

Technical Committee Meeting Friday, June 7, 2024 10:00 A.M.

Public comments may be made in person or remotely via the details below.

1125 Tamalpais Avenue, San Rafael, CA 94901 (MCE)
2300 Clayton Road, Suite 1150, Concord, CA 94920 (MCE)
11780 San Pablo Ave., Suite D, El Cerrito, CA 94530 (Contra Costa County)

Remote Meeting Participation for Members of the Public

Video Conference: <https://t.ly/QzAmo>
Phone: Dial (669)-900-9128, Meeting ID 828 5103 7385, Passcode 142534

Agenda Page 1 of 2

1. Roll Call/Quorum
2. Board Announcements (Discussion)
3. Public Open Time (Discussion)
4. Report from Chief Executive Officer (Discussion)
5. Consent Calendar (Discussion/Action)
 - C.1 Approval of 5.3.24 Meeting Minutes
6. Solar Storage Credit Update (Discussion)
7. Customer Programs Overview (Discussion)
8. Committee & Staff Matters (Discussion)
9. Adjourn

The Technical Committee may discuss and/or take action on any or all of the items listed on the agenda irrespective of how the items are described.

This Committee may be attended by Board Members who do not serve on this Committee. In the event that a quorum of the entire Board is present, this Committee shall act as a Committee of the Whole. Any item acted upon by the Committee of the Whole will be considered advisory to the Board of Directors and require consideration and action by the Board of Directors at a noticed Board meeting before adoption or approval of the item.

DISABLED ACCOMMODATION: If you are a person with a disability who requires an accommodation or an alternative format, please contact MCE at (888) 632-3674 or ada-coordinator@mcecleanenergy.org at least 72 hours before the meeting start time to ensure arrangements are made.

DRAFT

MCE TECHNICAL COMMITTEE MEETING MINUTES

Friday, May 3, 2024

10:00 A.M.

Present: Bruce Ackerman, Alternate, Town of Fairfax¹
Mark Armstrong, Alternate, City of San Ramon
Alexis Fineman, Town of San Anselmo
John Gioia, Contra Costa County
Eduardo Martinez, City of Richmond
John McCormick, Alternate, City of Lafayette
Devin Murphy, City of Pinole
Katie Rice, County of Marin

Absent: Charles Palmares, City of Vallejo
Gabe Quinto, City of El Cerrito

**Staff
& Others:** Jesica Brooks, Board Clerk and Executive Assistant to the COO
Vicken Kasarjian, Chief Operating Officer
Jonnie Kipyator, Power Analytics Senior Manager
Tanya Lomas, Internal Operations Assistant
Alexandra McGee, Director of Strategic Initiatives
Catalina Murphy, General Counsel
Ashley Muth, Internal Operations Assistant
Justine Parmelee, Director of Internal Operations
Daniel Settlemyer, Internal Operations Coordinator
Sabrinna Soldavini, Manager of Policy, Markets
Jamie Tuckey, Chief of Staff
Dawn Weisz, Chief Executive Officer

1. Roll Call

Chair Murphy called the regular Technical Committee meeting to order at 10:00 a.m. with quorum established by roll call.

2. Board Announcements (Discussion)

There were no comments.

3. Public Open Time (Discussion)

Chair Murphy opened the public comment period and there were no comments.

4. Report from Chief Executive Officer (Discussion)

CEO, Dawn Weisz, introduced this item and addressed questions from Committee members.

¹ Due to Brown Act requirements, the Town of Fairfax was not included in the votes for action items and deemed absent.

DRAFT

5. Consent Calendar (Discussion/Action)

- C.1 Approval of 4.5.24 Meeting Minutes
- C.2 Proposed Third Amendment to Power Purchase Agreements with CES Electron Farm One, LLC

Chair Murphy opened the public comment period and there were no comments.

Action: It was M/S/C (Gioia/Dawson) to **approve Consent Calendar items C.1 and C.2**. Motion carried by unanimous roll call vote. (Absent: Directors Palmares and Quinto).

6. MCE Procurement Goals and Proposed 24/7 Fossil-Free Pilot Energy Service (Discussion)

Jonnie Kipyator, Power Analytics Senior Manager, presented this item and addressed questions from Committee members.

Chair Murphy opened the public comment period and comments were made by member of the public Dan Segedin.

Action: No action required.

7. Policy Update (Discussion)

Sabrina Soldavini, Manager of Policy, Markets, presented this item and addressed questions from Committee members.

Chair Murphy opened the public comment period and there were no comments.

Action: No action required.

8. Draft Responsible Green Hydrogen Principals (Discussion)

Alexandra McGee, Director of Strategic Initiatives, presented this item and addressed questions from Committee members.

Chair Murphy opened the public comment period and there were no comments.

Action: No action required.

9. Committee & Staff Matters (Discussion)

There were no comments.

DRAFT

10. Adjournment

Chair Murphy adjourned the meeting at 12:08 p.m. to the next scheduled Technical Committee Meeting on June 7, 2024.

Devin Murphy, Chair

Attest:

Dawn Weisz, Secretary



Solar Storage Credit

JUNE 2024
TECHNICAL COMMITTEE MEETING



Empowering
Our Clean
Energy Future

CONTRA COSTA | MARIN | NAPA | SOLANO

BATTERY
STORAGE

BATTERY
ENERGY STORAGE



Participants receive a monthly bill discount for using their home battery daily from 4-9 p.m.

Discount Amount

- \$10/mo. for storage system capacity 7-20 kWh
 - \$20/mo. for storage system capacity over 20 kWh
-

Eligibility



- ✓ Residential MCE customer with solar + storage
- ✓ Automate battery to discharge from 4-9 p.m. daily
- ✓ Set battery reserve to 20% or less except when preparing for or during a power outage
- ✓ Enrolled in time-of-use rate

MARKETING

Solar Storage Credit

Sent enrollment materials to residential solar + storage customers who are on PG&E's storage tariff and a Time of Use rate



Emails: 38,416 sent

Two versions: 1) linked to web form, 2) form embedded within email; 70% of form completions came from embedded version



Mailers: 22,636 sent

Performed well both on their own and when used in conjunction with email



Digital ads: 544,710 impressions

PERFORMANCE

Solar Storage Credit

Campaign start:

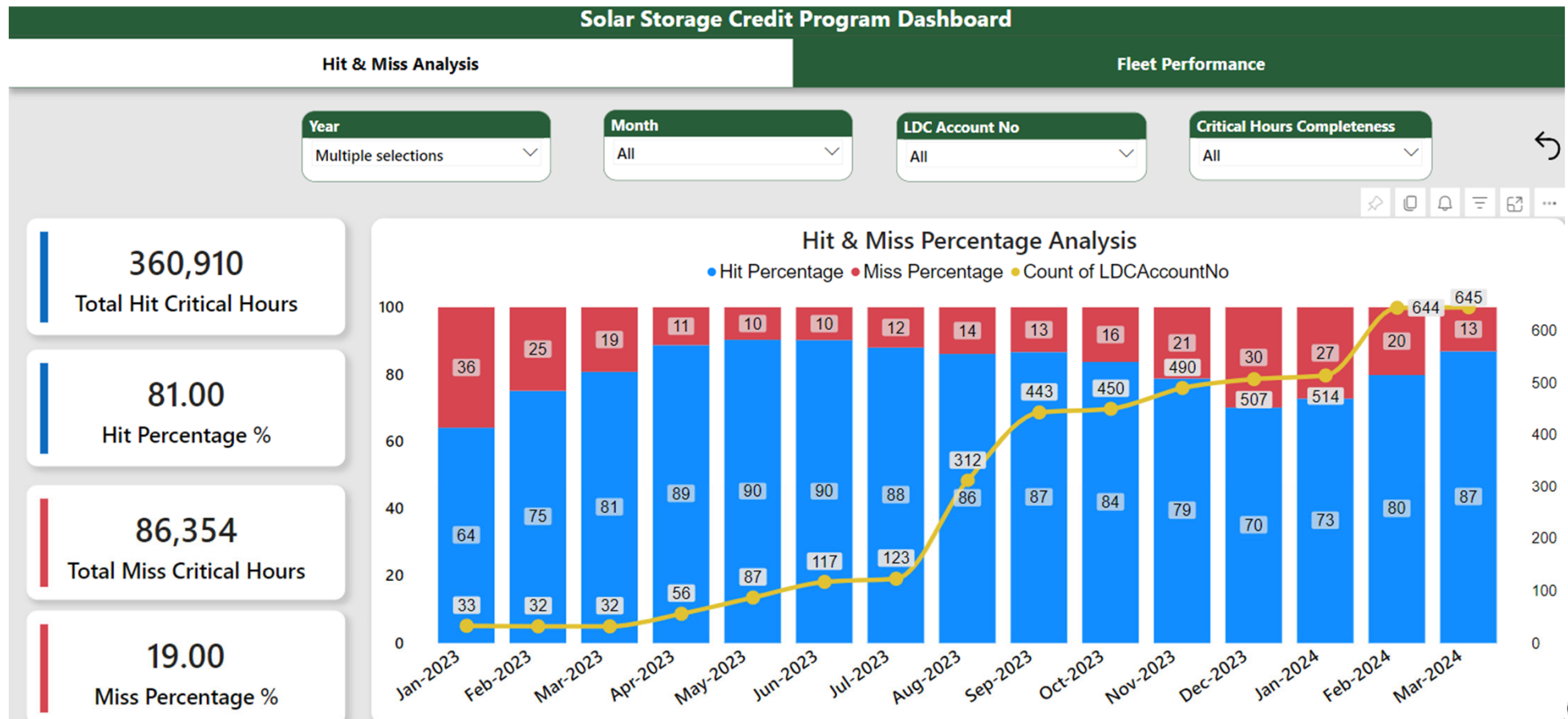
- Initial group of approx. 150 customers starting Feb/Mar 2023
- 2 larger groups starting Aug/Sep 2023 and Mar/Apr 2024

Call to Action: complete the enrollment form and confirm daily battery discharge from 4 – 9 p.m.

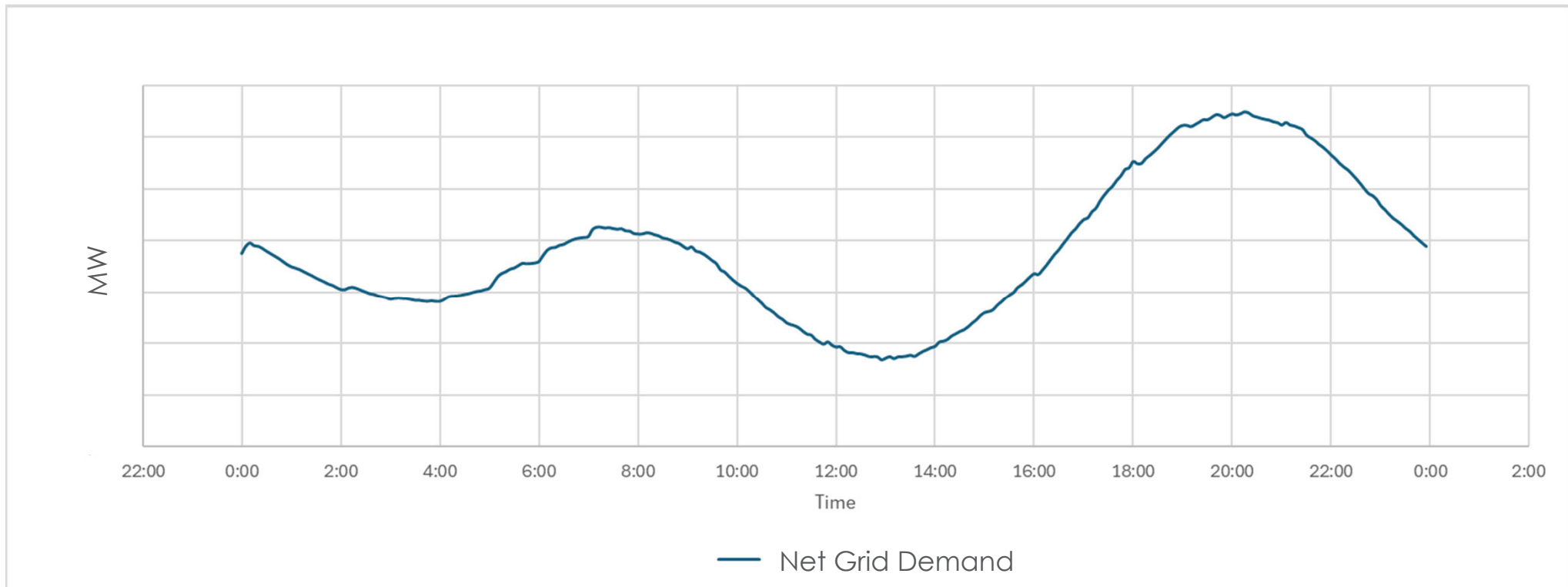
Reached: approx. 11,000 customers (16% mailer only, no email on file)

Current enrollment: 1,000+ customers (9%) as of 5/21

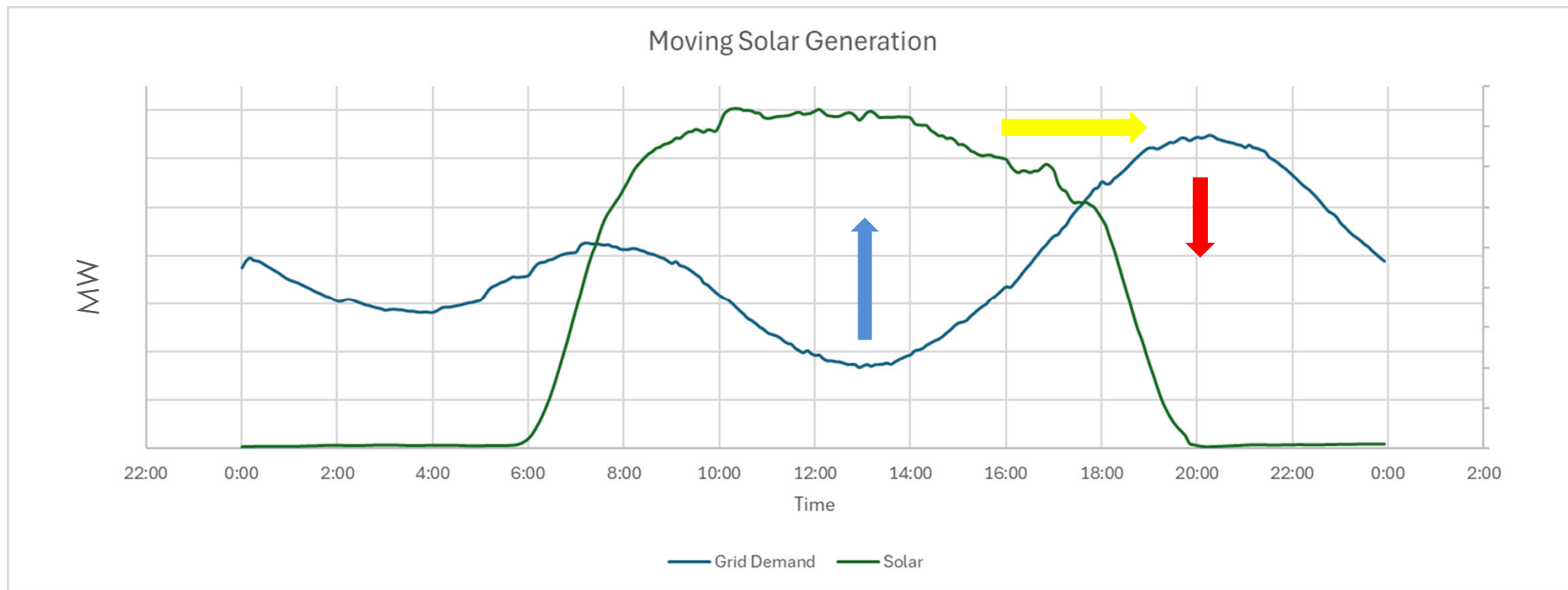
Results



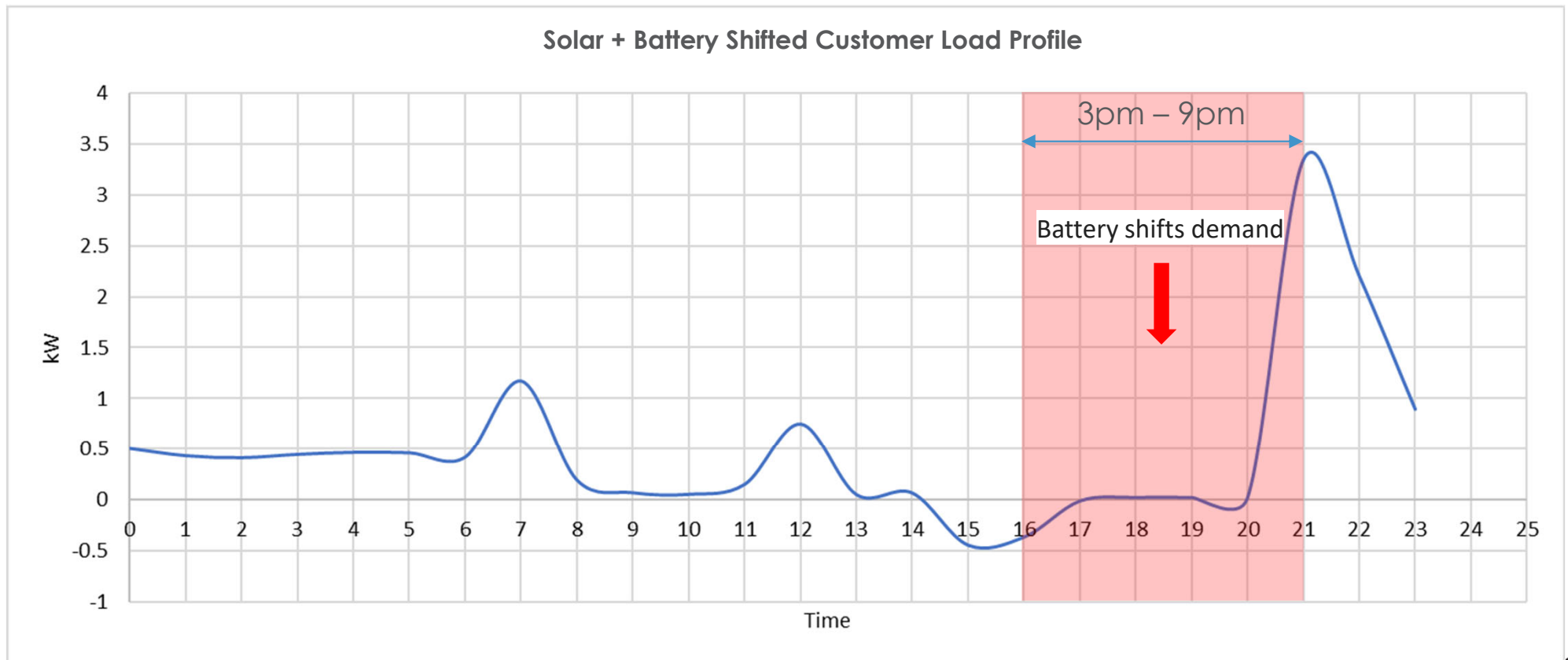
California's Duck Curve



Tackling Duck Curve



Tackling Duck Curve



Next Steps

- ⚡ **New customer marketing:** Invite new solar + storage customers to enroll in the program
- ⚡ **Existing participant education:** Initiate education campaign to customers not achieving desired battery performance to program batteries more effectively. Reduce the steep, post 9pm ramp using VPP(s) and other initiatives
- ⚡ **Continuous performance monitoring:** Monitor battery performance on a quarterly basis and continue educating customers as needed.

Thank You!

Nicole Busto

Manager of Marketing

nbusto@mceCleanEnergy.org

Shuvo Chowdhury

VP of Technology & Analytics

schowdhury@mceCleanEnergy.org



Customer Programs Overview

June 7, 2024



Purpose & Impacts

Reduce GHG emissions

- 15,560 metric tons CO2 reduced from 2020-2023, equivalent to GHG emissions from 3,703 gasoline-powered passenger vehicles driven for one year.

Foster equity ★

- 5,000 homes with lower income or in a disadvantaged community have received free or low-cost energy efficiency upgrades or EV rebates.

Promote grid reliability

- MCE's PeakFlex Program inspired a new 2-year statewide program to address grid reliability issues (Market Access Programs).

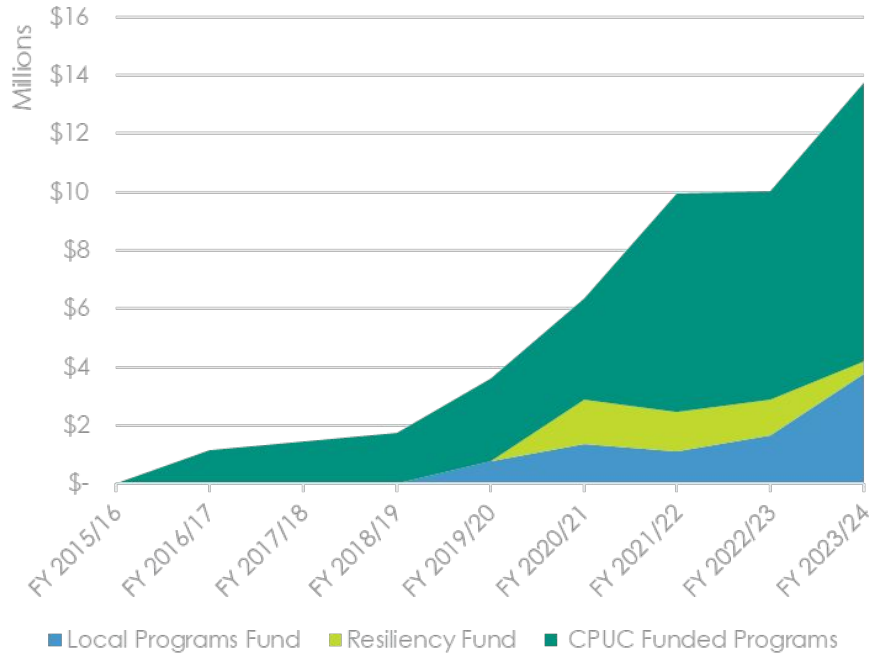
Deepen customer engagement & relationships

- 77,790 total customers engaged in programs.

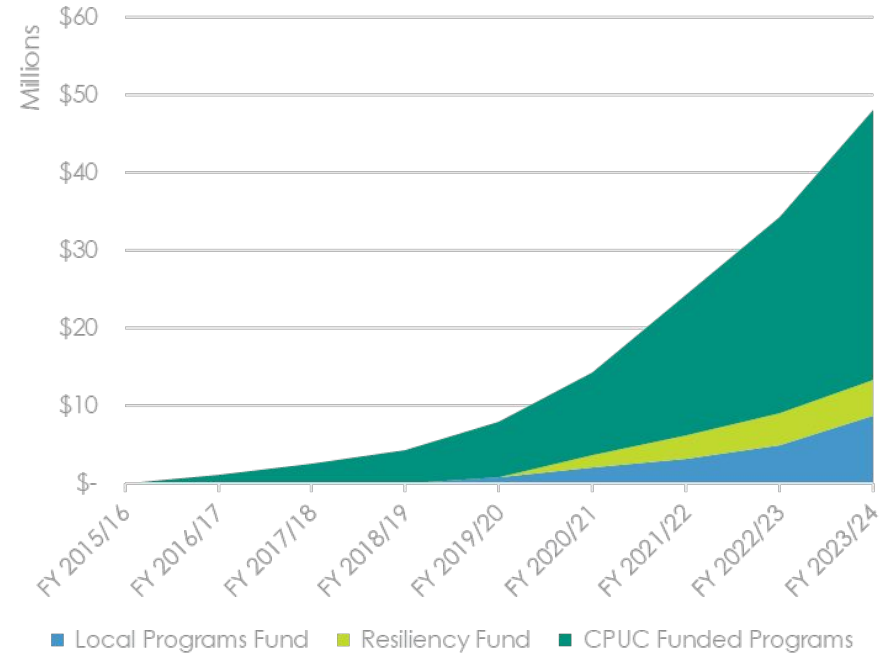
Program Funding

- Customer Programs are directly funded by MCE and externally by grants and other sources
- **16+ active programs** in 2024
- **\$47.3 million** allocated for programs in MCE's current Fiscal Year budget
- **California Public Utilities Commission** \$158 million through 2031
 - Energy efficiency and building electrification
- **Grants Awarded:** \$9.13 million

Annual MCE Program Expenditures



Cumulative MCE Program Expenditures



Program Funding

CPUC Funding Considerations



Home Energy Savings Customer
Pittsburg, CA

Opportunities

- Money is already being collected from our customers - we don't want to ask customers to pay twice
- MCE can help shape future statewide programs
 - Strategic Energy Management, Flex Market, Low-Income Families & Tenants, Home Energy Savings

Challenges

- Less autonomy over how we administer programs

Customer Programs



Virtual Power Plant Overview

- Leverage **Distributed Energy Resources (DERs)** to optimize electricity distribution for efficient and sustainable energy use, especially during peak hours.
- Examples of DERs: **rooftop solar, batteries, smart thermostats, heat pumps, and EV chargers.**
- Programs contribute significantly to stabilizing the grid to **prevent power outages** and promoting sustainable energy use.
- Programs include: **Energy Storage Program, MCE Sync, Peak Flex, and Richmond VPP pilot.**

Virtual Power Plant Future Offerings

Residential Rebates for EV Charging
(as early as 2024) ★

Battery Storage (as early as 2024) ★

Expansion of Richmond VPP (as early
as 2025) ★

VPP Home
Richmond, CA

Virtual Power Plant Strategies

- MCE Sync
- Peak Flex
- Richmond VPP
- Energy Storage Program

VPP Home
Richmond, CA

MCE Sync

- 3,000+ vehicles enrolled
- Shifted 90% of EV charging load out of peak hours
- 1.2 MW of average daily peak load reduction
- Launching dynamic pricing pilot in 2024

Peak Flex

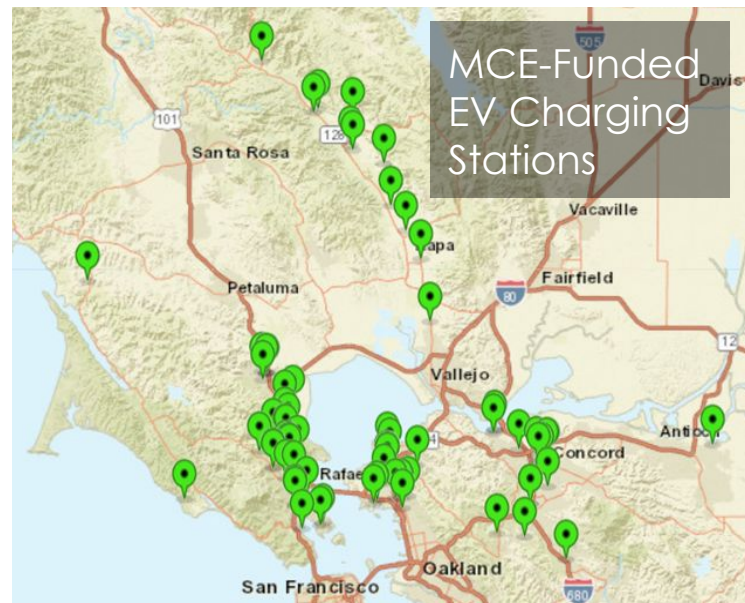
- 3 MW of demand reduction in 2022 from over 2,000 participants

Energy Storage Program ★

- 70 Residential installs completed (1.2 MWh)
- 4.5 MWh batteries under construction at 25 critical facilities

Electric Vehicle Programs Overview

- Support transition to zero-emission vehicles.
- Aligned with Governor's Executive Order to end sales of new internal combustion vehicles by 2035, with medium- and heavy-duty vehicles in 2045.
- **EV Rebates** ★
 - 742 low-income customers have purchased or leased an EV
- **Charged by Public Power** ★
- **EV Charging**
 - 1,077 charging ports at 70 locations



Electric Vehicle Future Programs

- **E-bike rebates** ★
- **Fleet electrification support** (as early as 2024)

EV Instant Rebate
Customer
Novato, CA

Electrification Programs



VPP Home
Richmond, CA

Green Workforce Pathways ★
MCE Heat Pump Water Heater Rebate
Low-Income Families and Tenants ★
EE Programs

Future Offerings

- Heat pump water heater emergency replacement loaner (2024)
-

Electrification Impacts

Workforce Development ★ Over \$1 million annual investment

- Green Workforce Pathways develops job-readiness and electrification skills
- Since 2020: over 175 participants, 27 placements in paid work experience positions with qualified electrification contractors

Customer Incentives and Programs Over \$3 million annual investment

- Multifamily Energy Savings & Low-Income Families and Tenants Programs ★
 - 358 units served, electrification and technical assistance
- Single Family Program ★
 - 100+ households served, no-cost electrification upgrades
- Heat Pump Water Heater Incentives ★
 - Cash incentives for heat pump water heaters to over 300 residential customers

Resources and Rates

- Low-income bill savings programs available
- Study on Equitable Electrification
- Website refresh to highlight the benefits of electrification

Energy Efficiency Programs



Multifamily Energy Savings ★

Efficiency Market

Home Energy Savings ★

Agricultural and Industrial Resources

Strategic Energy Management

NEW: Small Business Energy Advantage

Energy Efficiency Impacts (2023)

- 5.11 GWh electricity savings and 311,629 therms gas savings
- Avoided 27,076 metric tons of carbon dioxide - equivalent of taking 6,444 gas cars off the road for one year. (Lifecycle)
- Upgraded 653 units (9 multifamily properties) and enrolled 10 properties in the Strategic Energy Management Program
- 41 businesses completed 45 projects - collectively saving over \$475,000 each year in bill savings
- Efficiency Marketplace - 100% increase in participation over last year (38 projects) - 2022 results - 115% realization rate in forecasted savings.
- Upgraded 351 moderate income homes (32 homes received electrification measures)

METRICS

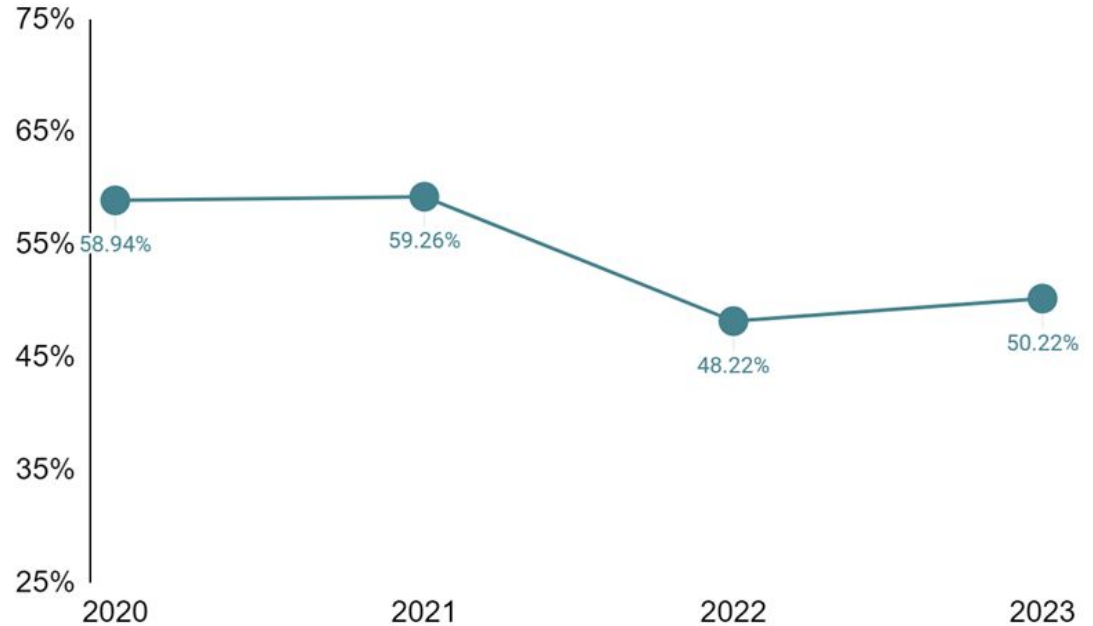


GHG Emissions Reductions from Programs

- \$/metric ton (MT) CO₂e saved range from \$626 - \$31,609
- Overall weighted average is \$2,167 / MT
- When programs with an equity focus are excluded the weighted average is \$1,134 / MT
- The program with the lowest cost per MT is the commercial energy efficiency program. The program with the highest cost is Low Income Families and Tenants (Efficiency Market for non-equity).

Equity

Over the last 4 years, 54% of program funding has gone toward equity programs





Thank you!

MCE Program Overview

OVERVIEW

The purpose of MCE's Customer Programs is to reduce greenhouse gas (GHG) emissions, create more equitable communities, promote grid reliability, and deepen customer engagement. Customer Programs are directly funded by MCE and, in some cases, externally by grants and other sources.

Reduce GHG Emissions

MCE's programs reduce GHG emissions and minimize grid strain by helping customers lower the amount of energy used in their homes and businesses. By reducing energy use during target peak hours, we help balance supply and demand, mitigating the need for more polluting energy sources (ie, "gas-fired peaker plants"). Additionally, MCE's programs support clean transportation electrification, transitioning us away from fossil fuel dependency, which is a vital step in reducing our carbon footprint.

Foster Equity

MCE's programs address the disproportionate burden of environmental pollution and the unequal access to climate-smart technology by prioritizing customers who may not otherwise have the opportunity to participate in the Just Transition to a clean energy economy.

Promote Grid Reliability

With the growing impacts of climate change, such as more frequent and intense climate events from heatwaves, droughts, and wildfires, and the resulting power outages, customer programs are crucial in helping promote grid reliability by reducing overall energy consumption and shifting energy use out of peak hours.

Deepen Customer Engagement & Relationships

MCE's programs promote MCE as a trusted advisor to serve customers as a partner and resource in managing their energy needs, one that offers support and solutions beyond the role of electricity provider. This relationship-building is essential for creating a sense of community and shared purpose in tackling energy and environmental challenges.

VIRTUAL POWER PLANT STRATEGIES

MCE's Virtual Power Plant (VPP) strategy exemplifies our commitment to delivering efficient, sustainable, and equitable energy solutions. By leveraging a suite of Distributed Energy Resources (DERs) - such as rooftop solar, batteries, smart thermostats, heat pumps, and EV chargers - we optimize electricity distribution for efficient and sustainable energy use, especially during peak hours.

MCE's VPP initiatives vary from fully dispatchable systems, allowing MCE direct control for precise management, to non-dispatchable systems that use price signals to encourage customers to reduce their energy use. These strategies, coupled with performance-based incentives and automated EV charging tools, contribute significantly to stabilizing the grid to prevent power outages and promoting sustainable energy use.

Our approach to the VPP is deeply rooted in equity, ensuring that advanced energy technologies are not only accessible but are also actively deployed in low-income and historically underserved communities. This strategy democratizes access to clean energy technology, addresses energy insecurity, and provides stable, affordable energy solutions to those most in need.

Current offerings

MCE Sync ★ [Equity Focus]

MCE Sync, launched in 2021, is an app-based load shifting program that helps customers automate their EV charging at home to use the least expensive and cleanest energy on the grid.

Expansion of this program will enable more EV households to benefit from VGI (Vehicle to Grid Integration) functionality and incentives that reduce the cost of EV charging at home, and will increase community resiliency with a marketing focus on low- to moderate-income populations. MCE also intends to offer customers in priority communities rebates on low-cost, portable smart charging cables.

- Impact: 3,000 EVs enrolled (through December 2023)
- Goal: 4,000 EVs enrolled by the end of 2024
- Funding: MCE
- Implementer: EV.energy

Richmond VPP Pilot ★ [Equity Focus]

The [Richmond VPP pilot](#), launched in 2022, embodies our equity-first approach by leveraging networked DERs in one of California's identified environmental justice communities. Focusing on upgrading previously abandoned homes for low-income families, this pilot integrates these homes into our VPP. This initiative not only supports grid reliability but also aids in community revitalization and offers financial savings to our participants, showcasing how technology and equity can work hand in hand.

The pilot uses a variety of networked DERs like rooftop solar, batteries, EV chargers, smart thermostats, and heat pumps to manage participating customers' demand in real time, for load shifting and demand response.

Core participating properties will be previously abandoned, blighted homes that are being acquired by Richmond Community Foundation (RCF Connects) and then fully rehabbed into 21st century all-electric homes. Others will be homes where MCE has previously subsidized the cost of solar for lower income residents. Local businesses and public buildings are also eligible to participate and offer a larger opportunity to shift load for grid-strength.

Once established, MCE intends to expand this pilot to the full service area and weave together all eligible customer programs under a singular umbrella as a "People's Power." Importantly, there is no "one size fits all" for DER installation. Collectively, we will use the VPP in CAISO's markets, just as we do today with traditional power plants. Residents will be paid for their participation, and their load-shifting and reduction will help reduce MCE's power costs, which benefits all of our customers.

Looking ahead, MCE is considering engaging in CAISO market-integrated DR programs as early as 2024.

- Funding: \$99,999 from California Energy Commission
- Implementer: MCE + Serious Controls + ZNE Alliance

Peak FLEXmarket

Peak FLEXmarket, launched June 2021, is designed to help balance electrical supply and demand and support grid reliability by encouraging program participants to reduce demand during summer peak hours (4 - 9 p.m. from June 1-September 30). Rather than predetermining technologies or partners to deliver results, the program works with an open market of qualified aggregators, each with a portfolio of projects delivering their own demand flexibility solutions.

The program pays aggregators and customers for shifting energy usage out of peak periods and during demand response events, with energy savings calculated using meter data. The program offers both a daily load shifting rate and a higher event-based rate for Flex Alert days. This structure blends load shifting and demand response into a cohesive value proposition for aggregators and end use customers, with an added focus on grid reliability.

- Impact (2022):
 - 2,192 participating sites
 - 6 participating aggregators
 - 11 demand response events called
 - \$76,000 in customer incentives

- 38,980 kWh saved during 4-9pm peak
 - Max hourly reduction: 3MW
- Funding:
 - MCE & CPUC
- Implementer: Recurve

Energy Storage ★ [Equity Focus]

MCE's Energy Storage Program, launched in 2020 and currently closed to new participants, provided rebates, monthly bill credits and financing to support our residential customers and critical facilities to install battery energy storage systems paired with solar, in exchange for allowing MCE to discharge the battery daily from 4-9pm to manage peak loads and mitigate high energy costs. Non-residential customers also qualify for annual performance-based payments.

- Impact: Over 1.6 MWhs of storage installed at 76 homes and 7 critical facilities (through February 2024)
- Funding:
 - \$9,000,000 MCE Resiliency Fund
 - \$750,000 Marin Community Foundation grant¹
 - \$500,000 Federal Earmark²
- Implementer: MCE

Solar Storage Credit

MCE offers customers with solar and storage at their home up to a \$20 per month bill credit in exchange for automating battery discharge down to a 20% reserve margin daily from 4-9 p.m.

- Impact: 680 customers enrolled as of February 2024
- Goal: Enroll 1,300 solar + storage residential customers (20% of those identified)
- Funding: MCE
- Implementer: MCE

Future offerings

Expansion of the Richmond VPP Program (as early as 2025) ★ [Equity Focus]

Once the Richmond VPP project has demonstrated proof of concept, MCE will expand the project to cover the whole service area. At this point there will be many opportunities to incorporate DERs installed through other MCE programs into a service area wide VPP.

¹ For solar and storage installations for nonprofits and affordable housing in Marin.

² For solar and storage installations at critical facilities.

EV Charging: Residential Rebates (2024) ★ [Equity Focus]

We will be exploring strategies to incorporate charger rebates to further boost MCE Sync enrollment if access to compatible chargers continues to be a barrier.

Battery Storage (2024) ★ [Equity Focus]

The Energy Storage Program pilot was closed to new applicants in 2022 but we anticipate reopening a battery storage offering for nonresidential sites in 2024 pending the receipt of Federal Earmark Funding from the DOE. MCE was awarded a \$500,000 Federal Earmark with a 50% match requirement from MCE to support approximately 4 new non-residential battery installations. We expect the funding to come through in the first half of 2024. While this program previously prioritized adding storage to existing solar as will the federal earmark funding, if we receive additional funds and expand again, it will offer rebates for any type of storage system (stand alone, new storage on new solar, or new storage on existing solar).

ELECTRIC VEHICLES

Current offerings

★ EV Charging [Equity Focus]

To reach California's goal of 5 million EVs on the road by 2030, we'll need 250,000 charging stations by 2025. Approximately 80% of EV charging is done at home and MCE is focused on installing EV chargers at multifamily properties and workplaces, which are lagging behind in EV adoption. Installation of charging equipment is typically much more expensive at multifamily homes compared to single-family homes, deterring residents and property managers from installing them.

MCE's EV Charging program provides EV charging station rebates, with bonus incentives for stations connected to 100% renewable energy service, free technical assistance to support the property manager, and tenant education and engagement to speed up EV adoption.

The program offers:

- Up to \$3,500 per networked Level 2 charging port
- Up to \$5,500 in DACs and low-income communities in Contra Costa County through aCEC-funded grant with the Contra Costa Transportation Authority
- Free Level 2 charging ports at affordable multifamily properties in Marin through a Marin Community Foundation grant
- Up to \$875 per networked Level 1 charging port
- Support to align and combine with other incentives

- Impact: 1,077 new charging ports at 70 locations
- Funding:
 - MCE \$4M from 2019-2023
 - \$180,000 Marin Community Foundation³
 - \$1,500,000 California Energy Commission grant⁴
 - \$2,000,000 Federal Earmark
 - \$986,461 Department of Energy grant⁵
 - \$86,000 California Energy Commission Reliable, Equitable, and Accessible Charging for multi-family Housing (REACH) program
- Implementer: CleaResult

★ MCE Sync [Equity Focus]

This program is described under the Virtual Power Plant section above.

★ EV Instant Rebate [Equity Focus]

MCE's service area density of electric vehicle ownership is among the highest in the nation at 4%, making us a prime testbed for innovation. Switching to an EV saves the average household \$1,000 annually. However, the higher upfront cost of an EV keeps them out of reach for lower-income households, who could greatly benefit from lower fuel and maintenance costs. MCE's EV Instant Rebate program lowers the cost of purchasing or leasing EVs for income-qualified customers.

The program offers up to \$3,500 in savings (\$3,500 for new and \$2,000 for used) on the purchase or lease of an EV at participating dealerships. MCE's EV Instant Rebate can be combined with other available incentives to reduce the final vehicle cost by up to \$20,500 depending on vehicle and customer eligibility.

- Impact: 742 Low Income Customers purchased or leased an electric vehicle with an MCE rebate
- Funding: \$6.2M from MCE
- Implementer: Energy Solutions

³ To provide up to 40 no-cost EV charging installations at affordable multifamily properties in Marin.

⁴ Grant obtained by Contra Costa Transit Agency to add \$2,000 to MCE's incentives for charging stations located in Low-Income or Disadvantaged Communities in Contra Costa County.

⁵ To support a participatory budgeting process in priority communities to guide the grant investment into charging stations and shared mobility options.

Future offerings

Fleets (as early as 2024)

MCE has developed a two-pronged approach to support the electrification of medium-duty (MD) and heavy-duty (HD) vehicles for local governments in MCE's service area. The first approach is focused on incentive funding and "concierge services" for the deployment of EV fleets at municipal facilities. Fleets are envisioned to have vehicle to load (V2L) capabilities. The second approach is focused on developing EV transition roadmaps to support local governments in meeting proposed Advanced Clean Fleet compliance requirements. We are currently seeking grant funding to allow us to launch this program.

E-bike Rebates

MCE customers are eligible for e-bike rebates from several sources, including a statewide rebate program. The participatory budgeting exercise under the Charged by Public Power Grant will collect feedback as to whether an MCE E-bike program is needed. MCE is also considering a federal earmark funding request to support an e-bike program.

BUILDING ELECTRIFICATION

MCE is at the forefront of promoting building electrification as a key strategy to reduce greenhouse gas emissions and transition to a cleaner energy future. Our programs support the adoption of electric heat pumps, water heating solutions, and other electric technologies that enhance energy efficiency and reduce reliance on fossil fuels.

MCE developed a Reach code 'toolkit' and webpage in partnership with Marin County to help municipalities interested in adopting standards or implementing "reach" codes that go beyond the state standards, which are revised every three years. Staff has served in an advisory role to the County of Marin's all-electric reach code steering committee since 2022. BayREN also has a program to promote reach code development.

Current offerings

Green Workforce Pathways [Equity Focus]

To meet California's climate goals and realize a just and equitable transition from fossil fuels to a low-carbon energy economy, contractors need education and support to

expand their businesses to electric technologies, scale their workforce, and create sustainable green jobs. MCE's Green Workforce Pathways program supports both residential service contractors and job seekers. For contractors, MCE offers free long-term education and training opportunities on cutting-edge clean technologies as well as connections to vetted job seekers. For job seekers, MCE creates pathways into sustainable, long-term careers.

Green Workforce Pathways provides:

- Industry roundtables and ongoing outreach to energy efficiency industry professionals, workforce development groups, community-based organizations, and local governments
- Education and technical support to upskill the workforce
- Matching for job seekers with local contractors for short-term workforce experience placements
- Recruitment and mentorship support
- Stipends for new hires
- Career development support for job seekers, including interview and resume skills

Home Energy Savings ★ [Equity Focus]

MCE's Home Energy Savings Program delivers energy savings, improves comfort, enhances indoor air quality, and contributes to the reduction of greenhouse gas emissions. This program offers assessments and home upgrades at no cost to eligible homeowners and tenants residing in single-family dwellings within MCE's service area. To ensure equitable reach, the program focuses on homeowners and renters in specific neighborhoods with a higher concentration of lower-middle-income customers.

The program specifically targets moderate-income customers whose household income falls between 200% and 400% of the Federal Poverty Guidelines. These customers typically exceed the income limit for services provided by programs like the Energy Savings Assistance program and Low-Income Families and Tenants program. However, their income constraints still prevent them from participating in market rate programs, placing them in the lower-middle income bracket. MCE is also waiting for approval from the CPUC to lower Home Energy Savings program eligibility to any customer earning less than 400% FPL.

The program offers the following services: initial energy assessment and education with single point of contact customer service, and energy-efficient and electrification measures installed in single-family homes.

In 2024, HES will be leveraging TECH/SGIP funding by compensating the program implementer, Franklin Energy, for applying for these rebates on behalf of our customers.

Created by Assembly Bill 205 (2022), the goals of the Equitable Building Decarbonization Program are to reduce greenhouse gas emissions in homes and advance energy equity statewide by serving historically underserved communities.

The Direct Install Program provides decarbonization and electrification retrofits to low- and moderate-income households. The Statewide Incentive Program incentivizes the increased adoption of low-carbon and electrification technologies.

MCE is pursuing a strategy of pursuing Home Energy Savings as a quick start grant recipient when it launches.

- Impact: Over 1,400 single family homes upgraded with energy efficiency and/or electrification from 2019-2023
- Funding:
 - CPUC Funding - \$2,000,000 annually
 - \$750,000 federal earmark⁶ (also applied to MFES program)
 - \$3,000,000 California Strategic Growth Council grant⁷
- Implementer: Franklin Energy

Multifamily Energy Savings ★ [Equity Focus]

The Multifamily Energy Savings program provides no-cost comprehensive energy efficiency assessments, assists with contractor solicitations and project planning to ensure quality work, disburses rebates for individual unit and whole-building upgrades, installs energy and water efficiency upgrades that reduce energy costs, and improve home comfort. The program addresses many social and economic challenges that can hinder energy improvements in multifamily buildings, including both common areas and individual tenant units. Typical barriers include costs, coordinating numerous

⁶ This federal funding is for energy efficiency and electrification measures, as well as ancillary upgrades that will enable upgrades to happen at 124 single family residences in the HES program and 120 multifamily units in the MFES program.

⁷ In 2022, The City of Richmond was awarded \$35M by the California Strategic Growth Council to implement a climate-smart community development project. The project, known as Richmond Rising, will support 10 disadvantaged, unincorporated and tribal communities with capital improvement projects to reduce emissions, improve public health and expand economic activity. Richmond has partnered with GRID Alternatives for solar installs, who partnered with MCE for energy efficiency resources through our Home Energy Savings program.

stakeholders, and lack of technical knowledge needed to assess needs and evaluate options.

- Impact: Improved the efficiency of over 5,300 multifamily units over the past 10 years (from 2013-2023)
- Funding:
 - \$765,000 annually from the CPUC
 - \$750,000 federal earmark (also applied to HES program)
- Implementer: Association for Energy Affordability

Heat Pump Water Heater

To help increase adoption, MCE offers \$1,000 rebates to contractors for each energy-efficient heat pump water heater (HPWH) unit they install in the home of an MCE customer. One of the biggest barriers to greater HPWH adoption is a lack of contractors who have the knowledge to sell and install HPWH. The intent behind offering an incentive to contractors is to compensate them for investing in their own training and stocking practices to make HPWH a viable option for their customers. This can be combined with other energy efficiency rebates for single-family residential homes to further reduce costs.

- Impact: Over 300 HPWHs installed
- Funding: MCE \$500,000 for 2024

Future offerings

Emergency Water Heater Loaner Program (as early as 2024)

Approximately 90 percent of water heater replacements are emergency replacements. The urgency of restoring hot water to a home compresses a customer's timeframe in deciding whether to switch to a heat pump water heater or continue burning fossil fuels. Customers are often unwilling to go without hot water during the time it takes to complete the retrofit requirements. The ability to provide an emergency replacement heat pump water heater solution that doesn't inconvenience the customer is essential to moving California toward its carbon-neutral goals.

Not offering

★ LIFT [Equity Focus]

Note: The LIFT Program closed at the end of 2023.

MCE's Low Income Families & Tenants (LIFT) Program, funded through a CPUC grant, offers energy- efficiency upgrades to typically hard-to-reach, low-income multifamily property owners whose renters have a household income at or below 250% of the federal poverty level. LIFT was the first program in the state to offer electrification upgrades to affordable multifamily properties. This population is considered hard to reach because low-income programs are typically focused on CalEnviroScreen disadvantaged communities (DAC), missing those in need outside of that screening criteria. In addition to financial constraints, low-income renters often have difficulty participating in programs due to lack of control over significant upgrades made to their units and concerns about sharing personal information and immigration enforcement actions.

The LIFT program addresses these concerns by providing incentives exclusively for tenant units and working directly with property owners and managers to facilitate the income verification process and minimize the burden on the tenants.

The LIFT program provides rebates and upgrades for energy efficiency, electrification, and health, safety, and comfort. The rebates, when combined with MCE's Multifamily Energy Savings program, cover up to 80% of total project costs.

The LIFT Program closed at the end of 2023 after six years of implementation. The CPUC shifted the program implementation to a third party covering all of Northern California.

- Impact: The LIFT Program distributed over \$1 million in incentives to 1,208 qualifying households between 2018 and 2023. The program funded the installation of 587 heat pumps. Participants saved an average of \$228 per year on their electricity bill.
- Funding: \$6.5M from the CPUC
- Implementer: Association for Energy Affordability

ENERGY EFFICIENCY

Current offerings

Strategic Energy Management

MCE's Strategic Energy Management program offers a long-term approach to help businesses save money, earn financial incentives, and better manage their energy usage. Participants can access cohort-style training, onsite assessments, individual coaching, and peer-to-peer learning to build a stronger energy culture within their organization. The Strategic Energy Management program has a special focus on finding opportunities to change how existing equipment is used (as opposed to

installing new equipment) that have little to no-upfront cost but result in significant bill savings for the customer. The Strategic Energy Management program reports on annual savings with detailed energy models to capture changes made to equipment or operations from the previous year.

- Impact: 13 customers participating
- Funding: \$1.5M annually from the CPUC
- Implementer: CleaResult

Flex Market

MCE's Commercial and Residential Efficiency Market Programs provide energy efficiency incentives directly to project developers or contractors known as aggregators. The incentives are based on metered energy savings, instead of traditional energy efficiency programs, which utilize deemed or custom models. As a result these programs do not limit the technology or energy saving strategies implemented, resulting in the opportunity to maximize energy efficiency and load-shifting projects.

As the incentive is paid directly to the aggregator, the value is passed along to the customer in the way that best drives the success of the project, either by buying down up front costs or being paid out based on site performance.

- Impact: 2,193 customers participating, 3 MW peak hour reduction
- Funding: \$500,000 from MCE

Agricultural and Industrial Resources

Agricultural and industrial customers are among the most intensive energy users and incur some of the highest energy costs. These customers often prioritize production needs, quality, safety, and standard maintenance over utility and maintenance costs, overlooking the financial and safety benefits of energy efficient equipment and practices. These customers require specialized support to bring savings opportunities to fruition, and to drive confidence that the recommendations they receive are appropriate, accurate, and capable of delivering expected savings and incentives.

MCE's Agricultural and Industrial Resources (AIR) program helps customers reduce their energy consumption and costs while supporting core business objectives, including improvements in facility operations, reliability, and efficiency. AIR provides MCE's agricultural, industrial, and large commercial customers with the information and support they need to successfully pursue energy efficiency projects. The program provides customers with a tailored approach to energy efficiency with technical

assistance, support sourcing appropriate equipment, incentive funding, and ongoing feedback on performance.

- Impact: 26 projects
- Goal: Only if relevant and worthy to showcase
- Funding: \$400,000 annually from the CPUC
- Implementer: CleaResult

★ **Multifamily Energy Savings [Equity Focus]**

This program is described in the section on Electrification above.

★ **Home Energy Savings [Equity Focus]**

This program is described in the section on Electrification above.

Future offerings

Commercial Equity (as early as 2024) ★ [Equity Focus]

MCE's Commercial Equity program serves MCE's small and medium businesses located in Disadvantaged Communities with the goal of delivering meaningful bill savings and other non-energy benefits. The program goals include:

- Filling gaps in services that are not currently provided by other MCE programs;
- Providing solutions or services that compliment or leverage existing programs in MCE's service area;
- Sustained energy efficiency benefits, as well as those focused during the summer peak period of 4-9pm June - September.
- Creating value through behavioral modification or non-capital measures
- Providing on-going technical support, commissioning, and training;
- Reduced or no copays.
- Providing targeted marketing and direct networking within communities to reach Equity Commercial Customers; and
- Focusing on Non-Energy Benefits ("NEBs"), including a methodology to quantify its value.