



2020 MCE Energy Efficiency Annual Report

MCE

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INTRODUCTION

MCE is California’s first Community Choice Aggregation (“CCA”) program, a not-for-profit, public agency that began service in 2010 with the goals of providing cleaner power at stable rates to its customers, reducing greenhouse gas (“GHG”) emissions, and investing in targeted energy programs that support communities’ energy needs. MCE is a load-serving entity providing electricity service to approximately 475,000 customer accounts and over 1 million residents and businesses in 36 member communities across 4 Bay Area counties: Napa, Marin, Contra Costa, and Solano.

MCE’s mission is to address climate change by reducing energy related GHG emissions through renewable energy supply and energy efficiency at stable and competitive rates for customers while providing local and economic workforce benefits. MCE offers 3 renewable energy products: Light Green (60% renewable); Deep Green (100% solar and wind power produced in-state); and Local Sol (100% locally produced solar). MCE continues to exceed state renewable energy supply standards and GHG reduction targets. MCE achieved California’s renewable energy goals 11 years ahead of state targets and will meet GHG-free goals 23 years early. For more information about MCE, visit mceCleanEnergy.org.

In support of its mission, MCE has administered energy efficiency (“EE”) funds under California Public Utilities Code (“Code”) Section 381.1(a)-(d) since 2013.¹ The California Public Utilities Commission (“Commission”) originally restricted MCE’s energy efficiency programs to serving gaps in Investor-Owned Utility (“IOU”) programs and hard-to-reach markets.² At the time, the Commission acknowledged that these restrictions may cause MCE’s portfolio to fail the Total Resource Cost (“TRC”) test and thus did not initially impose a minimum cost-effectiveness requirement on MCE.³ In 2014, however, the Commission lifted the restrictions and imposed the same cost-effectiveness requirements on CCAs as IOUs.⁴

Program Administrators (“PA”) were invited to submit business plans in 2017. On January 17, 2017, MCE filed a Business Plan with the Commission that requested authorization to expand MCE’s energy efficiency portfolio to include additional sectors and programmatic offerings.⁵ MCE proposed to offer programs in the following sectors: (1) Residential; (2) Commercial; (3) Industrial; (4) Agricultural; and (5) Workforce, Education and Training. On June 5, 2018, the Commission approved MCE’s Business Plan.⁶ Since the

¹ To date, MCE is the only community choice aggregator (“CCA”) to have requested energy efficiency funding under Code Section 381.1(a)-(d).

² D.12-11-015 at pp.45-6.

³ D.12-11-015- at p.46.

⁴ D.14-01-033 at p. 14; see also D.14-10-046 at p. 120.

⁵ See Application of Marin Clean Energy for Approval of its Energy Efficiency Business Plan (Application (“A”) filed January 17, 2017.

⁶ D.08-05-041 at p. 189.

approval of its Business Plan, MCE has launched five new energy efficiency programs for its residential and non-residential customers. MCE provides a description of all currently active programs in the following.

RESIDENTIAL ENERGY EFFICIENCY PROGRAMS

MULTIFAMILY COMPREHENSIVE PROGRAM

Program Description

MCE's Multifamily Comprehensive Program provides technical assistance, rebates, free direct install service for light-touch efficiency measures,⁷ and access to other resource conservation programs. The program is available to both affordable and market-rate properties with four or more units⁸ located within MCE's service area.

Multifamily Comprehensive Program Goals

- Provide a one-stop shop for comprehensive program services to increase customer engagement and minimize barriers that often plague multifamily projects.

MCE works with the Association for Energy Affordability (“AEA”) to implement the Single Point of Contact (“SPOC”) model. This allows MCE to provide program participants with a uniform and integrated presentation of opportunities across demand-side management strategies, including operating alongside our Low-Income Families and Tenants (“LIFT”) Pilot Program authorized in D.16-11-022.⁹ The LIFT Pilot Program provides comprehensive services and supports fuel switching from gas to electric heat pumps for cleaner and safer energy use. Income-qualified multifamily properties can layer incentives from the LIFT program on top of the Multifamily Comprehensive program rebates.

Strategies Employed in 2020

As in previous years, MCE coordinating closely with the Bay Area Regional Energy Network (“BayREN”) and Pacific Gas & Electric Company (“PG&E”) throughout 2020. These coordination efforts aimed at avoiding customer confusion, ensuring that there is no double counting of savings, and sharing best practices.

MCE enhanced the SPOC model for its residential program offerings which:

⁷ Direct install measures include showerheads, aerators, smart thermostats, and LEDs. The direct install service is not a standalone service but is offered to participants in the program.

⁸ The program will consider 2+ units on a case-by-case basis.

⁹ See D.16-11-022, Decision on Large Investor-Owned Utilities’ California Alternate Rates for Energy (CARE) and Energy Savings Assistance (ESA) Program Applications, November 2016.

- Expanded the range of referral services to include health and safety, solar and EV technical assistance and rebates.
- Deepened the partnership with Green and Healthy Homes Initiative (“GHHI”), which was rebranded as “MCE Healthy Homes”, to facilitate rebates and services coordination to address health, safety, and aging-in-place issues at properties in Marin county.
- Allowed us to offer the LIFT Pilot Program that leverages Energy Savings Assistance (“ESA”) program funding.

MCE also participated and presented at forums and conferences concerning multifamily low-income programs and non-energy benefits.

COVID-19 Impacts

In 2020, COVID-19 related restrictions and safety precautions caused major delays in the project completion timeline for multifamily properties. In addition, some property owners and tenants were reluctant to have work crews in the units.

In response to these pandemic-related program challenges, MCE introduced a contactless enrollment and closeout process for the program. The program enrolled new participants by having the implementer gather detailed property information (e.g., plans, property photos, or other documentation available) remotely to build a detailed property model and develop a scope of work. The closeout process included gathering construction photos and invoices for projects that did not require Combustion Appliance Safety (“CAS”) testing. Once shelter-in-place orders were lifted, in-person site assessments resumed in common areas only.

Program Performance and Major Achievements in 2020

Despite the challenges mentioned above, MCE accomplished the following program achievements:

- Completed projects at 422 units across 5 properties.
- Disbursed \$65,604 in rebates.
- Provided technical assistance to 1,096 units, of which 871 were low-income units.
- Enrolled 7 multifamily projects in rebate reservation in 2020.
 - Two (2) of those projects (23 units) completed in 2020.
 - Two (2) projects (235 units) completed in early 2021.
 - Three (3) additional projects (405 units) were reserved and will complete construction later in 2021.
- Through our SPOC model, the program coordinated with four additional programs to maximize incentives for property owners and tenants.
 - Leveraged incentives for 754 low-income units through MCE’s Multifamily Energy Savings (“MFES”) and LIFT programs.
 - Comprehensively served three multifamily projects (85 units) through MCE Healthy Homes in Marin county that will receive a total of \$88,000 for health and safety upgrades through this program.

- Co-leveraged 3 projects (177 units) through the MCE MFES and BayREN Bay Area Multifamily Building Enhancements (“BAMBE”) partnership. Two of those projects signed a rebate reservation in 2020 while the third will do so in 2021.
- The program referred three low-income properties (97 units) to the Low-Income Weatherization Program (“LIWP”) program, through which they will receive a total of \$133,793 in additional incentives.
- Through its direct install component, the program installed free light-emitting diodes (“LEDs”), low-flow showerheads, and faucet aerators in 24 units.
- Supported local green jobs by funding 765 local work hours through implementation contracts.

Program Changes and Improvements for 2021

The program will continue practicing the COVID-19 safety modifications, including exploring additional strategies to serve properties remotely and work with the properties' maintenance staff for simple installations.

The program is also exploring new implementation strategies to improve cost-effectiveness such as:

- Population-level Normalized Metered Energy Consumption (“NMEC”) as a pathway for program participation and claim savings;
- Pay-for-performance structured contracts;
- Developing additional engagement and outreach strategies to deepen program penetration in hard-to-reach areas and vulnerable communities; and
- Further developing program practices to service multifamily properties and residents more equitably.

SINGLE FAMILY COMPREHENSIVE PROGRAM

Program Description

The Single-Family (“SF”) Program offers behavior intervention strategies to residential participants with the goal of achieving short-term energy and cost savings that can persist and produce long-term behaviors. The SF Program fosters participant engagement and education through regular and participant-specific touch points in the form of paper or digital home energy reports and a web-based education portal.

SF Comprehensive Program Goals

- Educate participants on their energy consumption behavior and motivate them to save energy and money over the short- and long-term.
- Validate participant savings using meter-based energy savings calculation methods and randomized control trial (“RCT”) to measure savings.

Strategies Employed in 2020

Program activities in 2020 centered around fine-tuning the implementation strategies with entities for implementation and measurement and verification (“M&V”), regulatory and stakeholder engagement, and validating customer experience and data flows. Despite the Covid-19 pandemic and subsequent uptick in residential customer consumption, MCE felt it was important to continue with program launch

in May 2020 and track consumption patterns to inform potential program adjustments that could be made in subsequent years.

COVID-19 Impacts

The program goal (i.e., kWh savings) was likely seriously impacted by the Covid-19 pandemic. While it is not likely that COVID-19 caused all of the negative savings in the Program, it likely contributed to a general increase in electricity consumption with residential customers.

However, because the program was developed and implemented as a largely out-of-the-box design, when the Program launched in May 2020 it was nearly impossible to make changes to the collateral sent to customers, according to the Program implementer. This scenario was not ideal because it prevented subsequent adjustments to language to acknowledge stay-at-home orders and the associated uptick in energy consumption that it created.

Program Performance and Major Achievements in 2020

MCE launched the Program on May 21, 2020. Although it did not meet its energy savings goals for 2020, the program was delivered to customers as designed. The Program accomplished the following achievements in 2020:

Data Exchange

- Developed and implemented data exchange procedures for several data streams from multiple partners including PG&E, Calpine, Recurve Analytics, and Bidgely. The effort resulted in Bidgely, the implementer of the SF Program, gaining access to all the data necessary to analyze and distribute accurate, timely and useful data to Program participants so that they can understand their energy consumption and associated costs and make educated energy upgrade and behavioral changes.

Customer Experience

- Conducted comprehensive User Acceptance Testing with MCE staff to ensure smooth, successful rollout of email- and paper-based products.
- Developed Frequently Asked Questions (“FAQs”) for customer service inquiries.
- Earmarked MCE staff to timely respond directly to customer inquiries and issues.
- Used templates developed by Bidgely to create a MCE-customer-centric offering.

Products and Outcomes

- 661,431 emails sent to treatment group customers
 - 52,748 unique users
 - 38 percent open rate
 - 6.9 percent click rate
 - 81 percent “like” rate
- Four batches of paper reports
- 56,315 paper reports mailed

- 16,112 unique users
- #1 feedback category was “Provides useful energy savings tips”
- Web portal engagement averaged 1,000 monthly hits

Program Changes and Improvements for 2021

While MCE had forecasted savings for the Program in 2020, the program was slow to ramp up and achieved modest electricity savings late in the year. Additionally, due to gas data insufficiency, gas interventions and associated savings were not included in the final 2020 program design and implementation.

For 2021, the Program has identified and will address challenges that the program encountered, including:

- COVID-19-related stay-at-home orders and subsequent shift to work from home caused energy consumption to rise in the residential sector;
- Wildfires during peak A/C load season;
- Brand recognition challenges;
- Customer and consumption data acquisition and data flows;
- Customer demographics and geography.

Potential strategies include adjusting program participation numbers, adding upgrade resource options to the web portal, testing alternative marketing approaches, and fine-tuning savings calculations methodologies to maintain CalTRACK standards while capturing all legitimate program-derived energy savings.

RESIDENTIAL DIRECT INSTALL PROGRAM

Program Description

MCE’s Residential Direct Install program provides no-cost energy efficiency measures to eligible homeowners and renters in single-family and multifamily dwellings in MCE’s service area. This program targets customers in Disadvantaged Communities (“DACs”) whose household income exceeds the limit to receive services through programs like the Energy Savings Assistance (“ESA”) Program and LIFT Program yet are still income-constrained (moderate income).

Strategies Employed in 2020

MCE launched the program by providing in-home assessments and in-person installation of only the most cost-effective measures—faucet aerators, shower aerators and smart thermostats. In late 2020, MCE then worked with the program implementer to contract with trade allies to expand the measure list to include attic insulation, pipe wrapping and duct sealing, to provide more comprehensive customer offerings.

Residential Direct Install Program Goals

- Increase awareness about energy use and associated economic and environmental impacts in the residential sector.
- Serve customers via the SPOC model for their energy journey while also connecting them to other available local and regional offerings.

Most of the program's efforts in 2020 focused on modifying the program's measures and implementation strategy to account for retired workpapers and the State's COVID-19 shelter-in-place orders. Strategies employed in 2020 included:

- Coordinated on program design, strategy and customer outreach with other program implementers and administrators such as BayREN and PG&E to serve MCE's service area synergistically;
- Partnered with MCE's Energy Storage Program to expand the reach of the program by leveraging access to the storage program's customers;
- Designed a new marketing and outreach campaign to engage participants and relaunch the remote program.

COVID-19 Impacts

COVID-19 and the mandated shelter-in-place halted program implementation for approximately 5 months. The program implementer, Franklin Energy, was unable to provide in-home assessments and measure installations during that time. This resulted in the program being unable to serve the intended number of customers and meet its original savings goals for the year.

MCE worked with the program implementer to redesign the service model and relaunch the program in August providing virtual home assessments and energy and water saving kits that were mailed to customers' homes.

Program Performance and Major Achievements in 2020

Despite the challenges mentioned above, MCE accomplished the following program achievements:

- Made 1,855 outreach calls and sent 531,811 outreach emails to single-family households;
- Distributed 560 energy and water saving kits;
- Provided 186 assessments: 101 were in-person and 85 virtual;
- Installed 101 smart thermostats;
- Provided an expanded measure list of attic insulation, duct sealing, and residential pipe wrap to 25 customers;
- Completed 651 quality assurance reviews, and 31 quality control field inspections, all yielded passing scores.

Program Changes and Improvements for 2021

MCE is planning to relaunch the single-family component of the residential direct install program with the changes described below. MCE will discontinue the multifamily direct install offering. The single-family direct install program will serve only moderate-income single-family customers with an expanded measure list including building envelope, heating, ventilation, and air conditioning ("HVAC"), and electrification retrofit measures. To reach more moderate-income customers, MCE plans to strengthen its connection with City and County staff and local community-based organizations ("CBOs"), braid in other internal MCE programs, and build out the partnership with the program's contractor trade allies to provide on-site assessment reviews, combustion safety testing and energy efficient home modifications.

Other program changes and improvements include:

- Improve the SPOC model through continued program coordination with BayREN and PG&E and develop coordinated enrollment referrals with programs serving customers above and below the moderate-income eligibility guidelines;
- Update the marketing and outreach plan to reflect lessons learned and benchmark metrics to achieve 2021 goals;
- Develop program practices to serve single-family residents more equitably in MCE's service area by developing additional engagement and outreach strategies to deepen program penetration in hard-to-reach and vulnerable communities.

NON-RESIDENTIAL ENERGY EFFICIENCY PROGRAMS

COMMERCIAL UPGRADE PROGRAM

Program Description

The MCE Commercial Upgrade Program is a comprehensive, third-party delivered program which produces reliable and persistent electric and gas savings for customers within MCE's service area. The program works with multiple implementation partners, including CLEAResult, Recurve, and The Energy Alliance Association. This allows for various participation pathways, including prescriptive measures, custom-calculated savings and rebates, meter-based quantification, and Strategic Energy Management ("SEM"). Customers benefit from a comprehensive approach to energy efficiency, combining MCE's strong customer relationships and community presence, and ongoing communication with innovative methods, data-driven outreach, and technical review of projects to move customers forward on their energy efficiency journey.

Commercial Upgrade Program Goals

- Offer a flexible path for commercial aggregators to bridge the gap of customer needs and MCE's energy efficiency resource needs.
- Provide customers with a SPOC for their energy journey, simplifying otherwise complex and potentially competing project interests, while also connecting them to other available local and regional offerings.

The Program offers energy assessments, procurement assistance, and rebates for lighting, HVAC, refrigeration, food service measures, and more. In addition, the program offers project management assistance and post-project quality assurance.

MCE administers this program through partnerships with multiple implementation partners and coordinates closely with PG&E's energy efficiency programs to mitigate program funding overlap and reduce confusion among contractors and customers.

Strategies Employed in 2020

In 2020, MCE's Commercial program employed the following strategies:

- Launched a sub-program, the MCE Commercial Efficiency Marketplace, to diversify customer participation pathways to include population-level NMEC;
- Shifted funding between three different implementation contracts to focus on a results-oriented program;
- Leveraged usage data to identify and conduct outreach to dozens of large customers who were evaluated for their fit within the SEM offering;
- Added a second SEM cohort to provide a multi-year, whole-facility approach focused on no- and low-cost savings opportunities;
- Re-evaluated incentive rates by measure code, customer classification, and technology;
- Expanded geographic reach of implementers to cover all of MCE's service area.

COVID-19 Impacts

Customer outreach and project installation was challenging as businesses shifted focus throughout the year to deal with repeat shutdowns and re-openings, as well as associated revenue impacts. In response to both energy and non-energy impacts of COVID-19, MCE partnered with Recurve on a data analytics project to better understand the energy impacts of the pandemic by customer sub-group using weather-normalized projections of customer electricity demand as compared to actuals from the start of the shelter-in-place mandate. Additionally, MCE provided flexibility to implementation partners and customers in the delivery of program services (e.g., in-person facility visits or meetings, scheduling of SEM cohort meetings).

Program Performance and Major Achievements in 2020

In 2020, MCE accomplished the following program achievements:

- Completed energy assessments at 225 businesses;
- Completed energy efficiency retrofits at 78 customer facilities;
- Disbursed \$277,900 in deemed and custom incentives;
- Launched a second cross-sector SEM cohort with 6 participants;
- Completed Year 1 for the Program's first SEM cohort resulting in:
 - 466,929 kWh savings
 - 89,916 therms savings
 - \$36,487 in rebates

Program Changes and Improvements for 2021

MCE will continue to provide innovative strategies to drive customer participation, expand reach of the program, and increase cost-effectiveness. Specifically, MCE is looking to increase its Commercial Efficiency Marketplace sub-program to allow for growth and increased market penetration by enrolling several additional aggregators and exploring various financing opportunities to overcome financial barriers for both the customers and aggregators.

Other program changes and improvements include:

- Continue to assess COVID-19 energy impacts on an individual basis for each SEM participant;
- Leverage customer analytics on COVID-19 impacts to continue serving and generating savings with high value customers;
- Structure payable rates within contracts and incentives that align with delivered benefits in support of improved cost-effectiveness;
- Leverage engineering services and expertise for larger commercial projects;
- Focus additional resources on gas savings targets.

AGRICULTURAL AND INDUSTRIAL RESOURCE (AIR) PROGRAM

Program Description

The MCE Agricultural and Industrial Resource (“AIR”) Program is a comprehensive third-party program designed for agricultural and industrial customers within MCE’s service area. The AIR program is designed to provide individualized service to identify energy efficiency opportunities, develop and evaluate implementation options, and provide incentives in the form of technical assistance, money-back rebates and financing. MCE partners with CLEAResult as the implementer. The Program aims to leverage multiple participation pathways, including deemed rebates, custom projects, NMEC projects, and SEM to realize energy efficiency goals.

AIR Program Goals

- Raise awareness about energy use and its associated economic and environmental impacts in the agricultural and industrial sectors.
- Ensure program impact are verifiable, transparent, and accurate.

SEM plays a key part in the AIR Program to help address market barriers and achieve program objectives over a long-term engagement. SEM is offered in a cohort style format for training workshops and a mix of individual and cohort-style site activities. SEM delivers a subset of program objectives that include:

- Implementing energy efficiency projects with a focus on low- to-no cost behavioral, retro-commissioning, and operational (“BRO”) measures;
- Establishing a continuous Energy Management System (“EMS”) at each facility to impact company culture in a positive way;
- Quantifying and reporting facility-wide energy performance;
- Encouraging peer-to-peer learning and sharing;
- Achieving a balance between saving energy and building EMS practices.

Strategies Employed in 2020

In 2020, the MCE AIR program employed the following strategies:

- Data-driven customer targeting;
- Coordinated customer outreach engaging MCE account representatives and the third-party implementation partner, CLEAResult;

- Customer offer – including incentive rates, rebates, and measures – designed with cost-effective program delivery as a primary driver;
- Coordination with Sustainable Napa County and the Napa Green certification program, and a municipal stakeholder;
- Shifted most program activities to a virtual format, where possible, due to COVID-19;
- The varying energy impacts of COVID-19 across SEM participants increased the challenge of separating out the impacts from program savings in the energy models. Participants were assessed on an individual basis to provide the most accurate accounting of these impacts;
- In response to COVID-19, SEM workshops were shifted to a virtual format.

COVID-19 Impacts

COVID-19 impacts within the agricultural sector have been variable. Energy efficiency uptake within the agricultural sector have been affected by contractor and implementer capacity as much as customer interest.

For the industrial sector, COVID-19 has shifted the focus of facility managers from equipment operation, facility upkeep and energy to COVID-19 safety precautions. For example, one industrial program participant had approved an energy efficiency scope of work in early 2020. But before the project began, a significant COVID outbreak hit staff at the facility. Key decision-makers for the project pivoted to COVID transmission mitigation and recovery, and the contractor was not able to move ahead with the project until the very end of the year.

Program Performance and Major Achievements in 2020

In 2020, MCE accomplished the following program achievements:

- Completed energy assessments at 4 facilities;
- Launched a second cross-sector SEM cohort with 6 participants;
- Completed energy efficiency retrofits at 4 customer facilities;
- Disbursed \$14,231 in non-SEM rebates;
- Completed Year 1 for the program’s first SEM cohort resulting in:
 - 741,178 kWh savings
 - \$22,235 in rebates

Program Changes and Improvements for 2021

MCE plans to launch a third SEM cohort with 10-12 new participating customers in 2021. MCE is also exploring the addition of a SEM alumni cohort for the program’s first cohort after it completes its initial 2-year program engagement period in 2021. This will allow MCE to continue customer engagement and education, and to achieve deeper savings for another two years. MCE will also continue to offer virtual workshops and evaluate COVID-19 energy impacts on an individual basis for each SEM participant.

Other program changes and improvements include:

- Improve the program’s efficiency in customer targeting and meter-based measurement by creating a reliable flow of data from PG&E to MCE, for use within MCE programs and by MCE programs partners;
- Deploy targeted marketing and outreach strategies to reach smaller agricultural and industrial customers;
- Develop new marketing collateral specific to the types of agricultural end-products produced within MCE’s service area.

CROSS-CUTTING PROGRAMS

WORKFORCE EDUCATION AND TRAINING (WE&T)

Program Description

Workforce Education and Training (“WE&T”) is an important cross-cutting activity that will help MCE to not only educate and train current workers, but also to prepare future workers to successfully perform the jobs needed to support MCE’s clean energy goals. The WE&T program includes three elements: workforce engagement, contractor engagement, and new workforce development.

Workforce Engagement

MCE leverages existing relationships with the existing workforce and associated stakeholders to gain insight into the current professional development needs of the energy efficiency industry.

Contractor Engagement

MCE and its program implementer, the Association for Energy Affordability (“AEA”), provide online training opportunities to contractors in the form of electrification workshops and educational materials. Outreach efforts target contractors from disadvantaged communities and minority-focused groups to ensure diversity, equity, and inclusion. Post-pandemic, AEA will also complete field meetings and interviews with contractors to better understand knowledge gaps related to electrification and home performance, and to troubleshoot and solve problems onsite at contractor jobsites.

New Workforce Development

Contractors interested in hiring new staff members will have the opportunity to participate in the on-the-job training portion of the program. This opportunity addresses a long-standing need in the energy contractor community to find and hire pre-vetted candidates for positions in their companies with the potential for careers in the energy industry.

WE&T Program Goals

- Expand online training opportunities with a focus on increasing access to contractors and jobseekers from disadvantaged communities and minority-focused groups.
- Provide real-time intern training.

Strategies Employed in 2020

MCE launched the WE&T Program in 2020 by contracting with implementers to perform the day-to-day management of the Program, as well as to provide strategic input on the Program's design and implementation. AEA recruits and provides education and training opportunities to current energy industry professionals. Strategic Energy Innovations ("SEI") provides wrap-around services including acting as an employer of record and mentor for jobseekers looking to participate in the program. They also manage all Human Resources and payroll issues, including managing the payment of an \$18/hour wage to job seekers as they participate in a 160-hour on-the-job training with vetted contractor participants.

MCE also began negotiations with Richmond BUILD, an educational partner, to vet and prepare job seekers to participate in the WE&T Program with contractor participants.

COVID-19 Impacts

COVID-19 necessitated pivoting all training activities to an online format. In some instances, for example in the case of the electrification workshop, shifting to an online option most likely boosted participation numbers because participants did not have to commute to a training location. However, lack of IT options for several participants likely lowered the participation numbers in the roundtables.

Program Performance and Major Achievements in 2020

In 2020, the WE&T Program achieved the following outcomes:

- Development of a series of seven topic-based workshops focused on electrification
 - Delivered workshop #1 "Building the Green Energy Future" with 40 participants.
- Development and implementation of a series of roundtables designed to gain insight into workforce needs and to foster community around the workforce efforts in MCE's service area
 - Delivered four roundtables, each with unique invitee lists to capture industry feedback on workforce education and training needs.
 1. Contractors;
 2. Job seekers;
 3. Community-based organizations and trade education partners;
 4. Municipal governments.
- Development and implementation of field meetings with potential contractor/mentor partners
 - Completed six field meetings that included jobsite education and training. The field meetings also provided the opportunity to get feedback from existing energy industry experts.
- MCE, SEI and RichmondBUILD developed the on-the-job training portion of the WE&T program through:
 - Building the job-seeker HR infrastructure of the program.
 - Vetting of educational provider curriculum to ensure graduates from MCE-partner programs are well-qualified to participate in the WE&T Program.

Program Changes and Improvements for 2021

MCE will be adding new trade education partners from Solano, Marin, East Contra Costa, and Napa. The new trade education partners will be vetted by the current team comprised of AEA (contractor education and vetting), RichmondBUILD (education partner) and SEI (wrap-around services and student liaison). MCE will also be partnering with 10 existing energy industry contractors to mentor and provide paid-on-the job training experience to 20 qualified job seekers. This effort will continue to be offered through live online field meetings (the contractor is in the field while AEA provides mentorship through a video conference) until it becomes safer to complete in-person mentoring.

ANNUAL REPORT DATA

BUDGET AND EXPENDITURES

MCE’s authorized 2020 EE portfolio budget is \$6.9M.¹⁰

Table 1: Portfolio-Level Budget and Expenditures

Category	Authorized Budget Amount	Percent of Portfolio Budget	Expenditure Amount	Percent of Total Expenditures
Administrative	\$639,812	9.3%	\$142,347	4.6%
Direct Implementation (Non-Incentives)	\$3,826,065	55.4%	\$2,378,780	77.2%
Direct Implementation Incentives	\$2,327,347	33.7%	\$533,484	17.3%
Marketing, Education & Outreach	\$6,500	0.1%	\$0	0.0%
EM&V	\$108,796	1.6%	\$25,622	0.8%
Total	\$6,908,519	100%	\$3,080,232	100%

MCE accrued \$35,842.70 in interest in 2020. MCE will return the interest accrued to ratepayers in its 2022 Annual Budget Advice Letter (“ABAL”).

ENERGY SAVINGS

MCEs energy savings goals were established in its 2019 “true-up” ABAL. In D.19-08-034 *Decision Adopting Energy Efficiency Goals for 2020-2030*, the Commission directed MCE that for each year that MCE requests energy efficiency funding authorization via an Annual Budget Advice Letter (“ABAL”), MCE shall meet or exceed the annual savings forecasts presented in the true-up tables as submitted in MCE’s PY 2019 ABAL (and subsequently approved in Energy Division’s advice letter disposition).¹¹

Table 2: Portfolio-Level Electricity and Natural Gas Savings and Demand Reduction (Net)

Savings Category	2020 Installed Savings	CPUC 2020 Goals Adopted ¹²¹³	Percent of Goals (2020)
Total Energy Savings (GWh) - Annual	2.819	8.380	33.6%
Total Energy Savings (GWh) - Lifecycle	18.733	N/A	N/A
Total Natural Gas Savings (MMth) - Annual	0.091	0.550	16.5%
Total Natural Gas Savings (MMth) - Lifecycle	0.532	N/A	N/A
Total Peak Demand Savings (MW)	0.110	0.484	22.7%

¹⁰ See Disposition Approving Marin Clean Energy’s Annual Budget Advice Letter 37-E issued December 20, 2019.

¹¹ D.19-08-034 at p.28.

¹² MCE Advice Letter 33-E pp. 9-11.

¹³ See Disposition Approving Marin Clean Energy’s Annual Budget Advice Letter 33-E and partial supplementals 33-E-A and 33-E-B issued November 27, 2018.

Table 3: Sector-Level Electricity and Natural Gas Savings and Demand Reduction (Net)

Savings Category	Residential	Commercial	Agricultural	Industrial	Total Savings
Energy Savings (GWh)- Annual	0.279	1.746	0.369	0.425	2.819
Energy Savings (GWh) - Lifecycle	0.943	13.313	2.076	2.401	18.733
Natural Gas Savings (MMth) - Annual	0.013	0.079	0.000	-0.001	0.091
Natural Gas Savings (MMth) - Lifecycle	0.160	0.378	0.000	-0.006	0.532
Peak Demand Savings (MW)	0.004	0.098	0.369	0.008	0.110

Table 4: Portfolio-Level Annual Net Savings by Use Category

Use Category	GWH	% of Total	MW	% of Total	MMTh	% of Total
Appliance or Plug Load	0.0060	0.21	0.0011	1.03	-0.0001	-0.13
Building Envelope	0.0087	0.31	0.0005	0.46	0.0039	4.29
HVAC	0.0329	1.17	0.0047	4.25	0.0061	6.75
Lighting	1.3781	48.89	0.1033	94.15	-0.0073	-8.04
Process Distribution	0.0230	0.82	0.000	0.00	0.000	0.00
Service and Domestic Hot Water	0.0065	0.23	0.000	0.11	0.0033	3.63
Whole Building	1.3634	48.37	0.000	0.00	0.0850	93.50
Total	2.819	100	0.110	100.00	0.091	100

COST-EFFECTIVENESS

MCE’s total portfolio achieved a 0.40 Total Resource Cost (“TRC” ratio and 0.57 Program Administrator Cost (“PAC”) ratio.¹⁴ The TRC weighs the net benefits against the cost to the program administrator and its customers. The PAC measures the net benefits against the cost to only the program administrator.

Table 5: Portfolio-Level Cost-Effectiveness (Net)

2020 Annual Results	Total Benefits (TRC/PAC)	Total TRC Cost	Net TRC Benefits	TRC Ratio	Total PAC Cost	Net PAC Benefits	PAC Ratio
Total	\$1,728,847	\$4,3335,806	\$(2,606,960)	0.40	\$3,047,891	\$(1,319,044)	0.57

Table 6: Sector-Level Cost-Effectiveness (Net)

2020 Annual Results	Total Benefits (TRC/PAC)	Total TRC Cost	Net TRC Benefits	TRC Ratio	Total PAC Cost	Net PAC Benefits	PAC Ratio
Residential	\$221,007	\$1,251,660	\$(1,030,653)	0.18	1,084,478	\$(863,471)	0.20
Commercial	\$1,186,633	\$1,224,112	\$(37,480)	0.97	\$996,122	\$190,510	1.19
Agricultural	\$158,562	\$808,934	\$(650,372)	0.20	\$232,344	\$(73,781)	0.68
Industrial	\$162,645	\$907,152	\$(744,507)	0.18	590,999	\$(428,353)	0.28
Cross-Cutting	\$0	\$143,948	\$(143,948)	0.00	\$143,948	\$(143,948)	0.00
Total	\$1,728,847	\$4,335,806	\$(2,606,960)	0.40	\$3,047,891	\$(1,319,044)	0.57

¹⁴ D.18-05-041 at p. 134. The Commission established a ramp period (2018-2022) to afford PAs an opportunity to improve portfolio cost-effectiveness.

ENVIRONMENTAL IMPACTS

MCE’s portfolio-level avoided emissions are displayed below.

Table 7: Portfolio-Level Environmental Impacts (Net)

2020 Annual Results	Annual tons of CO2 Avoided	Lifecycle tons of CO2 Avoided	Annual tons of NOx avoided	Lifecycle tons of NOx Avoided	Annual tons of PM10 Avoided	Lifecycle tons of PM10 Avoided
Total	1,566	8,881	157	1,022	89	584

APPENDIX A

CUSTOMER FACING COLLATERAL

The following images are examples of customer facing collateral for MCE's Single Family Comprehensive program.

How you compare to similar homes
3/7/20 to 4/5/20

Efficient	\$38
You	\$51
Average	\$65

You're being compared to 934 similar Single family homes, nearby zip code 92106, with Electric heating. Efficient homes are the top 30% in this group that use the least energy.

Based on your usage, we recommend

Don't want to keep unplugging?

Use a Smart Plug! These compact devices allow remote control and scheduling to avoid unnecessary energy use.

Your top appliance costs
3/7/20 to 4/5/20

\$11 Always On	Savings Opportunity! ▶
\$11 Heating	
\$6 Entertainment	
\$5 Refrigeration	
\$5 Lighting	

Home | Energy insights | My Recommendations 2

Usage | Monthly Summary | Similar Homes | Bill Analysis

JUNE 26, 2019 - JULY 26, 2019

Bar Chart | Pie Chart | \$/kWh

My Energy Usage: **302 kWh**
My Energy Bill: **\$71.12**

Highest Weekday Consumption: **Monday July 1**
Highest Weekend Consumption: **July 17th Weekend**

Complete Your Home Profile Survey
[Home Survey](#)

Total \$71.12

- \$42 Cooling
- \$13 Cooking
- \$10 Entertainment
- \$3 Laundry
- \$3 Lighting