice Aggregator Plan)*: Public Utilities Code 454.52(b)(3) requires the CPUC to certify the integrated resource plans of CCAs. "Certify" requires a formal act of the Commission to determine that the CCA's Plan complies with the requirements of the statute and the process established via Public Utilities Code 454.51(a). In addition, the Commission must review the CCA Plans to determine any potential impacts on public utility bundled customers under Public Utilities Code Sections 451 and 454, among others.*

Clean System Power (CSP) methodology*: the methodology used to estimate GHG and criteria pollutant emissions associated with an LSE's Portfolio based on how the LSE will expect to rely on system power on an hourly basis.*

Community Choice Aggregator*: a governmental entity formed by a city or county to procure electricity for its residents, businesses, and municipal facilities.*

Conforming Portfolio*: the LSE portfolio that conforms to IRP Planning Standards, the 2030 LSE-specific GHG Emissions Benchmark, use of the LSE's assigned load forecast, use of inputs and assumptions matching those used in developing the Reference System Portfolio, as well as other IRP requirements including the filing of a complete Narrative Template, a Resource Data Template and Clean System Power Calculator*.

Effective Load Carrying Capacity*: a percentage that expresses how well a resource is able avoid loss-of-load events (considering availability and use limitations). The percentage is relative to a reference resource, for example a resource that is always available with no use limitations. It is calculated via probabilistic reliability modeling, and yields a single percentage value for a given resource or grouping of resources.*

Effective Megawatts (MW): *perfect capacity equivalent MW, such as the MW calculated by applying an ELCC % multiplier to nameplate MW.*

Electric Service Provider*: an entity that offers electric service to a retail or end-use customer, but which does not fall within the definition of an electrical corporation under Public Utilities Code Section 218.*

Filing Entity*: an entity required by statute to file an integrated resource plan with CPUC.*

Future*: a set of assumptions about future conditions, such as load or gas prices.*

GHG Benchmark (or LSE-specific 2030 GHG Benchmark)*: the mass-based GHG emission planning targets calculated by staff for each LSE based on the methodology established by the California Air Resources Board and required for use in LSE Portfolio development in IRP.*

GHG Planning Price: *the systemwide marginal GHG abatement cost associated with achieving a specific electric sector 2030 GHG planning target.*

Integrated Resources Planning Standards (Planning Standards)*: the set of CPUC IRP rules, guidelines, formulas and metrics that LSEs must include in their LSE Plans.*

Integrated Resource Planning (IRP) process*: integrated resource planning process; the repeating cycle through which integrated resource plans are prepared, submitted, and reviewed by the CPUC*

Long term*: more than 5 years unless otherwise specified.*

Load Serving Entity*: an electrical corporation, electric service provider, community choice aggregator, or electric cooperative.*

Load Serving Entity (LSE) Plan*: an LSE's integrated resource plan; the full set of documents and information submitted by an LSE to the CPUC as part of the IRP process.*

Load Serving Entity (LSE) Portfolio*: a set of supply- and/or demand-side resources with certain attributes that together serve the LSE's assigned load over the IRP planning horizon.*

Loss of Load Expectation (LOLE): *a metric that quantifies the expected frequency of loss-of-load events per year. Loss-of-load is any instance where available generating capacity is insufficient to serve electric demand. If one or more instances of loss-of-load occurring within the same day regardless of duration*

are counted as one loss-of-load event, then the LOLE metric can be compared to a reference point such as the industry probabilistic reliability standard of "one expected day in 10 years," i.e. an LOLE of 0.1.

Maximum Import Capability: a California ISO metric that represents a quantity in MWs of imports determined by the CAISO to be simultaneously deliverable to the aggregate of load in the ISO's Balancing Authority (BAA) Area and thus eligible for use in the Resource Adequacy process. The California ISO assess a MIC MW value for each intertie into the ISO's BAA and allocated yearly to the LSEs. A LSE's RA import showings are limited to its share of the MIC at each intertie.

Net Qualifying Capacity (NQC): *Qualifying Capacity reduced, as applicable, based on: (1) testing and verification; (2) application of performance criteria; and (3) deliverability restrictions. The Net Qualifying Capacity determination shall be made by the California ISO pursuant to the provisions of this California ISO Tariff and the applicable Business Practice Manual.*

Non-modeled costs*: embedded fixed costs in today's energy system (e.g., existing distribution revenue requirement, existing transmission revenue requirement, and energy efficiency program cost).*

Nonstandard LSE Plan*: type of integrated resource plan that an LSE may be eligible to file if it serves load outside the CAISO balancing authority area.*

Optimization*: an exercise undertaken in the CPUC's Integrated Resource Planning (IRP) process using a capacity expansion model to identify a least-cost portfolio of electricity resources for meeting specific policy constraints, such as GHG reduction or RPS targets, while maintaining reliability given a set of assumptions about the future. Optimization in IRP considers resources assumed to be online over the planning horizon (baseline resources), some of which the model may choose not to retain, and additional resources (candidate resources) that the model is able to select to meet future grid needs.*

Planned resource: *any resource included in an LSE portfolio, whether already online or not, that is yet to be procured. Relating this to capacity expansion modeling terms, planned resources can be baseline resources (needing contract renewal, or currently owned/contracted by another LSE), candidate resources, or possibly resources that were not considered by the modeling, e.g., due to the passage of time between the modeling taking place and LSEs developing their plans. Planned resources can be specific (e.g., with a CAISO ID) or generic, with only the type, size and some geographic information identified.*

Qualifying capacity*: the maximum amount of Resource Adequacy Benefits a generating facility could provide before an assessment of its net qualifying capacity.*

Preferred Conforming Portfolio*: the conforming portfolio preferred by an LSE as the most suitable to its own needs; submitted to CPUC for review as one element of the LSE's overall IRP plan.*

Preferred System Plan: *the Commission's integrated resource plan composed of both the aggregation of LSE portfolios (i.e., Preferred System Portfolio) and the set of actions necessary to implement that portfolio (i.e., Preferred System Action Plan).*

Preferred System Portfolio: *the combined portfolios of individual LSEs within the CAISO, aggregated, reviewed and possibly modified by Commission staff as a proposal to the Commission, and adopted by the Commission as most responsive to statutory requirements per Pub. Util. Code 454.51; part of the Preferred System Plan.*

Short term*: 1 to 3 years (unless otherwise specified).*

***Staff**: CPUC Energy Division staff (unless otherwise specified).*

***Standard LSE Plan**: type of integrated resource plan that an LSE is required to file if it serves load within the CAISO balancing authority area (unless the LSE demonstrates exemption from the IRP process).*

***Transmission Planning Process (TPP)**: annual process conducted by the California Independent System Operator (CAISO) to identify potential transmission system limitations and areas that need reinforcements over a 10-year horizon.*

Appendix

The following figures and tables show the results tables from the CSP for the CPUC 30 MMT scenario.

Table 22 CO_2 Emissions Summary of EBCE's Preferred Conforming Portfolio - 30 MMT Scenario[53]

CO_2	*Unit*	2024	2026	2030	2035
Coal	*MMt/yr*	0.000	0.000	0.000	0.000
CHP	*MMt/yr*	0.167	0.167	0.167	0.100
Biogas[54]	*MMt/yr*	0.000	0.000	0.000	0.000
Biomass[54]	*MMt/yr*	0.000	0.000	0.000	0.000
System Power	*MMt/yr*	1.136	0.829	0.544	0.480
Asset Controlling Supplier	*MMt/yr*	0.000	0.000	0.000	0.000
Total	***MMt/yr***	**1.303**	**0.997**	**0.710**	**0.580**
Average emissions intensity	*tCO_2/MWh*	0.193	0.145	0.099	0.077
Oversupply Emissions Credits	*MMt/yr*	0.14	0.18	0.20	0.27

Table 23 CSP Summary of EBCE's Preferred Conforming Portfolio – 30 MMT Scenario

Renewable and GHG-Free %	Unit	2024	2026	2030	2035
Retail Sales	GWh	6,740	6,887	7,180	7,540
RPS-Eligible Delivered Renewable	GWh	4,348	5,276	6,375	7,129
GHG free	GWh	4,348	5,276	6,375	7,131
RPS-Eligible Delivered Renewable Percentage	% of retail sales	65	77	89	95
GHG-free Percentage	% of retail sales	65	77	89	95

[53] CHP emissions shown in Table 22 represent EBCE's pro rata share of behind-the-meter Combined Heat and Power (CHP) interconnected to the CAISO-controlled electric grid. CHP emissions are determined by the CSP calculator as a function of LSE load, unrelated to the 'actual' GHG-emission profile of any specific LSE's resource portfolio. EBCE is required to include this allocation in its CSP.

[54] As shown in the tables below, EBCE is allocated particulate emissions associated with the VAMO allocation of Biomass / Biogas attributes. However, the CSP assigns no CO2 emissions for these resources.

Table 24 Preferred Conforming Portfolio of PM 2.5 Emissions – 30 MMT Scenario

PM2.5	Unit	2024	2026	2030	2035
Coal	tonnes/yr	0.00	0.00	0.00	0.00
CHP	tonnes/yr	9.17	9.17	9.14	5.61
Biogas	tonnes/yr	4.34	4.36	4.14	1.28
Biomass	tonnes/yr	36.96	35.06	26.12	19.84
System Power	tonnes/yr	29.51	24.51	16.71	17.74
Total	tonnes/yr	79.97	73.09	56.11	44.47
Average emissions intensity	kg/MWh	0.01	0.01	0.01	0.01

Table 25 Preferred Conforming Portfolio SO_2 Emissions – 30 MMT Scenario

SO2	Unit	2024	2026	2030	2035
Coal	tonnes/yr	0.00	0.00	0.00	0.00
CHP	tonnes/yr	0.98	0.97	0.97	0.60
Biogas	tonnes/yr	3.17	3.16	3.06	0.95
Biomass	tonnes/yr	14.21	13.48	10.05	7.63
System Power	tonnes/yr	2.77	2.30	1.56	1.66
Total	tonnes/yr	21.13	19.92	15.64	10.84
Average emissions intensity	kg/MWh	0.00	0.00	0.00	0.00

Table 26 Preferred Conforming Portfolio NO_x Emissions – 30 MMT Scenario

NOx	Unit	2024	2026	2030	2035
Coal	tonnes/yr	0.00	0.00	0.00	0.00
CHP	tonnes/yr	42.79	42.57	42.02	22.34
Biogas	tonnes/yr	14.26	14.23	13.75	4.29
Biomass	tonnes/yr	111.38	105.59	78.66	59.76
System Power	tonnes/yr	35.28	28.94	20.58	21.90
Total	tonnes/yr	203.70	191.33	155.02	108.29
Average emissions intensity	kg/MWh	0.03	0.03	0.02	0.01

Staff Report Item 13

TO: East Bay Community Energy Board of Directors

FROM: Marie Fontenot, Vice President of Power Resources

SUBJECT: **Broad Reach Power Noosa and Broad Reach Power Cascade Contract Approvals (Action)**

DATE: October 19, 2022

Recommendation

Adopt three Resolutions authorizing the Chief Executive Officer to execute Agreements for two projects awarded short listing through the 2022 Long-Term Resources request for offers (RFO): Noosa Energy Storage LLC (Broad Reach Power) and Cascade Energy Storage LLC (Broad Reach Power). The two battery storage projects listed below are expected to be operational starting in 2024:

a. Cascade: 10-year, 5 MW RA-only from battery storage project in San Joaquin County. June 2024 online date. Developed by Broad Reach Power.
b. Noosa: 10-year, 30 mega-watts (MW) Resource Adequacy (RA) from battery storage project in San Joaquin County. June 2024 online date. Developed by Broad Reach Power.

Background and Discussion

The 2022 Long-Term Resource Request for Offers (RFO) is EBCE's third long-term contract solicitation. The RFO that was launched in November 2020. The RFO sought several hundred megawatts (MW) of contracts with renewable energy and battery storage projects with a preference for projects located in California, and more preferentially, those located in Alameda County. EBCE's objective was to drive investments in new renewable and energy storage projects in Alameda County and California, while securing affordable resources to manage future power price risk. EBCE received a very healthy response to its RFO both in volume and quality of projects and proposals. EBCE administered the RFO and completed robust analytics using internal tools and the cQuant valuation platform to calculate the net present

value of proposed projects and determine the optimal portfolio to meet its objectives. EBCE intends to bring additional contracts from this RFO to the Board for approval in the coming months. All of these contracts will be utilized to hedge EBCE against price fluctuation in the CAISO energy markets and they will also contribute to procurement mandates issued by the California Public Utilities Commission (CPUC). The 2021-2023 Electric Reliability Requirements procurement mandate identified volumes of RA capacity each CPUC-jurisdictional load serving entity must procure and have online in the years 2021, 2022 and 2023.[1] The second mandate requires additional volumes of RA come online in years 2023, 2024, 2025, and 2026. That mandate is the "Decision Requirement Procurement to Address Mid-Term Reliability 2023-2026".[2]

The Broad Reach Power Cascade contract is for RA from a 10 MW/40 MWh battery storage project. The contracted project, Cascade, is located in San Joaquin County. The contract is for 10-years with an expected commercial operation date of June 1, 2024. Broad Reach Power is an experienced developer having 17 battery storage projects in operation in Texas with an additional 800 MW in development in Texas. The Cascade battery storage project will be Broad Reach's second project to achieve commercial operation in California. The contracting entity is Cascade Energy Stroage LLC.

The Broad Reach Power Noosa contract is for RA from a 60 MW/240 MWh battery storage project. The contracted project, Noosa, is located within Stockton in San Joaquin County. The contract is for 10-years with an expected commercial operation date of June 1, 2024.

Attachments

A. Resolution Authorizing the CEO to Negotiate and Execute a Ten Year Resource Adequacy Agreement with Cascade Energy Storage LLC
B. Resolution Authorizing the CEO to Negotiate and Execute a Ten Year Resource Adequacy Agreement with Noosa Energy Storage TBD
C. PowerPoint Presentation

[1] https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M319/K825/319825388.PDF
[2] https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M389/K603/389603637.PDF

RESOLUTION NO. R-2022-XX

A RESOLUTION OF THE BOARD OF DIRECTORS

OF THE EAST BAY COMMUNITY ENERGY AUTHORITY AUTHROIZING THE CEO TO NEGOTIATE AND EXECUTE A TEN YEAR RESOURCE ADEQUACY AGREEMENT WITH CASCADE ENERGY STORAGE LLC

WHEREAS, The East Bay Community Energy Authority ("EBCE") was formed as a community choice aggregation agency ("CCA") on December 1, 2016, Under the Joint Exercise of Power Act, California Government Code sections 6500 *et seq.,* among the County of Alameda, and the Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Piedmont, Oakland, San Leandro, and Union City to study, promote, develop, conduct, operate, and manage energy-related climate change programs in all of the member jurisdictions. The cities of Newark and Pleasanton, located in Alameda County, along with the City of Tracy, located in San Joaquin County, were added as members of EBCE and parties to the JPA in March of 2020.

WHEREAS, EBCE issued the 2022 Long-Term Resources request for offers (RFO) in February, 2022; and

WHEREAS, Cascade Energy Storage LLC, proposed a 5 MW of Resource Adequacy (RA) from a 10 MW/40 MWh battery energy storage project in San Joaquin County, developed by Broad Reach Power; and

WHEREAS, the project is expected to be operational by June 1, 2024 and will deliver RA for a term of ten years.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The CEO is hereby authorized to negotiate and execute a ten-year RA agreement with Cascade Energy Storage LLC for a 5 MW RA-only battery energy storage project in San Joaquin County. The final agreement shall include the key terms outlined in the staff report associated with this Resolution.

ADOPTED AND APPROVED this 19th day of October, 2022.

_____

Dianne Martinez, Chair

ATTEST:

_____

Adrian Bankhead, Clerk of the Board

RESOLUTION NO. R-2022-XX

A RESOLUTION OF THE BOARD OF DIRECTORS

OF THE EAST BAY COMMUNITY ENERGY AUTHORITY AUTHORIZING THE CEO TO NEGOTIATE AND EXECUTE A RESOURCE ADEQUACY AGREEMENT WITH NOOSA ENERGY STORAGE LLC

WHEREAS, The East Bay Community Energy Authority ("EBCE") was formed as a community choice aggregation agency ("CCA") on December 1, 2016, Under the Joint Exercise of Power Act, California Government Code sections 6500 *et seq.,* among the County of Alameda, and the Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Piedmont, Oakland, San Leandro, and Union City to study, promote, develop, conduct, operate, and manage energy-related climate change programs in all of the member jurisdictions. The cities of Newark and Pleasanton, located in Alameda County, along with the City of Tracy, located in San Joaquin County, were added as members of EBCE and parties to the JPA in March of 2020.

WHEREAS, EBCE issued the 2022 Long-Term Resources request for offers (RFO) in February 2022; and

WHEREAS, Noosa Energy Storage LLC, proposed a 30 MW of Resource Adequacy (RA) from a 60 MW/240 MWh battery energy storage project in Stockton in San Joaquin County, developed by Broad Reach Power; and

WHEREAS, the project is expected to be operational by June 1, 2024 and will deliver RA for a term of ten years.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The CEO is hereby authorized to negotiate and execute a ten-year RA agreement with Noosa Energy Storage LLC for a 30 MW RA-only battery energy storage project in San Joaquin County. The final agreement shall include the key terms outlined in the staff report associated with this Resolution.

ADOPTED AND APPROVED this 19th day of October, 2022.

_____

Dianne Martinez, Chair

ATTEST:

Adrian Bankhead, Clerk of the Board

EAST BAY COMMUNITY ENERGY

2022 Long-Term Resource RFO: Project Update

PRESENTED BY: Marie Fontenot

DATE: October 19, 2022

Agenda

- Solicitation Overview
- Participation
- Evaluation Process
- Current RFO Portfolio Characteristics
- Challenges in Marketplace
- Next Steps
- Appendix: Portfolio Summary

Solicitation Overview

Goals & Objectives

- Secure a portfolio of contracts to provide EBCE customers with affordable renewable and clean energy sources
- Meet IRP Near- and Mid-Term Resource Adequacy Reliability Procurement mandates
- Meet a significant percent of SB350 long-term contracting requirements, equal to 65% of RPS obligations
- Create new renewable energy projects to deliver PCC1 RECs
- Contract low-cost energy hedges to compliment existing portfolio
- Partner with SJCE for efficiency, to minimize expenses, and lead the market in contract terms

Project Characteristics

Facilities:

- Location: Projects may be within or outside of California. All energy must be deliverable to CAISO & must provide RA
- Construction Status: Energy and related products may come from new resources or add incremental capacity to existing resources.

Capacity:

- Minimum Contract Capacity: 5 MW
- Maximum Contract Capacity: none

Delivery Date:

- Energy and RPS attribute delivery must be within calendar years 2023, 2024, 2025, or 2026 with a preference for projects that begin delivery earlier within this window.

Contract Duration:

- 10-20 year durations

Technology:

- Renewables, Large Hydro
- Storage – short or long duration; any technology

Actions

- Issued a broad, open, competitive solicitation to ensure wide array of opportunities considered
- Evaluated combinations of projects to achieve desired volume targets
- Typically prioritize project risk, location, workforce development, economics, and other characteristics; limited ability to do so in this RFO due to limited offers in earlier years
- Encouraged RFO participants to be creative and provide proposal variations on individual projects and include battery storage

EAST BAY COMMUNITY ENERGY

Solicitation Overview – Eligible Products

Product #	Product Name	Description	Example
Product 1	As-Available RPS Product	New or incremental capacity to an existing stand-alone PCC1-eligible generating resource	solar, wind, geothermal, small hydro or ocean (thermal, wave, or current)
Product 2	As-Available RPS plus Energy Storage	New or incremental capacity to an existing stand-alone PCC1-eligible generating resource with co-located energy storage	Same as above plus storage with 2-hr, 4-hr, or 4-hr+ duration capability
Product 3	Firm or Shaped RPS Product	New PCC1-eligible generating resources; likely paired with energy storage	Energy delivered during specific hours
Product 4	High Capacity Factor, No On-Site Emissions RPS Energy	New stand-alone PCC1-eligible generating resource	Geothermal or Biomass
Product 5	Stand-Alone Energy Storage Toll or RA-Only offer	Energy storage may offer a full product "tolling" structure contract or and RA-only offer	Any storage technology with 2-hr, 4-hr, or 4-hr+ duration capability
Product 6	Zero-Emitting Capacity Resources	Must be available every day from 5pm to 10pm (hours ending 17 through 22); must be able to deliver at least 5 MWh of energy for every 1 MW of incremental capacity	Emission-free generation resources, emissions-free generation paired with storage, or demand response

Participation

- **Less robust project offering than 2020 RFO. 44 unique project sites; 185 contract variations (as compared to 70 sites; 400 project variations in 2020 RFO)**
- **All 6 products that were solicited were offered**
- **Offers included solar, wind, geothermal, pumped hydro, and storage**
- **Projects based in 6 different states (CA, AZ, ID, NM, NV, OR); predominantly CA**
  - **Only 1 projects in EBCE service territory.*

Evaluation Process

- **Evaluation Rubric scored 3 areas:**
  - Counterparty Execution, Offer Competitiveness, and Project Development Status
  - Multiple items under each area
- **Two reviewers were assigned to each project.**
- **Staff reviewed all submitted information and provided scores for all categories except for Term Sheet Markups and NPV.**
  - Each item has 10 point max. at its own weighting.
  - Term Sheet Markups were scored by one assigned reviewer.
  - NPV scores were directly incorporated into overall project score with a weighting of 45%.
    - The Net Present Value was calculated based on simulations on 3 different forward curves
    - For each forward curve we took a weighted average of the P5 (50%), P50 (25%), and P95 (25%) and then took a simple average across the 3 curves
    - We normalized this number on a $/MW basis and the projects were then assigned a 0-10 score based on the NPV distribution
- **Scoring and rubric were consistent with the selection process for the 2018 California Renewables RFP and 2020 RPS and Storage RFO.**

EAST BAY COMMUNITY ENERGY

Projects Proposed for Execution

Seeking approval for two contracts: two RA-only agreements submitted into EBCE and SJCE's joint 2022 Long-Term Resource RFO

- 10-year, 5 MW RA-only contract for battery storage resource in San Joaquin county (Cascade) with Broad Reach Power. Expected to be operational June, 2024.
- 10-year, 30 MW RA-only contract for battery storage resource in Stockton, San Joaquin county (Noosa) with Broad Reach Power. Expected to be operational June, 2024.

Broad Reach Power – Cascade Project Details

- Selected via the 2022 Joint CAA Long-Term Resource RFO
- Contract for 5 MW Resource Adequacy from energy storage project in San Joaquin County
- Total project size is 99 MW
- 10-year contract
- Expected Commercial Operation Date is June 1, 2024
- Project has an executed interconnection agreement and site control.
- Committed toward utilizing local and union labor and paying prevailing wages.
- The contracting entity under Broad Reach Power is Cascade Energy Storage LLC.

Broad Reach Power - Noosa Project Details

- Selected via the 2022 Joint CAA Long-Term Resource RFO
- Contract for 30 MW Resource Adequacy from energy storage project in Stockton, San Joaquin County
- Total project size is 60 MW
- 10-year contract
- Expected Commercial Operation Date is June 1, 2024
- Project has an executed interconnection agreement and site control.
- Committed toward utilizing local and union labor and paying prevailing wages.
- The contracting entity under Broad Reach Power is Noosa Energy Storage LLC.

Broad Reach Power Company Overview

- Broad Reach Power (BRP) is led by a team who have delivered more than four gigawatts of complex projects and who have a combined experience of more than 80 years.
- Founded in 2019, BRP is a utility-scale developer with 350 MW of battery storage projects in operation and over 10 GW in development pipeline.
- BRP is financially backed by prominent investors EnCap Energy Transition Fund, Apollo Global Management, Yorktown Partners, and Mercuria Energy
- BRP's California development team is comprised of three individuals who all live in the state. The transmission team is comprised of well known and highly regarded individuals in California energy.
- BRP has some experience with CCAs; owns and operates at least 1 executed contract with CCAs:
  - RA contract with Redwood Coast Energy Authority; energy storage project to COD 5/2023

Portfolio Characteristics

Attachment Staff Report Item 13C

	Developer	Project	Location	Product	Offtake	COD	Nameplate	Sept NQC
Gener-ation		None at this time						
Storage		None at this time						
RA Only	**Broad Reach Power**	Noosa Energy Storage	**San Joaquin County, CA**	RA only	EBCE & SJCE	6/1/2024	30 MW	27
	Broad Reach Power	Cascade Energy Storage	**San Joaquin County, CA**	RA only	EBCE & SJCE	6/1/2024	5 MW	4.5

EAST BAY COMMUNITY ENERGY

Next Steps

- Finalize the two contracts and execute agreements.
- Complete negotiations of projects under consideration. Anticipate presentations to Board through the fall into winter.
- Assess projects as they hit key milestones and mature further.
- Update filing to CPUC on status of 2021-2023 and 2023-2026 Electric Reliability Requirements due February 1, 2023.
- CPUC's 2022 IRP cycle provides formal opportunity for portfolio review and analysis of open position, cost and risk. Further engagement with board and community in spring/summer of 2022 timeframe.

Appendix

Portfolio Summary

Attachment Staff Report Item 13C

DEVELOPER	PROJECT NAME	TECHNOLOGY	NAMEPLATE MW	STORAGE MW/MWH	COUNTY	ONLINE	TERM (YEARS)
Clearway Energy Group	Golden Fields Solar	Solar	112	N/A	Kern	December 2020	15
Greenbacker Capital	Scott Haggerty Wind Energy Center	Wind	57.5	N/A	Alameda	July 2021	20
Convergent Energy and Power	Henrietta D Energy Storage	Storage	0	10/40	Kings	January 2022	15
Pattern Energy	Tecolote Wind	Wind	100	N/A	Torrance and Guadalupe (NM)	December 2021	10
Idemitsu Renewables	Tulare Solar Center	Solar	56	N/A	Tulare	May 2022	15
Terra-Gen	Sanborn Storage	Storage	0	47/188	Kern	December 2022	12
EDP Renewables	EDPR Solar Park	Solar + Storage	100	30/120	Fresno	December 2022	20
Terra-Gen	Edwards Solar	Solar + Virtual Storage	100	TBD	Kern	December 2022	15
Clearway Energy Group	Daggett 3	Solar+ Storage	50	12.5/50	San Bernadino	April 2023	15
Intersect Power	Oberon	Solar+ Storage	125	125	Riverside	January 2024	10+
LS Power	Tumbleweed Energy Storage	Storage	0	50/200	Kern	June 2024	15

EAST BAY COMMUNITY ENERGY

Staff Report Item 14

TO: East Bay Community Energy Board of Directors

FROM: Kelly Brezovec, Director of Account Services

SUBJECT: **Adopt an Update to the Net Energy Metering Policy, Effective April 2023**

DATE: October 19, 2022

Recommendation

Adopt a Resolution to Approve the Proposed Update to the Net Energy Metering Policy, Effective April 2023.

Background

The initial NEM Policy was adopted on February 21, 2018, followed by an amendment to the NEM Policy to clarify language in the tariff and add an additional step in calculating the annual cash-out for our "Existing NEM" customers on February 20, 2019. At its December 16, 2020, meeting, the Board of Directors adopted an update to the Net Energy Metering (NEM) Policy to include the new communities of Tracy, Pleasanton, and Newark, while otherwise maintaining the existing policy. At the March 17, 2021, meeting, the Board of Directors voted to update the Net Energy Metering Policy to move the majority of NEM customers onto the Standard EBCE NEM program, which pays customers at the wholesale rate for energy.

EBCE's NEM Policy has always included one major difference from PG&E's Policy. PG&E, for the most part, has NEM customers on an annual true-up, meaning that customers accrue debt for under-generation and credits for over-generation over the course of a 12-month cycle. EBCE does not hold on to that debt resulting from under-generation from month to month; rather, if a customer under-generates, EBCE will bill them for their usage. EBCE does carry over-generation credits from month-to-month. Our cycle for over-generation credits, or cash-out, is April to April for all customers.

Due to this timing discrepancy of when customers pay for their net usage, EBCE staff

identified that customers who receive a wholesale cash-out may perform better on an annual true-up cycle. This is because customers pay for energy at the retail rate but receive compensation at the wholesale rate. If customers have to pay throughout the year and over-generate at the end of the cash-out cycle, they may not be receiving the full retail value of their overgeneration credits. EBCE added a step, internally named the NEM Sweep, in 2019 to resolve this discrepancy and ensure that our NEM customers do just as well financially as they would on an annual true-up cycle.

EBCE staff have found this additional calculation to be burdensome and time intensive. In 2020, 2021 and 2022, there were issues with the NEM Sweep that caused checks and on-bill credits to be delayed until June, or later, creating a poor customer experience. NEM customers are very engaged and there is an uptick in calls regarding cash-outs during the April - June timeframe.

NEM customers who are familiar with PG&E's annual true-up have expressed a request for an annual EBCE true-up, as well. In 2020, EBCE conducted a survey of 500 NEM customers and found about 45% of customers preferred an annual billing option. With this customer feedback and the challenge of the NEM Sweep, EBCE is proposing to offer an annual true-up cycle for the Standard EBCE NEM customers, giving customers a choice. An annual true-up would result in the same financial leveling as the NEM Sweep calculation.

Today PG&E offers customers a choice of an annual or monthly true-up. An early version of proposed NEM 3.0 indicated a preference to start new residential NEM customers on a monthly true-up option, which EBCE already offers and would maintain as a choice.

Discussion

Current Programs and Policy

EBCE offers three different NEM programs, depending on the customer characteristics. The CARE/ FERA NEM program is for low-income customers that are on the CARE or FERA programs. Legacy municipal customers consist of municipal accounts in EBCE's original jurisdictions that interconnected their systems after EBCE started service. The vast majority (90%) of EBCE NEM customers fall into the Standard EBCE NEM program.

Customers receive monthly credits on their bill for surplus generation that can be used to cover future charges until the annual cash-out period. Monthly settlements are valued as follows based on customer definition, shown in Table 1.

Every April is the cash-out period when customers are paid via bill credit or check for their surplus generation during the previous 12-month cycle. The cash-out amount is calculated based on the NEM program with EBCE. Standard EBCE NEM customers receive a cash-out at PG&E's Net Surplus Compensation rate, which is the wholesale value of energy.
Standard EBCE NEM customers are also eligible for the NEM Sweep during the annual cash-out

period. EBCE will review the financial outcomes of the Standard EBCE NEM Customers that have 1) been billed for retail charges by EBCE in the prior 12 months and 2) held a positive NEM balance ($) in April. EBCE will assess whether these accounts would have had a higher cash-out on an annual NEM service, and if so, issue a credit or check for the difference.

Table 1: Monthly Bill Credit and Annual Payout Credit Amount by Customer Type

Customer Type	**Monthly Bill Credit per kWh**	**Annual Payout Credit per kWh**
Standard EBCE NEM Customer	Retail*	PG&E's Net Surplus Compensation (NSC) value
Legacy Municipal NEM Customer	Retail* + $0.01	Retail* + $0.01
CARE/FERA EBCE NEM Customer	Retail* + $0.01	Retail* + $0.01

**Equivalent to the generation rate charged for power received from EBCE*

A large portion of Standard EBCE NEM customers currently receive a higher cash-out than just the NSC rate times their excess generation due to the NEM Sweep calculation. These numbers are indicated in Table 2 below.

Table 2: NEM Statistics for 2022 Annual Cash Out

Number of Standard EBCE NEM Customers	45,300
% Net Generators	32%
% Net Consumers	68%
# of Customers Receiving a Cash-out Only (no Sweep)	9,000
# of Customers Receiving NEM Sweep	21,600
% Eligible Customers Receiving NEM Sweep	45%
Average NEM Sweep	$20

Proposed 2023 NEM Policy

Starting with the 2023-2024 NEM cycle, EBCE staff propose offering an annual NEM true-up option to all Standard EBCE NEM customers and removing the NEM Sweep calculation.

Table 3: Proposed Changes for Standard EBCE NEM customers

	Current	Proposed Monthly Option	Proposed Annual Option
Monthly credits at retail rate	Yes	Yes	Yes
Annual cash-out in April at the Net Surplus Compensation (NSC) Rate	Yes	Yes	Yes
Monthly true-up (customers pay for debts when they are due)	Yes	Yes	No
Annual true-up (credits and debits roll over until annual cash-out in April)	No	No	Yes, may be a payment required to EBCE or a check/credit for over-generation
Annual NEM Sweep calculation (process to make the financials of a monthly true-up mimic an annual true-up)	Yes	No; customers that are concerned about this potential difference are able to choose the annual true-up option	No

Discussion of Proposed EBCE NEM Policy

Enrollment Timing: On-going

Customers will be able to change their true-up cycle once per year, prior to March 1, with the new plan effective after the April true-up/cash-out. New EBCE NEM customers will default to the monthly true-up and be able to choose their preferred true-up cycle, which will take effect after the next April cash-out. Ongoing NEM enrollments and new NEM move-ins will receive a special NEM welcome kit email to explain their NEM choices.

Customer Communications and Schedule for 2023 Option

EBCE will send, starting in December, at minimum, one letter or postcard and an email to every Standard EBCE NEM customer informing them of the policy change and new option to

select an annual true-up.

Customers who received a cash-out benefit from the NEM Sweep will be sent a personalized notice stating how much they received from the 2022 NEM Sweep and indicating they may receive a higher cash-out with the annual true-up option.

Customers will remain on the monthly true-up option unless they select the annual option, which will be available via phone or email conversation with a live customer service representative, and potentially an online web form. Since over 90% of our NEM customers today have an email address on file, we expect to see uptake via web and email. Customers that switch to the annual true-up option will be required to verify their email address so that EBCE has an up-to-date form of contact, should the customer close their account.

Discussion of CARE/ FERA and Legacy Municipal NEM

EBCE staff do not propose any changes to the CARE/ FERA and Legacy Municipal NEM programs. These customers are paid at the retail rate + $0.01/kWh for their monthly and annual settlements and do not receive the additional NEM Sweep calculation.

Overview of Bay Area CCA NEM Offerings

Table 4: Overview of Bay Area CCA NEM Program Design

CCA	Monthly Credit Rate	Annual Cash-Out Rate	True-up cycle	Cash-Out Cycle
A	Retail + $0.01/ kWh	Retail + $0.01/ kWh	Monthly	Every April
B	Retail	2X Net Surplus Compensation (NSC) rate	Monthly	Every April
C	Retail + $0.01/ kWh	2X NSC rate	Monthly	Every April
D	Retail + $0.01/ kWh	NSC + $0.01/kWh	Monthly or Annual	February (monthly) or PG&E true-up date (annual)
E	Retail	NSC + 25%	Monthly or Annual	Every April
F	Retail	3X NSC rate	Monthly	Every April

EBCE staff have calculated the different cash-out values if we offered variations on NSC plus a premium, but found that this would not solve the timing discrepancy issue of the monthly vs. annual true-up that our NEM Sweep calculation accounts for, since customers that specifically over-generate in the later months of the NEM year, or over-generated in certain billing

categories, such as taxes, are not included in the cash-out.

Table 5: Cash-out Calculation Comparisons for 2022 Annual Cash-Out

Cash-out value	Total cash-out	Average cash-out	# of Customers Receiving a Cash-out	# of Customers that Receive Less than with an NSC + NEM Sweep Policy
NSC + NEM Sweep	$1.9M	$40	31,800	N/A
NSC + $0.01/ kWh	$1.65M	$35	15,000	23,000
NSC X 2	$2.7M	$56	15,000	21,500
NSC X 3	$4.0M	$85	15,000	20,500

We still see 20,500 customers faring worse financially in a policy that provides a higher cash-out value but does not include the NEM Sweep calculation. These customers are part of the 35% of NEM Sweep recipients that were not annual over-generators, but otherwise paid monthly non-energy portions of their bill, such as taxes, or over-generated only at the end of the year.

Financial Implications

Annual True-up Billing

Customers that accrue debt to EBCE over the course of the NEM year will not be billed until April, annually. Figure 1 depicts various scenarios based on the mix of customers that choose the new annual true-up option. If all Standard NEM customers choose the annual option, EBCE could see $3.5 million in outstanding bills in December, mostly credits that customers would use during the winter months, ending with $2.2 million in bills that will go out in March and April. Customers would receive and pay these bills in April and May, restarting the cycle. Most likely is that the total outstanding debt peaks around $1.75 million or lower, assuming half of eligible NEM customers switch to an annual NEM true-up option.

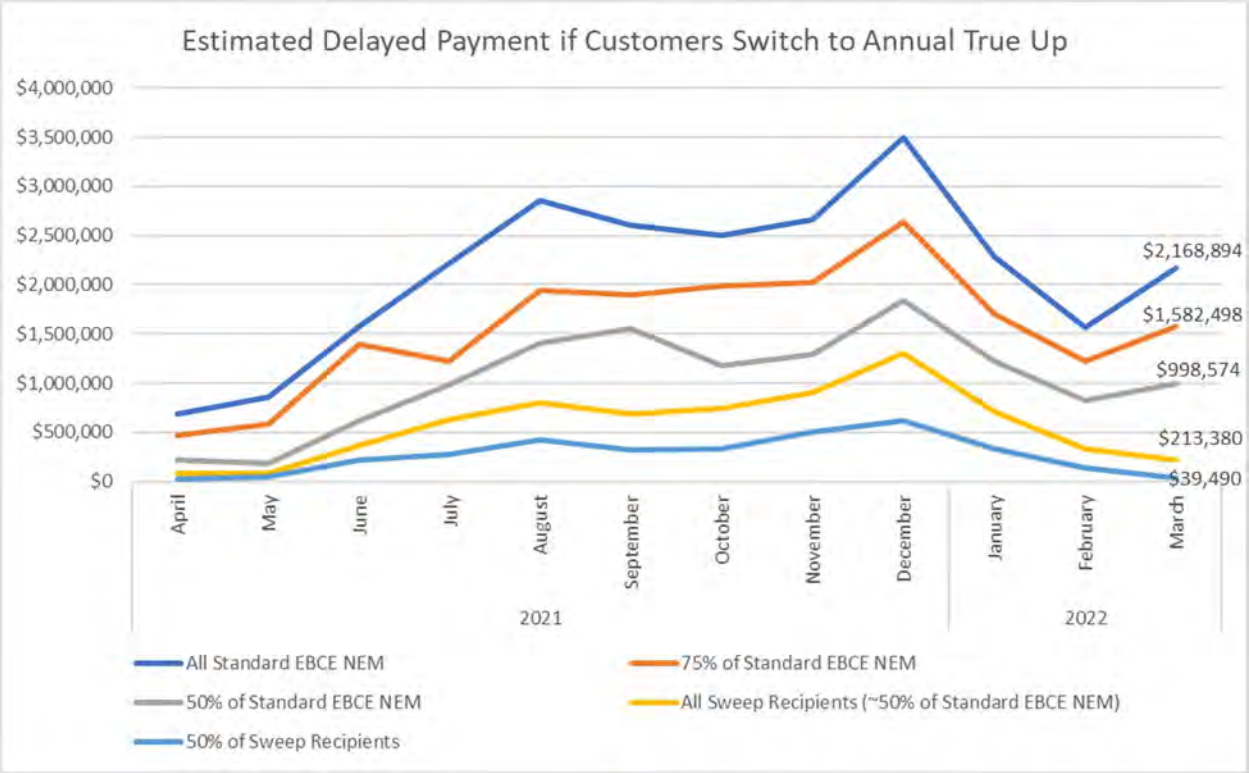


Figure 1: Estimated Delayed Payment if Customers Switch to Annual True-Up

Implementation Financial Implications

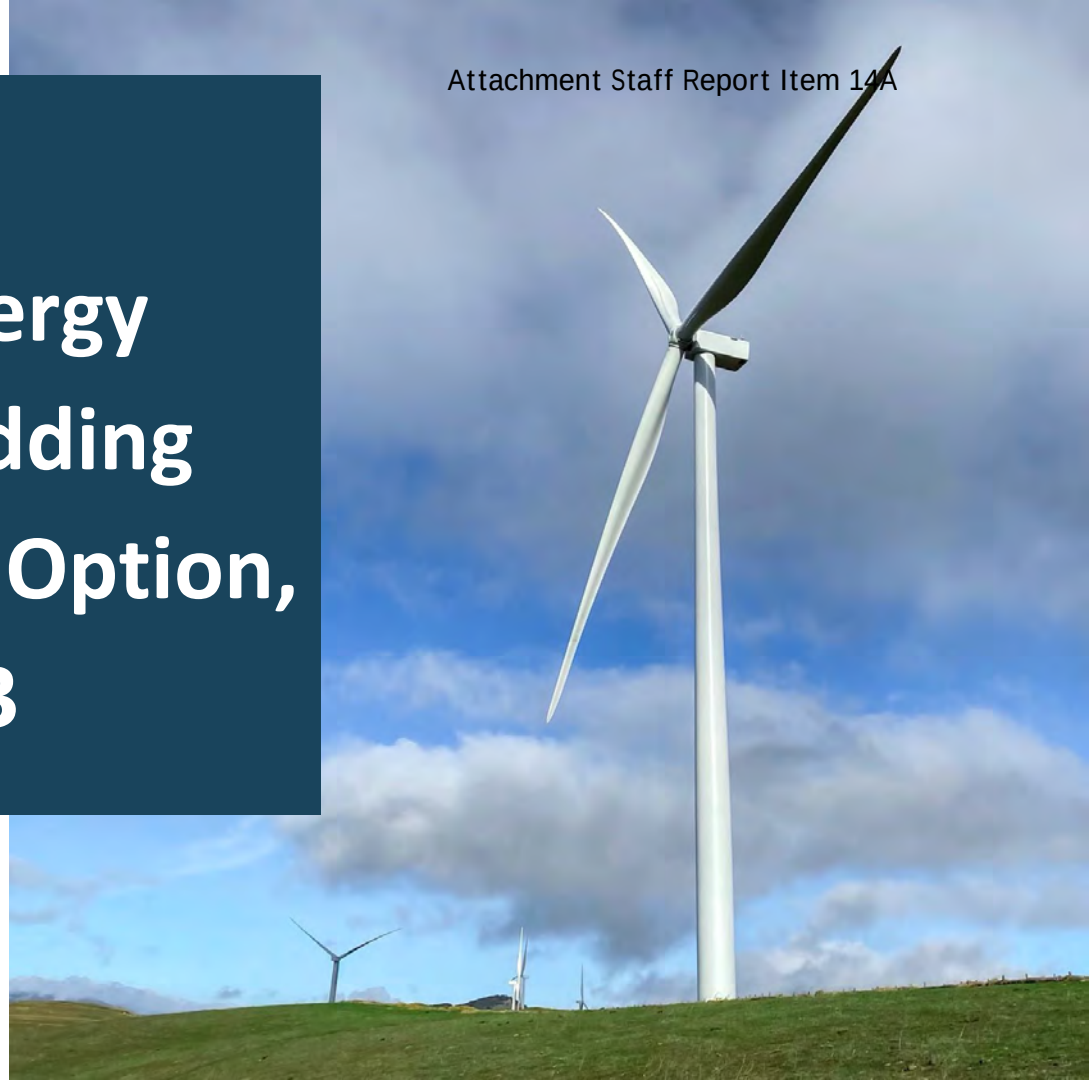
EBCE staff are confident that our billing agent, SMUD, can smoothly facilitate an annual NEM true-up option, as they currently offer this for Valley Clean Energy, and have included this option in our contract. SMUD estimates that the cost to implement EBCE-unique features will not exceed a one-time fee of $45,000.

Attachment

A. NEM Policy Update PPT
B. NEM Policy Update Resolution
C. EBCE NEM Electric Schedule Policy, with edits
D. EBCE NEM Electric Schedule Policy, updated

OCTOBER 19, 2022

Update the Net Energy Metering Policy, Adding an Annual True-up Option, Effective April 2023



EAST BAY COMMUNITY ENERGY

Background – EBCE and PG&E Policy Review

EBCE's NEM policy and PG&E's default annual NEM true-up handle true-up and cash-outs very similarly, with a key difference:

	Standard EBCE NEM	PG&E's Default
Monthly credits at retail rate for surplus generation	Yes	Yes
Annual cash-out at the NSC rate per kWh for surplus generation	Yes	Yes
Annual true-up for consumption of electricity	No	Yes
Monthly true-up for consumption of electricity	Yes	No
Annual true-up for transmission and delivery charges	Yes	Yes

Background

- Staff identified that customers who receive a wholesale cash-out may have a better financial outcome with an annual true-up cycle
  - Customers pay for energy at the retail rate, but receive compensation at the wholesale rate
  - If customers pay throughout the year and overgenerate at the end of the cash-out cycle, they may not be receiving the full retail value of their overgeneration credits
- Staff added a step in 2019, the “NEM Sweep,” to account for this difference
- The NEM Sweep, while effective, is time-intensive, resulting in a delayed cash-out
- *Nearly half of NEM customers surveyed in 2020 said they would prefer an annual true-up*

Staff Proposal

Offer customers a choice of:

1. A monthly true-up, or
2. An annual true-up in April

And - remove NEM Sweep calculation

Current NEM Policy

EBCE NEM Program	Monthly Bill Credit per kWh	Annual Payout Credit per kWh
Standard EBCE NEM Customer	Retail*	PG&E's Net Surplus Compensation (NSC) value
Legacy Municipal NEM Customer	Retail* + $0.01/kWh	Retail* + $0.01/kWh
CARE/ FERA NEM Customer	Retail* + $0.01/kWh	Retail* + $0.01/kWh

**Equivalent to the generation rate charged for power received from EBCE*

EAST BAY COMMUNITY ENERGY

2022 NEM Cash-out: The Numbers

Number of Standard EBCE NEM Customers	45,300
% Net Generators	32%
% Net Consumers	68%
# of Customers Receiving a Cash-out Only (no Sweep)	9,000
# of Customers Receiving NEM Sweep	21,600
% Eligible Customers Receiving NEM Sweep	45%
Average NEM Sweep	$20

EAST BAY COMMUNITY ENERGY

Proposed NEM Policy Compared to Current

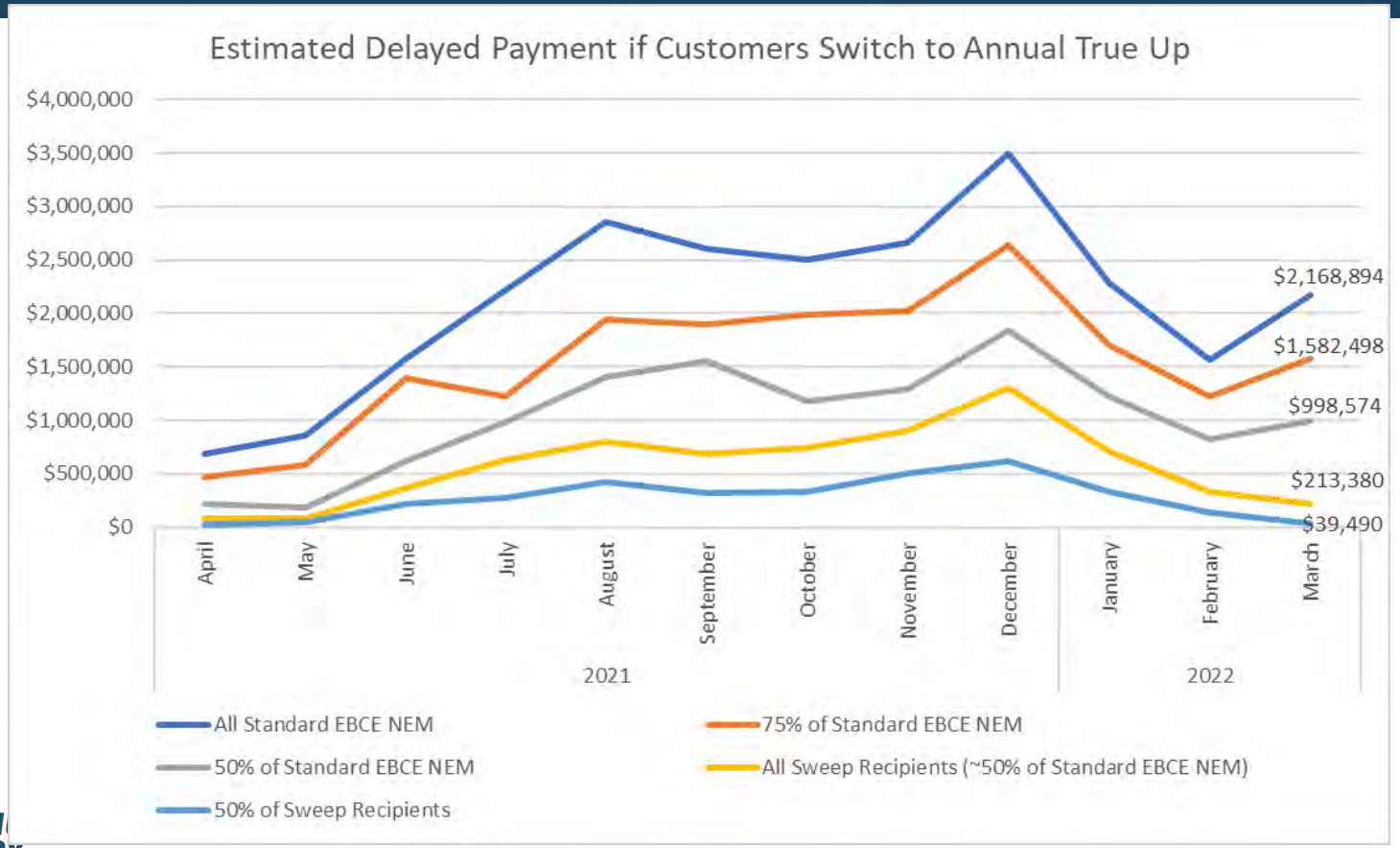
	Current	Proposed Monthly Choice	Proposed Annual Choice
Monthly credits at retail rate	Yes	Yes	Yes
Annual cash-out in April at the Net Surplus Compensation (NSC) Rate	Yes	Yes	Yes
Monthly true-up (customers pay for debits when they are due)	Yes	Yes	No
Annual true-up (credits and debits roll over until annual cash-out in April)	No	No	Yes, may be a payment required to EBCE or a check/credit for over-generation
Annual NEM Sweep calculation (process to make the financials of a monthly true-up mimic an annual true-up)	Yes	No; customers that are concerned about this potential difference are able to choose the annual true-up option	No

EAST BAY COMMUNITY ENERGY

Proposed NEM Policy- Discussion

- **Enrollment Timing**
  - Customers can change true-up cycle once per year. Change would be effective after next April cash-out
  - Defaulted to a monthly true-up
- **Customer Communications**
  - Starting in December 2022, EBCE will send a letter and email to all Standard EBCE NEM Customers
  - Customers can select preferred true-up cycle via phone or email by March 1
  - Ongoing NEM enrollments and move-ins will receive a special NEM Welcome Kit that explains their choices

Financial Implications - Delayed Payment



EAST BAY COMMUNITY ENERGY

Financial Implications – SMUD Implementation

- The bulk of the implementation fee for this option has already been included in our SMUD agreement
  - Due to some customizations for our plan, SMUD estimates a fee not to exceed:

Thank You!

Questions? Give us a call:

1-833-699-EBCE (3223)

@PoweredbyEBCE

customer-support@ebce.org

Español
ebce.org/es

中文
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EAST BAY COMMUNITY ENERGY

Additional Slides

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CCA Comparisons

CCA	Monthly Credit Rate	Annual Cash-Out Rate	True-up cycle	Cash-Out Cycle
A	Retail + $0.01/ kWh	Retail + $0.01/ kWh	Monthly	Every April
B	Retail	2X Net Surplus Compensation (NSC) rate	Monthly	Every April
C	Retail + $0.01/ kWh	2X NSC rate	Monthly	Every April
D	Retail + $0.01/ kWh	NSC + $0.01/kWh	Monthly or Annual	February (monthly) or PG&E true-up date (annual)
E	Retail	NSC + 25%	Monthly or Annual	Every April
F	Retail	3X NSC rate	Monthly	Every April

EAST BAY COMMUNITY ENERGY

Other Cash-out Options

- **Comparison to other cash-out calculations**
  - EBCE staff calculated the difference in cash-outs if customers received NSC + a premium
  - We still see 20,500 customers faring worse financially on monthly true-up when NEM Sweep is not offered
  - Annual true-up provides same financial leveling as NEM Sweep

Cash-out value	Total cash-out	Average cash-out	# of Customers Receiving a Cash-out	# of Customers that Receive Less than with an NSC + NEM Sweep Policy
NSC + NEM Sweep	$1.9M	$40	31,800	N/A
NSC + $0.01/ kWh	$1.65M	$35	15,000	23,000
NSC X 2	$2.7M	$56	15,000	21,500
NSC X 3	$4.0M	$85	15,000	20,500

RESOLUTION NO. R-2022-XX

A RESOLUTION OF THE BOARD OF DIRECTORS

OF THE EAST BAY COMMUNITY ENERGY AUTHORITY TO AMEND THE NET ENERGY METERING POLICY TO OFFER AN ANNUAL NET ENERGY METERING TRUE-UP OPTION

WHEREAS The East Bay Community Energy Authority ("EBCE") was formed as a community choice aggregation agency ("CCA") on December 1, 2016, Under the Joint Exercise of Power Act, California Government Code sections 6500 *et seq.*, among the County of Alameda, and the Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Piedmont, Oakland, San Leandro, and Union City to study, promote, develop, conduct, operate, and manage energy-related climate change programs in all of the member jurisdictions. The cities of Newark and Pleasanton, located in Alameda County, along with the City of Tracy, located in San Joaquin County, were added as members of EBCE and parties to the JPA in March of 2020.

WHEREAS EBCE desires to retain Net Energy Metering (NEM) customers through an efficient annual cash-out process and offer customers a choice in managing their generation and usage,

WHEREAS The Board of Directors approved an initial Net Energy Metering Policy on February 21, 2018, and amended Policies on December 5, 2018, February 20, 2019, and December 16, 2020, and

WHEREAS EBCE will continue to offer NEM options that offer cash-out options for over-generation.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The current Policy will remain in place through the April 2023 cash-out for current NEM customers.

Section 2. EBCE Standard NEM customers will be given a choice of an annual or monthly true-up policy and will have through March 1, 2023 to make their selection.

Section 3. The CARE/FERA EBCE and Legacy Municipal customers will remain on a monthly true-up policy and retain their current characteristics.

ADOPTED AND APPROVED this 19 day of October, 2022.

_____

Dianne Martinez, Chair

ATTEST:

_____

Adrian Bankhead, Clerk of the Board

East Bay Community Energy Net Energy Metering Policy 6.5

ELECTRIC SCHEDULE NEM - NET ENERGY METERING SERVICE

Fifth Amended and Restated Net Energy Metering Service Policy

APPLICABILITY: This net energy metering (NEM) schedule is applicable to a customer who uses an eligible Renewable Electrical Generation Facility, as defined in PG&E's Electric Schedule NEM (http://www.pge.com/tariffs), within the capacity limits described in PG&E's Electric Schedule NEM that is located on the customer's owned, leased, or rented premises, is interconnected and operates in parallel with PG&E's transmission and distribution systems, and is intended primarily to offset part or all of the customer's own electrical requirements (hereinafter "eligible customer generator" or customer").

This rate schedule is available on a first-come, first-served basis to customers that provide PG&E with a completed PG&E NEM Application and comply with all PG&E NEM requirements as described in PG&E Electric Schedule NEM. This includes customers served by NEMV (Virtual Net Energy Metering), NEMVMASH (Virtual Net Energy Metering for Multifamily Affordable Housing), NEMA (NEM Aggregation) and Multiple Tariff facilities as described by PG&E Electric Schedule NEM.

DEFINITIONS:

Original Jurisdictions:	Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Oakland, Piedmont, San Leandro, Union City and the unincorporated area of Alameda County
2021 Expansion Jurisdictions:	Cities of Newark, Pleasanton, and Tracy

Customer definition by date of NEM system installation and location:

	Original Jurisdictions	2021 Expansion Jurisdictions
Standard EBCE NEM Customer	Anytime	Anytime
Legacy Municipal NEM Customers	6/1/18 – 4/1/2021	N/A
CARE/FERA EBCE NEM Customers	After 6/1/2018	After 4/1/2021

TERRITORY: The entire EBCE service area.

RATES: All rates charged under this schedule will be in accordance with the eligible customer generator's otherwise-applicable EBCE rate schedule (OAS), which includes their rate schedule and EBCE service level (i.e. Bright Choice~~, Brilliant 100,~~ or Renewable 100). An eligible customer-generator served under this schedule is responsible for all charges from its OAS including monthly minimum charges, customer charges, meter charges, facilities charges, demand charges and surcharges, and all other charges owed to EBCE or PG&E. Charges for energy (kWh) supplied by EBCE, will be based on the net metered usage in accordance with this tariff.

Updated 02.20.19, 06.19.19, 12.16.20, 03.17.21, 10.~~3~~19.22

BILLING: Customers with NEM service will be billed as follows:

a) Standard EBCE NEM customers may choose between a monthly or annual true-up option. Standard EBCE NEM customers will be defaulted to a monthly true-up, ~~but~~and may select their preferred true-up cycle once per year before March 1, effective ~~and it will take effect~~ following the next April cash-out/ true-up period.

CARE/ FERA EBCE NEM and Legacy Municipal NEM customers must be enrolled in a monthly true-up cycle.

~~*a)*~~*b)* *For a customer with Non-Time of Use (TOU) Rates:*

Any net consumption or production shall be valued monthly as follows:

If the eligible customer-generator is a "Net Consumer," having overall positive usage over a billing cycle, the eligible customer-generator will be billed or debited in accordance with the eligible customer-generator's OAS.

If the eligible customer-generator is a "Net Generator," having overall negative usage over a billing cycle, any net energy production shall be valued at the OAS plus any additional incentive payment as applicable (e.g. for new installations ~~at low income or municipal accounts~~for CARE/ FERA EBCE NEM accounts). The calculated value of any net energy production shall be credited to EBCE customers as described in Section (c).

~~*b)*~~*c)* *For a customer with TOU Rates:*

Any net consumption or production shall be valued monthly as follows:

If the eligible customer-generator is a Net Consumer (as defined above) during any discrete TOU period, the net kWh consumed during such period shall be billed or debited in accordance with applicable TOU period-specific rates/charges, as described in the eligible customer-generator's OAS.
~~generator's OAS.~~

If the eligible customer-generator is a Net Generator (as defined above) during any discrete TOU period, the net kWh produced during such period shall be valued in consideration of the applicable TOU period-specific rates/charges, as described in the eligible customer-generator's OAS, plus any additional incentive payment as applicable (e.g. for new installations ~~at low income or municipal accounts~~for CARE/ FERA EBCE NEM accounts). The calculated value of any net energy production during a specific TOU period shall be credited to EBCE customers as described in Section (c).

~~*c)*~~*d)* ~~Monthly~~ Settlement of EBCE Charges/Credits:

NEM customers will receive a statement in their monthly PG&E bills indicating any accrued charges for their usage during the current billing cycle. Customers who have accrued credits during previous billing cycles will see these credits applied against current charges.

1. Monthly True-Up
For customers on a monthly true-up cycle, a~~A~~ny remaining balance is due and must be paid during each monthly billing cycle.

2. Annual True-Up
For customers on an annual true-up cycle, any remaining balance will appear as a debit

Updated 02.20.19, 06.19.19, 12.16.20, 03.17.21, 10.~~3~~19.22

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on the bill and roll over until the annual true-up in April.

When a customer's net energy production results in a net bill credit over a billing cycle, the value of any net energy production during the billing cycle shall be noted on the customer's bill and carried over as a bill credit for use in subsequent billing period(s).

Monthly ~~settlements~~ credits are valued as follows based on customer definition:

Customer Type	Bill Credit per kWh
Standard EBCE NEM Customer	Retail*
Legacy Municipal NEM Customer	Retail* + $0.01
CARE/FERA EBCE NEM Customer	Retail* + $0.01

**Equivalent to the generation rate you are charged for power received from EBCE*

e) EBCE Annual True-Up and Cash-Out:

~~d)~~ Customers on an annual true-up cycle are eligible for the annual true-up and/or cash-out. Customers on a monthly true-up are eligible for the cash-out.

1. Annual True-Up

Standard EBCE NEM customers on an annual true-up cycle may owe EBCE money during the April true-up period. Any amount owed will be tracked monthly on the customer's bill as a debit and will be due at the true-up period. Customers on an annual true-up that have surplus kWh are eligible for the cash-out as described in section (e)2.

2. Cash-Out

During the April billing cycle of each year, all current NEM ~~Standard EBCE NEM~~ customers with a cash-out credit balance of more than $100 will be offered a direct payment by check for this balance. Any cash-out credit balance will be determined as of the final date of the customer's March- April billing Cycle (i.e. the first bill period ending on or after April 1). Customers who participate in the EBCE Cash-Out or transfer process will have an equivalent credit removed from their NEM account balance at the time of check issuance or transfer. In the event that a customer's credit balance is less than $100, such credits will continue to be tracked by EBCE and will remain on the customer's account for future use (i.e., reduction of future EBCE charges).

Customers who close their electric account through PG&E or move outside of the EBCE service area prior to the April billing cycle of each year are also eligible for the annual EBCE true-up and c~~C~~ash-o~~O~~ut process.

EBCE will, at least once each year, conduct an audit of the CARE/FERA NEM customers to ensure that eligible CARE/FERA NEM customers are included in the CARE/FERA NEM program.

~~Annually in May, EBCE will review the financial outcomes of the Standard EBCE NEM Customers that have 1) been billed for retail charges by EBCE in the prior 12 months and 2) held a positive NEM balance ($) in April. EBCE will assess whether these accounts would have had better financial outcomes on PG&E service, and if so, issue a credit or check for the difference. This applies to all rates schedules and service levels.~~

C~~Annual c~~ash-O~~o~~ut credits are valued as follows:

Customer Type	Annual Payout Credit per kWh
Standard EBCE NEM Customers	PG&E Net Surplus Compensation (NSC)
Legacy Municipal NEM Customers	Retail* + $0.01
CARE/FERA EBCE NEM Customers	Retail* + $0.01

**Equivalent to the generation rate you are charged for power received from EBCE*

~~e)~~*f) Return to PG&E Bundled Service:*

EBCE customers with NEM service may opt out and return to PG&E bundled service at any time. Customers should be advised that PG&E will perform a true-up of their account at the time of return to PG&E bundled service, and that PG&E's standard terms for transitional rates apply to customer returns with less than a six-month advance notice if they have been an EBCE customer for 60 days or more.

If any EBCE NEM customer opts out of the EBCE program and returns to PG&E bundled service, EBCE will cash-out any remaining generation credits on the account (using the approach detailed in section d above) and mail a check to the billing address.

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~~f~~g) *PG&E NEM Services:*

All EBCE NEM customers are subject to the conditions and billing procedures of PG&E for their non-generation services, as described in PG&E's Electric Schedule NEM and related PG&E tariff options addressing NEM service. Customers should be advised that while EBCE settles out balances for generation on a monthly or annual basis, PG&E will continue to assess charges for delivery, transmission and other services. Most NEM customers will receive an annual true-up from PG&E (on their NEM interconnection anniversary with PG&E) for these non-generation services.
~~true-up from PG&E (on their NEM anniversary with PG&E) for these non-generation services.~~

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Customers are encouraged to review PG&E's most up-to-date NEM tariffs, which are available from PG&E.

~~g~~)h) *Aggregated NEM*

Per the California Public Utilities Code Section 2827(h)(4)(B), aggregated NEM customers are "permanently ineligible to receive net surplus electricity compensation." Therefore, any excess accrued credits over the course of a year under an aggregated NEM account are ineligible for EBCE's annual Cash-Out process as described in section (d). All other NEM rules apply to aggregated NEM accounts.

East Bay Community Energy Net Energy Metering Policy 6.5
ELECTRIC SCHEDULE NEM - NET ENERGY METERING SERVICE
Fifth Amended and Restated Net Energy Metering Service Policy

APPLICABILITY: This net energy metering (NEM) schedule is applicable to a customer who uses an eligible Renewable Electrical Generation Facility, as defined in PG&E's Electric Schedule NEM (http://www.pge.com/tariffs), within the capacity limits described in PG&E's Electric Schedule NEM that is located on the customer's owned, leased, or rented premises, is interconnected and operates in parallel with PG&E's transmission and distribution systems, and is intended primarily to offset part or all of the customer's own electrical requirements (hereinafter "eligible customer generator" or customer").

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TERRITORY: The entire EBCE service area.

RATES: All rates charged under this schedule will be in accordance with the eligible customer generator's otherwise-applicable EBCE rate schedule (OAS), which includes their rate schedule and EBCE service level (i.e. Bright Choice or Renewable 100). An eligible customer-generator served under this schedule is responsible for all charges from its OAS including monthly minimum charges, customer charges, meter charges, facilities charges, demand charges and surcharges, and all other charges owed to EBCE or PG&E. Charges for energy (kWh) supplied by EBCE, will be based on the net metered usage in accordance with this tariff.

Updated 02.20.19, 06.19.19, 12.16.20, 03.17.21, 10.19.22

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CARE/ FERA EBCE NEM and Legacy Municipal NEM customers must be enrolled in a monthly true-up cycle.

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