

#### MCE Special Meeting Board Retreat Thursday, October 24, 2024 9:30 a.m.

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

Pittsburgh Yacht Club, 3 Marina Blvd, Pittsburg, CA 94565

Materials related to this agenda are available for physical inspection at MCE's offices in San Rafael at 1125 Tamalpais Avenue, San Rafael, CA 94901 and in Concord at 2300 Clayton Road, Suite 1150, Concord, CA 94920.

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 <u>ada-coordinator@mceCleanEnergy.org</u> at least 72 hours before the meeting start to ensure arrangements are made.

#### Agenda Page 1 of 2

- 1. Roll Call/Quorum
- 2. Public Open Time (Discussion)
- 3. Welcome and Introductions (Discussion)
- 4. MCE Vision, Mission, and Agency Priorities (Discussion)
- 5. Empowering Communities Through Clean Energy Initiatives (Discussion)
  - a. Grant-Funded Customer Programs
  - b. Community Partnerships
  - c. Business Development

Break 10:55 - 11:10

- 6. Navigating Industry Changes & Challenges (Discussion)
  - a. Overview of California Energy Market Structure
  - b. Regional Coordination: Pathway's Initiative
  - c. Energy Affordability



#### Agenda Page 2 of 2

Meeting will adjourn for Lunch and the site visits agendized below.

Lunch 12:30 - 1:00

- Site Visits: Energy Storage. (Discussion) Transportation for the public to the sites is not provided.
  - a. Pittsburg Unified School District: 3200 Loveridge Rd, Pittsburg, CA 94565
  - Diablo Energy Storage Project: 783 Willow Pass Rd, Pittsburg, CA 94565
- 8. Adjourn

Meeting will adjourn from 783 Willow Pass Rd, Pittsburg, CA 94565

#### MCE Vision, Mission, and Agency Priorities

A local, not-for-profit electricity provider

MCE

MCE Board Retreat October 24, 2024 **MISSION** Confront the climate crisis by eliminating fossil fuel greenhouse gas emissions, producing renewable energy, and creating equitable community benefits.

VISION

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.

VALUES

- Innovation: We fight climate change with leading edge, community-centered programs and policies.
- **Equity:** We prioritize environmental and economic justice for communities of concern.
- Accessibility: We serve our communities and customers through open and transparent engagement.
- Inclusivity: We celebrate diverse identities at work and in our communities.
- Sustainability: We strive for a sustainable workplace, community, and planet.
- Fiscal Responsibility: We invest in financial strength to deliver stainable rates and programs.

## **MCE Formation: What's the Backstory?**

Most of us know that **MCE was the first CCA in the state**, and that it **formed in 2008**, based on the 2002 legislation, **AB117** (Migden).

#### But did you know MCE was...?

- Sparked by local advocates
- Shepherded by a handful of local elected officials, alongside local government staff
- Supported by grants, limited county funds, and a working capital bank loan
- Fought hard by PG&E with \$46M on a ballot initiative and numerous local tactics:
  - Blocked at local banks, targeted by intensive misinformation mailing campaign & opt-out calls, threatened litigation against municipal partners, hired critics to present misinformation to local governments, and formed a false local grassroots group for opposition, bussed in recipients of non-profit funds to speak in opposition to MCE.

## **MCE Formation: What's the Backstory?**

- Advocacy support was key to overcoming challenges
- Ballot initiative narrowly failed one month before launch
- Enrollment challenges continued
- Challenges have shifted primarily to regulatory playing field
- CPUC and CEC scope was initially narrow now a growing challenge

### **MCE's Service Area Growth**



## Not-for-Profit Public Agency

34 Board Members. Elected officials. No tax dollars.





## MCE Board: What is the Assignment?

We know Board members are busy with many work and community commitments. Fortunately, MCE can employ over 100 professional staff with specialized expertise, and full-time engagement on MCE operations, freeing up Board members to focus on the connection between MCE and member communities.

#### The MCE Board Assignment is to:

- **Share:** Spread the word about MCE programs, rebates, successes and community-based work
- **Inform:** Notify MCE about key initiatives and events happening in your community with an energy nexus
- Advise: Offer your perspective on community-based policy decisions
- Advocate: Be a spokesperson and advocate for MCE with external parties and key stakeholders

## **Meeting Expectations**

- **Prepare** by reading pre-meeting packet and sending questions in advance to staff
- **Summarize feedback** to keep in-meeting comments succinct and on-topic, ensuring efficient and productive discussions
- Allow space for others to ask questions and be part of discussions
- **Show respect** for other points of view
- Use the lens of MCE values in discussions and decision-making
  - Inclusivity & Accessibility
  - Equity
  - Innovation
  - Fiscal Responsibility
  - Sustainability

### **Do MCE Daily Actions Align with our Values?**

#### MCE Values

- Inclusivity (workforce development)
- Accessibility (bilingual communications and call center)
- Equity (VPP, MCE Cares Credit)
- Innovation (Flex Market)
- Fiscal Responsibility (strong credit ratings A/BBB+, Prepayments)
- Sustainability (California Certified Green Business)

To consider during today's retreat:

- What are other ways we are living our values?
- What are new ways we can further our values?

#### What Driving Forces (Risks) Affect MCE and How Are We Turning Them into Opportunities?

#### **Driving Forces**

- Power supply price volatility and clean supply limitations
- Renewable curtailment, supply shortages and development delays
- Customer and generation grid connection challenges
- Affordability challenges as electrification policy grows
- Scope creep by regulatory bodies

How to use driving forces as opportunities...

#### **Do MCE Goals Address Values & Driving Forces?**

- **1. Advance renewable energy and equity-informed policies** to ensure the clean energy transition doesn't leave historically underrepresented communities behind.
- 2. Deepen leadership on energy equity and affordability for the State and other CCAs, enhancing opportunities for communities most impacted by fossil-based generation to benefit from the clean electricity economy.
- **3. Continue to innovate with new technologies** and provide thought leadership to the State to boost electrification and affordability (*i.e.: VPP, localized energy storage, EVs, renewable hydrogen*).
- **4. Prioritize programs that shift load away from 4-9pm** to better align MCE's load and generation, minimize cost exposure, and maximize renewable energy use.
- 5. Strengthen the grid and the western energy market to get energy where it is needed most and avoid waste.
- **6.** Amplify MCE's impact and successes by increasing recognition from regulators, decision-makers and customers.
- **7. Attract and retain talent at all levels** with competitive market-based compensation, robust benefits, retention incentives, and growth opportunities.

### **Clean Energy Leadership**



100% fossil-free 95% greenhouse gas-free 60%

**renewable** compared to 38% from PG&E

**18 years** early on meeting State goals

### Energy Affordability



**Energy Burden:** the percentage of gross household income spent on energy costs.

- 35% of the burden experienced by lowincome households could be alleviated by energy efficiency
- 51% of cold and flu incidents could be reduced by improving indoor air quality



MCE reduces your energy burden with energy efficiency, stable rates, and discount programs

### **Addressing Supply and Demand Challenges**



When demand increases, energy costs rise, and fossil fuel plants need to switch on. Save money and the planet by reducing power use from 4-9!



Use fans instead of air-conditioning



Avoid using major appliances



Unplug unused devices

### Your Dollars at Work



#### Energy Efficiency

Audits, Rebates, Usage Reduction

- \$7.9M in rebates
- Almost 3,000 customers served



#### Electric Vehicles

Vehicle and Charging Station Rebates

- 2,000+ EV chargers
- 340+ EVs



#### Energy Resiliency

Distributed Resources, Demand Response, Virtual Power Plant, and Behavioral Programs

- 70+ homes and facilities
- \$300,000+ in bill credits
- \$1.7M in SGIP incentives



#### Heat Pump Installs and Contractor Training

- 25+ contractors engaged
- 300 heat pump water heaters



#### Equity, Health & Safety

Health, Safety, and Resiliency Upgrades

- 200 portable batteries distributed
- \$750,000 in solar rebates



### **Virtual Power Plant**

- 2022: MCE joins California Energy Commission grant to build a Virtual Power Plant (VPP) pilot in Richmond with a suite of customer-owned distributed energy resources (DERs) by 2025
- Rooftop solar, heat pump water heaters, smart thermostats, smart plugs, electric vehicles, batteries
- MCE can directly send digital signals to remotely shift & operate DERS for demand response and grid support; participants save money & get bill credits
- mceCleanEnergy.org/virtual-power-plant

## **Local Renewable Energy Projects**

22 projects 44 MW

19 MW FIT

13 MW FIT+

16 MW PPA

42 MW solar

6 MW bioenergy



### **MCE Solar One**

- Online in 2017
- One of the Bay Area's largest public-private solar partnerships
- Chevron remediated brownfield site
- 341 jobs supported
- 50% local hire requirement
- Partners: City of Richmond, sPower, Cenergy Power, Chevron, RichmondBUILD

**10.5**MW ground mounted solar in Richmond

### **Power Purchasing**



#### Long-term forecasting ensures proper planning

- Annual assessment of energy needs
- Meeting state mandates for 118% of peak load
- Focusing on clean resources

Baseline Retail Net Load Electric Vehicle Load Building Electrification

Distribution Losses /// Net Energy Metering Not Energy Efficiency ----- Total Net Load



### Daggett Solar + Energy Storage

- Online in 2023
- Solar system Single-axis tracker
- Lithium-ion battery energy storage system
- 500+ Union construction Jobs
- The site will sustain at least a dozen permanent onsite roles
- MCE has a share of the overall project, which is currently the largest solar power and battery storage facility in California

#### **To Reflect on Today:**

How does MCE live our values, and could this be improved in 2025?

How does MCE's work turn risks into opportunities, and are there new ways we should do this in 2025?

--Share ideas verbally or in the survey--



## **Grant-Funded Customer Programs**

MCE Board Retreat October 24, 2024











## **External Funding for Programs**

#### CPUC Energy Efficiency $\rightarrow$ \$158,000,000 CPUC Low Income $\rightarrow$ \$6,750,000 Post-Award Grants $\rightarrow$ \$9,100,000 Active Grants $\rightarrow$ \$5,409,000

Total → \$179,259,000

### **Post Award Grants**

Grant / Earmark	Amount	Description
Housing and Urban Development (2022 Earmark)	\$750,000	Healthy Homes
Housing and Urban Development (2022 Earmark)	\$2,000,000	EV Charging Stations
Housing and Urban Development (2023 Earmark)	\$850,000	Electrical panel upgrades and ancillary services
Department of Energy (2022 Earmark)	\$500,000	Energy Storage
California Energy Commission (2024 Grant)	\$5,000,000	Virtual Power Plant
Total	\$9,100,000	3

### **Active Grants**

Grant / Earmark	Amount	Description
Strategic Growth Council: Transformative Climate Communities	\$3,000,000	Expanded Single Family Home Energy Savings program in Richmond
Department of Energy: Charged by Public Power	\$1,000,000	Community focus groups to inform EV programs
Marin Community Foundation: Resiliency Grant	\$750,000	Solar + Storage for Critical Facilities in Marin
Marin Community Foundation EV Grant	\$180,000	EV charging for multifamily sites in Marin
California Energy Commission	\$99,999	Virtual Power Plant Richmond Pilot
Marin Community Foundation Workforce Development	\$380,000	Construction training and job placement in energy efficiency trades
Total	\$5,409,000	4

### Low Income Families and Tenants (LIFT)

- **Treated 36 properties and 1,558 units** with focus on:
  - Deed restricted affordable housing
  - Environmental and Social Justice communities
  - The least affordable regions
- Installed 49 Heat Pump Water Heaters and 474 Heat Pump Space Heaters
- Annual health and safety benefits of \$77,380
- \$4M+ in total incentives

Better serve income-qualified multifamily properties not benefiting from general and low-income energy efficiency programs

Purpose

California Public Utilities Commission Energy Savings Assistance Program Oct. 2017 - Dec. 2023

Funding Agency and Timeline



#### Marin Community Foundation - Resiliency

- **Project Sites:** 9 locations in Marin County, totaling over 800 kWh.
- **Customer Diversity:** Includes three senior housing sites, food bank, multiple community centers, and two schools
- Solar and Battery Integration:
  - Combination of existing and new solar installations.
  - All paired with Battery Energy Storage Systems.
- Battery Capacity: Range from 10-220 kWh.
- **Grant Status**: All \$750K of the grant is fully subscribed and allocated.

Provide solar and storage for critical facilities in Marin County to ensure energy resilience and reliability

Purpose



Grant Award

### Charge Up Contra Costa

- Marketing campaign completed to develop pipeline of potential project sites.
- 247 ports in the pipeline 39 installed
- Completed contract amendment to reduce charging ports to ensure successful delivery of program deliverables.

EV charger installations in lowincome communities throughout Contra Costa County

Purpose

California Energy Commission Sep. 2021 - Dec. 2025

Funding Agency and Timeline

\$1,158, 237 Grant Award

### Charged by Public Power

- Launched Community Electric Transportation Council (CETC) - Advisory group comprised of stakeholders from local government, transit authorities, and community-based partners
- Developed <u>community survey</u> and focus group framework to gather community input on the siting of future EV charging deployment and other clean mobility solutions in Concord, Fairfield, Napa, Pittsburg, Richmond, San Pablo, San Rafael, Vallejo, or unincorporated Contra Costa County
  - In-person focus groups start January 2025
  - Received 467 survey responses from MCE customers within the nine priority communities
- Created program webpage and marketing materials to support community engagement phase

Collaborate with community to plan and install EV chargers and clean mobility solutions in priority communities

Purpose

Department of Energy Oct. 2023 - Dec. 2026

Funding Agency and Timeline

\$1,000,000 Grant Award

#### Marin Community Foundation - EV Charging

- Established partnerships with three affordable housing developers in Marin County to identify suitable properties for EV charging installation.
- Completed technical site assessments to better understand feasibility of EV charger implementation.
- Supported execution of CHARGE! agreements between BAAQMD and affordable housing developers. MCE will leverage CHARGE! funding to support charger installation.
- Project timeline shifted due to competing priorities at the properties, particularly with electrical upgrades needed for other electrification measures like HVAC and heat pump water heaters. Exploring alternative program delivery methods to better align with our partners' needs.

Outreach, education and no-cost EV charging installations to residents at affordable housing developments in Marin County

Purpose

Marin Community Foundation Jun. 2022 - Dec. 2024 (Extension Requested)

Funding Agency and Timeline

\$180,000 Grant Award

### **Richmond Rising**

- Serving the Iron Triangle, Santa Fe and Coronado neighborhoods of Richmond
- Coordinated implementation for MCE and GRID services that centers on customer service
- Workforce training on electrical panel upgrades, roof assessments and customer intake processes
- 2024 goal is to serve 60 customers
  - 5 completed projects
  - 46 customers in progress
    - 37 customers have received assessments
    - 14 have received EE upgrades
    - 7 have received electrification upgrades
    - 11 have received solar installations
- Amendment to remove repair caps on projects was approved by SGC!

Comprehensive home upgrades for 250 homes that include home repairs, energy efficiency, electrification, and solar.

Purpose

Strategic Growth Council (SGC) Sep. 2023 - Sep. 2028

#### Funding Agency and Timeline

City of Richmond Award: \$35M MCE subgranted: ~\$3M

#### Grant Award

### **Virtual Power Plant**

#### • Grant Objectives:

- Deploy customer-sited resources to shift demand and replace need for peaker plants or diesel generators
- Increase intergenerational wealth and DAC property values
- Bid into CAISO markets and share revenue via on-bill credits
- Grow to 4 counties, including to ~63,000 solar sites (400MW)

#### • Grant Accomplishments:

- 33 homes receiving one or more devices, 4 fully refurbished homes
- 2 non-residential installations
- 15 technologies integrated into the DERMS with 5 more integrations pending

Development of an OpenADR Distributed Energy Resource Management (DERMS) system + installation of dispatchable devices.

Purpose

California Energy Commission (CEC) 2022-2025

Funding Agency and Timeline

Total Award: \$4.998M MCE subgranted: \$99,999

Grant Award

# **Questions?**



mceCleanEnergy.org info@mceCleanEnergy.org
## **Community Partnerships**

MCE

October 24, 2024

#### MCE Board Retreat

## Public Affairs Goals and Priorities

- Tell MCE's story
- Promote positive behavior change
- Build equitable communities
- Educate our communities
  - Benefits of electrification
  - Bill savings opportunities
  - Available rebates and incentives
  - Emissions reductions opportunities



## **Key Strategies**

#### Build capacity and trust with local groups to develop sustainable and continuous relationships

- Attend community events
- Provide community sponsorships
- Co-design initiatives with partners
- Increase adoption of MCE's services and programs
- Focus on priority partners in:
  - Workforce and economic development
  - Education and youth engagement
  - Older adult and disability justice
  - Public health
  - Transportation and housing
  - Environmental justice
  - Spanish-speaking communities



#### - Rebecca Floyd

Project Coordinator with Solano County Office of Education

## **Community Events and Sponsorships**

#### Percentage of Dollars Spent



Over 250 events attended so far this year

Minimum 50% for equity communities, organizations, or populations

Equitable distribution across MCE's service area

#### **Questions considered:**

- Does this support a priority community?
- How many folks will this reach/support?
- Will this organization be better able to support a target audience or MCE's mission because of our sponsorship?
- Can we share MCE information as part of the sponsorship?
- Does this support an ongoing effort that meets MCE's mission?



00

RICHM



#### ATION r community Are you ready to learn about

BUILDING A GREEN WORKFORCE



**FREE TRAINING** 





#### IN MARIN COUNTY November 18 – December 16, 2023 (Week of Nov 20-No class) Application Deadline: Nov 10, 2023

NOW ACCEPTING APPLICATIONS







Apply Here bit.ly/nextgentradesapp Marin County (707) 532-5463

## **LIME Foundation**

- Collaborative partnership between various municipal and community-based organizations.
- Increased exposure to green construction trades and renewable energy jobs to promote a diverse workforce.
- Learned best practices for partnering with small non-profit organizations and supporting program participants through barriers.
- Successfully scaled program to reach 80 more job seekers with additional supports. Increased funding for LIME and internal workforce programs.

## **Training the Next Generation Grant**

- \$380,000 from Marin Community Foundation Climate Justice Grant
- Funds training for 80 job seekers between 18-24 in Marin County
- Provides:
  - One month of paid construction, green workforce exploration, and safety exploration
  - Up to 18 months of professional development and job placement support
  - Hands-on training and experience in electrification and energy efficiency





Increased funding and capacity to build a local, trained workforce for green construction trades.

## Because of Youth Campaign

- Annual campaign to showcase youth climate leadership
- Launched in 2021
- Provides space for social media and blog engagement
- Collaboration with over 20 local organizations
- New efforts coming in 2025



## Partnerships Strengthened

- Opportunity Junction
- 10,000 Degrees
- Contra Costa Library
- People Who Care
- BayREN
- Vivalon
- Special Olympics Nor Cal
- Aging Action Initiative





Thank you to everyone who joined us in honoring our beautiful planet at our Earth Day celebration! Together, we indulged in delicious, eco-friendly meals, listened to songs from our Community Song Circle, and enjoyed a special screening of David Attenborough's 'The Year Earth Changed.' Let's continue to cherish and protect our home for generations to come.



## **Community Power Coalition**

#### Membership Makeup by Org Type



- Economic DevelopmentEnvironmental Justice
- BIPOC
- Youth
- Government

- Faith Based
- Disadvantaged Communities
- Low Income
- Workforce
- Environmental/Sustainability

- 6 meetings annually
- Alternates between information and listening sessions
- 150+ member organizations
- 215+ individuals invited
- Provided feedback in 2024 on:
  - Asset ownership
  - Program investment
  - Nuclear allocation



#### **2024 ComPow Symposium**

- Show Me the Money: An Overview of Funds and Incentives in our Service Area for Customers and Local Agencies
- Addressing Affordability: Why are California Electric Bills so High?
- Sessions on:
  - Spanish Speaking Communities
  - Energy Adjacent Partnerships
  - Equity at MCE
  - Innovative Technologies

November 15, 2024 9 a.m. - 4 p.m. MCE's Concord Office



## **Community Partnership Program**

- Contracts with local partners
- Up to 8 organizations
- Expected \$30,000 per organization
- Must educate customers about MCE programs and services. May also focus specifically on:
  - EV programming
  - Small Business Energy Advantage
  - Contractor education
  - Low-income and/or underserved communities
- Contracts expected to be executed in January 2025 for 12 month terms

## Thank you!



Tyla Brown, Senior Partnership Development Manager Jenna Tenney, Manager of Communications and Community Engagement



#### Business Development

MCE Board Retreat October 24, 2024

















### **Business Development Focus**

- Engage and grow relationships with commercial and public sector customers through best-in-class customer support
- **Communicate and deliver choices** to key customers that achieve their sustainability goals including eliminating facility and transportation related GHGs
- Support customers with quantifiable recommendations that meet their energy savings and electrification goals
- Champion customers by amplifying their value through marketing them directly and via key business partners



Senior Business **Development Manager** 



Martin Bond **Senior Business Development Manager** 

## Service Area Annual Usage and MCE Share

#### Service Area Annual Usage (8,131 GWh total)



Non-residential (4,978 GWh)Residential (3,153 GWh)

#### Distribution of Non-Residential Usage by Provider (4,978 GWh)



## MCE Top 250 Customers By Annual GWh

#### Annual Usage by Key Sector



- Public Sector combined is largest sector at 35%
- Public DC Fast Chargers, new MCE sector as of ~2014, now moved ahead of Agricultural
- Sectors, subsectors with varied propensities to adopt MCE for programs and services for different reasons

Public DC Fast Chargers

- Member Municipality
- Agricultural

#### **Growing MCE Connections Through Key Business Partnerships**

- Napa Green Green winery/vineyard certification org in Napa offers credits for 100% RE and adding EV chargers
- Awarded Large Business of the Year
  - Novato Chamber of Commerce
- Awarded Green Business of the Year
  - San Ramon Chamber of Commerce
- Sponsored Sustainable Business of the Year awards at:
  - (Inaugural) Fairfield-Suisun Chamber of Commerce
  - (Inaugural) Napa Chamber of Commerce
  - (Inaugural sponsorship option) San Rafael Chamber of Commerce



## **Amplifying Key Customer Transformations**

#### EV Chargers Changing the Landscape -Supported by MCE Program

- Napa Valley College project
- City of Vallejo Corporate Yard <u>Newsletter</u>
- 7 Stars Holistic Healing, Richmond <u>Blog</u>

#### Strategic Energy Management (SEM)

- Trinchero Family Estates
- Saint Mary's College of California and <u>SEM</u>
- Ramar International Foods

#### **Peak Flex Demand Response**

- Contra Costa County
- Fairfield Water Treatment Plant Case Sudy

#### Sponsoring Napa RISE 2022, 2023 Events

MCE with Rutherford Hill Winery <u>Video</u>



## Non-Residential Participation

All Non-Residential Customers:

- Deep Green: 10.5 %
- Choosing MCE service: 90%

MCE's Top 250 Customers

- 98% Average retention annually
- 18% participating in MCE EV Charging and/or energy efficiency



"We're honored to have the opportunity to...take charge of our impact and be the difference we want to see in the world. The additional cost of Deep Green 100% renewable is just a penny more per kilowatthour. Here in the office, we use an average of 350 kWh per month, which means we're paying just \$3,50 extra. How easy is that?!"

Paul Sonnabend, Owner, Hurricane Hauling and Demolition, San Rafael

## **How Can MCE Board Support?**



#### Introductions to Key Customers

- Offering a trusted energy advisor
- Introductions to business leaders



#### Represent MCE in Your Community

- Connecting MCE to business groups
- Support MCE outreach events



**Promote MCE Programs** and Initiatives

- Support grant and funding requests
- Small Business Energy Advantage, Cares Credit

# Thank you!



Martin Bond, Senior Business Development Manager Chris Kubik, Senior Business Development Manager



## Overview of California Energy Markey Structure

MCE Board Retreat October 24, 2024

### California Energy Market Overview

Complex system managing electricity production, transmission, and consumption.

Involves multiple key players including California Independent System Operator, Load-serving entities, and regulatory bodies.



## **Key Players**

- California Independent System Operator (CAISO): Manages 80% of California's grid and wholesale markets, playing a vital role in balancing intermittent renewables. CCAs buy and schedule energy through CAISO to serve their load and support grid reliability.
- Load-Serving Entities (LSEs): IOUs, Publicly Owned Utilities (POUs), and CCAs provide power.
- **Power Generators:** Produce electricity from solar, wind, hydro, geothermal, batteries, natural gas, and more. CCAs contract directly with generators to supply clean energy.
- **Aggregators:** Provide demand response programs and services to retail users, with strategies or technology to reduce their electric consumption during times of grid needs. For example: OhmConnect.

## **Load-Serving Entities**



## **Key Market Components**

- Wholesale Market: Energy is bought and sold in CAISO's day-ahead and real-time markets where MCE and other LSEs buy electricity from power producers. The Federal Energy Regulating Commission (FERC) regulates rules and prices across CA and most of the nation. All LSEs rely on this market to meet customer demand.
- **Capacity Market:** Ensures enough power for peak demand. All LSEs purchase capacity contracts to meet Resource Adequacy (RA) requirements and support reliability during high-demand periods.
- **Retail Market:** Customers choose between POUs, IOUs, and CCAs.

## **Regulatory and Environmental Oversight**







California Public Utilities Commission (CPUC)

California Energy Commission (CEC) California Air Resources Board (CARB)



- **Regulates IOUs**, including electric, gas, water, communications, and transportation companies.
- Limited authority over POUs and CCAs.

#### Responsible for:

- IOU ratesetting and investments
- IOU safety oversight
- <u>Resource adequacy (RA) and Renewable Portfolio Standard (RPS)</u> <u>compliance for all LSEs</u>
- Certifying <u>CCA implementation plans</u> to launch and expand service

## CEC

## California's primary energy policy and planning agency.

#### **Responsible for:**

- Licensing power plants >49 MW
- Energy Efficiency Standards
- Oversight of the Renewables Portfolio Standard (RPS) for all LSEs
  - Annual Power Source Disclosure/Power Content Labels
- Funding energy research and development
  - \$10.1 million awarded to MCE + Energy Building Decarb grant in negotiation

2022 POWER CONTENT LABEL										
MCE mceCleanEnergy_org/energy_sources										
Greenhouse Gas Emissions Intensity (Ibs CO <sub>2</sub> e/MWh)					Energy Resources	2022 MCE Light Green Power Mix	2022 MCE Deep Green Power Mix	2022 MCE Local Sol Power Mix	2022 MCE Green Access Power Mix	2022 CA Power Mix
2022 MCE	2022 MCE	2022 MCE	2022 MCE Green Access	2022 CA Utility	Eligible Renewable <sup>1</sup>	59.6%	100.0%	100.0%	100.0%	35.8%
Power Mix	Power Mix	Power Mix	Power Mix	Average	Biomass & Biowaste	5.3%	0.0%	0.0%	0.0%	2.1%
44	0	0	0	422	Geothermal	5.1%	0.0%	0.0%	0.0%	4.7%
1000	000			2022 MCE Deep Green	Eligible Hydroelectric	3.8%	0.0%	0.0%	0.0%	1.1%
	·	2022 MCE Light Green	Solar		28.4%	50.0%	100.0%	100.0%	17.0%	
800	800		Wind		17.0%	50.0%	0.0%	0.0%	10.8%	
600			POwer IVIX	POWERIVIX	Coal	0.0%	0.0%	0.0%	0.0%	2.1%
600	600			2022 MCE	Large Hydroelectric	39.5%	0.0%	0.0%	0.0%	9.2%
400			Local Sol	Green Access Bower Mix	Natural Gas	0.0%	0.0%	0.0%	0.0%	36.4%
			FOWER IVIA	FOWEI WIX	Nuclear	0.4%	0.0%	0.0%	0.0%	9.2%
200			2022 CA Utility		Other	0.0%	0.0%	0.0%	0.0%	0.1%
			Average		Unspecified Power <sup>2</sup>	0.5%	0.0%	0.0%	0.0%	7.1%
v					TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%
	Percentage of Retail Sales Covered by Retired Unbundled RECs <sup>3</sup> :							0%	0%	
<sup>3</sup> Renewable ener	<sup>1</sup> The eligible renewable percentage above does not reflect RPS compliance, which is determined using a different methodology. <sup>2</sup> Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source. <sup>3</sup> Renewable energy credits (RECs) are tracking instruments issued for renewable generation. Unbundled renewable energy credits (RECs) represent renewable generation that was not delivered to serve retail sales. Unbundled RECs are not reflected in the power mix or GHG emissions intensities above.									
For s	pecific informatio	n about this elec	tricity portfolio, c	MCE 1 (888) 632-3674						
For	For general information about the Power Content Label, visit: <u>https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure-</u> program									



- Regulates air quality, implements climate change policies and oversees emissions targets and reductions.
- Responsible for:
  - Administering Cap-and-Trade Program: Sets statewide limit on GHG emissions and allows for the trading of emissions credits, applies to IOUs.
  - Low Carbon Fuel Standard (LCFS): Oversees standards for cleaner fuels, including those used in EVs. Clean electricity provided for EVs can generate credits which can be sold to high carbon fuel suppliers. All LSEs and EV charging station vendors can participate.
  - Clean Energy Standards: Ensures all LSEs align with California's climate goals, including the transition to 100% renewable and carbon-free electricity by 2045.



Federal agency that regulates the interstate transmission of electricity, natural gas, and oil.

#### **Responsible for:**

- Regulating wholesale electricity markets and interstate transmission.
- Ensures transparent, competitive pricing and terms for LSE purchases and sales across state lines.
- Reviews the siting application for electric transmission projects under limited circumstances.
- Licenses and inspects private, municipal, and state hydroelectric projects.
- Protects the reliability of the high voltage interstate transmission system through mandatory reliability standards.
- Monitors and investigates energy markets.



## **Erosion of CCA Autonomy**

	CPUC	<ul> <li>CPUC interferes with expansion plans based on CCA's RA compliance</li> <li>Central procurement continues to erode procurement autonomy</li> </ul>
	CEC	• CEC requires compliance with LMS regulations with little flexibility
CCA Autonomy		<ul> <li>Appellate Court declines to confine CPUC jurisdiction over CCAs</li> <li>Appellate Court validates CPUC interference with expansion plans based on CCA's RA compliance</li> </ul>
	LEGISLATURE	<ul> <li>AB 3264 requires CPUC to evaluate and report to legislature on demand side programs even if solely funded by CCAs</li> <li>SB 1221 nearly gave CPUC ability to review CCA rates for reasonableness for gas pilot substitute service</li> </ul>

## Challenges

- Supply and demand imbalance due to excess solar (duck curve)
- Increasing costs and supply shortages
- Electrification and carbon-free goals add demand
  - California aiming for 100% carbon-free and renewable electricity by 2045
- Regulatory complexity & expanding scope



MCE

MCE Board Retreat October 24, 2024
### Western Electric Grid

- The Western Interconnection includes:
  - 14 States
  - 2 Canadian Provinces
  - Northern Baja Mexico
- Western Electricity Coordination Council (WECC) oversees bulk system reliability and security in the Western Interconnection
- Within the interconnections there are regional independent system operators and/or regional transmission organizations (RTOs)



# California Independent System Operator (CAISO)

- CAISO has three main responsibilities:
  - 1. Grid Operations
  - 2. Regional Energy Market Administration
    - Western Energy Imbalance Market (WEIM)
    - Enhanced Day Ahead Market (EDAM)
  - Transmission Planning
- CAISO energy markets allow trading amongst several states but opportunities for expansion can yield additional benefits to the grid and customers



### **Regional Energy Market Benefits**

- A system where multiple states or regions coordinate energy supply and demand across a shared grid.
- Increases grid flexibility by balancing supply and demand across a larger area.
- Potentially lowers costs for customers through pooled resources.
- Boosts resilience during extreme weather events or disruptions.



# **Pathways Initiative**

- Westwide Governance Pathways Initiative (Pathways) created in 2023 to develop and form a new independent Regional Organization (RO) to oversee west-wide wholesale electricity markets with core principles:
  - Enable largest possible footprint and maximize consumer benefits;
  - Independent governance;
  - Preserve and build upon existing CAISO market structures;
  - Minimize duplication of costs; and
  - Flexible structure to accommodate future voluntary services of a regional transmission organization (RTO).



# Step 1: Increase Independence and Participation in Markets

- California Independent System Operator (CAISO) has a CA Governor-Appointed Board of Governors (BoG) that oversees California grid operations.
- CAISO also operates wholesale electricity markets: Western Energy Imbalance Market (WEIM) and Enhanced Day Ahead Market (EDAM).
- CAISO BoG shares "Joint Authority" over markets with WEIM/EDAM Independent Governing Body.
- Other states reluctant to expand participation in markets that include CA Governor appointed governance structure.



# **Step 1: Proposed Changes**

- Step 1 proposal elevates WEIM Governing Body's Authority over market rules
- Awaiting final CAISO approval before submission to Federal Energy Regulatory Committee for approval and implementation.

### Primary Authority over Market Rules

Increase WEIM/EDAM Governing authority over rules that apply to market participants from Joint to Primary Authority with the CAISO Board

### "Jump Ball" Federal Filings

Unresolved disputes between the governing bodies requires CAISO to submit a single filing to FERC including both the CAISO and WEIM/EDAM proposals without preference

CAISO maintains ability to act alone under "time critical exigent circumstances"

# Step 2: Create New Independent Regional Organization (RO)

Pathways initiative is currently engaged in Step 2 with the intent to:

- Create a new, separate RO with independent governance structure;
- Transfer the authority over the WEIM and EDAM to the RO, enabling the WEIM and EDAM footprint to stay intact and include California;
- A robust and independent stakeholder process that can drive and support additional market services or market design changes; and
- Protection of the public interest with mechanisms to incorporate protection of state, local, and federal policies.

# **Step 2 Initial Proposal**

### Regional Organization

Elements of Independence

### Independent Board

### Organizational

- Independent RO Board

- Sole Authority over business practice manuals
- Separate and Independent Legal Entity

- Joint Reporting from Independent Market Monitor

### - Ability to add voluntary market services

### Staffing

- Dedicated RO Staff

- Advisory role in selection of CEO and management level staff

### Tariff

- Sole filing rights
- Sole authority over provisions related to WEIM and EDAM

#### Stakeholder Process & Public Interest

- RO led stakeholder process
- Body of State Regulators
- Independent Consumer Advocate Organization
  - RO Office of Public Participation

# Implementation of Step 2 and Future Legislation

- Implementation of Step 2 requires California to pass enabling legislation.
  - Expected to be introduced in 2025 session
- Prior attempts at legislation in California have been unsuccessful, but this effort is unique
  - Broader support, preservation and recognition of certain California interests and policies
- To expand beyond Step 2 and allow California to participate in a West-Wide RTO California is expected to need further legislation in the future.



# **Pathways and MCE**

- Pathways Initiative aims to broaden the footprint of CAISO energy markets
- An expanded footprint can help MCE and California meet renewable energy goals and benefit customers by:
  - Reducing the amount of solar and renewable curtailment → emissions reductions
  - Allowing for more efficient resource dispatch across states which can lower market prices and lead to reduce costs for MCE customers
  - Increasing reliability by providing access to larger pool of resources
  - Increasing market opportunities for Distributed Energy Resources



# Thank you!

# MCE

Stephanie Chen, Director of Legislative Affairs Sabrinna Soldavini, Director of Policy

# **Energy Affordability**

MCE Board Retreat October 24, 2024

# Why Electricity Bills Are Increasing

- 11% increase in PG&E revenues authorized by California Public Utilities Commission
- 25% average increase in transmission and distribution (T&D) rates
- Key T&D cost drivers:
  - **Wildfire prevention** (undergrounding power lines, tree trimming)
  - Grid modernization (new tech and grid upgrades)
  - **PG&E profits** (\$2.24 billion in 2023)



## **MCE** Rates

- MCE rates have remained unchanged since January 1, 2023, following an 8% Board-approved increase
- Key generation cost drivers:
  - Inflation
  - Increased clean energy demand
  - Solar storage needs
  - Limited transmission capacity
  - Changing market rules leading to higher Resource Adequacy (RA) prices
  - Increased competition for resources from neighboring states

# **How MCE Reduces Electricity Costs**

- Green bonds
  - \$1.6 billion issued in prepayment bonds, expected renewable energy cost reduction of \$55 million annually
- Strong credit and financial health for competitive power purchase agreements
- Energy efficiency, demand response, and load shifting programs
  - \$7.36 million in customer savings (5.11 GWh) from energy efficiency in 2023
  - MCE Sync, managed EV charging
  - Peak FLEXmarket
  - Energy storage
  - Richmond VPP pilot to tap into customer-owned solar, batteries, EVs, smart thermostats, and heat pump water heaters to balance the grid, and reduce costs
- Customer discounts, education, and outreach

**Ramar Foods** Strategic Energy Management Participant



### **\$97.5 Million in MCE Customer Discounts and Savings**

\$83 million in bill savings compared to PG&E



**\$10.5 million in bill discounts** through MCE Cares credit (20,000 low-income homes and small businesses)



**\$3.7 million of customer debt eliminated** through Arrearage Management Program (low-income homes)



**\$300,000 in bill discounts** through the Percentage of Income Payment Plan pilot

### **Removing Cost Barriers to 100% Renewable**



### **Deep Green**

- Premium waved for lowincome homes
- 8,000+ participants
- \$684,000 in discounts since January 1, 2023



### **Green Access**

- 20% discount for lowincome homes in statedesignated disadvantaged communities
- 3,265 participants, growing to 5,500 in 2025
- \$1.6+ million in discounts since September 2021



### Local Sol

- Lowest cost option since 2023
- 100% local solar
- Tied to a 20-year Feed-In Tariff contract

## **Residential Cost Comparison**

	MCE Light Green \$189.74	MCE Deep Green \$194.19	PG&E \$186.71
Average Total Cost			
PG&E Electricity Delivery	\$119.68	\$119.68	\$119.68
Additional PG&E Fees	\$5.38	\$5.38	\$4.03
Local Community Reinvestment	$\odot$	$\odot$	
Access to MCE Rebates and Programs	$\oslash$	$\oslash$	
Access to PG&E Rebates and Programs	$\oslash$	$\oslash$	$\bigotimes$

Current as of October 2024.

Amounts shown are based on a typical residential customer on the E-TOU-C rate with monthly usage of 445 kWh.

Actual costs will vary depending on usage and rate.

## **Commercial Cost Comparison**

	MCE Light Green \$494.18	MCE Deep Green \$505.85	C 38% renewable PG&E \$488.40
Average Total Cost			
PG&E Electricity Delivery	\$313.95	\$313.95	\$313.95
Additional PG&E Fees	\$13.51	\$13.51	\$10.13
Local Community Reinvestment	$\odot$	$\oslash$	
Access to MCE Rebates and Programs	$\odot$	$\oslash$	
Access to PG&E Rebates and Programs	$\odot$	$\oslash$	$\oslash$

Current as of October 2024.

Amounts shown are based on a typical small commercial customer on the B1 rate with an average monthly usage of 1,167 kWh.

Actual costs will vary depending on usage and rate.



### **Consequences of Rising Electricity Costs**

- Rising costs increase the energy burden for low-income households, forcing difficult choices between electricity and other essential expenses.
- Higher costs hinder electrification, making the transition from fossil fuels more challenging.

# **Future Outlook**

- Climate risks and infrastructure upgrades (e.g., PG&E's \$56 billion wildfire prevention and undergrounding power line plans) continue to drive up rates.
- MCE's Approach:
  - Leveraging strong financial health, customer programs, and VPPs (solar, batteries, EVs) to reduce grid strain and stabilize rates.
  - Stabilize power supply costs through long-term PPAs, supply ownership, and bond issuance.

### • Possible State Solutions:

• Shifting grid upgrade costs to state funding, including taxpayer or special fund dollars, could reduce the burden on utility bills, helping to stabilize rates and promote a more equitable energy transition.

## 2025 Legislative Session

- Affordability will again be a legislative priority
- 2023 and 2024 saw incremental progress
- Energy efficiency and other customer programs could be in jeopardy
- Infrastructure deployment and streamlining discussions will continue
- The budget outlook will remain challenging



# Ouestions and Discussion



mceCleanEnergy.org info@mceCleanEnergy.org



#### **Diablo Energy Storage - Project Summary**

Diablo Energy Storage is a 200 MW / 800 MWh lithium-ion battery energy storage project in Pittsburg, CA. Phase I achieved COD in 2022 and is under long term RA contracts with PG&E. The Project has a planned expansion of up to 375 MW/ 1500 MWh under development with a secured adjacent site nearby. The expansion has a Cluster 14 Phase 2 study complete, with expected execution of Cluster 14 LGIA - Q1914 in Q4, 2024.

The City of Pittsburg was the lead agency for Diablo under the California Environmental Quality Act. The major discretionary land use permit is a Conditional Use Permit. Diablo's permit application to construct and operate a BESS and related ancillary equipment, an onsite 230 kV substation and a 230 kV OH electric line, was filed with the City of Pittsburg in September 2017. In October 2018 the City of Pittsburg enacted Ordinance No. 18-1456 approving Diablo's Planning Application. The project expansion (Phase 2) will require an amendment to the existing CUP or a new CUP.



#### Site Control

The Project Site is located at 753 and 783 Willow Pass Road in Pittsburg, CA, in an area of heavy industrial and commercial uses and is located inside of the Greater Bay Area load pocket. Diablo Energy Storage has a leased ~14-acre site for 30 years, plus extensions totaling 15 additional years. Diablo also has an exclusive option to lease an additional 8 acres in the vicinity for Phase 2.



The Phase 2 site is classified as business commercial and zoned Industrial Park – limited overlay – and is across Willow Pass Road from the parcel containing PG&E's Pittsburg 230kv Substation (the POI). Phase 2 will connect to Pacific Gas and Electric Company's ("PG&E") Pittsburg substation via an existing 230 kV electric transmission line.

#### **Technology Description**

The Lithium-Ion battery energy storage project is a non-generation resource (NGR) that is charged by system resources typically during periods of excess renewable generation, and then discharged in the evening super-peak period which will effectively displace higher GHG emitting resources.

All technology for this project has previously been used in California and throughout the world in thousands of MW of successful large scale energy storage projects in recent years.

#### **Operations**

Diablo is operated and monitored 24/7 by a Remote Operations Center (ROC). The fire system and security systems for the site are also monitored 24/7. Currently the site is manned by two full time employees. The site has plans to expand the staff by 3 additional full-time employees. Once fully staffed the site will complete preventative maintenance in-house.

