

Leading the Charge to a BRIGHTER TOMORROW



1.5 million

homes and businesses

700,000+

MT CO₂ reduced

580,000

electric accounts

914 MW

new California renewables

48

MW local renewables

37

communities



Cover: MCE Solar One site tour in March with CEC Commissioner Gunda and staff.

Who Is MCE

As California's first Community Choice Aggregation (CCA) program, MCE is a leading, not-for-profit, public agency that has been setting the standard for energy innovation in its communities since 2010. MCE offers more renewable power at stable rates, significantly reducing energy-related greenhouse gas emissions, and reinvesting millions of dollars in local energy programs.

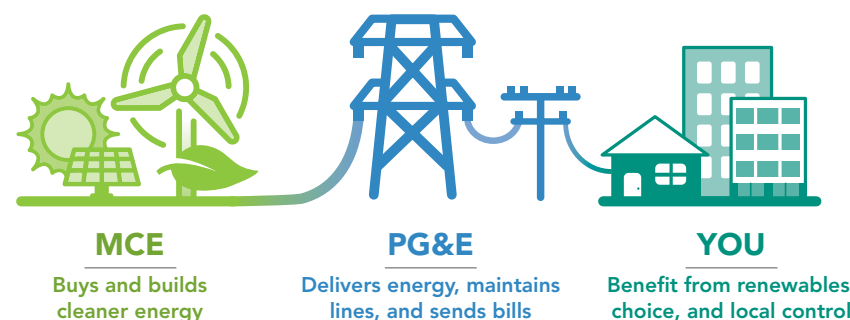
Mission

MCE's mission is to confront the climate crisis by eliminating fossil fuel greenhouse gas emissions, producing renewable energy, and creating equitable community benefits.

Vision

MCE's vision is to lead California to an equitable, clean, affordable, and reliable energy economy by serving as a model for community-based renewable energy, energy efficiency, and cutting-edge clean-tech products and programs.

How MCE Works



MCE determines the power source, called electric generation. PG&E continues to deliver the electricity, maintain power lines, provide repairs, and handle billing.

Year in Review

2022 was another groundbreaking year for MCE. From supporting customers during the COVID-19 pandemic, to building long-term clean energy resources, MCE's impact stretches across California.

Here Are a Few of MCE's Accomplishments

- » As part of its ongoing COVID relief efforts, MCE has **helped over 30,000 residents and small businesses reduce their energy costs through the MCE Cares Credit** and eliminated more than \$1 million of energy debt as part of the Arrearage Management Program.
- » **Installed over 1,400 EV charging ports.** As a next step in decarbonizing the transportation sector, MCE is exploring the use of solar energy for creating green hydrogen to fuel vehicles for customers.
- » **Gave away 100 portable batteries** (in addition to the 100 given away in 2021) to people with a medical need for electricity so they could have clean backup power during an outage.
- » MCE **issued one of the first-ever climate-friendly prepayment bonds** for clean energy resources. This helps save money so MCE can reinvest in its customers.
- » MCE also **contracted for over 277 megawatts of new battery storage** resources, helping improve grid reliability across the state and decreasing the need for fossil fueled generation.



MCE CEO Dawn Weisz and Board Vice Chair Shanelle Scales-Preston visit battery project in Pittsburg, CA.



Martin Bond attends Pinole National Night Out with Board Director Devin Murphy.

The future of energy is here now, and it's the power of community.



Financial Highlights

S&P Global

"S&P Global Ratings assigned its 'A' issuer credit rating (ICR) to Marin Clean Energy (MCE). The rating reflects our opinion of MCE's adequate enterprise risk profile and strong financial risk profile. MCE's very strong financial risk profile is highlighted by robust financial performance... [and] the CCA's very strong liquidity."

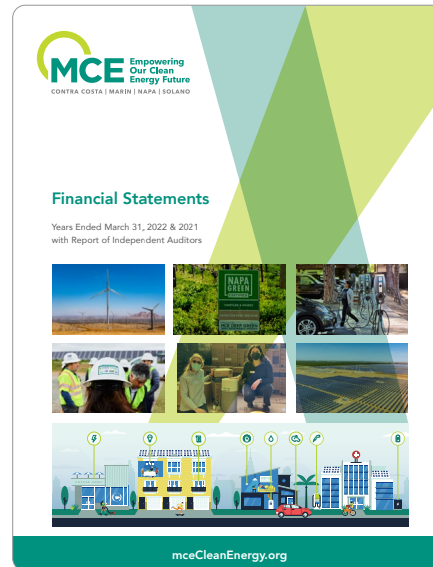
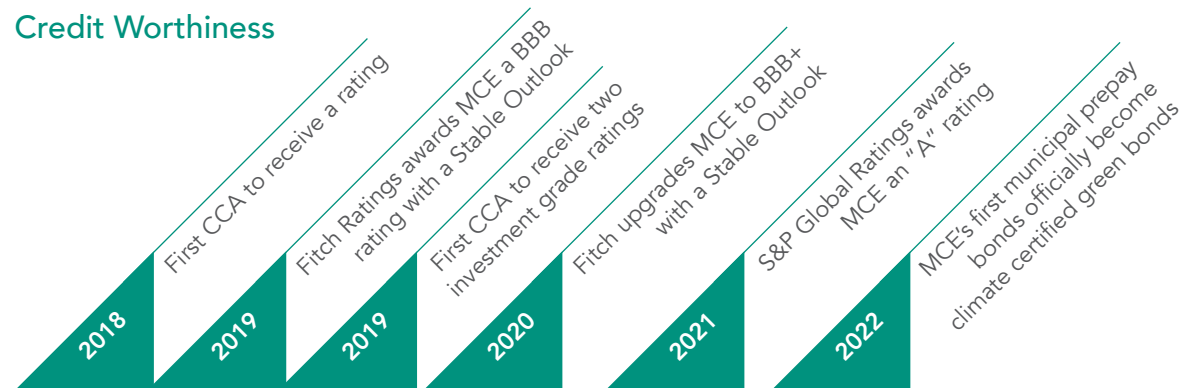
— S&P Global Rating's statement

FitchRatings

"The upgrade to 'BBB+' is based on stronger-than-expected financial performance in the past year, the intent to retain larger cash reserve balances and a resolution of rate and regulatory uncertainty that has existed during the Pacific Gas & Electric bankruptcy (PG&E). MCE's rating is further supported by a strong financial profile that reflects consistently improving liquidity levels over the past two years and helps mitigate the risks associated with the competitive pressures."

— Fitch Rating's statement

Credit Worthiness



MCE's 2022 Financial Statements.

Fitch and S&P Global credit rating agencies evaluate MCE as an investment-worthy entity due to demonstrated evidence that MCE's business model operates on:

- » Sound operational and financial performance,
- » Full recovery of costs through independent local rate-setting,
- » Strong financial flexibility due to positive cash flows, and
- » Adequate liquidity levels with the expectation that MCE will meet and maintain a reserve target of 240 days cash on hand.

As of the fiscal year ending on March 31, 2022, MCE maintained over 190 days cash on hand. The targeted liquidity reserve is 240 days, and its target net position is 60% of operating expenses. MCE expects to meet these targets by December 31, 2023.

Community Reinvestment

In 2021 MCE partnered with three other CCAs to launch [California Community Choice Financing Authority](#) (CCCFA), a first-of-its-kind renewable energy prepay bond agency. This prepay structure helps MCE reduce the cost of power purchasing and shifts ratepayer dollars to deliver valuable and cost-effective local clean energy programs.

In fall 2021, MCE and its partners at CCCFA issued California's first ever municipal non-recourse Clean Energy Project Revenue Bonds. **Since last year, three separate bond issuances, valued at over \$3 billion for thirty-year terms, support the purchase of clean electricity to serve over 2.5 million residents and businesses across the Bay Area and Central Valley.** The three Clean Energy Project Revenue Bonds prepay for the purchase of over 650 megawatts of clean electricity — enough to power 265,000 homes and reduce 330,000 metric tons of greenhouse gas emissions annually.

MCE's transaction was underwritten by Goldman Sachs and produced approximately \$700 million in bond proceeds. The issue received an investment grade "A2" rating from Moody's Investors and a "Green Climate Bond" designation from Kestrel Verifiers. The transaction will reduce the cost of the renewable energy from the prepaid projects by over \$2.5 million a year for MCE ratepayers.

Since 2010, MCE has contributed almost \$214 million in community reinvestment.



Green Climate Bond projects Antelope Expansion in Los Angeles County (left), Great Valley Solar in Fresno County (middle), and Little Bear Solar in Fresno County (right).

\$98 million
in local renewable energy projects

\$31.5 million
in customer bill savings

\$25 million
in energy efficiency

\$23 million
in solar incentives

\$16 million
in customer programs

\$12 million
in energy resiliency

\$9 million
in local employment, vendor
contracts, and sponsorships

LEARN MORE

[California nonprofits
issue \\$2 billion in
bonds to buy 30 years
of renewable energy
upfront](#)



Financial Statements

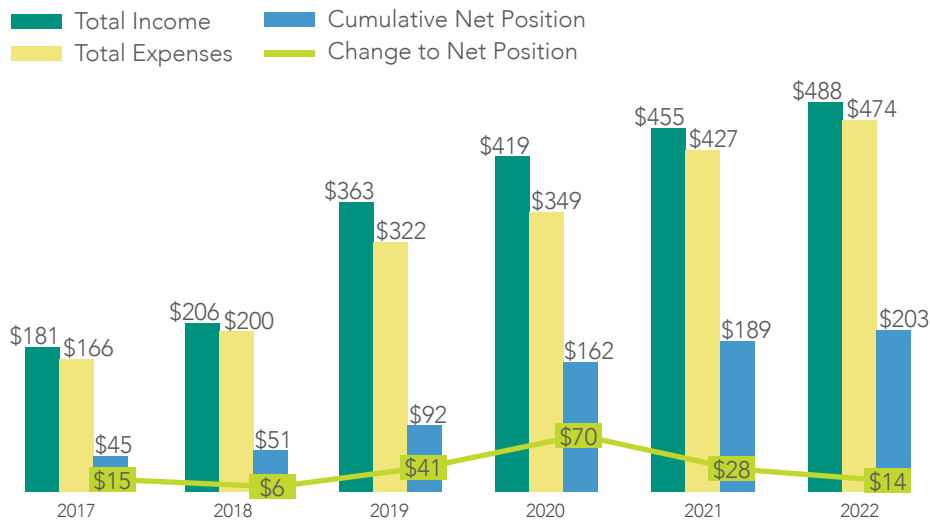
MCE's financial statements are audited annually by Baker Tilly US, LLP., a third-party external auditor.

These audits examine and evaluate MCE's financials to ensure that its records are a fair and accurate representation of the transactions they claim to represent. Financial statements are written records that convey the business activities and the financial performance of a company.

Change in Net Position	\$13,928,906
Total Income	\$487,703,365
Total Expenses	\$473,774,459
Operating Reserve Fund	\$15,000,000

Historical and Projected Financial Results

Numbers in Millions



Summary of Financial Results

	2022	2021
Operating revenues	\$ 487,119,311	\$ 452,955,192
Interest income	584,054	1,784,590
Total income	487,703,365	454,739,782
Operating expenses	473,592,066	427,014,543
Non-operating expenses	182,393	180,472
Total expenses	473,774,459	427,195,015
Change in net position	\$ 13,928,906	\$ 27,544,767

Deferred Inflows of Resources

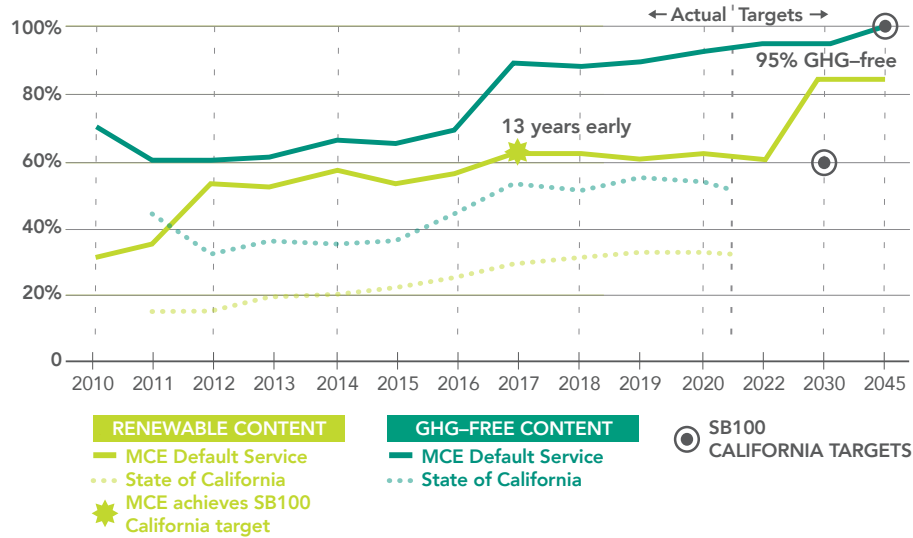
Operating Reserve Fund	15,000,000	15,000,000
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Net Position

Net position		
Investment in capital assets	765,730	958,569
Unrestricted	202,513,483	188,244,738
Total net position	\$ 203,279,213	\$ 189,350,307

Clean Energy Highlights

Renewable and GHG Content



2021 Electric Power Generation Mix

Specific Purchases	Percent of Total Retail Sales (kWh)			
	CA Power Mix	MCE Light Green	MCE Deep Green	MCE Local Sol
Renewable	34%	61%	100%	100%
Biomass & Biowaste	2%	6%	0%	0%
Geothermal	5%	6%	0%	0%
Eligible Hydroelectric	1%	1%	0%	0%
Solar	14%	31%	50%	100%
Wind	11%	16%	50%	0%
Coal	3%	0%	0%	0%
Large Hydroelectric	9%	37%	0%	0%
Natural Gas	38%	0%	0%	0%
Nuclear	9%	1%	0%	0%
Other	0%	0%	0%	0%
Unspecified Sources of Power	7%	2%	0%	0%
Total	100%	100%	100%	100%

\$2.8 million

total labor hours

\$2.4 billion

committed to new CA renewables

\$1.3+ million

total union labor hours

6,000+

jobs supported

Service Options

POWERED BY MCE
LIGHT GREEN
60%
RENEWABLE

MCE Light Green

60% renewable since 2017

95% greenhouse gas free in 2023

85% renewable by 2029

POWERED BY MCE
DEEP GREEN
100%
RENEWABLE

MCE Deep Green

100% renewable wind and solar

energy, supporting clean energy

jobs and projects

WE'VE GOT MCE
LOCAL SOL
100%
SOLAR POWER

MCE Local Sol

Always 100% locally sourced solar

from Novato's Cooley Quarry

\$3.1 million

EV charging port rebates

\$931,000

Income-qualified EV rebates

1,500+

EV charging ports

267

Income-qualified EV
rebates distributed



Program Highlights



MCE offers energy efficiency services and clean technology upgrades that help people save money and reduce greenhouse gas emissions. **Over the last 12 years, MCE has helped save almost 18 gigawatt hours of energy, reducing over 10,000 metric tons of carbon dioxide.** That's the equivalent of driving around the Earth 1,265 times.

- » Provided \$330,000 in low-income solar rebates to install more than 1,400 kilowatts of solar on 688 homes.
- » Installed 225 heat pump water heaters and provided \$1.9M in rebates to almost 1,700 low-income multifamily homes.
- » Saved agricultural and industrial customers 1.2 million kilowatt-hours of electricity and 42,000 therms of gas by encouraging smart energy practices and energy efficiency upgrades.
- » Collectively, MCE's energy efficiency programs have supported 760 businesses, 94 multifamily properties, and almost 1,500 single family homes with energy and water saving upgrades and \$5.6 million in rebates.

MCE's workforce development partnerships with organizations like the Rising Sun Center for Opportunity and the Association for Energy Affordability have helped almost 220 workers develop the skills to enter the clean energy workforce with \$650,000 in support from MCE.

"I live alone in a semi-rural area...The Yeti 3000X has relieved me of worries...when faced with natural disasters or planned electrical shut offs."

— Colleen from Bolinas, a participant in MCE's second off-grid battery program which has now distributed 200 batteries to medically vulnerable residents in high fire threat districts.

Community Resiliency

In 2019, over 600,000 people were impacted by PG&E's Public Safety Power Shutoff (PSPS) outages, representing approximately 5 million total outage hours. In response, MCE created opportunities for customers to install energy storage systems paired with on-site solar to help reduce monthly bills and shift load out of the peak hours from 4-9 p.m. MCE's efforts prioritized critical facilities — such as schools and medical facilities — located in state-designated disadvantaged communities and high fire threat districts.

Across California, nearly 80 gas-fired power plants are available to power up during peak demand to meet customer electricity needs. Half of these facilities are located in disadvantaged communities identified by the state of California due to high cumulative socioeconomic, environmental, and health burdens. Installing new batteries to shift daily electricity load away from the evening peak reduces California's need to rely on these polluting power plants, creating cleaner air and more equitable communities.

Some of the most recent projects include 1.6 MW of storage being installed at [Pittsburg Unified School District](#), and a 10 kW project at [West Marin Medical Center](#). These projects will help keep power on during an outage, including powering vaccine refrigeration.



Pittsburg Unified School District future battery storage site.



Resiliency site West Marin Medical Center in Pt. Reyes with newly installed battery storage.

“[Pittsburg Unified School District] has been a shining example of what can be accomplished when we take advantage of holistic approaches to energy savings and sustainability. We hope others take note of the benefits of this strategy.”

— Shanelle Scales-Preston, City of Pittsburg Vice-Mayor, and MCE Board Vice Chair

LEARN MORE

[California school district set up with 3-MWh battery resiliency project](#)



“California leads the nation with its ambitious clean energy goals, and with the climate crisis threatening communities across the West, we must... scale up and speed up our transition to a 100% clean electricity system..., while we build toward a safe, affordable and reliable energy future.”

— California Governor Gavin Newsom

Building a Greener Grid

Since it began serving customers in 2010, MCE has made bold and consistent efforts to increase access to clean energy services and technologies that support California’s energy and capacity needs. Every electricity supplier in California is required to have reserve capacity — known as Resource Adequacy (RA) — available in the event more electricity is needed on the grid than is forecast. RA requirements have traditionally been met by natural gas plants, which are emissions-intensive and disproportionately located in historically marginalized communities. MCE is committed to finding other ways to offer clean, reliable energy resources that reduce reliance on fossil fuels.

Natural Gas Peaker Plant Gets Climate-Friendly Facelift

MCE’s partnership with Wellhead exChange, LLC, added 15 megawatts of battery storage to the 48-megawatt Wellhead natural gas peaker plant located in Fresno County. The new battery hybrid project will shorten the amount of time the natural gas plant is operating, combating climate change by reducing greenhouse gas emissions by 60%. **The project is expected to reduce particulate emissions from the facility by 78% and water usage by 80%, creating cleaner air for local residents, and equitably benefiting environmental justice disadvantaged communities.**



Stephanie Chen and Lindsay Saxby attend Governor Newsom’s climate bill signing press conference near Vallejo.



Dawn Weisz with CEC Commissioner Gunda at a Deep Green business in San Rafael after touring local projects.

LEARN MORE

[MCE approves 100-MW, union-built California solar + storage project](#)

[MCE's Largest Solar Plus Storage Project Yet](#)

In February, MCE's Board of Directors approved an agreement for its largest battery-storage project yet — Golden Fields Solar located in Kern County. The 100 megawatt solar project will be paired with a 92 megawatt lithium-ion battery that will provide enough power for an estimated 52,000 homes each year for 15 years starting in March 2025. Golden Fields Solar will be constructed with union labor using a Project Labor Agreement (PLA) and will include pollinator-friendly habitat throughout the project site. In addition, the project developer has pledged \$100,000 and 100 hours of employee time toward community benefit initiatives that directly benefit MCE's service area and communities adjacent to the project location.

[Hecate Grid Humidor Stand-Alone Storage](#)

The Hecate project located in Los Angeles County is MCE's largest stand-alone battery storage project to date. The 185 megawatt project provides 4 hours of dispatch and will include a \$100,000 community benefit package to support communities in MCE's service area or directly adjacent to the project.

MCE has committed to procuring a total of 632 megawatts of storage capacity by 2032. This commitment will allow MCE to take greater advantage of renewable energy by storing excess solar during the day, dispatching it to the grid when energy is needed, and as a result, displacing outdated fossil fuel generation.

[MCE's First Local Solar and Energy Storage Project](#)

MCE signed its first contract for local battery storage at Rancho Sereno in Contra Costa County, on February 23, 2022. The project is a part of MCE's Feed-In Tariff Plus program and includes 2 megawatts of solar and an 800-kilowatt battery. MCE expects to pay \$8 million for the energy generation and storage capacity at this site over the next 20 years. The project will generate enough electricity to power over 800 homes a year.

LEARN MORE

[MCE developing its first California solar + storage project](#)



David Potvosky tours Cooley Quarry solar farm with students from American River College.



Creating Clean Transportation

Fossil fuels like coal, natural gas, and gasoline are responsible for air and water pollution that [cause nearly 1 in 5 human deaths](#) worldwide. [Over 50%](#) of California's emissions are caused by transportation and the extraction of transportation-related fuels. Low-income communities and communities of color disproportionately feel the impacts of vehicle pollution and can most benefit from the clean air and cost-saving benefits of EVs. Compared to gas vehicles, EVs save the average household \$650 a year, but the higher upfront cost keeps EVs out of reach for many.

Electric Vehicles & Charging



In response, MCE allocated \$1.4M in rebates for 400 income-qualified residents, reducing EV costs by up to \$13,750 per vehicle when combined with other incentives. To help workplaces and multifamily properties which are lagging behind in EV adoption, MCE has provided rebates to install over [900 EV charging stations](#), with another 600 planned by next year.

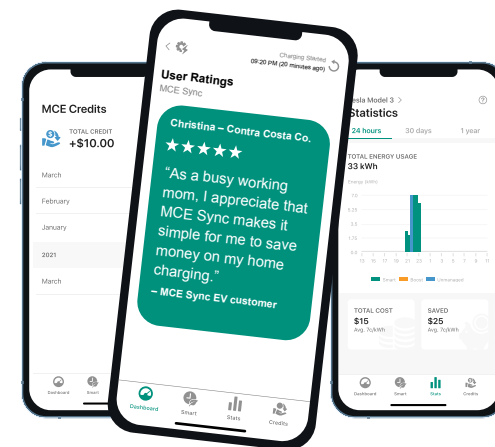
MCE's Low Carbon Fuel Standard Pilot



The Low Carbon Fuel Standard (LCFS) program provides credits for using low carbon fuels that exceed state emissions reductions requirements, including electricity used to charge electric vehicles. MCE's Deep Green service has been certified as a Zero Carbon Fuel for the LCFS program since 2020, allowing MCE to earn funds which can be reinvested into transportation electrification programs.

In 2021, MCE launched a small pilot program with five non-residential facilities with EV chargers enrolled in MCE's Deep Green service. MCE claimed the credit reported by these chargers and paid participants a portion of these credits. The pilot program reported 201 credits for customers over nine months, with a total credit value of \$23,680 and \$19,773 in payments from MCE. This successful pilot program demonstrates the opportunity to expand the program to other non-residential charging locations.

Photo captions: MCE EV rebate participant shows off her new vehicle (top).
The City of Novato's EV charges at city offices (bottom).



MCE Sync

EV ownership in MCE's service area is among the highest in the nation at 3.5% of all cars on the road. This offers the perfect test market for innovative [vehicle-to-grid integrated \(VGI\) technologies](#) that shift electricity load out of peak hours to increase grid resiliency while lowering costs and emissions. [MCE Sync](#) is an app-based load shifting program that, during a 6-month pilot with 232 enrolled participants, shifted 93% of EV electricity usage away from the 4 p.m.–9 p.m. peak, reduced carbon intensity by 55% on average and 44 kilowatts per day, and saved drivers around \$12 a month.

Expansion of this program will enable more households with EVs to benefit from VGI functionality and incentives that reduce the cost of EV charging at home, and will increase community resiliency with a focus on low- to moderate-income populations.

LEARN MORE

[North Bay electric vehicle sales near California goals, but charger installs lag far behind](#)

The Power of Partnership

MCE's partnerships create unique opportunities to experiment and innovate, to reduce carbon emissions, and increase quality of life.

Charge Up Contra Costa



at multifamily and workplace properties in the next two years.

The Charge Up Contra Costa Program, funded by a \$3.5 million California Energy Commission (CEC) grant and \$840,000 from MCE and the Contra Costa Transportation Authority, aims to eliminate 50,000 tons of emissions through EV charging station rebates, EV car sharing, eBike rebates, and workforce development. MCE's \$5,500 rebate per EV charging station will install [785 more charging stations](#)

MCE and the City of Richmond Create Virtual Power Plant



Virtual Power Plants (VPPs) provide electricity to the grid like a traditional power plant, but instead of coming from a single generation source, VPPs are a network of digitally-connected technologies distributed across a community. VPPs help shift energy consumption out of high demand hours, reducing the need for peaker plants and creating cleaner air for everyone.

MCE's Virtual Power Plant will increase local grid reliability, safety, and efficiency for low-income residents as part of Richmond's Advanced Energy Community project while also providing bill savings and credits. The project includes \$3 million in funding from the CEC, and will upgrade 100 homes and 20 businesses with energy efficiency and clean energy technologies including energy storage, smart thermostats, rooftop solar, heat pump space and water heating, and EV charging. **Ten previously abandoned homes will be purchased with a locally issued social impact bond and renovated by locally trained labor to be zero net carbon. The homes will then be sold at below-market prices to first time income-qualified homebuyers.**

Photo captions: MCE supported EV charging stations at Contra Costa County offices in Martinez (top).
The first home to be completed as part of MCE's VPP (bottom).

LEARN MORE

[Contra Costa County's electric travel program receives \\$3.5M from State](#)

"The Richmond Advanced Energy Community project is a great example of community building for a clean energy future. This is a first-of-its kind project that will combine clean energy technologies with tangible community benefits through integration with the California grid."

— David Hochschild, Chair of the California Energy Commission

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[Inside Clean Energy: This virtual power plant is trying to tackle a housing crisis and an energy crisis all at once](#)

LEARN MORE

Local MCE
program inspires
Statewide effort to
prevent summer
blackouts



“There’s a lot of innovation here...some of the things in this decision...are cutting edge nationally...I want to extend my appreciation to [MCE]. Their FLEXmarket program forms the template for a good bit of what we did here and it shows the value of allowing them to implement these programs and do experimentation.”

— CPUC Commissioner Rechtschaffen, during the voting meeting on December 2, 2021

Pushing Policy Forward

MCE’s efforts are driving policy innovation. In late 2021, the California Public Utilities Commission (CPUC) approved \$150 million to fund a new statewide program, based on the success of MCE’s Peak FLEXmarket. MCE’s new workpaper about its Home Energy Savings program will be used as a template for the state of California to model whole-home energy efficiency retrofit value.

Peak FLEXmarket



MCE’s first-of-its-kind Peak FLEXmarket program invites energy efficiency and demand response providers to help homes and businesses rapidly reduce energy use during 4–9 p.m. summer high demand peaks by relying on technologies like smart thermostats, energy storage, and EVs to reduce electric grid congestion that can lead to blackouts. In exchange, MCE pays the providers for the verified energy savings during peak hours, with an added premium during periods of grid stress, which can be passed along to participants.

MCE’s Home Energy Savings Program



MCE’s Home Energy Savings program provides income-qualifying single-family homeowners and renters with energy upgrades, a virtual home energy assessment, and energy-saving gift box — all at no cost. By combining multiple energy efficiency retrofits into one upgrade, the program works to minimize homeowner disruptions while increasing savings opportunities and providing high-quality installations. MCE, in partnership with PG&E, is in the process of developing a Residential Attic and Duct Improvements workpaper that will showcase the benefits of whole-house retrofits that streamline energy efficiency upgrades.

On the Horizon

MCE serves as a launching pad for new technologies that can catapult us into the future. In order to reach a 100% renewable future, new resources are needed that can supply clean power around the clock.

Responsible Biomass Principles

Biomass is a valuable resource that can operate 24/7, unlike solar and wind. In early 2022 MCE created its Responsible Biomass Electricity Development Principles which seek to prioritize use of diverted landfill waste, carbon neutral resources, and facilities that proactively minimize local air quality impacts. MCE will not procure biomass from resources located in state-designated disadvantaged communities and will support sustainable forest management and wildfire reduction strategies to minimize fuel for uncontrolled wildfires.

Green Hydrogen

Another important stepping stone on the path to a zero-carbon future is green hydrogen. Hydrogen fuel produced from renewable energy is considered “green” or “clean” hydrogen and acts as another form of energy storage for intermittent renewable energy technologies such as solar. MCE is exploring green hydrogen as an add-on to existing solar projects for use as clean transportation fuel to improve local air quality and decarbonize transportation. MCE joined the Governor Office’s efforts to coordinate a grant application for billions of dollars to develop regional Hydrogen Hubs throughout the United States through the Alliance for Renewable Clean Hydrogen Energy Systems Consortium.

MCE’s Redwood Landfill Gas-to-Energy project in Novato, CA (right).



MCE is a not-for-profit public electricity provider, offering Bay Area customers renewable energy and local energy programs since 2010.

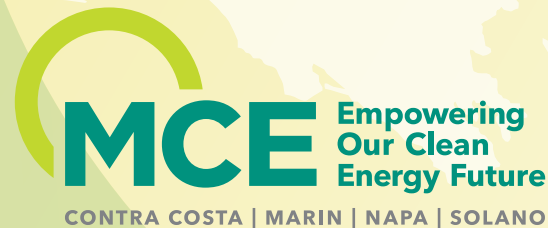
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