COUNCIL INFRASTRUCTURE COMMITTEE MEETING

JANUARY 25, 2023

PRESENTATIONS

Cargill-EBDA Proposal for Enhanced Processing and Removal of Mixed Sea Salts

Presentation to Hayward Council Infrastructure Committee

January 25, 2023

EBDA

Cargill® Helping the world thrive

East Bay Dischargers Authority (EBDA)

Joint Powers Public Agency that manages wastewater discharge to San Francisco Bay

- City of San Leandro
- Castro Valley Sanitary District
- Oro Loma Sanitary District
- City of Hayward
- Union Sanitary District
- Livermore-Amador Valley Water Management Agency (by contract):
  - Dublin San Ramon Services District
  - City of Livermore
  - City of Pleasanton

Cargill® Helping the world *thrive*

Our purpose is to nourish the world in a safe, responsible and sustainable way.

At a glance

155,000 employees

Working in 70 countries

More than 150 years of experience

A trusted partner for food, agriculture, financial and industrial customers in more than 125 countries.

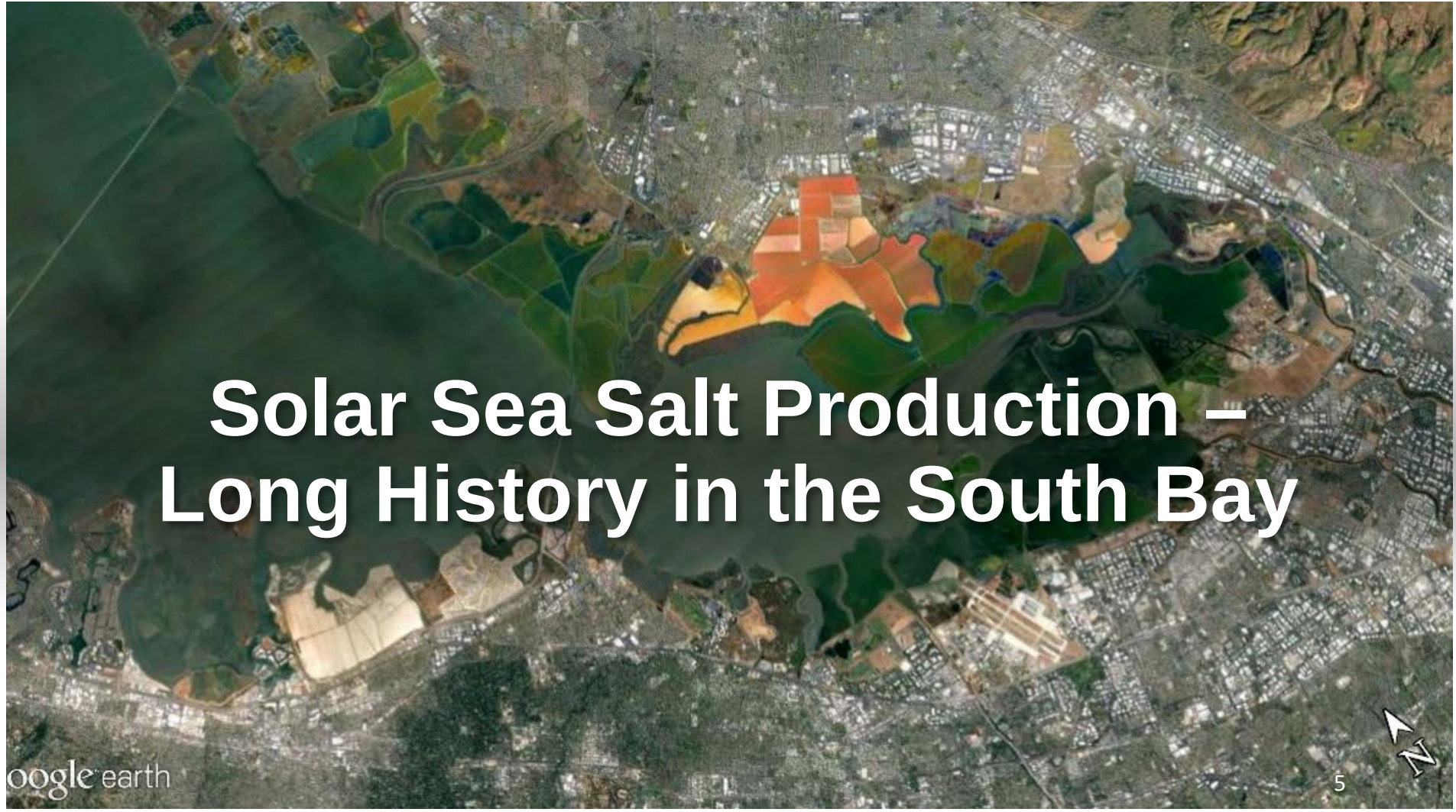
Agriculture

Food

Animal nutrition and protein

Financial and industrial

Cargill and the Bay Area


Solar Sea Salt Production –
Long History in the South Bay
oogle earth
N

Cargill's solar sea salt facility in Newark is the only large-scale manufacturer of food-grade sea salt in the United States

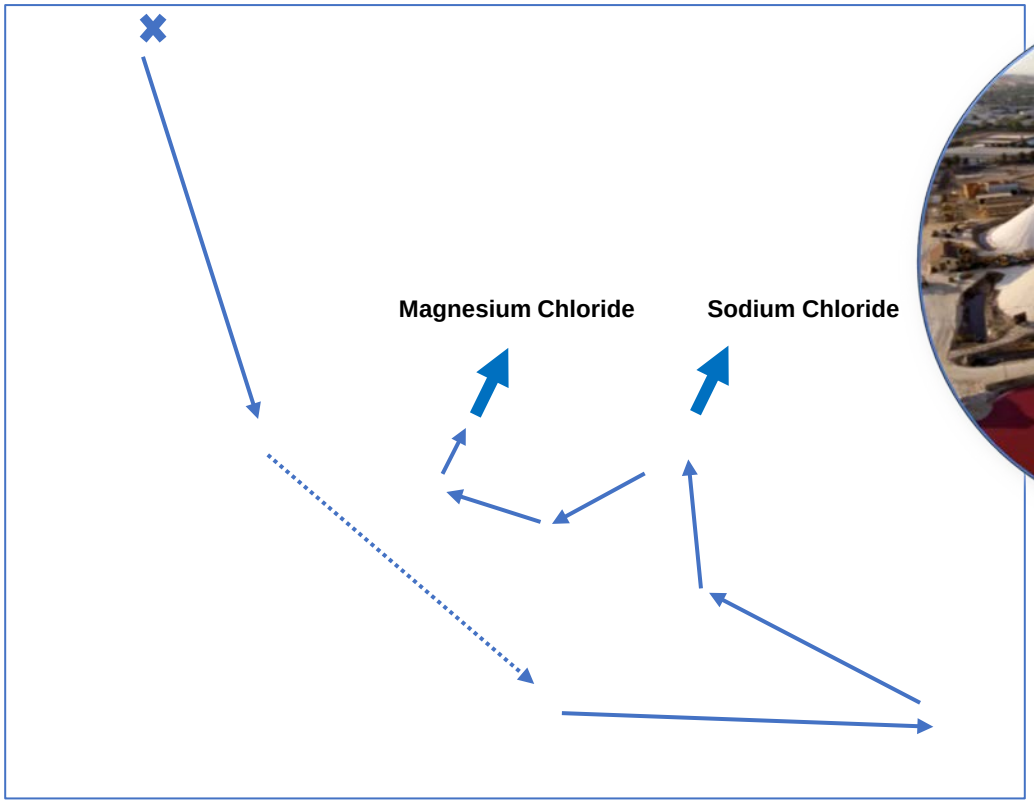
Cargill's Community Commitment

Nourishing, protecting and enriching the Bay Area community where we live and work.

- Cargill provides 200 union and management jobs at its Newark facility.
- Whether participating in volunteer events at the refuge, collecting and sorting food for those in need, or investing in local STEM programs for local students, Cargill employees demonstrate their commitment to the local community.
- Over the last five years, Cargill's Bay Area operation has donated more than $1.5 million and hundreds of volunteer hours to local nonprofits.
- Nonprofit include Second Harvest Food Bank, San Francisco Bay Wildlife Society, Ducks Unlimited, LOV of Newark, Abode Services Fremont and many others.
- Cargill was recently recognized by Ducks Unlimited for a partnership to deliver a program that brings Bay Area middle school and high school students out to the San Pablo Bay National Wildlife Refuge.

Solar Sea Salt Production Process

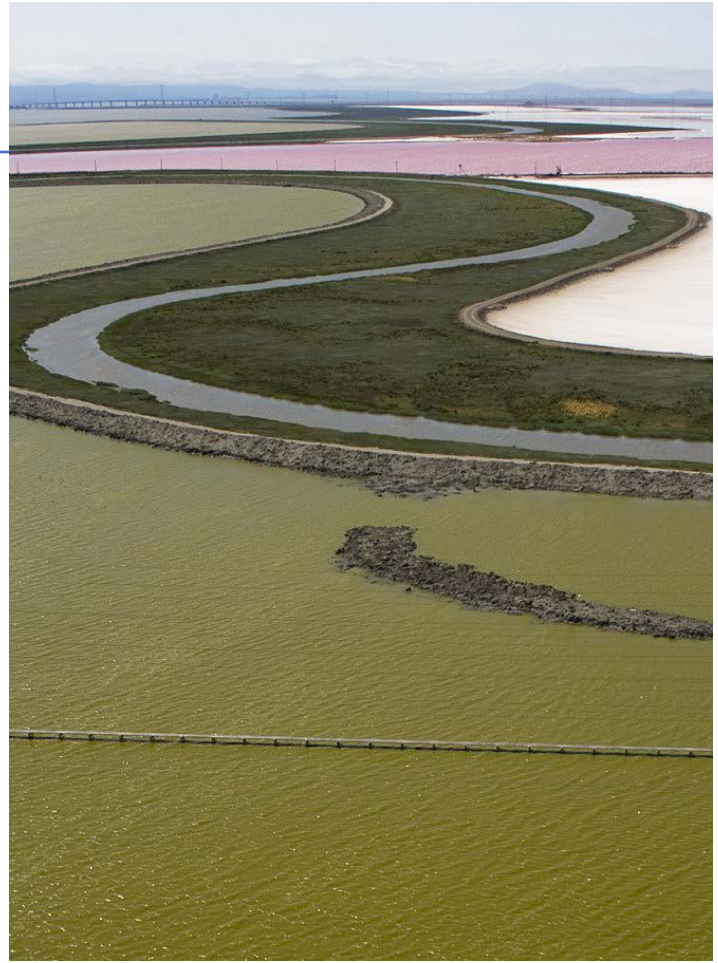
- Coyote Slough intake
- Concentration ponds
- Pickle ponds
- Crystallization ponds
- Desalting ponds
- MSS ponds
- FMC ponds



Addressing Sea Level Rise

Cargill's proactive approach

- Climate change and sea level rise will impact all of us.
- The time to act is now so we can protect the Bay and the communities where we live and work.
- Cargill is addressing sea level rise and protecting the Bay for future generations by enhanced processing and removing the natural mixed sea salts from our Newark facility.
- Cargill is partnering with EBDA to safely return the mixed sea salts back to the Bay.



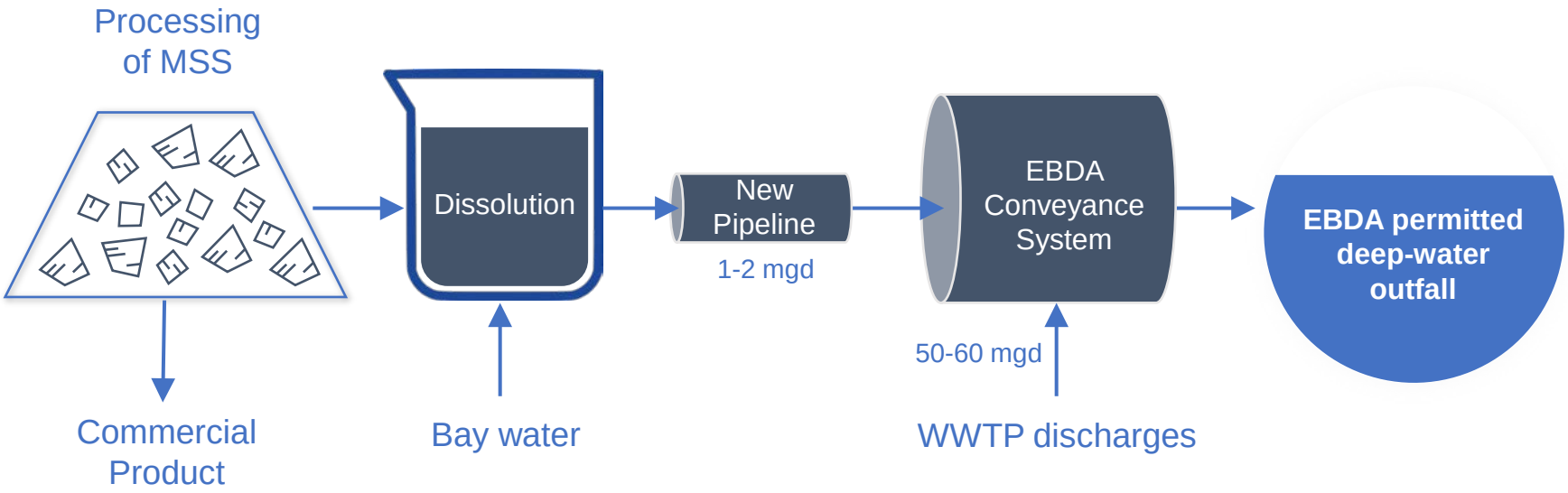
Options Considered for Mixed Sea Salt Post-Harvest

- Land-based options
  - Leave it place (local cap-in-place)
    - Risk due to proximity to the Bay; permitting challenges
  - Truck to landfill
    - High GHG emissions; additional local traffic; long time frame
  - Truck or train to underground injection control well
    - High GHG emissions; additional local traffic

- Bay/Ocean-based options
  - Barge to deep-water ocean
    - High GHG emissions; requires legislative act
  - Direct discharge to the South Bay
    - Dramatic increase in Bay water use
  - **Discharge to the Bay by connecting to EBDA pipeline system**
    - **Limited GHG emissions**
    - **Marginal increase in Bay water use**
    - **Use EBDA's existing infrastructure/permit**

Proposal Overview

Enhanced Processing and Removal of Mixed Sea Salts



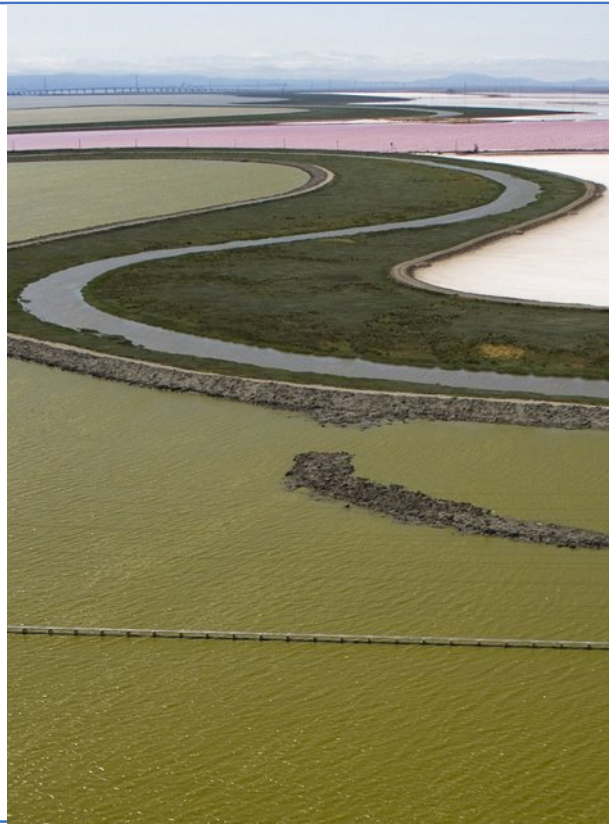
Proposed Project Overview

- Cargill would construct pipeline and connection to EBDA
  - Route and connection point will be discussed later in this presentation
  - Cargill will execute Project Labor Agreement with Building Trades for pipeline construction
- Average of 1-2 MGD of brine would be discharged to EBDA year-round
- Brine discharges would be paused in the event of EBDA capacity constraints
  - Wet weather
  - Process upset
- Water quality would be monitored to ensure compliance
- Discharges would continue in the long term, until the current MSS has been harvested and discharged, with an expected timeline of 10-15 years.

Mixed Sea Salt Brine Discharge to EBDA System

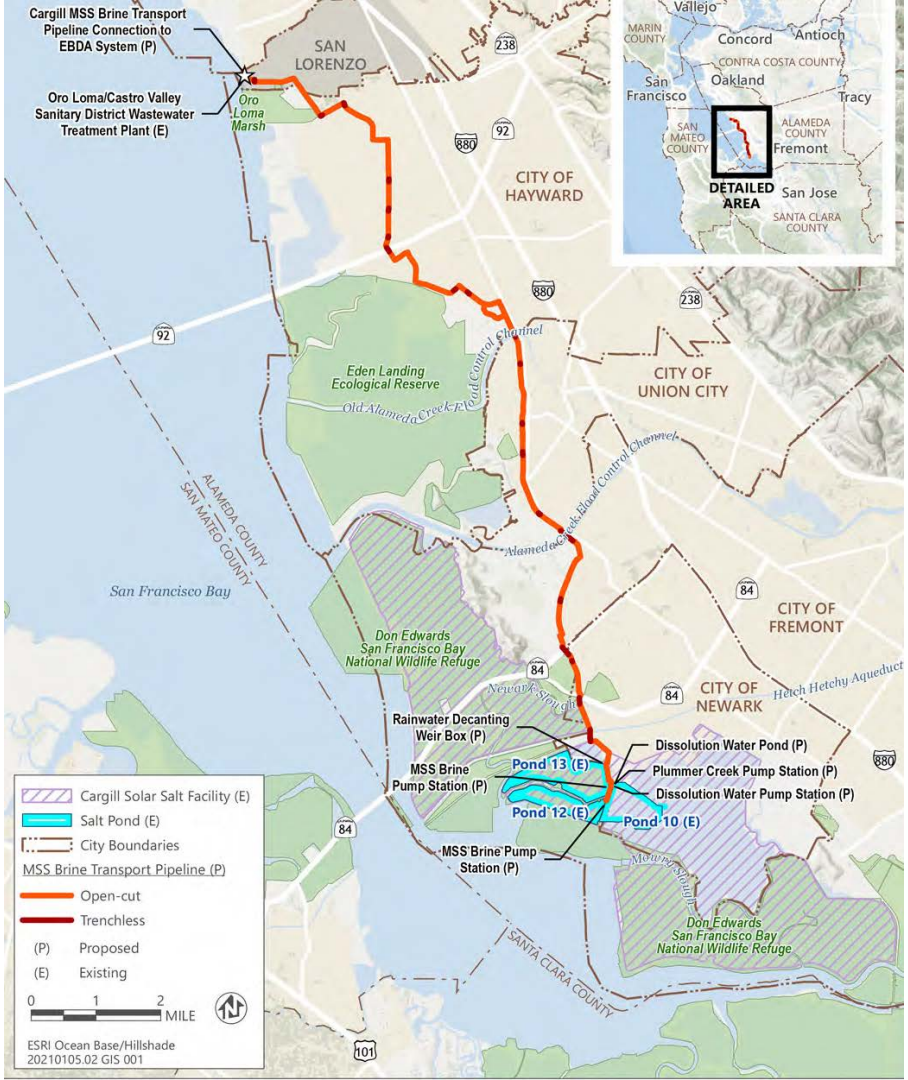
Cargill Goals: Adaptation, Resilience, and Sustainability

- Reduces risk of a release of brine due to sea level rise
- Sustainable discharge of MSS brine utilizing EBDA's existing effluent and deep-water outfall
- Enhanced harvesting of commercial product
- Partner with EBDA, as a long-term customer, to jointly create a solution to adapt to sea level rise in a sustainable manner



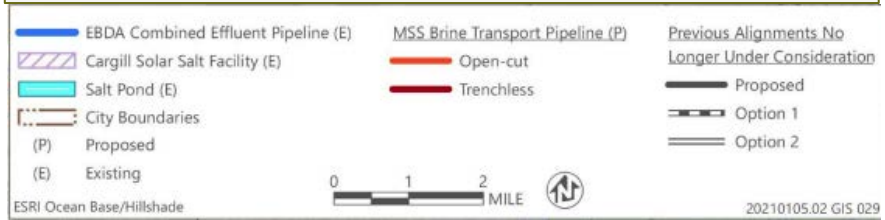
EBDA Drivers and Potential Benefits

- Sustainably manage discharge generated within EBDA's service area
- Utilize excess capacity available in EBDA's existing infrastructure
- Receive financial compensation that will offset EBDA expenses to the benefit of the Member Agencies' ratepayers
- Benefit from new or improved infrastructure that will be more corrosion-resistant and resilient to higher salt levels
- Support efforts to improve resilience of SF Bay from sea level rise by facilitating removal of salts from Cargill's MSS ponds adjacent to the Bay



Pipeline, Construction & Route Specifics

- Cargill working with Hayward public works staff and consultant on the pipeline route and construction specifics
- 18” high-density polyethylene (HDPE) pipeline constructed within Union City’s public streets
- Pipeline buried 4-6’ underground
- Both open trench and trenchless drilling will be used to minimize impacts
- Proposed route provides for possibility of concurrent installation of recycled water line and installation of conduit for fiber optic cable
- Brine in pipeline under low pressure coupled with corrosion resistant HDPE material minimizes risk of leakage/spill



Stakeholder Outreach

Cargill conducted outreach to a broad range of stakeholders in the Bay Area

- Agencies
  - Bay Conservation and Development Commission (BCDC)
  - Regional Water Quality Control Board - San Francisco Bay
  - National Wildlife Refuge
- Environmental organizations
  - San Francisco Baykeeper, Save The Bay
- Business organizations
  - Silicon Valley Leadership Group, East Bay Leadership Council, Bay Planning Coalition
- City, county, state and federal lawmakers
- Building & Construction Trades Council of Alameda County

CEQA Process

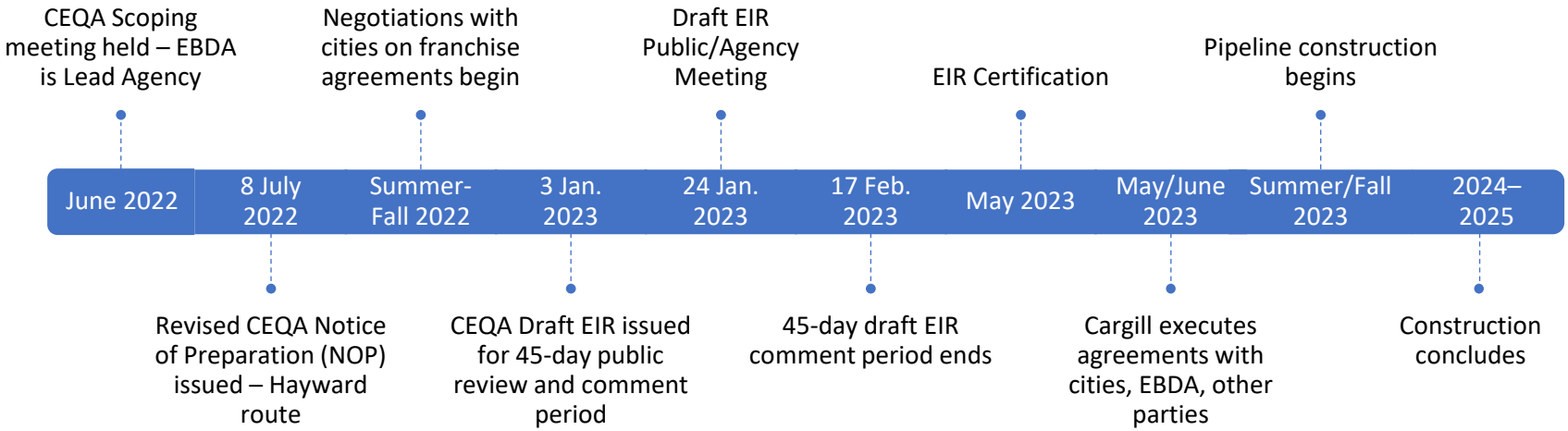
EBDA is serving as Lead Agency

- Initial Notice of Preparation (NOP) posted in May, with CEQA Scoping Meeting held June 1, 2022
  - 7 comment letters received
- Reissued NOP with updated pipeline route on July 8, 2022
  - 30-day comment period closes August 9
- Tribal consultations are ongoing
- Draft EIR issued for 45-day public comment period on Jan. 4, 2023
  - Public meeting held January 24th – no public comments received
  - Comment period concludes Feb. 17, 2023
- EBDA Commission to consider EIR certification this Spring

- *Information and documents can be found at https://ebda.org/projects/cargill-partnership/*

Project Timeline (tentative)

Pre-construction timeline highly dependent on CEQA process



EBDA
EAST BAY DISCHARGERS AUTHORITY

Cargill® Helping the world thrive

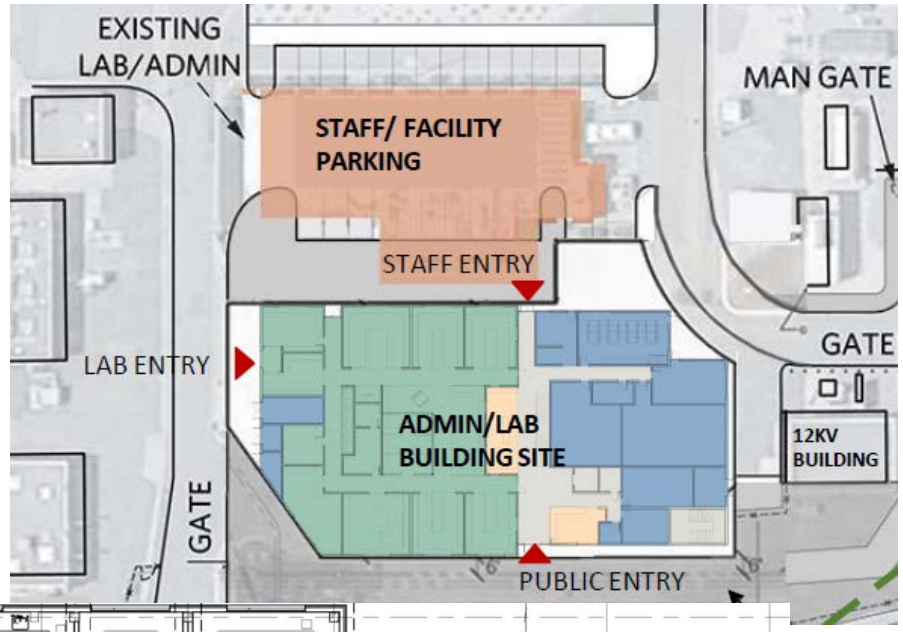
WPCF Improvements Phase II Project
Administration Building Update

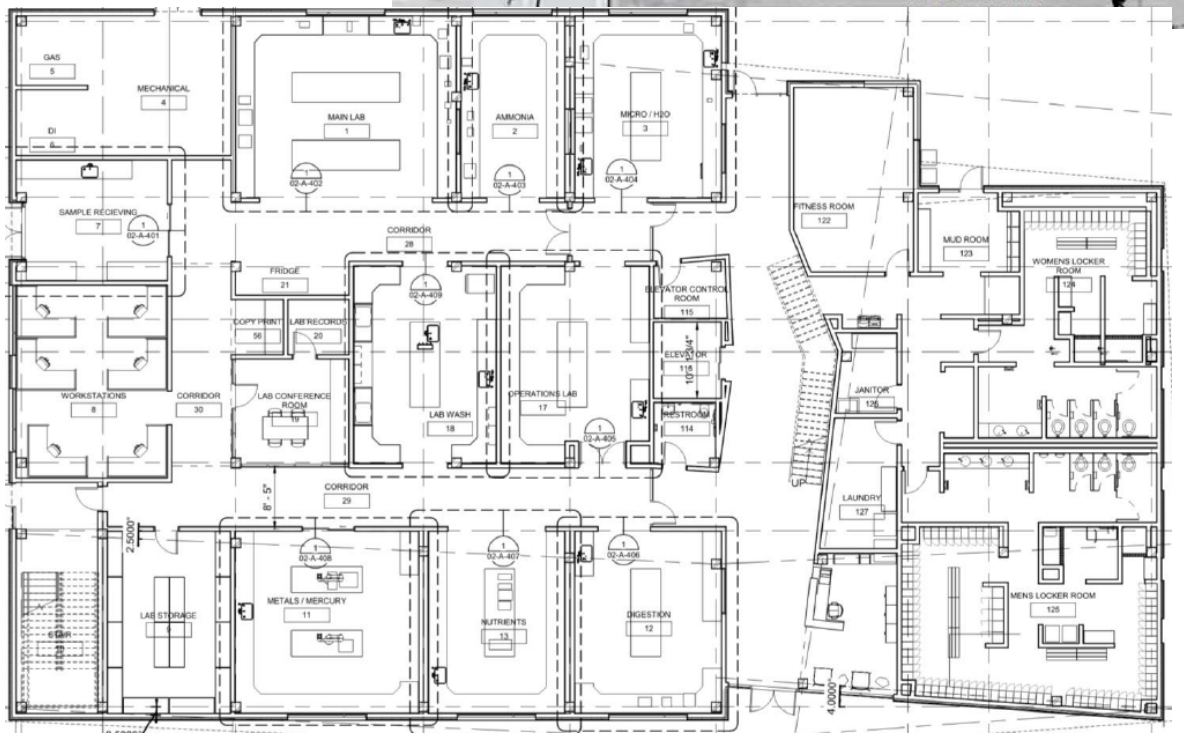
Suzan England, Senior Utilities Engineer
Greg Robley, MWA Architects Inc.
Ying Hong, MWA Architects Inc.

HAYWARD

Bid Package 1
Administration Building

- Existing Building Built in 1970 and updated in 1995
- New building needed to:
  - improve operational efficiency by consolidating staff
  - Provide space for growing staff
  - Increase lab space to facilitate additional water quality testing to meet current and future regulatory requirements
  - Training center, improved locker room facilities, operations center, etc.
- Design Complete January 2024
- Construction Completion December 2025





HAYWARD

MWA Architects 3D Model

Massing Option 1

Massing Option 2

Main Entry View facing South along Whitesell

QUESTIONS

Council Infrastructure Committee

EBCE's Community Solar Program

January 25, 2023

HAYWARD

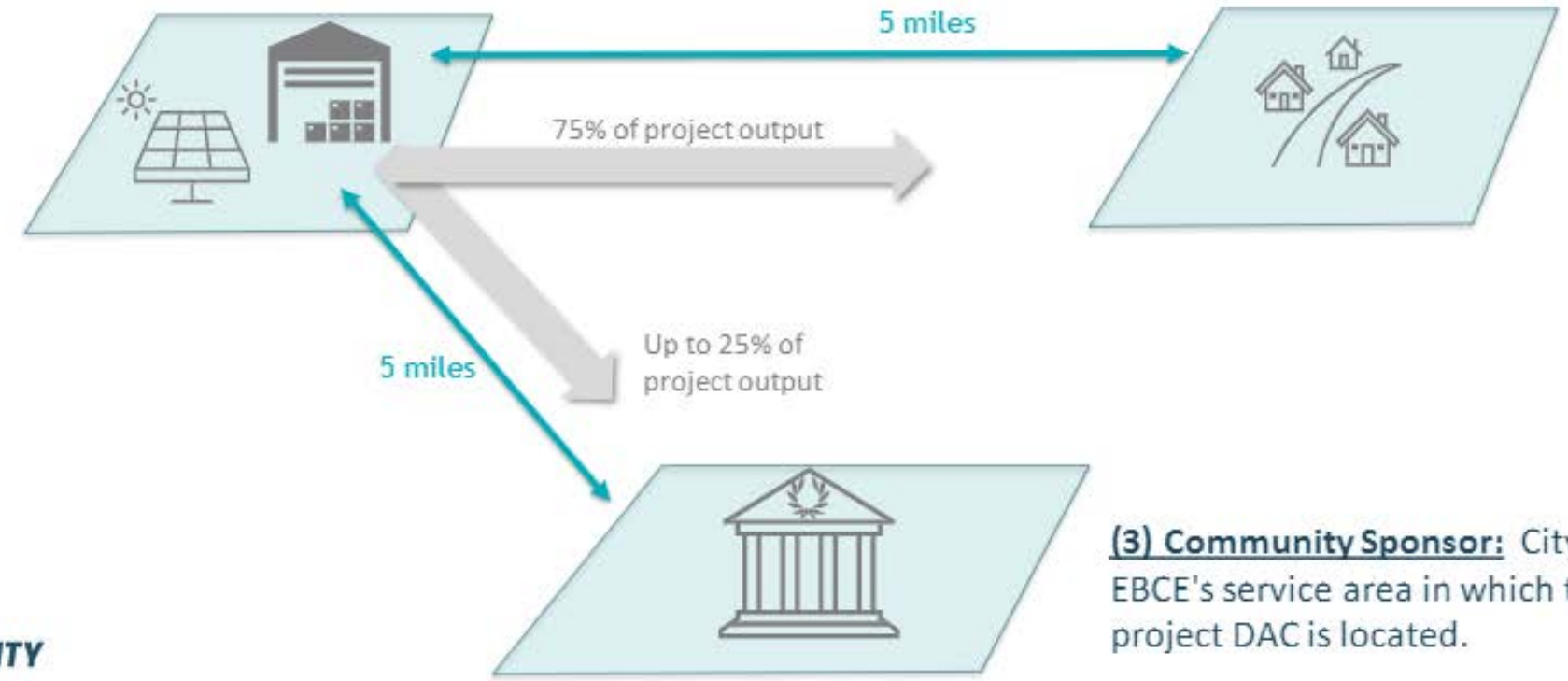
Background

- East Bay Community Energy (EBCE) began serving Hayward customers in 2018.
- In 2021, Council voted to make Hayward's default product Renewable 100 (100% renewable energy).
- Discounted customers enrolled in income-qualified or medical discount programs are enrolled in Bright Choice.

Project Example

(1) Project Site: Rooftop or ground-mounted solar, located in a DAC in EBCE's service area.

(2) Customer Subscribers: EBCE customers, located in a DAC that is within EBCE's service area; at least 50% of subscribers are low-income customers.



(3) Community Sponsor: City in EBCE's service area in which the project DAC is located.

EAST BAY COMMUNITY ENERGY

HAYWARD

EBCE's Community Solar Program

Residential Customer Benefits:

- Support local, solar energy development
- 100% local, solar energy
- 20% electric bill discount on top of CARE or FERA discounts

City Sponsor Benefits:

- Support local, solar energy development
- 20% electric bill discount on up to 25% of project output (City may forgo discount to allow additional customers to enroll)
- City and EBCE collaborate to offer benefit to low income customers

Potential Projects & Enrollment

Location	Size	Estimated Generation (KWh per year)	# of Low-Income Customers (No Allocation to City Facilities)	# of Low-Income Customers (City Facilities Receive 25% of Output)
____ W. Winton Ave.	600 kW	1,508,472	173	130
____ Cabot Blvd.	560 kW	1,407,907	161	121
____ Lincoln Ave.	480 kW	1,206,778	138	104

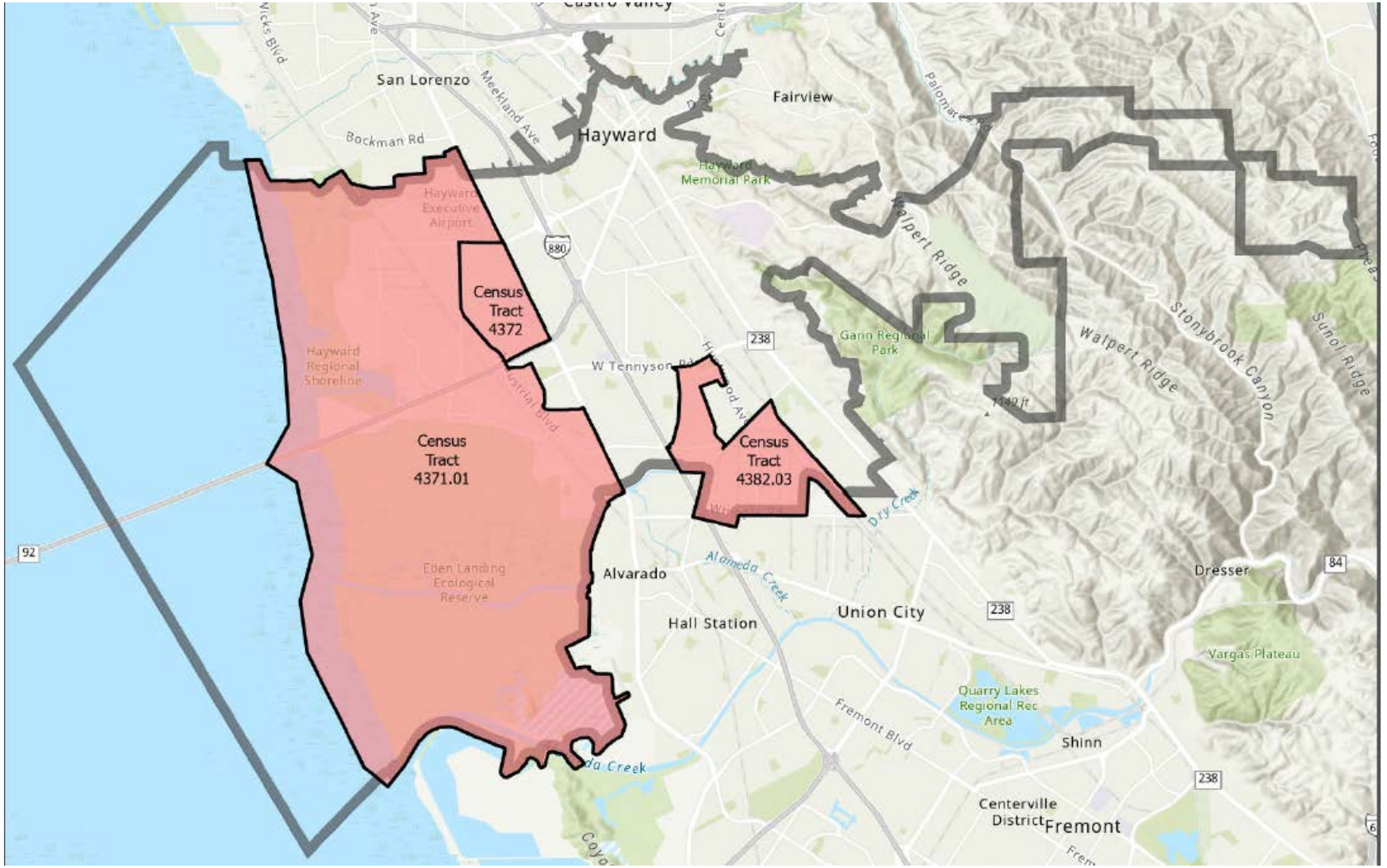
Monthly Electricity Costs:

Non-discounted Hayward Customer = $150

CARE/FERA Customer (20% discount) = $120

Community Solar Customer (40% discount) = $90

Disadvantaged Communities



HAYWARD

Outreach & Enrollment

Outreach Approach:

- EBCE develops co-branded marketing materials for City review/ approval.
- EBCE distributes marketing material via email, targeting eligible customers based on EBCE data.
- Cities distribute as desired: online, print, in partnership with CBOs, etc.
- EBCE provides supporting funding for City activities.

Customer Enrollment Approach:

- EBCE develops online portal for eligibility and enrollment for City review.
- Marketing materials provide links/QR codes to EBCE online portal.
- EBCE confirms user-provided eligibility and enrollment data.
- EBCE enrolls eligible customers up to program threshold and manages waitlist.

EAST BAY COMMUNITY ENERGY

Fiscal Impact

- City can elect to take up to 25% of solar output.
- If City elects to receive solar output, a 20% bill discount is applied to enrolled accounts.
- Potential value of bill discount is up to approximately $20,000.
  - (Report incorrectly states $100,000.)

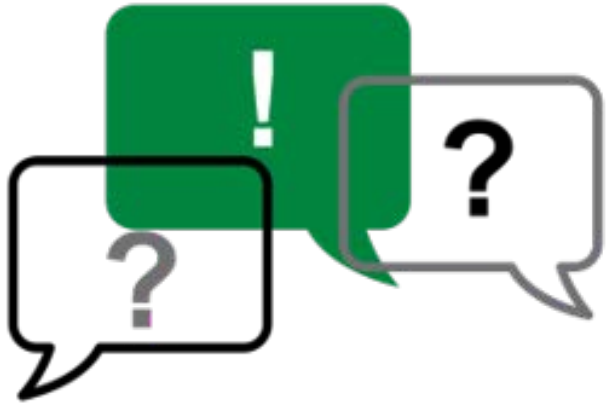
Next Steps

February 21	Council Considers Program
Late February	Staff Provides Commitment Letter to EBCE
March 2	Potential Developers Submit Offers to EBCE
April/May	EBCE Considers Offers
Summer 2023	Outreach & Enrollment with EBCE

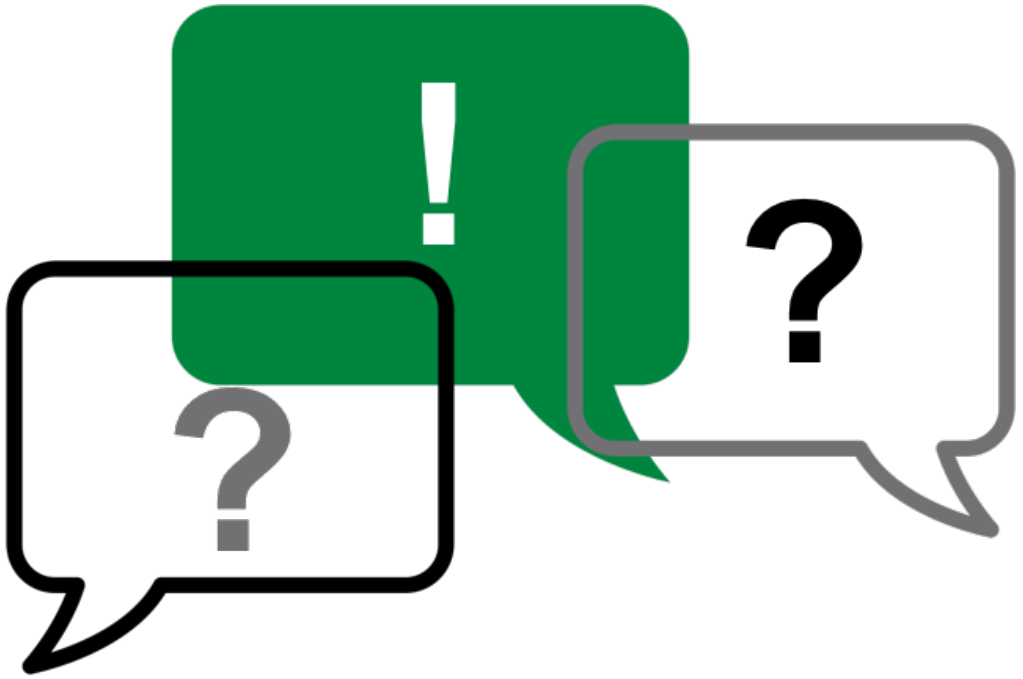
Staff Recommendation

That the Committee:

- accepts public comments;
- reviews and comments on this report;
- provides direction to staff (including the 25% allocation); and
- makes a recommendation to Council.



Discussion



Fiscal Impact

Size	Estimated Generation (KWh per year)	25% of Generation for City Facilities (kWh per year)	Value of 20% Bill Discount
600 kW	1,508,472	377,118	$20,364
560 kW	1,407,907	351,977	$19,007
480 kW	1,206,778	301,695	$16,292

Program Background

The CPUC in 2018 adopted Decision 18-06-027, creating the community solar program. The program promotes the development of renewable generation in communities historically left behind in clean infrastructure development.

- Pursuant to the Decision, EBCE may implement its own community solar programs in its service area.
- EBCE's Community Solar program allows customers to receive **100% solar energy at a 20% discount** on their electric bills.
- The CPUC has allocated approximately 1.6 megawatts (MW) of program capacity to EBCE.
- The program requires a **community sponsor** of the project and will result in projects **located within five miles** of the community it serves.

	Community Solar Program
EBCE Program Size:	~1.6 MW (serves ~450 customers)
Participant Requirements:	At least 50% of participants must be residential customers who are CARE/FERA eligible; all participants must live in a DAC
Other Requirements:	▪ Community Sponsor ▪ Located within 5 miles of community served ▪ Workforce development requirements

EAST BAY COMMUNITY ENERGY

Eligibility Details

The solar project must be:

- Located in a Disadvantaged Community (DAC), and
- Within 5 miles of the customers' community (defined according to its census tract borders)

Customers subscribed to the project must be:

- Located in a DAC that is within 5 miles of the solar project
- At least 50% of customer subscribers must be low-income

Community Sponsor must be:

- Local government, non-profit, community-based organizations, or schools
- In order to be eligible for the 20% bill discount, sponsors must also be based in a DAC that is within 5 miles of the project and be an EBCE customer

EAST BAY COMMUNITY ENERGY