

Application: 22-03-
Exhibit No.: _____
Date: March 4, 2022
Witness (es): Various

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
ENERGY EFFICIENCY PORTFOLIO PLAN 2024-2027



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EXHIBIT 2
CHAPTER 1
PORTFOLIO SUMMARY

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1 **1. Executive Summary**

2 In this Application, Marin Clean Energy (MCE) requests California Public Utilities
3 Commission (CPUC or Commission) approval of its four-year energy efficiency (EE) Portfolio
4 Plan for program years (PYs) 2024-2027, as well as its eight-year Strategic Business Plan
5 (Business Plan) covering PYs 2024-2031. The four-year Portfolio Plan (described in this Exhibit
6 2 to MCE’s Application) builds on MCE’s near-decade of experience administering successful EE
7 programs and implements the longer-term vision articulated in MCE’s eight-year strategic
8 Business Plan (described in Exhibit 1 to MCE’s Application). The Portfolio Plan includes a suite
9 of cost-effective Resource Acquisition programs that deliver value to customers across the
10 agricultural, commercial, industrial and residential sectors. The Portfolio Plan also highlights a
11 workforce education & training (WE&T) program that will support the sustained growth of the
12 energy efficiency and electrification market over the long-term. Last but not least, the portfolio is
13 characterized by a commitment to advancing Equity across MCE’s service area, including
14 residential and commercial programs designed to serve disadvantaged, underserved and hard-to-
15 reach (HTR) customers.¹

16 This Exhibit 2 provides detail on the goals driving MCE’s EE programs, the strategies
17 MCE will use to achieve those goals, and the concrete outcomes that MCE expects to deliver over
18 the course of the four-year portfolio period—disaggregated by sector. MCE explains how it will
19 manage its portfolio to respond to evolving needs and ensure that it remains on track to meet goals.
20 It lays out MCE’s forecasted portfolio budget and budgeting process, as well as its intended
21 evaluation, measurement and verification (EM&V) activities. Finally, this Exhibit introduces
22 MCE’s PeakFLEX Market program, which is a new addition to MCE’s proposed EE portfolio.

¹ Defined as “Equity customers” in Exhibit 2, Chapter 3, Section 4.2.

1 **2. Key Metrics and Outcomes**

2 **2.1. Portfolio Plan Outcomes**

3 MCE projects a series of outcomes that it expects from the implementation of its EE
4 programming over the course of its four-year portfolio plan (*i.e.*, PYs 2024 – 2027). MCE will
5 track and quantify those outcomes in order to measure progress toward portfolio goals. MCE
6 summarizes those outcomes by segment—Resource Acquisition, Market Support, and Equity—
7 since most outcomes in each segment cross sector boundaries and roll up to the portfolio as a
8 whole.

9 Outcomes of the Resource Acquisition Segment

10 Within the Resource Acquisition segment of its portfolio, MCE projects the following
11 outcomes:

- 12 ● Programs generate cost effective energy savings that result in meeting Total System
13 Benefit (TSB) goals;
- 14 ● Resilient EE portfolio and programs respond to evolving needs;
- 15 ● Portfolio seamlessly integrates EE and demand management;
- 16 ● Energy savings coincide with peak demand hours and improve grid reliability; and
- 17 ● Providers and customers consider MCE’s service area an optimal location to invest
18 in EE.

19 The first outcome from the Resource Acquisition segment is that programs generate cost-
20 effective energy savings that result in MCE meeting TSB goals. Realizing this outcome requires a
21 suite of programs that deliver cost-effective EE measures at scale. Achieving this outcome also
22 requires controls to ensure that individual programs—and the portfolio as a whole—remain on
23 track to meet cost-effectiveness targets. One way MCE plans to achieve this is to track cost-

1 effectiveness at the project level. MCE will track each Resource Acquisition program across all
2 sectors in this manner, which will allow MCE to closely monitor program progress and quickly
3 institute corrective actions if necessary.

4 The second outcome within the Resource Acquisition segment is that the EE portfolio and
5 each individual program within it are resilient and responsive. Resilient and responsive programs
6 can pivot quickly in a number of scenarios. For example, pivoting quickly is important if a
7 programmatic strategy is not performing as expected, or if supply chain issues, challenges such as
8 public safety power shutoff (PSPS) events or wildfire impacts, or widespread unexpected events
9 such as the COVID-19 pandemic occur. MCE ensures resilience and responsiveness with a diverse
10 set of offerings across customer sectors using different delivery channels. For example, MCE's
11 Efficiency Market programs,² with their inherently flexible framework, are specifically designed
12 to attract a wide variety of implementation partners that offer diverse measures. Furthermore, MCE
13 will track participation in programs and chart progress toward its goal on a monthly basis, allowing
14 for quick course correction and applying lessons learned if the need arises.

15 The third outcome that MCE expects from the Resource Acquisition segment is that EE
16 and demand management³ solutions are seamlessly integrated. MCE designed its EE offerings to
17 provide a pathway for customers to incorporate demand response (DR) and other demand
18 management measures. MCE will leverage data analytics from its Normalized Metered Energy
19 Consumption (NMEC) platform to identify customers with usage profiles ripe for delivering
20 demand management opportunities and recruit them with additional offerings. MCE will also track

² MCE's Efficiency Market programs are described in more detail in Exhibit 2, Chapter 3, Section 2.

³ MCE defines "demand management" as the umbrella term for customer responsiveness to price, behavior or equipment-driven signals which enable load shifting, load shedding, load shaping, and demand response (DR).

1 the number of customers enrolled in demand management offerings and quantify the additional
2 achieved load reductions from those customers' participation.

3 The fourth outcome that MCE expects to achieve from its Resource Acquisition segment
4 is improved grid reliability as energy savings coincide with peak demand hours.⁴ Again, MCE will
5 employ data analytics and quantify the energy savings and demand reductions that occur during
6 peak periods.

7 The fifth outcome that MCE expects is to reaffirm MCE's service area as an optimal
8 location for EE providers⁵ and customers to invest in energy efficiency. MCE fosters this outcome
9 by providing EE programming that aligns program expenditures with benefits delivered, as
10 exemplified by the Efficiency Market programs. In doing so, MCE ensures that EE providers are
11 properly incentivized to offer high value measures that deliver customer benefits. This leads to a
12 robust network of providers and an engaged customer base.

13 Outcomes of the Market Support Segment

14 Within the Market Support segment, MCE focuses its efforts on a WE&T program. MCE
15 expects its WE&T program to result in an EE workforce that possesses the skills to install advanced
16 EE and electrification measures and has increased capacity to meet the growing demand for
17 electrification. MCE's WE&T program provides education and "on-the-job" opportunities to

⁴ Peak periods are currently defined as 4 p.m. to 9 p.m. during the summer months (i.e., June 1 through September 30). This definition could change over time as demand and supply for electricity shift. Because MCE's hourly valuation is tied to the avoided cost calculator (ACC) the high value periods will adjust over time as the ACC is updated.

⁵ In general, MCE uses the terms "providers" to include both third-party "aggregators" and third-party program implementers. "Aggregators" are defined as a vendor or provider of an EE or demand management service that aggregates a number of customers for participation in an MCE Marketplace program. An aggregator is distinct from a traditional program "implementer" which MCE defines in this Application as a single implementation partner under a particular EE program (not including Marketplace programs).

1 enhance the skills and capacity of the workforce to realize electrification goals. Furthermore, MCE
2 endeavors to place local job seekers in high quality employment in the emerging electrification
3 field to foster a sustainable and long-term career path.

4 Outcomes of the Equity Segment

5 MCE expects several outcomes from its Equity segment. First, MCE expects its programs
6 to have a broad reach in disadvantaged, underserved and HTR communities and to provide real
7 and long-term energy, health and safety benefits for Equity customers.⁶ In order to achieve this
8 reach, MCE will form partnerships with trusted community-based organizations (CBOs) and
9 residents to help design, promote and evaluate the benefits of MCE’s programs. MCE will also
10 develop multilingual outreach and program collateral to ensure that the diverse communities in its
11 service area have access to program information in their primary languages. MCE will also recruit
12 trade allies to canvas eligible communities within MCE’s service area.

13 Second, MCE expects residential and non-residential Equity customers will receive the
14 necessary support and funding to participate in previously unavailable EE programs. MCE will fill
15 gaps in resources provided by other programs—including by reaching residential customers that
16 are above the income threshold for the Energy Savings Assistance (ESA) Program, and by using
17 its data analytics capabilities to identify commercial customers who have been undeserved by EE
18 programs, who have relatively low annual consumption, or who have sub-optimal load shapes for
19 participation in MCE’s Marketplace programs. MCE will also deploy an “Any Open Door”
20 strategy, under which MCE will help customers learn about multiple programs for which they may
21 be eligible, no matter which program they engage with first. The “Any Open Door” strategy stacks
22 and leverages multiple program offerings to maximize benefits to customers. To deploy this model,

⁶ MCE provides its definition of “Equity customers” in Exhibit 2, Chapter 3, Section 4.2.

1 MCE will coordinate with local and statewide partners to offer a suite of services to its customers
2 irrespective of their economic or housing situation. Finally, MCE will facilitate and streamline
3 access to EE programs for Equity customers by offering no-cost assessments, providing program
4 materials and assistance in different languages, and by providing support to customers in filling
5 out application forms, as well as technical assistance throughout the project planning and
6 installation process.

7 Third, MCE expects Equity customers' participation in EE programs will reduce their
8 energy costs and improve the health, safety and comfort of their homes and businesses. MCE will
9 ensure that Equity customers who lack the resources to afford multi-measure, comprehensive,
10 long-term, effective home upgrades can access MCE's no-cost assessments, electric panel
11 upgrades, and other EE and electrification measures that reduce energy usage and improve the
12 health, safety and comfort of their homes and businesses.

13 **2.2. Portfolio Goals and Performance Metrics**

14 MCE's portfolio goals and performance metrics are also differentiated by segment (i.e.,
15 Resource Acquisition, Equity and Market Support), and further described below.

16 Goals and Metrics of the Resource Acquisition Segment

17 Per Decision (D.) 21-05-031, Resource Acquisition programs must be designed with “a
18 primary purpose of, and a short-term ability to, deliver cost-effective avoided cost benefits to the
19 electricity and natural gas systems”⁷ within the approved budget period for the Application, which
20 in this case is four years. Further, the Commission has directed program Administrators (PAs) to
21 express EE goals in terms of a TSB metric.⁸ TSB is a dollar expression of the energy, capacity and

⁷ Rulemaking (R.) 13-11-005, D.21-05-031, *Assessment of Energy Efficiency Potential and Goals and Modification of Portfolio Approval and Oversight Process*, p.14 (May 20, 2021).

⁸ *Id.*, OP1, p. 80.

1 greenhouse gas (GHG) benefits associated with the savings achieved by an EE investment. MCE’s
2 goals for the Resource Acquisition segment are defined primarily in achieving TSB and are
3 presented in the table below.

4 *Table 1-1: Resource Acquisition Segment Total System Benefit Goals*

Year	Total System Benefit
2024	\$ 15,068,199
2025	\$ 15,732,123
2026	\$ 16,575,301
2027	\$ 17,446,503
Total	\$ 64,822,127

5
6 In addition to achieving TSB goals, MCE also endeavors to reduce risk exposure for EE
7 programs as a measure to protect ratepayer funding and ensure that programs provide value to
8 participating customers. Both of these goals are being achieved through the innovative
9 implementation strategies implemented by MCE as described in more detail in Exhibit 2, Chapter
10 3, Section 2. One of the principal strategies for achieving these goals is the implementation of
11 innovative Efficiency Market programs. Efficiency Market programs are based on a NMEC
12 program design to quantify savings and value savings based on their avoided cost value. They also
13 cap program payments for each project at the TSB delivered, net of applicable program and
14 administrative costs. As such, Efficiency Market programs inherently reduce programmatic and
15 ratepayer risks by ensuring that costs do not exceed benefits. Furthermore, Efficiency Market
16 programs attract a wide variety of providers and customers, thereby diversifying the network of
17 EE providers and minimizing administrative burden. At the same time, customers benefit from the
18 program model as participation is flexible and straightforward through a variety of different
19 providers and program participation models.

1 For the Resource Acquisition segment and the portfolio overall, MCE will track and report
2 on a comprehensive set of metrics that were developed for use in the 2018-2023 EE program cycle
3 and approved in D.18-05-041.⁹ MCE has updated these metrics with a 2020 baseline and new
4 targets for PYs 2024-2027. A table of these sector- and portfolio-level metrics is included in
5 Exhibit 3, Appendix A.

6 Goals and Metrics of the Market Support Segment

7 Per D.21-05-031, Market Support programs are defined as “Programs with a primary
8 objective of supporting the long-term success of the energy efficiency market by educating
9 customers, training contractors, building partnerships, or moving beneficial technologies towards
10 greater cost-effectiveness.”¹⁰ In this Application, MCE will focus the Market Support segment on
11 supporting the electrification workforce through its WE&T program. Because of this specific
12 focus, the goals of the Market Support segment are to (1) increase the capacity of the workforce
13 to install and maintain advanced energy efficiency and electrification measures, and (2) to create
14 opportunities for sustainable employment in the emerging electrification industry.

15 D.21-05-031 directed that California Energy Efficiency Coordinating Committee
16 (CAEECC) working groups (WG) develop metrics for the Market Support and Equity Segments
17 of the EE portfolio and noted that the Commission would evaluate those metrics when deciding
18 whether to approve portfolio proposals from all PAs.¹¹ Per this guidance, MCE will track and
19 report on all relevant Market Support metrics developed by the CAEECC Market Support WG and

⁹ Application (A.) 17-01-013, D.18-05-041, *Decision Addressing Energy Efficiency Business Plans* (May 31, 2018) includes a list of metrics EE PAs must report on in Attachment A. Subsequently, PAs filed an updated set of final metrics in August 2018. See *Marin Clean Energy Portfolio and Sector-Level Metrics Compliance Filing* from August 6, 2018.

¹⁰ D.21-05-031, p. 14

¹¹ *Id.*, p. 23.

1 outlined in the final WG report.¹² See Exhibit 3, Appendix C for a table of all Market Support
2 metrics. MCE is not proposing targets for Market Support metrics in this Application. Instead,
3 MCE will track Market Support metrics during PYs 2022 and 2023 and propose appropriate targets
4 based on the collected data in its 2023 true-up Advice Letter.¹³

5 Goals and Metrics of the Equity Segment

6 Per D.21-05-031, programs in the Equity Segment have the “primary purpose of providing
7 energy efficiency to hard-to-reach or underserved customers and disadvantaged communities in
8 advancement of the Commission’s Environmental and Social Justice (ESJ) Action Plan.”¹⁴ MCE
9 will focus the Equity segment on programs aimed at filling the gap in services for “Equity
10 customers.”¹⁵ The goals of MCE’s Equity programs are to provide EE and electrification
11 opportunities to Equity customers while also generating non-energy benefits (NEBs) such as
12 increased health, safety and comfort. Furthermore, MCE strives to reduce energy costs and burdens
13 for Equity customers.

14 Similar to programs in the Market Support segment, the Commission required the
15 development of metrics and criteria for evaluating progress of the Equity programs via CAEECC
16 WGs in D.21-05-031.¹⁶ Per this guidance, MCE will track and report on all relevant Equity metrics
17 developed by the CAEECC Equity WG and outlined in the final WG report.¹⁷ See Exhibit 3,

¹² CAEECC-hosted Market Support Metrics Working Group. Report and Recommendations to the California Public Utilities Commission and Energy Efficiency Program Administrators (MSMWG Report) (Oct. 6, 2021), available at: <https://www.caeccc.org/market-support-metrics-wg>.

¹³ Pursuant to Option 1 for target-setting, as set forth in the MSWG final report. See MSMWG Report at 10.

¹⁴ D.21-05-031, p. 14.

¹⁵ Defined in Exhibit 2, Chapter 3, Section 4.2.

¹⁶ D.21-05-031, p. 23.

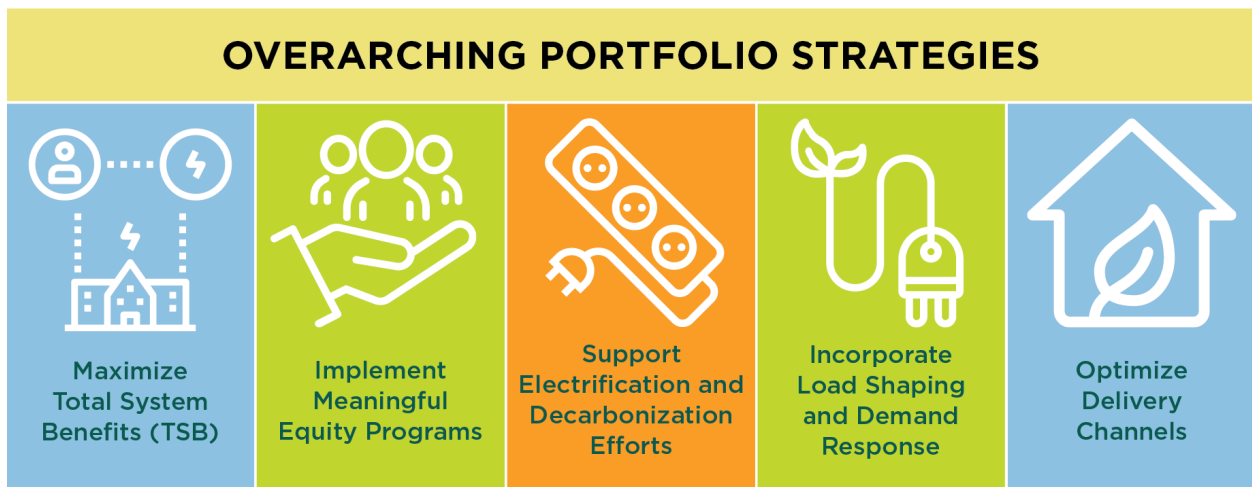
¹⁷ CAEECC-Hosted Equity Metrics Working Group. Report and Recommendations to the California Public Utilities Commission and Energy Efficiency Program Administrators (EMWG Report) (Oct. 6, 2021), available at: <https://www.caeccc.org/equity-support-metrics-wg>.

1 Appendix C for a table of all Equity metrics. MCE is not proposing targets for Equity metrics in
2 this Application. Instead, MCE will track Equity metrics during PYs 2022 and 2023 and propose
3 appropriate targets based on the collected data in its 2023 true-up Advice Letter.¹⁸

4 **3. Portfolio Strategies**

5 MCE’s strategy to foster EE in California is to cost-effectively scale programming while
6 also pursuing Equity and Market Support goals. MCE’s EE portfolio is geared towards achieving
7 the following overarching objectives, which in turn drive MCE’s overarching portfolio strategies.

8 *Figure I-1: MCE Overarching Portfolio Strategies*



9
10 Maximize Total System Benefits

11 Maximizing TSB is the primary objective of the Resource Acquisition segment. MCE’s
12 primary strategy to maximize TSB is to align program payments with TSB wherever possible. This
13 strategy suggests an increasingly important role for NMEC programs which can generate “custom”
14 or blended savings load shapes. Additional strategies to achieve this objective include delivery
15 mechanisms that allow for flexibility in contracting to diversify and expand MCE’s network of
16 partners and create programs that can scale. Furthermore, MCE will use advanced data analytics

¹⁸ Pursuant to Option 1 for target-setting, as set forth in the EMWG final report. See EMWG Report at 12.

1 to target participants with the greatest opportunity to save energy. To improve cost effectiveness,
2 MCE will help participating customers identify low- to no-cost EE opportunities.

3 Develop Meaningful Equity Programs

4 Equity has historically been a driving force behind program development at MCE and will
5 remain a key objective in PYs 2024-2027. One of the defining characteristics of MCE’s service
6 area is the diversity found across its four member counties.¹⁹ MCE’s Equity programs will help
7 ensure that customers across the range of household incomes, ethnic backgrounds, and primary
8 language in MCE’s service area have access to the benefits of EE. MCE’s Equity strategies include
9 filling gaps in services provided by other programs, networking within communities to reach
10 customers, and minimizing the cost and effort for eligible customers to participate in MCE’s
11 programs, as further detailed in Exhibit 2, Chapter 3, Section 4.

12 Support Electrification and Building Decarbonization Efforts

13 MCE’s third objective is to support the State’s decarbonization efforts by transitioning to
14 efficient electric equipment through electrification programs. One of the greatest barriers to
15 electrification that MCE has identified is the availability of a trained workforce. MCE’s strategies
16 to overcome this barrier are to educate and train both contractors and job seekers on advanced EE
17 and electrification topics. Additionally, MCE will match job seekers with energy contractors who
18 perform advanced EE and electrification installs for on-the-job training. MCE will follow best
19 practices from industry leaders in creating pathways to high-quality employment for sustainable,
20 long-term career paths. MCE will also provide hiring and employee management support to
21 interested contractors to ease the burden associated with growing the workforce.

¹⁹ See a detailed description of MCE’s service area characteristics in Exhibit 1, Chapter 1, Section 2.

1 In addition to these WE&T efforts, MCE will also continue to grow electrification
2 measures under existing program offerings, as further detailed in Exhibit 2, Chapter 3, Section 3.

3 Incorporate Demand Management Elements

4 Incorporating demand management in MCE’s EE programs not only supports maximizing
5 TSB but also helps MCE as a load serving entity (LSE) to promote grid reliability and increase the
6 percentage of renewable energy in the power supply.²⁰ In the past, EE programs have attempted to
7 address demand reduction by (1) adding demand incentives alongside energy savings incentives,
8 or by (2) generating custom calculations that approximate the peak period energy impacts of
9 projects, controls, or the commissioning of buildings and equipment. Additionally, EE programs
10 can coordinate with traditional demand response (DR) programs, which can provide another value
11 proposition to customers and project developers. However, all of these opportunities are complex,
12 and they may fall short when considering the need for peak load reduction. Energy efficiency can
13 and should be viewed as a reliable contributor to peak demand reduction and load shaping, but it
14 requires verifiable data and seamless integration in EE programming.

15 MCE proposes two solutions for incorporating demand management into its EE programs.
16 First, MCE will leverage the same strategy which optimizes the delivery of TSB by aligning
17 program payments with savings that deliver the most value when considering the hourly avoided
18 cost associated with demand reduction. The most value is found where avoided costs are highest
19 – across the summer’s peak hours – which therefore strengthens the value proposition for demand
20 management as a project type or intervention that will be rewarded. The signal to MCE’s program

²⁰ Cal. Pub. Util. Code § 454.5(b)(9)(C) states: “[t]he electrical corporation shall first meet its unmet resource needs through all available energy efficiency and demand reduction resources that are cost effective, reliable, and feasible.”

1 partners and customers is clear – savings that are generated during peak hours can be compensated
2 at considerably higher rates.

3 The second strategy for incorporating demand management is to introduce seamless
4 opportunities to participate in DR programs. Within MCE’s Marketplace programs,²¹ this is
5 possible with the proposed extension of MCE’s Peak FLEXmarket program.²² Peak FLEXmarket
6 is a market-driven demand management program that assigns an hourly value to measured, behind-
7 the-meter (BTM) load reduction impacts. Peak FLEXmarket incentivizes load shifting during
8 summer peak periods in two ways: daily load shifting and event-based DR. The Peak FLEXmarket
9 ensures that participants in MCE’s EE programs have a DR program available to them that they
10 can access for additional value streams. Furthermore, the program supports grid reliability by
11 reducing load during times of grid stress which is an increasingly important policy goal in
12 California.²³

13 Optimize Delivery Channels

14 Lastly, MCE will optimize the delivery of all programs to improve the customer experience
15 and reduce administrative pain points. This strategy is facilitated by MCE’s strengths as a small,
16 nimble organization. MCE offers programs that meet customers' needs and MCE’s processes are
17 constantly evolving to minimize administrative and participant burden. MCE has a track record of
18 strategically integrating multiple programs and funding streams behind the scenes to seamlessly
19 support customers in addressing a range of issues including energy savings, health, safety, and
20 Equity. For example, MCE launched the Green and Healthy Homes Initiative (GHHI) in Marin

²¹ MCE’s Marketplace programs include the Commercial Efficiency Market, the Residential Efficiency Market, as well as the Peak FLEXmarket program. More information on Marketplace programs can be found in Exhibit 2, Chapter 3 and Chapter 8.

²² MCE’s Peak FLEXmarket is described in more detail in Exhibit 2, Chapter 8.

²³ See e.g. Executive Department State of California, Proclamation of a State of Emergency, July 30, 2021, <https://www.gov.ca.gov/wp-content/uploads/2021/07/Energy-Emergency-Proc-7-30-21.pdf>.

1 County which stacked local philanthropic funding for health and safety upgrades into EE projects
2 to provide comprehensive assistance for low-income households. MCE’s experience with the
3 GHHI program led to the creation of the Contra Costa Asthma Project which layers public health
4 funding into EE programs to improve the indoor air quality in homes where there is a resident with
5 asthma.

6 MCE will continue to scale its programming to achieve the objectives listed above. MCE
7 has already proven that it is well equipped to strategically employ strategies that more readily
8 reveal customer opportunities, motivate customer participation, and allow for simple
9 quantification of customer and system benefits, all while cultivating previously untapped or under-
10 utilized delivery mechanisms. In the following sections, MCE describes a few of its innovative
11 implementation strategies in more detail to complement the overarching portfolio strategies
12 outlined above.

13 **3.1. New Methods for Savings Forecasting and Quantification Methods**

14 MCE has been developing the capacity to deploy NMEC methods and pay-for-performance
15 (P4P) programs since 2016. This included a multi-year effort to establish reliable data flows, which
16 could be integrated into NMEC measurement and verification (M&V) platforms on a timely basis.
17 MCE also tested NMEC methods on existing programs before engaging in the development of
18 novel NMEC program designs. To date, MCE has leveraged NMEC analytics in a number of ways
19 including tracking the performance of Property Assessed Clean Energy (PACE) projects,
20 validating customer energy baselines, and using NMEC analytics as a tool for engaging in
21 customer identification for specific program needs. Additionally, early on in the COVID-19
22 pandemic, MCE leveraged its NMEC analytics platform to help understand how the pandemic’s
23 energy impacts could be accounted for within program M&V by drawing comparison groups for

1 participant populations based on a combination of customer attributes and load shape
2 characteristics.²⁴

3 To support the strategy of scaling cost effective programming and maximizing TSB, MCE
4 proposes to expand its use of the P4P program model built on an NMEC savings methodology. At
5 a high level, NMEC is one of a number of different methods that PAs can leverage to quantify
6 savings, but NMEC models offer the additional benefit of evaluating *when* those savings occurred.
7 NMEC-based programs allow MCE to incentivize and submit claims for savings based on custom
8 load shapes that more accurately reflect program participants’ energy usage and the load shape of
9 energy savings. This unlocks the potential for weighting the value of EE savings in the same way
10 as the Avoided Cost Calculation (ACC) does (*i.e.*, ascribing higher value to savings that occur
11 during peak periods). This variable valuation of savings can be embedded in program designs to
12 focus squarely on the most valuable and most cost-effective savings opportunities.

13 MCE regards NMEC-based approaches as one of the pillars of its future programming.²⁵
14 Overall, NMEC’s capability to accurately quantify a program’s system benefits and determine the
15 corresponding payments to aggregators²⁶ allows MCE to reward projects that perform, preserve
16 cost effectiveness, and motivate aggregators and customers with higher incentive levels. In order
17 to further enhance program impacts, MCE is prepared to begin using custom load shapes based on

²⁴ MCE provides more details on the impact of the COVID-19 pandemic on its customers’ energy usage and on its EE portfolio in Exhibit 2, Chapter 5, Section 2.3.

²⁵ NMEC underlies MCE’s first Marketplace Program, the Commercial Efficiency Market program which formally launched in early 2021. In this Application, MCE is also proposing a Residential Efficiency Market program.

²⁶ In this Application, MCE defines an “aggregator” as a vendor or provider of an EE or demand management service that aggregates a number of customers for participation in an MCE Marketplace program. An aggregator is distinct from a traditional program “implementer” which MCE defines in this Application as a single implementation partner under a particular EE program (not including Marketplace programs).

1 metered savings when this functionality is incorporated into the Cost-Effectiveness Tool (CET).²⁷
2 Custom load shapes would demonstrate actual, real-world savings and grid conditions which may
3 be greater than those that would be valued through the use of a modeled load shape on a deemed
4 measure basis. Adopting custom load shapes for M&V more closely aligns the hourly savings
5 valuation and subsequent TSB calculation.

6 **3.2. Incorporating Low Global Warming Potential Refrigerants**

7 Shifting away from high global warming potential (GWP) refrigerants to low-GWP
8 refrigerants through EE programs presents a unique and valuable opportunity. MCE plans to
9 incorporate low-GWP refrigerants into its portfolio by using the P4P framework of the Efficiency
10 Market programs to pay incentives that align with the TSB of refrigerant conversion projects. MCE
11 aims to include ultra-low GWP refrigerant benefits in the Marketplace model, allowing EE market
12 aggregators to receive payments for the EE value of their EE projects, as well as the value of ultra-
13 low GWP refrigerants which include GHG benefits reflected in the Refrigerant ACC. In addition,
14 aligning program processes and standards with California Air Resource Board's (CARB)
15 Fluorinated Gas Reduction Incentive Program (FRIP),²⁸ and working closely with FRIP in
16 receiving and evaluating projects will allow MCE to leverage other funding opportunities.²⁹

17 MCE will also seek to collaborate with regulatory agencies such as the Bay Area Air
18 Quality Management District (BAAQMD) to promote low-GWP refrigerants. This can take the
19 form of grant programs to convert refrigeration systems or other BAAQMD-led initiatives to

²⁷ MCE recommends in this Application that the Commission should modify the CET to allow for the use of custom load shapes. See more in Exhibit 1, Chapter 3, Section 1.2.

²⁸ Cal. Air Resources Board. F-gas Reduction Incentive Program, available at: <https://ww2.arb.ca.gov/our-work/programs/FRIP/about>.

²⁹ See also Fiscal Year 2022-2023 California Governor's Budget Proposal for potential additional ultra-low-global warming refrigerant incentives. Available at: <https://www.ebudget.ca.gov/2022-23/pdf/BudgetSummary/ClimateChange.pdf>, p. 86.

1 promote low-GWP refrigerants and curb leakage. Moreover, MCE will monitor other utilities’,
2 community choice aggregators’ (CCAs’), and other regional efforts to promote low-GWP
3 refrigerants, such as Sacramento Municipal Utility District’s (SMUD) Natural Refrigerant
4 Incentive Program.³⁰ Finally, MCE will align efforts with the statewide Technology and
5 Equipment for Clean Heating (TECH) program³¹ to promote equipment using low-GWP
6 refrigerants and will evaluate the adoption of a similar refrigerant GWP threshold (<750)³² for
7 MCE programs providing incentive funds for qualifying water heating and space heating heat
8 pumps.

9 **3.3. Spurring Innovation**

10 Developing and implementing strategies that spur innovation is crucial for reaching
11 California’s ambitious EE goals. MCE strategies in this area include (1) administering Marketplace
12 Programs; and (2) promoting electrification through multiple channels.

13 Marketplace Programs

14 MCE is employing a new business model that re-imagines implementation contracting and
15 customer recruitment. Through the Marketplace programs, MCE empowers aggregators to directly
16 recruit customers with an incentive structure designed to deliver higher value projects and
17 measures and maximize grid and customer outcomes. In this model, instead of contracting directly
18 with implementation partners, MCE offers a set compensation structure for savings achieved that
19 any number of potential vendors can earn based on a participation agreement. This structure allows

³⁰ See more at <https://www.smud.org/-/media/Documents/Business-Solutions-and-Rebates/Refrigerant-System-Fact-Sheet.ashx>.

³¹ TECH is an initiative designed to help advance the state’s mission to achieve carbon neutrality by driving the market adoption of space and water heating technologies for existing single and multifamily homes across California. See TECH Clean California at <https://energy-solution.com/tech/>.

³² A.15-08-006, D.19-01-011, *Decision Granting San Diego Gas & Electric Company a Permit to Construct the Tie Line 649 Wood-to-steel Replacement Project*, p. 46 (Jan. 10, 2019).

1 MCE to remain nimble as a PA and avoid getting bogged down in prescriptive implementation
2 contracts. Adding new program partners is straightforward, enabling broader reach and specialized
3 offerings, while minimizing risk to the program and maximizing customer benefit. Marketplace
4 programs also avoid relying on a single implementer to guarantee program success, which reduces
5 concentration risk. MCE plans to expand the Marketplace model into additional customer sectors
6 and incorporate elements of it into future programming where appropriate.

7 Promoting Electrification

8 A second strategy for spurring innovation involves the promotion of electrification through
9 WE&T, coordination with other incentive programs, and weaving electrification into existing
10 MCE programs. MCE plans to focus its electrification strategy on the WE&T component, as the
11 availability of a trained workforce has been largely under-resourced to date and is a major limiting
12 factor to the scaling of electrification programming. MCE plans to expand WE&T opportunities
13 that drive interest in electrification models for industry professionals and their clients. MCE will
14 accomplish this by scaling up efforts to match job seekers with vetted contractors who are
15 installing innovative home performance and electrification projects. Moreover, MCE will
16 coordinate in-person and virtual field meetings between electrification experts and contractors to
17 provide hands-on, in-person electrification coaching.

18 In addition to the WE&T initiative, MCE will also integrate its own electrification offerings
19 with electrification efforts of other state, regional, and local partners. MCE will work with these
20 partners to streamline and simplify customer offerings to spur the growth of electrification
21 measures and address shortcomings in existing programs such as the need to spur demand from
22 end-use customers and reduce the technical hurdles to installing heat pumps. New partner
23 programs will be coming online in the short-term, allowing MCE to leverage additional support to

1 drive more heat pump installations. This includes the statewide TECH program,³³ Pacific Gas and
2 Electric Company’s (PG&E) Heat Pump Water Heater Rebate³⁴ and Water Savers Program,³⁵
3 BayREN’s Heat Pump Water Heater (HPWH) Incentive,³⁶ and the HPWH incentive under the Self
4 Generating Incentive Program (SGIP).³⁷ Program administrators will continue to partner to ensure
5 program offerings are complementary and not redundant, and customers will be able to stack some
6 or all of these incentives on top of MCE offerings.

7 Combining the regional electrification offerings and incentives provided by BayREN and
8 PG&E with MCE’s own WE&T opportunities and incentive package will help drive regional
9 adoption of electrification. This will be magnified by the statewide efforts from the TECH Program
10 (consumer outreach, WE&T, incentives) and SGIP along with anticipated reductions in costs as
11 the industry scales to move a greater share of the market toward electrification and closer to
12 California’s decarbonization goals. Coordination between these electrification offerings is key to
13 maintaining focus on priority segments and avoiding duplication of efforts and market confusion.

14 **3.4. Strategies for Market Intervention and Energy Efficiency Adoption**

15 Developing an optimal strategy for market intervention and EE adoption requires
16 knowledge of the market, experience serving customers, and foresight to spot trends and
17 opportunities. MCE has run ratepayer-funded EE programs for nearly a decade with these aspects
18 in mind and has evolved its strategy to adapt to a growing and diversifying service area, a changing
19 market, and more aggressive regulatory mandates. MCE views its newer program designs such as

³³ Available at: <https://energy-solution.com/tech/>.

³⁴ Available at: https://www.pge.com/pge_global/common/pdfs/save-energy-money/savings-solutions-and-rebates/rebates-by-product/ee_residential_rebate_catalog.pdf.

³⁵ Available at: https://www.pge.com/tariffs/assets/pdf/adviceletter/ELEC_5731-E.pdf.

³⁶ Available at: <https://www.bayren.org/electrification>.

³⁷ Available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/self-generation-incentive-program/2021-sgip-handbook-v4.pdf>.

1 Marketplace and Strategic Energy Management (SEM) programs as cornerstones for future
2 programming. Further expanding these innovative program models will unlock unrealized
3 potential under conventional program designs. These two program designs aim to facilitate
4 comprehensive measure offerings and optimize delivery channels to improve the customer
5 experience and reduce administrative pain points. In addition to the build-out of these program
6 models, MCE will use sophisticated data analytics to identify customers with high savings
7 potential, promote Equity offerings to foster customer participation, and work with strategic
8 partners to develop the EE workforce. MCE describes each of these market intervention strategies
9 in more detail below.

10 Integrating Demand Management Strategies under the Marketplace model

11 MCE views integrating demand management into the EE portfolio as the next evolution in
12 program design. While all of MCE's programs that tie incentives to measured TSB encourage a
13 focus on savings during peak hours, MCE has gone further to integrate demand management
14 opportunities under its EE portfolio with the Peak FLEXmarket program. The program pays
15 incentives for flexible load management, including both daily load-shifting and event-based DR
16 activities. The Peak FLEXmarket measures facilitate load shifting, shaping and demand reduction
17 during the peak and net peak summer hours and provides MCE with another tool to deliver
18 customer and grid benefits. Within the Peak FLEXmarket, MCE anticipates aggregators deploying
19 strategies with grid responsive equipment such as HPWHs, smart thermostats, and lighting
20 controls, as well as integrating a range of clean distributed energy resources, such as batteries and
21 electric vehicle chargers. MCE views the Peak FLEXmarket concept as an essential tool for
22 integrating EE and demand management into a streamlined offering with deeper customer and grid
23 benefits. The Peak FLEXmarket is covered in more detail in Exhibit 2, Chapter 8 of this testimony.

1 Strategic Energy Management

2 MCE will also use SEM to drive EE adoption. SEM employs a high-touch approach with
3 MCE representatives providing customers with long-term guidance, tools, and other resources to
4 achieve their energy goals and ensure persistent savings. To date, MCE has demonstrated success
5 using the SEM program model with industrial, agricultural, and select large commercial and
6 institutional customers. MCE believes that the success of the SEM program can be replicated in
7 the multifamily sector, as proposed in its 2022-2023 Annual Budget Advice Letter (ABAL)³⁸ and
8 carried forward in this Application. Recruiting large multifamily complexes and applying a SEM
9 approach will likely achieve similar energy savings to the ones observed with large commercial
10 and institutional sectors. Multifamily complexes have operational practices that can be optimized
11 to save energy (*e.g.*, no-cost and low-cost measures) and often use central equipment such as
12 boilers and control systems (*e.g.*, more complicated measures). Both of these types of measures
13 require higher levels of guidance to implement which suits SEM’s customer model. Moreover,
14 multifamily complexes are often owned or operated by management firms with extensive building
15 portfolios. Part of MCE’s approach will be to focus on management firms with large holdings and
16 enroll portfolios of buildings into its multifamily SEM program.

17 Customer Data Analytics

18 Another promising intervention point to drive EE adoption is analyzing customer data to
19 identify accounts with usage profiles that indicate high savings potential. The data analytics
20 platform which underlies the Marketplace programs employs proprietary analytics which can
21 predict the type of customers that can achieve the greatest savings and thus maximize TSB. This
22 information can be used as a basis for identifying new potential projects or outreach campaigns.

³⁸ MCE Advice Letter 54-E, *Marin Clean Energy’s 2022 and 2023 Energy Efficiency Annual Budget Advice Letter*, (November 8, 2021).

1 Diversity, Equity and Inclusion Strategies

2 Diversity, equity, and inclusion (DEI) are core elements within MCE’s operations. MCE’s
3 desire to advance Equity through its programming is rooted in its mission, vision and values.³⁹
4 MCE has a track record of supporting DEI initiatives and formalized this commitment when
5 MCE’s Board of Directors passed Resolution “No. 2021-04 Committing to Advance Racial
6 Equity.”⁴⁰ This Board Resolution commits MCE to work toward more equitable outcomes in all
7 facets of its operations; to engage racial equity organizations to, among other things, provide input
8 on ways to best meet the needs of Environmental and Social Justice (ESJ) Communities; and to
9 provide agency-wide training on implicit bias and racial equity. To that end, MCE created an
10 internal “DEI Tiger Team,” a team of MCE staffers that provide internal education and feedback
11 and track progress toward DEI goals. These and other internal DEI initiatives prepare MCE staff
12 to better engage customers on the ground with Equity-focused EE programs to complement the
13 available statewide Equity offerings.

14 MCE’s internal initiatives cultivate a DEI-aware staff and help shape MCE’s external
15 actions. This includes developing specific programs under the Equity segment, as well as Resource
16 Acquisition programs that are tailored to advance Equity issues. MCE staff are encouraged to stack
17 and leverage program offerings to maximize customer benefit, particularly customers that are
18 eligible for MCE’s Equity segment programs.⁴¹ MCE is also creating systems for engaging and
19 compensating community stakeholders for feedback on program implementation, especially those
20 who may not have the time to attend or readily access MCE board meetings or other public forums.

³⁹ See Marin Clean Energy, available at: mcecleanenergy.org/about-us/.

⁴⁰ MCE, Resolution 2021-04, 2021, available at: <https://www.mcecleanenergy.org/wp-content/uploads/2021/05/MCE-Resolution-2021-04-Committing-to-Advance-Racial-Equity.pdf>. Also attached to this chapter of MCE’s testimony as Attachment A.

⁴¹ MCE’s Equity segment program is described in more detail in Exhibit 2, Chapter 3, Section 4.

1 Additional actions to foster DEI include broadening MCE’s partnerships with local CBOs,
2 leveraging MCE’s relationships with member municipalities, and working with trusted messengers
3 from diverse communities. MCE will work with its community partners to evaluate its current
4 programs, provide suggestions to better incorporate DEI, and to recruit customers into MCE’s
5 programs. MCE plans to continue iterating the design of its Equity programs by reviewing
6 customer metrics to ensure its programs are accessible to those who may need them the most.
7 Moreover, MCE will advocate at the Commission for changes to program rules that enable greater
8 access to, and participation of, Equity customers based on the energy burden and area-based
9 income metrics of its customers. Lastly, MCE will incorporate comprehensive DEI-focused
10 program coordination strategies into new implementation contracts.

11 Workforce Development

12 MCE recognizes that fostering a qualified and diverse workforce is essential for customer
13 program success. Furthering this commitment, MCE will continue to work with strategic partners
14 such as community colleges, workforce development boards, and CBOs to grow the pool of
15 qualified EE workers and connect them to relevant employers in the sustainable energy space.
16 MCE will prioritize partnerships that improve employment access in underserved communities.

17 A common thread throughout MCE’s market intervention and EE adoption strategy is
18 harnessing relevant partnerships during the critical stages of program development and
19 implementation. These partnerships are essential for ensuring program longevity, customer uptake
20 and knowledge building. Maintaining existing partnerships and fostering new ones will enhance
21 future market intervention and EE adoption efforts. For example, trade associations and CBOs can
22 shape program development to identify appropriate measures and support outreach to certain
23 customer segments; implementers and project aggregators can inform customer recruitment and

1 enrollment strategies; and contractors and vendors can identify products and services that can be
2 incorporated into program offerings. Engaged partners can provide different perspectives and
3 share best practices for enhancing customer programs.

4 **4. Portfolio Budget, Cost Effectiveness and Goals**

5 The following tables provide a breakdown of MCE’s budget, ex-ante cost-effectiveness
6 results, as well as TSB and energy savings goals for the 4-year Portfolio Plan period.

7 **4.1. Portfolio-Level Annual Budget Request**

8 Table 1-2 shows the annual spending budget request for PYs 2024 through 2027.

9 *Table 1-2: Annual Spending Budget Request*

Year	Annual Spending Budget Request	
2024	\$	19,273,639
2025	\$	19,522,249
2026	\$	19,584,021
2027	\$	19,837,407
Total	\$	78,217,316

11 **4.2. Distribution of Budget Across Segments and Sectors**

12 Table 1-3 shows the annual budget request for each segment for PYs 2024 through 2027.⁴²

⁴² Total excludes EM&V, which is not a segment and accounts for four percent of the portfolio annually.

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Table 1-3: Annual Budget Request for Each Segment

Year	Segment	Annual Spending Budget	Percent of Portfolio
2024	Resource	\$ 12,720,602	66%
	Market Support	\$ 1,033,676	5%
	Equity	\$ 4,748,416	25%
	Total	\$ 18,502,694	96%
2025	Resource	\$ 12,884,684	66%
	Market Support	\$ 1,014,783	5%
	Equity	\$ 4,841,891	25%
	Total	\$ 18,741,359	96%
2026	Resource	\$ 12,925,454	66%
	Market Support	\$ 1,017,752	5%
	Equity	\$ 4,857,455	25%
	Total	\$ 18,800,660	96%
2027	Resource	\$ 13,092,689	66%
	Market Support	\$ 1,002,206	5%
	Equity	\$ 4,949,016	25%
	Total	\$ 19,043,911	96%

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Table 1-4 shows the annual budget request for each sector for PYs 2024 through 2027.⁴³

⁴³ EM&V costs, which account for four percent of the portfolio annually, are included in the cross-cutting sector.

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Table 1-4: Annual Budget Request for Each Sector

Year	Primary Sector	Annual Spending Budget	Percent of Portfolio
2024	Agricultural	\$ 726,866	4%
	Commercial	\$ 7,948,028	41%
	Industrial	\$ 1,087,157	6%
	Residential	\$ 7,706,967	40%
	Cross-Cutting	\$ 1,804,621	9%
	Portfolio Total	\$ 19,273,639	100%
2025	Agricultural	\$ 732,727	4%
	Commercial	\$ 8,056,302	41%
	Industrial	\$ 1,092,434	6%
	Residential	\$ 7,845,113	40%
	Cross-Cutting	\$ 1,795,673	9%
	Portfolio Total	\$ 19,522,249	100%
2026	Agricultural	\$ 738,999	4%
	Commercial	\$ 8,066,539	41%
	Industrial	\$ 1,098,080	6%
	Residential	\$ 7,879,290	40%
	Cross-Cutting	\$ 1,801,113	9%
	Portfolio Total	\$ 19,584,021	100%
2027	Agricultural	\$ 745,710	4%
	Commercial	\$ 8,186,167	41%
	Industrial	\$ 1,104,122	6%
	Residential	\$ 8,005,707	40%
	Cross-Cutting	\$ 1,795,702	9%
	Portfolio Total	\$ 19,837,407	100%

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4.3. Forecasted Sector-level and Portfolio-level Cost Effectiveness

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Tables 1-5 shows portfolio (including Resource Acquisition, Market Support and Equity

5

segments) cost-effectiveness results for PYs 2024 through 2027.

Table 1-5: Portfolio Cost-effectiveness Results

Year	Portfolio TRC	Portfolio PAC
2024	0.73	0.81
2025	0.75	0.84
2026	0.79	0.88
2027	0.83	0.92

Tables 1-6 shows sector-level cost-effectiveness results for PYs 2024 – 2027.

Table 1-6: Sector-level Cost-effectiveness Results

Year	Primary Sector	Primary Sector TRC	Primary Sector PAC
2024	Agricultural	0.77	0.85
	Commercial	0.93	1.11
	Industrial	0.95	1.04
	Residential	0.62	0.67
	Cross-Cutting	-	-
2025	Agricultural	0.80	0.89
	Commercial	0.96	1.15
	Industrial	1.00	1.10
	Residential	0.64	0.68
	Cross-Cutting	-	-
2026	Agricultural	0.83	0.92
	Commercial	1.02	1.21
	Industrial	1.06	1.15
	Residential	0.67	0.71
	Cross-Cutting	-	-
2027	Agricultural	0.87	0.96
	Commercial	1.07	1.25
	Industrial	1.11	1.21
	Residential	0.69	0.73
	Cross-Cutting	-	-

4.4. Forecasted Resource Acquisition Segment Cost Effectiveness

Tables 1-7 – 1-9 show cost-effectiveness results for the Resource Acquisition segment for PYs 2024 – 2027 at the portfolio, sector and program-level. Table 1-7 shows that MCE’s Resource Acquisition portfolio will be cost effective with a 1.08 Total Resource Cost (TRC) ratio on an ex-ante basis over the PY 2024-2027 portfolio period. The programs with the strongest cost

1 effectiveness results are the Marketplace and custom programs. While the deemed programs are
 2 the least cost effective, they are retained as a valuable pathway for measures with deemed savings
 3 values to avoid sending them through a more extensive custom pathway.

4 *Table 1-7: Forecasted Cost-Effectiveness for Resource Acquisition Segment – PYs 2024-2027*

Year	Portfolio	Segment	TRC	PAC
2024	Portfolio	Resource	1.01	1.19
2025	Portfolio	Resource	1.04	1.23
2026	Portfolio	Resource	1.10	1.29
2027	Portfolio	Resource	1.15	1.34
2024-2027 Total	Portfolio	Resource	1.08	1.26

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 7 *Table 1-8: Forecasted Cost-Effectiveness for Resource Acquisition Segment at the Sector Level –*
 8 *PY 2024-PY 2027*

Year	Primary Sector	Segment	TRC	PAC
2024	Agricultural	Resource	0.77	0.85
	Commercial	Resource	1.04	1.28
	Industrial	Resource	0.95	1.04
	Residential	Resource	1.02	1.14
	Cross-Cutting	Resource	-	-
2025	Agricultural	Resource	0.80	0.89
	Commercial	Resource	1.07	1.31
	Industrial	Resource	1.00	1.10
	Residential	Resource	1.05	1.18
	Cross-Cutting	Resource	-	-
2026	Agricultural	Resource	0.83	0.92
	Commercial	Resource	1.14	1.38
	Industrial	Resource	1.06	1.15
	Residential	Resource	1.10	1.23
	Cross-Cutting	Resource	-	-
2027	Agricultural	Resource	0.87	0.96
	Commercial	Resource	1.19	1.43
	Industrial	Resource	1.11	1.21
	Residential	Resource	1.14	1.28
	Cross-Cutting	Resource	-	-

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Table 1-9: Forecasted Cost-Effectiveness for Resource Acquisition Segment at the Program Level – PY 2024-PY 2027

Year	Program ID	Program	Segment	TRC	PAC
2024	MCE01c	MF SEM	Resource	0.99	1.02
	MCE01d	Res Marketplace	Resource	1.03	1.19
	MCE02a	Com Deemed	Resource	0.41	0.45
	MCE02b	Com Custom	Resource	1.12	1.27
	MCE02c	Com SEM	Resource	0.69	0.74
	MCE02d	Com Marketplace	Resource	1.07	1.36
	MCE07	SF HERS	Resource	0.96	0.96
	MCE10a	Ind Deemed	Resource	0.57	0.60
	MCE10b	Ind Custom	Resource	1.05	1.38
	MCE10c	Ind SEM	Resource	1.08	1.11
	MCE11a	Ag Deemed	Resource	0.23	0.25
	MCE11b	Ag Custom	Resource	1.00	1.21
	MCE11c	Ag SEM	Resource	0.70	0.71
2025	MCE01c	MF SEM	Resource	1.02	1.06
	MCE01d	Res Marketplace	Resource	1.07	1.23
	MCE02a	Com Deemed	Resource	0.42	0.46
	MCE02b	Com Custom	Resource	1.18	1.34
	MCE02c	Com SEM	Resource	0.72	0.78
	MCE02d	Com Marketplace	Resource	1.10	1.39
	MCE07	SF HERS	Resource	0.95	0.95
	MCE10a	Ind Deemed	Resource	0.61	0.64
	MCE10b	Ind Custom	Resource	1.10	1.44
	MCE10c	Ind SEM	Resource	1.14	1.17
	MCE11a	Ag Deemed	Resource	0.24	0.26
	MCE11b	Ag Custom	Resource	1.04	1.26
	MCE11c	Ag SEM	Resource	0.73	0.75
2026	MCE01c	MF SEM	Resource	1.06	1.09
	MCE01d	Res Marketplace	Resource	1.12	1.29
	MCE02a	Com Deemed	Resource	0.44	0.48
	MCE02b	Com Custom	Resource	1.24	1.41
	MCE02c	Com SEM	Resource	0.76	0.81
	MCE02d	Com Marketplace	Resource	1.17	1.46
	MCE07	SF HERS	Resource	1.04	1.04
	MCE10a	Ind Deemed	Resource	0.64	0.67
	MCE10b	Ind Custom	Resource	1.15	1.51
	MCE10c	Ind SEM	Resource	1.20	1.24
	MCE11a	Ag Deemed	Resource	0.25	0.26
	MCE11b	Ag Custom	Resource	1.09	1.32
	MCE11c	Ag SEM	Resource	0.76	0.78
2027	MCE01c	MF SEM	Resource	1.07	1.11
	MCE01d	Res Marketplace	Resource	1.17	1.34
	MCE02a	Com Deemed	Resource	0.46	0.50
	MCE02b	Com Custom	Resource	1.31	1.49
	MCE02c	Com SEM	Resource	0.79	0.85
	MCE02d	Com Marketplace	Resource	1.23	1.51
	MCE07	SF HERS	Resource	1.09	1.09
	MCE10a	Ind Deemed	Resource	0.68	0.71
	MCE10b	Ind Custom	Resource	1.20	1.57
	MCE10c	Ind SEM	Resource	1.26	1.30
	MCE11a	Ag Deemed	Resource	0.26	0.27
	MCE11b	Ag Custom	Resource	1.14	1.38
	MCE11c	Ag SEM	Resource	0.79	0.81

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1 **4.5. Forecasted Total System Benefit and Energy Savings**

2 Tables 1-10 – 1-12 show TSB and energy savings forecasts for MCE’s EE portfolio for
3 PYS 2024 – 2027 at the portfolio, sector- and program-level. These numbers also represent MCE’s
4 TSB goals.⁴⁴

5 *Table 1-10: Annual Portfolio-level TSB, kWh, kW, and Therms – PYS 2024-2027*

Year	TSB	kWh	kW	Therms
2024	15,540,846	24,059,067	3,255	494,710
2025	16,230,191	24,059,067	3,255	494,710
2026	17,098,384	24,059,067	3,255	494,710
2027	17,994,718	24,059,067	3,255	494,710
Total	66,864,140	96,236,267	13,021	1,978,838

⁴⁴ MCE’s energy savings and TSB goals for its EE portfolio are not set through the bi-annual Potential and Goal (P&G) study completed by the Commission to determine the EE potential and goals for the IOU PAs. Instead, D.21-09-037 determined that MCE may propose energy savings and TSB goals every four years through the portfolio application process. See D.21-09-037, p. 25.

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Table 1-11: Annual Sector-level TSB, kWh, kW, and Therms – PY 2024-PY 2027

Year	Primary Sector	TSB	Net kWh	Net kW	Net Therms
2024	Agricultural	\$ 612,923	981,779	80	31,156
	Commercial	\$ 8,792,379	10,880,730	1,028	298,301
	Industrial	\$ 1,123,715	1,456,661	16	149,523
	Residential	\$ 5,011,829	10,739,897	2,131	15,729
	Cross-Cutting	\$ -	-	-	-
	Portfolio Total	\$ 15,540,846	24,059,067	3,255	494,710
2025	Agricultural	\$ 643,459	981,779	80	31,156
	Commercial	\$ 9,188,857	10,880,730	1,028	298,301
	Industrial	\$ 1,189,946	1,456,661	16	149,523
	Residential	\$ 5,207,928	10,739,897	2,131	15,729
	Cross-Cutting	\$ -	-	-	-
	Portfolio Total	\$ 16,230,191	24,059,067	3,255	494,710
2026	Agricultural	\$ 677,127	981,779	80	31,156
	Commercial	\$ 9,688,013	10,880,730	1,028	298,301
	Industrial	\$ 1,258,318	1,456,661	16	149,523
	Residential	\$ 5,474,926	10,739,897	2,131	15,729
	Cross-Cutting	\$ -	-	-	-
	Portfolio Total	\$ 17,098,384	24,059,067	3,255	494,710
2027	Agricultural	\$ 710,481	981,779	80	31,156
	Commercial	\$ 10,224,777	10,880,730	1,028	298,301
	Industrial	\$ 1,324,792	1,456,661	16	149,523
	Residential	\$ 5,734,667	10,739,897	2,131	15,729
	Cross-Cutting	\$ -	-	-	-
	Portfolio Total	\$ 17,994,718	24,059,067	3,255	494,710

2
3
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Table 1-12: Annual Program-level TSB, kWh, kW, and Therms – PY 2024-PY 2027

Year	ProgramID	Program Name	TSB	Net kWh	Net kW	Net Therms
2024	MCE01	MFES	\$ 91,403	414,208	-	1,150
	MCE01c	MF SEM	\$ 771,822	1,381,598	-	30,304
	MCE01d	Res Marketplace	\$ 3,455,290	4,523,700	2,081	(36,732)
	MCE02a	Com Deemed	\$ 95,202	194,070	38	2,071
	MCE02b	Com Custom	\$ 1,250,093	1,763,760	90	18,075
	MCE02c	Com SEM	\$ 343,117	800,400	-	32,043
	MCE02d	Com Marketplace	\$ 7,103,968	8,122,500	900	246,112
	MCE07	SF HERS	\$ 312,070	3,859,782	-	-
	MCE08	SF HES	\$ 381,244	560,609	51	21,008
	MCE10a	Ind Deemed	\$ 160,445	65,881	14	45,511
	MCE10b	Ind Custom	\$ 301,840	103,780	3	24,997
	MCE10c	Ind SEM	\$ 661,430	1,287,000	-	79,016
	MCE11a	Ag Deemed	\$ 26,705	78,655	1	1,662
	MCE11b	Ag Custom	\$ 361,608	394,708	79	8,494
	MCE11c	Ag SEM	\$ 224,610	508,416	-	21,000
	MCE16	WE&T	\$ -	-	-	-
	MCE17	Com Equity	\$ -	-	-	-
	Portfolio Total	\$ 15,540,846	24,059,067	3,255	494,710	
2025	MCE01	MFES	\$ 96,799	414,208	-	1,150
	MCE01c	MF SEM	\$ 808,838	1,381,598	-	30,304
	MCE01d	Res Marketplace	\$ 3,591,334	4,523,700	2,081	(36,732)
	MCE02a	Com Deemed	\$ 99,143	194,070	38	2,071
	MCE02b	Com Custom	\$ 1,316,697	1,763,760	90	18,075
	MCE02c	Com SEM	\$ 361,814	800,400	-	32,043
	MCE02d	Com Marketplace	\$ 7,411,203	8,122,500	900	246,112
	MCE07	SF HERS	\$ 309,688	3,859,782	-	-
	MCE08	SF HES	\$ 401,269	560,609	51	21,008
	MCE10a	Ind Deemed	\$ 171,234	65,881	14	45,511
	MCE10b	Ind Custom	\$ 318,203	103,780	3	24,997
	MCE10c	Ind SEM	\$ 700,510	1,287,000	-	79,016
	MCE11a	Ag Deemed	\$ 27,986	78,655	1	1,662
	MCE11b	Ag Custom	\$ 379,193	394,708	79	8,494
	MCE11c	Ag SEM	\$ 236,280	508,416	-	21,000
	MCE16	WE&T	\$ -	-	-	-
	MCE17	Com Equity	\$ -	-	-	-
	Portfolio Total	\$ 16,230,191	24,059,067	3,255	494,710	
2026	MCE01	MFES	\$ 101,822	414,208	-	1,150
	MCE01c	MF SEM	\$ 844,552	1,381,598	-	30,304
	MCE01d	Res Marketplace	\$ 3,766,973	4,523,700	2,081	(36,732)
	MCE02a	Com Deemed	\$ 104,676	194,070	38	2,071
	MCE02b	Com Custom	\$ 1,391,697	1,763,760	90	18,075
	MCE02c	Com SEM	\$ 381,454	800,400	-	32,043
	MCE02d	Com Marketplace	\$ 7,810,186	8,122,500	900	246,112
	MCE07	SF HERS	\$ 340,318	3,859,782	-	-
	MCE08	SF HES	\$ 421,261	560,609	51	21,008
	MCE10a	Ind Deemed	\$ 182,365	65,881	14	45,511
	MCE10b	Ind Custom	\$ 335,362	103,780	3	24,997
	MCE10c	Ind SEM	\$ 740,591	1,287,000	-	79,016
	MCE11a	Ag Deemed	\$ 29,365	78,655	1	1,662
	MCE11b	Ag Custom	\$ 399,274	394,708	79	8,494
	MCE11c	Ag SEM	\$ 248,489	508,416	-	21,000
	MCE16	WE&T	\$ -	-	-	-
	MCE17	Com Equity	\$ -	-	-	-
	Portfolio Total	\$ 17,098,384	24,059,067	3,255	494,710	
2027	MCE01	MFES	\$ 106,455	414,208	-	1,150
	MCE01c	MF SEM	\$ 870,087	1,381,598	-	30,304
	MCE01d	Res Marketplace	\$ 3,956,484	4,523,700	2,081	(36,732)
	MCE02a	Com Deemed	\$ 110,366	194,070	38	2,071
	MCE02b	Com Custom	\$ 1,469,164	1,763,760	90	18,075
	MCE02c	Com SEM	\$ 400,089	800,400	-	32,043
	MCE02d	Com Marketplace	\$ 8,245,159	8,122,500	900	246,112
	MCE07	SF HERS	\$ 359,881	3,859,782	-	-
	MCE08	SF HES	\$ 441,760	560,609	51	21,008
	MCE10a	Ind Deemed	\$ 192,999	65,881	14	45,511
	MCE10b	Ind Custom	\$ 352,761	103,780	3	24,997
	MCE10c	Ind SEM	\$ 779,032	1,287,000	-	79,016
	MCE11a	Ag Deemed	\$ 30,624	78,655	1	1,662
	MCE11b	Ag Custom	\$ 420,088	394,708	79	8,494
	MCE11c	Ag SEM	\$ 259,769	508,416	-	21,000
	MCE16	WE&T	\$ -	-	-	-
	MCE17	Com Equity	\$ -	-	-	-
	Portfolio Total	\$ 17,994,718	24,059,067	3,255	494,710	

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 1
ATTACHMENT A
JOSEPH LANDE RESUME

Joseph Lande

Manager of Customer Programs, MCE
1125 Tamalpais Ave. San Rafael, CA 94901

RELEVANT SKILLS AND EXPERIENCE

- 14 years of experience in the design and implementation of ratepayer funded energy efficiency programs, sustainability initiatives and emissions reduction strategies.
- Technical strengths in energy efficiency technologies, energy project analyses, and clean energy policy. Management strengths in project finance, program management, stakeholder coordination and communications.

EDUCATION

Central European University/The University of Manchester, Budapest, Hungary, 2006
Master of Science, Environmental Science and Policy
University of California Santa Cruz, Santa Cruz, USA, 2004
Bachelor of Arts, Environmental Studies

WORK EXPERIENCE

MCE San Rafael, CA, 2017– *Present*

Manager of Customer Programs

- Program design and oversight of MCE’s non-residential energy efficiency portfolio, serving the Commercial, Industrial and Agricultural sectors.
- Program design and oversight of MCE’s Marketplace programs - including the Peak FLEXmarket and the Commercial Efficiency Market.
- Management of MCE’s non-residential energy efficiency and Marketplace teams.

First Climate Frankfurt am Main, Germany, 2015 – 2017

Portfolio Manager

- Development of sustainability and renewable energy procurement strategies, leveraging renewable energy certificates, carbon offsets, green tariffs, etc.
- Lead role in international business development, proposals and contract management.
- Management of an international portfolio of emissions reduction and sustainability projects.
- Corporate and institutional training sessions on sustainability and climate change.
- Market research on the direction of the global renewable energy and carbon markets.

Energy Solutions Oakland, CA, 2007 – 2014

Project Manager

- Energy efficiency program design, implementation and assessment for California investor-owned utilities and local government agencies.
- Technical manager and agency manager (customer manager) for the California Energy Commission's Energy Technology Assistance Program.
- Program Manager serving the Pacific Gas & Electric Company (PG&E) Commercial Water Heater Distributor Program.
- Lighting engineering consultant for the Southern California Regional Energy Network's public sector program – supporting energy efficiency upgrades in mechanical equipment, lighting, and advanced building controls.
- Project finance expertise covering energy incentive programs, utility and government loan programs, and grant funding.
- Team specialist on California's Title 24 Building Energy Efficiency Standards.
- Project manager within the PG&E LED Accelerator Program, the Emerging Technologies Program and the Upstream HVAC Program.
- Business development, securing new contracts for projects and programs, leveraging industry relationships, technical expertise, and feasibility assessments.
- Program implementer of the NV Energy HVAC and Motor Distributor Programs.
- Design and implementation of a large-scale energy efficiency monitoring project, targeting multi-level LED fixtures and advanced wireless controls systems installed at local government facilities, under the statewide Energy Technology Assistance Program.
- Specification and auditing support to utility incentive programs, including the PG&E New Efficiency Options Program and the PG&E Non-Residential New Construction Program.
- Project management under the Association of Bay Area Governments Energy Watch Program.
- Management of a regional outreach effort targeting California certified electrical contractors to analyze the impact of utility funded energy efficiency programs.

Environmental and Energy Study Institute Washington DC, 2005

Intern

- Reports, white papers and fact sheets on energy and climate policy developments.

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TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 2
FORECAST METHODOLOGY

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EXHIBIT 2
CHAPTER 2
FORECAST METHODOLOGY

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1 **1. Demonstration of Reasonableness of Request via Zero-Based Budgeting**

2 Marin Clean Energy (MCE) proposes a reasonable application budget request optimized to
3 balance annual spending while achieving a cost-effective and comprehensive portfolio consistent
4 with energy efficiency (EE) goals. This section provides an overview of MCE’s annual spending
5 budgets and supporting analysis for development of the zero-based budget. Table 2-1 shows
6 MCE’s proposed spending budgets for each year of the Portfolio Plan period (i.e., program years
7 (PYs) 2024-2027). Budgets are presented in the cost categories of Administration, Marketing,
8 Direct Implementation, Incentives, and evaluation, measurement and verification (EM&V).

9 *Table 2-1: Annual Spending Budgets by Cost Category*

Year	Admin	Marketing	Direct Implementation Non-Incentives	Direct Impementation Incentives	EM&V	Total Portfolio Budget
2024	\$ 1,168,696	\$ 155,000	\$ 11,841,531	\$ 5,337,467	\$ 770,946	\$ 19,273,639
2025	\$ 1,205,881	\$ 155,000	\$ 12,043,012	\$ 5,337,467	\$ 780,890	\$ 19,522,249
2026	\$ 1,244,925	\$ 155,000	\$ 12,063,269	\$ 5,337,467	\$ 783,361	\$ 19,584,021
2027	\$ 1,285,921	\$ 155,000	\$ 12,265,523	\$ 5,337,467	\$ 793,496	\$ 19,837,407

11 The following framework guided MCE’s annual spending budgets for EE programs: (1)
12 portfolio policy drivers; (2) MCE agency goals; (3) assessment of activities and emerging
13 opportunities; and (4) analysis of cost drivers, including staffing, implementation contracts and
14 incentive costs. The sections below describe each, in turn.

15 **1.1 Portfolio Policy Drivers**

16 MCE anchors its EE portfolio in key regulatory and legislative policy drivers. The most
17 important policy drivers that shape MCE’s EE portfolio and budget development include the
18 following:

- 19 ● Senate Bill (SB) 350 (De León, 2015) – Clean Energy and Pollution Reduction Act;
- 20 ● Assembly Bill (AB) 802 (Williams, 2015) – Benchmarking and Changes to EE
- 21 Baselines; and

- Decision (D.) 21-05-031 – Assessment of Energy Efficiency Potential and Goals and Modification of Portfolio Approval and Oversight Process.

SB 350, the Clean Energy and Pollution Reduction Act, includes requirements to double EE savings by 2030, as well as to enhance workforce development and training opportunities for residents in disadvantaged communities (DACs). The budgetary implications of these requirements are two-fold. Doubling EE targets requires MCE to expand its EE programs, focusing in particular on developing innovative program models to deliver cost-effective savings. Secondly, workforce development and training enhancement require MCE to invest additional funding in its Workforce Education and Training (WE&T) program to support the development of a qualified EE workforce.

Another essential legislative policy driver is AB 802, which addresses benchmarking and changes to EE baselines. While SB 350 already emphasized measured energy savings, AB 802 goes further and specifically calls for incentive programs to use normalized metered energy consumption (NMEC) as a basis for measuring energy savings. This guidance compels MCE to direct more budget funds toward pay-for-performance (P4P) population-level NMEC programs to incentivize implementers to identify cost-effective EE projects. This program design further helps de-risk the provision of ratepayer funds since MCE only pays for realized savings and benefits.

Lastly, D.21-05-031 presents guidance revising the framework for EE programs. Most notably, this includes measuring EE goals for program administrators (PAs) in terms of Total System Benefits (TSB);¹ allowing portfolio segmentation into Resource Acquisition, Market Support and Equity segments with no more than 30 percent allocated to Market Support and Equity

¹ Rulemaking (R.) 13-11-005, D.21-05-031, *Assessment of Energy Efficiency Potential and Goals and Modification of Portfolio Approval and Oversight Process*, p. 9 (May 20, 2021).

1 programs;² and applying the cost-effectiveness requirement only to the Resource Acquisition
2 segment.³ As a result of this guidance, program budgets are built around maximizing TSB, which
3 is the primary driver of MCE’s Resource Acquisition segment. MCE’s P4P population-level
4 NMEC program incentives are based on the TSB delivered by the EE project. Therefore, by
5 maximizing TSB, MCE is also driving program budgets. Secondly, Equity-focused programs have
6 historically been included in MCE’s portfolio. In this Application, MCE is excited to seize the
7 opportunities presented by the Commission’s new segmentation strategy and deepen its investment
8 in Equity programs.⁴ To deliver meaningful and beneficial Equity programs, MCE is investing the
9 maximum amount allowable in Equity and Market support programs which historically faced
10 barriers to EE funding. A more detailed description of how MCE’s Application aligns with all
11 relevant policy and regulatory requirements is included in Exhibit 1, Chapter 1, Section 4.7.

12 **1.2 MCE Agency Goals**

13 MCE’s EE programs are central to achieving its mission and vision⁵ through a variety of
14 means. First, EE programs support MCE’s mission by reducing demand. The cleanest energy is
15 the energy that is never used. MCE’s focus on reducing demand also makes it easier and less
16 expensive to meet renewable energy targets. MCE includes EE in its Operational Integrated
17 Resource Plan (OIRP)⁶ as a way to meet customer demand for energy. Second, MCE’s EE
18 programs also support the local economy and advance Equity goals through specialized Equity

² *Id.*, p. 23.

³ *Id.*, pp. 21-23.

⁴ *Id.*, pp. 14-17.

⁵ See Marin Clean Energy, About Us, available at: <https://www.mcecleanenergy.org/about-us/>.

⁶ Marin Clean Energy has prepared an annual OIRP since 2014. The OIRP quantifies MCE’s resource needs, prioritizes resource preferences, provides guidance to energy procurement processes, and communicates MCE’s resource planning objectives, for the upcoming ten-year OIRP planning period (2022-2031). MCE’s OIRP aligns with its biennial Integrated Resource Plan (IRP), which it submits to the California Public Utilities Commission for certification pursuant to Cal. Pub. Util. Code Section 454.52(b)(3).

1 programs and local workforce training programs. MCE prioritizes improving progress toward
2 Equity goals and workforce development as an organization. Because of the strong alignment
3 between MCE’s mission, vision and organizational values and the goals of the state’s EE portfolio,
4 MCE is pursuing the full budgetary opportunity to expand upon the Equity and Market Support
5 programs.

6 **1.3 Assessment of Energy Efficiency Activities and Emerging Opportunities**

7 MCE reviewed and analyzed several different sources to assess both existing activities and
8 emerging opportunities for EE programming. First and foremost, MCE’s portfolio planning relies
9 on its experience providing successful EE programming to its customers since 2012. MCE’s
10 proposed EE programming for PYs 2024-2027 expands upon MCE’s existing portfolio to achieve
11 new policy goals and redress existing gaps. MCE will continue to grow and fine-tune its EE
12 programming in the upcoming portfolio cycle. In doing so, MCE analyzed the 2021 Potential and
13 Goals (P&G) study,⁷ as well as the 2021 Avoided Cost Calculator (ACC),⁸ to identify existing and
14 emerging opportunities and EE potential. Finally, MCE continuously engages with a broad group
15 of local and statewide stakeholders on how to best advance EE goals, while growing a deeper
16 understanding of the EE market and the strategies needed to stimulate program interest and project
17 investment.

⁷ See Rulemaking (R.) 13-11-005, Decision (D.) 21-09-037, *Decision Adopting Energy Efficiency Goals for 2022-2032* (Sept. 23, 2021); Cal. Pub. Util. Comm’n, 2021 Potential and Goals Study, available at: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/energy-efficiency-potential-and-goals-studies/2021-potential-and-goals-study>.

⁸ Avoided Cost Calculator for Distributed Energy Resources, available at: https://www.ethree.com/public_proceedings/energy-efficiency-calculator/.

1 **1.4 Analysis of Cost Drivers**

2 In the following, MCE describes the main cost drivers for its EE portfolio for PYs 2024 –
3 2027, including (1) staffing and operational costs; (2) implementation costs; (3) marketing; and
4 (4) incentives.

5 Staffing and Operational Costs

6 MCE generally recovers the staffing costs of up-and-running EE programs from its
7 approved EE budget. Some cost categories are supplemented from MCE’s own retail generation
8 service revenue. For example, MCE’s information technology department is fully supported from
9 its General Operating Account (*i.e.*, funded by MCE generation service revenues). Therefore, costs
10 from this department are not included in MCE’s budget forecast. More detailed information on the
11 functions that are funded by MCE’s EE budget can be found in Exhibit 3, Appendix D.

12 Certain activities (*e.g.*, compliance and regulatory support, reporting and data tracking)
13 provide benefits and services for all programs across MCE’s portfolio. To determine the support
14 levels needed to support these activities and develop the associated budget, MCE examined current
15 support levels and scaled appropriately to account for changes proposed in this application. MCE
16 then allocated these expenses evenly across all programs in the portfolio.

17 As a next step, MCE analyzed the staffing support needed for each program’s unique
18 delivery strategy, contracting structures, measurement and verification (M&V), and other
19 administration and implementation activities. Full-time employee (FTE) percentages were
20 assigned to various staffing positions to fulfill these responsibilities. Staffing budgets take into
21 consideration salary and benefits for each employee and are increased each year in accordance
22 with MCE’s compensation approach. Salary expenses recorded to the EE portfolio are based on
23 records tracking time of MCE staff.

1 MCE staff perform both implementation and administrative activities to support the EE
2 programs. Staffing costs are distributed between these two expense categories for budgeting
3 purposes based on an estimate of the hours spent on each category of activity.

4 Implementation Costs

5 Per D.21-05-031, all costs associated with implementation contracts must be assigned to
6 program implementation.⁹ The methods for forecasting implementation costs vary by program and
7 implementation contract. MCE categorizes programs into five main implementation structure
8 types: (1) Efficiency Market programs; (2) behavioral programs; (3) Equity programs; (4) non-
9 metered P4P programs; and (5) Market Support programs. Programs are mapped to these
10 implementation structure types in Attachment B to this Chapter.

11 *Efficiency Market Program Implementation Costs*

12 Budgets, and subsequent implementation contract values for MCE’s Efficiency Market
13 programs are reasonable and were established based on the most current assessment of the market
14 opportunity. The primary implementation contract under the Marketplace model is for data
15 analytics (*i.e.*, NMEC assessments), aggregator¹⁰ engagement, and operating the Marketplace
16 platform. MCE does not hold direct contracts with participating aggregators. The budget and cost
17 of service is grounded in performance-based principles, with the cost of service being assessed as
18 a percentage of the forecasted benefits, paid at the completion of a project. As such, the budget for
19 implementation services scales in parallel with increased delivery of TSB value. The budget is

⁹ D.21-05-031, p. 33.

¹⁰ In this Application, MCE defines an “aggregator” as a vendor or provider of an EE or demand management service that aggregates a number of customers for participation in an MCE Marketplace program. An aggregator is distinct from a traditional program “implementer” which MCE defines in this Application as a single implementation partner under a particular EE program (not including Marketplace programs).

1 therefore both grounded in past performance as well as performance payments: the program bears
2 very little cost that is not directly tied to outcomes and is “very low risk to ratepayers.”¹¹

3 The overall size of the implementation budget is a function of the scale of the program.
4 MCE launched its Commercial Efficiency Market in early 2021 with a forecasted budget need of
5 \$1M, based roughly on the spend of MCE’s existing commercial program. However, strong initial
6 interest warranted additional budget with the initial tranche of funding subscribed within 6 months.
7 MCE filed an Advice Letter requesting additional funding in May of 2021, increasing the total size
8 of the Commercial Efficiency Market budget to \$5M.¹² The impact of the Marketplace model
9 expanded further with the Commission’s recent approval of a statewide Market Access Program
10 (MAP).¹³ While the future of the MAP beyond 2023 is unknown, interest in MCE’s Efficiency
11 Market programs among aggregators has grown and it is reasonable to assume this will translate
12 into a stronger program over time. In addition, MCE aims to adopt the same Efficiency Market
13 program model to serve the residential sector during the upcoming portfolio cycle with an annual
14 budget of approximately \$3M. The budget request was grounded in an assessment of the market
15 potential, including feedback from potential participating aggregators.

16 Under the Efficiency Market programs, the share of the aggregator performance payments
17 that are passed on to customers is included in the incentive budget while the share of the payments
18 retained by aggregators is counted as an implementation cost. The total payment to aggregators is
19 determined by the TSB minus the costs associated with the primary implementation contract,

¹¹ R.13-11-005, D.21-12-011, *Energy Efficiency Actions to Enhance Summer 2022 and 2023 Electric Reliability*, p. 26 (Dec. 2, 2021) (“this type of program is very low risk to ratepayers regardless of cost-effectiveness score, because actual energy savings are measures based on NMEC methods, payments to aggregators are made based on performance...”).

¹² MCE Advice Letter 49-E, *Request for Increased Budget under Marin Clean Energy’s Commercial Upgrade Program for the 2021 Program Year*, from May 6, 2021.

¹³ D. 21-12-011, pp. 24-26.

1 MCE’s staffing costs, and customer costs.¹⁴ As mentioned previously, the cost of the primary
2 implementation contract is based on a percentage of the TSB, and scales according to the TSB
3 achieved. MCE’s staffing costs were analyzed based on the support needed to successfully deliver
4 this program and don’t exceed 10 percent of the TSB. Customer costs reflect an average value
5 from aggregator submissions for potential projects comprising roughly 50 percent of the forecasted
6 TSB. Most aggregators forecasted a high fraction of project costs to be covered by participating
7 customers, at least in the early stages of the program. MCE forecasted the aggregator to pass on
8 approximately 20% of its payment to the customer as an end user rebate.

9 *Behavioral Program Implementation Costs*

10 The majority of MCE’s behavioral program budget is allocated to direct implementation.
11 MCE’s behavioral program employs a P4P strategy where the payments to the implementer are
12 based on the program’s success. More specifically, savings are based strictly on a per kWh basis,
13 and ratcheted down after the program’s inaugural year, during which the majority of the startup
14 costs were incurred by the implementer. Quarterly payments are made to the implementer when
15 the program demonstrates electricity savings.

16 The program budget also includes an M&V implementer to measure ex-post electricity
17 savings by using program participant interval and billing data. The M&V implementer then
18 aggregates gains or losses in electricity savings quarterly, and reports them to MCE. This savings
19 or loss analysis is the basis for the implementer payments. Calculating aggregate savings on a
20 quarterly basis, instead of more frequently, provides adequate detail while not devoting a
21 disproportionate amount of resources to it.

¹⁴ This is how aggregator payments are currently determined in the Commercial Efficiency Market Program, however this may change to align the program with the Market Access Program as approved in D.21-12-011.

1 The initial program savings forecast which informs the budget for MCE’s behavioral
2 program was based on the program implementer’s experience as an implementer of similar
3 programs across the country, correlated with their calculated potential for a behavior program in
4 MCE’s service area. MCE’s experience implementing the program indicated a lower potential
5 savings opportunity, potentially due to transitory influences (*e.g.*, the stay-at-home orders and
6 pursuant remote working environment that emerged with the COVID-19 pandemic). As a result,
7 MCE reduced its budget allocation for this program until the program results illustrate a need for
8 an increase.

9 *Equity Program Implementation Costs*

10 Implementation contracts for Equity programs account for the additional and unique
11 support services that Equity customers need consistent with Equity segment goals.¹⁵ Equity
12 program costs therefore are not exclusively a P4P rate. Program implementers provide hands-on
13 assistance, including technical advice and recommendations on energy-saving choices, and
14 manage the team that installs all measures within a project’s scope of work. For example, the Home
15 Energy Savings (HES) contract represents payments to the implementer based on milestones
16 reached for each project and culminates in a final payment to the implementer upon completion of
17 all project measure installations and quality assurance checks. The contract amount is based on
18 incentives paid to customers, as well as costs for direct implementation.

19 For the HES program, the implementer leverages economies of scale to bulk purchase
20 MCE-approved measure list items for the program. This allows the implementer's trade allies (*i.e.*,
21 EE contractors) to have stock on hand as they implement the program community by community.
22 Driving down costs through bulk purchases in turn allows MCE to provide more comprehensive

¹⁵ D.21-05-031, pp. 14-15.

1 upgrades. To spur comprehensive upgrades for single-family, moderate-income customers, MCE
2 moved from a smaller direct installation program to a broader one, in terms of geography and
3 measures installed. Customers that can benefit from no-cost EE and electrification upgrades but
4 cannot afford the incremental cost to make comprehensive improvements are now served through
5 HES. Since 2022, MCE also serves moderate-income multifamily properties with the same
6 comprehensive upgrades. While this results in a larger budget, it also provides higher energy and
7 cost saving outcomes for customers.

8 *Non-Metered Pay for Performance Program Implementation Costs*

9 Programs under this category include custom and deemed rebate programs, as well as
10 Strategic Energy Management (SEM) programs. The implementation contract and associated
11 payments are made on a performance basis (\$/unit savings), which results in program expenditures
12 aligning with delivered results. In MCE’s SEM programs, performance payments are made on a
13 forecasted basis, which are subject to a true-up following the completion and approval of energy
14 savings models.

15 The implementation budget for each year is determined by first forecasting savings
16 potential, and then applying the performance rate to the expected savings. Savings forecasts for
17 SEM programs are informed by results from MCE’s SEM program over the past two years.
18 Forecasted savings potential is also data-driven, with optimal SEM participants identified based
19 on their consumption profile. Forecasted savings are generated based on estimated participation
20 numbers and savings realization for planned cohorts. Recruitment is then focused on customers
21 who are identified on these lists.

1 *Market Support Program Implementation Costs*

2 MCE operates a single Market Support program, the Workforce, Education and Training
3 (WE&T) program. MCE developed an implementation budget for this program based on a time
4 and materials rate for a determined scope of work. Rates were established through a competitive
5 solicitation process.

6 Marketing Costs

7 The Marketing budget included in MCE’s application is entirely dedicated to Equity
8 programs. The budget represents the marketing activities needed to reach program goals based on
9 past experience conducting outreach to Equity customers. Marketing costs associated with non-
10 Equity programs are generally included in the P4P implementation rate.

11 Incentives

12 Incentive budgets are developed in accordance with the incentive payment structure for the
13 respective program in conjunction with the projected savings for each program. Incentive
14 payments are either tied to the cost of the measure, savings achieved, or TSB achieved. A more
15 detailed description is provided below for each type of program MCE proposes to offer in the PY
16 2024-2027 timeframe. MCE distinguishes between the following five types of programs: (1)
17 Efficiency Market programs; (2) SEM programs; (3) traditional custom/deemed programs; (4)
18 Equity programs, and (5) Non-incentive programs. Programs are mapped to these types in
19 Attachment B to this chapter.

20 *Efficiency Market Program Incentives*

21 Incentives under the Efficiency Market programs are the portion of the eligible aggregator
22 payment that an aggregator passes on to a customer. The eligible aggregator payment for each
23 project is the TSB minus applicable costs (e.g. customer costs and administrative costs). For

1 budgeting purposes, the aggregator payment is determined according to the projected savings for
2 a program and a percentage assumption for incentives paid out is applied.

3 Incentive budgets are established by forecasting the TSB value of the program, and then
4 subtracting applicable costs to arrive at the payment rate to aggregators, which is the full remaining
5 value once costs have been applied. The net value – the aggregator payment, is then assumed to
6 result in customer incentives at 20%, although aggregators have the flexibility to pay customer
7 incentives as they see fit. This percentage is a budgeting assumption only – MCE will record actual
8 customer incentives paid on each project for reporting and expense tracking purposes. MCE
9 expects to gain a more complete understanding of customer payments over time. At this point in
10 time, MCE expects that customer incentives will vary based on aggregators’ business models, and
11 that aggregators may initially be conservative in setting customer incentives until familiarity with
12 the Marketplace model and confidence in their savings estimates improves. The overall program
13 budget, and subsequent incentive budgets, have been determined in part through an assessment of
14 past performance in the commercial sector, and a forecast of the potential in the residential sector.
15 As noted above in the description of implementation costs, the Commercial Efficiency Market
16 launched in early 2021 with a total budget that mirrored MCE’s existing commercial program. It
17 has grown quickly in the first few months of program implementation to an annual budget of over
18 \$5M. The budget for MCE’s proposed residential Marketplace is just under \$3M annually.

19 *SEM Program Incentives*

20 There are two types of customer incentive payments in the SEM program model: milestone
21 and performance-based payments. Milestone payments are based on the customer’s ability to meet
22 deadlines and specified criteria. Performance-based incentives value the total energy savings
23 achieved. The target number of participants and savings forecasts, which inform the forecasted

1 incentive payments, are based on past performance for the non-residential SEM programs. The
2 savings forecasts for multifamily SEM were generated with the support of MCE’s implementation
3 partner, based on experience running multifamily SEM programs outside of California.

4 *Traditional Custom/Deemed Program Incentives*

5 Incentives for traditional custom/deemed measures are established by analyzing several
6 factors including deemed energy savings in workpapers, forecasted energy savings for custom
7 projects, measure cost, and targeted number of measure/project installations. Incentive rates are
8 calibrated based on the targeted program-level cost effectiveness. Incentive levels for each
9 measure or project are entered into the Cost Effectiveness Tool (CET) during planning along with
10 the per measure/project installation forecast to determine the total incentive budget.

11 *Equity Program Incentives*

12 Incentives for Equity programs are tied to total measure cost. They are designed to cover a
13 higher percentage of the measure cost than would be covered under Resource Acquisition
14 programs. Incentive levels for each measure are entered into the CET during planning along with
15 the per measure installation forecast to determine total incentive budget.

16 *Non-Incentive Programs*

17 MCE’s behavioral and Market Support programs do not pay incentives to customers.

18 **2. Program Modifications from 2023 Portfolio**

19 It is MCE’s intent to carry over its PY 2023 portfolio into PYs 2024-2027 with minimal
20 changes in program offerings. However, portfolio modifications are still required due to a change
21 in underlying technical assumptions. Per D.21-09-037, PAs relied on the 2020 version of the ACC
22 for their 2022-2023 annual budget advice letters (ABALs) which were submitted to the

1 Commission on November 8, 2021.¹⁶ The Commission also directed PAs in the same Decision to
2 use the 2021 ACC in developing their portfolio applications for PYs 2024-2027.¹⁷

3 As noted in D.21-09-037, “[t]he 2021 Avoided Cost Calculator reflects significantly lower
4 electric avoided costs, and somewhat lower gas avoided costs, than the 2020 Avoided Cost
5 Calculator; thus the additional results reflect fewer measures “passing” the economic screen for
6 inclusion on the portfolio of energy efficiency potential.”¹⁸ MCE’s 2023 portfolio cost
7 effectiveness (measured with the Total Resource Costs (TRC) test) was 65 percent lower using the
8 2021 ACC compared to the 2020 ACC. Due to this drastic change in cost-effectiveness results,
9 MCE was forced to make deeper programmatic changes in PYs 2024-2027 than it had initially
10 anticipated.

11 MCE submits the following program modifications from PY 2023 to the PY 2024-2027
12 portfolio:

- 13 1. Introduce a residential population-level NMEC Efficiency Market program;
- 14 2. Terminate industrial and agricultural site-level NMEC programs;
- 15 3. Decrease funding for the Single-Family Home Energy Reports (HER) program; and
- 16 4. Move the Equity-focused Multifamily Energy Savings (MFES) program into the
17 Equity segment.

¹⁶ MCE Advice Letter 54-E, *Marin Clean Energy’s 2022 and 2023 Energy Efficiency Annual Budget Advice Letter*, from November 8, 2021.

¹⁷ R.13-11-005, D.21-09-037, *Decision Adopting Energy Efficiency Goals for 2022-2032*, p. 21 (Sep. 23, 2021).

¹⁸ *Id.*, p. 10.

1 **2.1 New Residential Efficiency Market Program**

2 MCE plans to expand its Efficiency Market programs to serve the residential sector,
3 beginning in PY 2024.¹⁹ As described in Exhibit 2, Chapters 3 and 4, MCE’s Marketplace
4 programs value energy efficiency and improve grid reliability by driving EE and demand
5 management²⁰ savings that coincide with peak demand hours. The Efficiency Market program
6 serving the residential sector will—much like the commercial program—reward providers for the
7 value delivered by their project portfolios, leveraging population-level NMEC methods and an
8 avoided cost curve. The Marketplace model aims to simplify program participation and provide
9 maximum flexibility to participants to determine the most cost-effective methods of generating
10 TSB. MCE anticipates these strategies will result in the full realization of grid benefits, and that
11 ratepayer funds will be primarily spent on cost-effective portfolios that generate verified TSB and
12 energy savings.

13 **2.2 Termination of Industrial and Agricultural Site-level NMEC Programs**

14 Although MCE has been offering site-level NMEC as an opportunity for customers and
15 implementation partners in the agricultural and industrial sectors since 2019, there have been no
16 site-level NMEC project submissions to date. Based on its programmatic experience, MCE finds
17 SEM is simply a more effective framework for implementing and evaluating savings from
18 operations behavior, retro-commissioning and operational (BROs) improvements. MCE sees SEM
19 as the significant driver for savings within the industrial and agricultural sectors.

¹⁹ Note that MCE has requested approval of a Residential Market Access Program (MAP) program in 2022 and 2023 that, if approved, would essentially launch a Residential Efficiency Market sooner than is being proposed in this Application. See MCE Advice Letter 60-E, *Marin Clean Energy’s Proposal for a Residential Market Access Program*, from February 7, 2022.

²⁰ MCE defines “demand management” as the umbrella term for customer responsiveness to price, behavior or equipment-driven signals which enable load shifting, load shedding, load shaping, and demand response (DR).

1 In addition, the only site-level NMEC projects allowed within the industrial sector – per
2 the NMEC Rulebook²¹ – are projects that resemble those that would be completed in a commercial
3 facility. Given that these areas are likely a much smaller portion of the energy savings potential at
4 industrial facilities, MCE finds it reasonable to approach these projects with deemed or custom
5 participation pathways. MCE broadly interprets this direction as being applicable to unique,
6 process-dependent operations at many agricultural facilities as well.

7 Therefore, MCE intends to close these participation pathways and the associated sub-
8 program within the California Energy Data and Reporting System (CEDARS). The industrial and
9 agricultural programs will continue to leverage SEM, deemed, and custom participation pathways
10 based on customer needs and interests.

11 **2.3 Decrease in Funding for the Single-Family Home Energy Report Program**

12 The Home Energy Report (HER) program launched in May 2020. Since its launch, each
13 quarterly evaluation revealed underperformance compared to the initial budget forecasts for the
14 current program cycle. For subsequent years, MCE has correspondingly reduced the expected
15 electricity savings, and in doing so, like other P4P programs, decreased the overall program costs.

16 **2.4 Move the Multifamily Energy Savings Program Into the Equity Segment**

17 Supporting MCE’s communities requires taking a holistic view on how to best support
18 disadvantaged, hard-to-reach (HTR), and underserved communities,²² which are all included in

²¹ See NMEC Rulebook at <https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/n/6442463694-nmec-rulebook2-0.pdf>.

²² Disadvantaged communities are defined in Application (A.) 17-01-013, D.18-05-041, *Decision Addressing Energy Efficiency Business Plans* (May 31, 2018) as those designated as such by the California Environmental Protection Agency (CalEPA). D.18-05-041 also defines HTR communities through a set of criteria including geographic location, primary language spoken, income (for residential customers), business size (for small business customers), and rentership. MCE will define “underserved” per CAEECC’s Working Group Option 2, which allows PAs to begin with the ESJ Communities definition and also propose additional categories of underserved customers, along with an accompanying rationale

1 MCE’s Equity program offerings. Definitions of these communities have several overlapping
2 characteristics with some of MCE’s multifamily properties including, (1) language barriers; (2)
3 split incentives for property owners and tenants; (3) difficulty providing behavioral interventions
4 to customers that may not have access to reliable internet access; and (4) moderate-income renters
5 living in higher cost of living areas. Therefore, MCE will offer the MFES program in PYs 2024-
6 2027 to low and moderate-income properties that fall between 200% and 400% of the federal
7 poverty limit (FPL). The program will provide no-cost EE and electrification appliances, as well
8 as technical assistance, to this group without adverse effect on MCE’s Resource Acquisition cost-
9 effectiveness ratios. This programmatic reassignment allows MCE’s EE offerings to reach and
10 benefit customers previously experiencing barriers to participation.

11 **3. Portfolio Administration vs Program Implementation Costs**

12 MCE’s accounting practices are guided by D.21-05-031, which requires that (1) all
13 functions are analyzed and assigned to programs based on their needs; (2) administrative and
14 implementation costs are assigned in accordance with the California Energy Efficiency
15 Coordinating Committee’s (CAEECC) portfolio administration and program implementation costs
16 definitions; and (3) budgets are aligned with all existing budget cost caps or targets. D.21-05-031
17 further clarifies the distinction between administrative and implementation costs as they apply to
18 both third-party and PA implemented programs.²³

19 MCE does not propose any programs in this application to be fully implemented by MCE
20 staff. Most of MCE’s EE programs are solicited and implemented through third-party
21 implementers with some implementation support from MCE staff. As described in more detail in

supporting the addition. Definitions of these terms are also included in Chapter 4 Section 2: Equity Strategies, Goals and Outcomes.

²³ D.21-05-031, pp. 32-33.

1 Exhibit 2, Chapter 5, Section 5, MCE follows its own guidelines for competitive solicitations; it is
2 not subject to the third-party solicitation guidelines that apply to the investor-owned utility (IOU)
3 PAs.²⁴ Hence, the contracts with MCE implementers are not considered per se reasonable per
4 D.21-05-031.²⁵ For this reason, MCE provides details above on how MCE budgets implementation
5 contract costs. MCE further details how MCE staffing expenses are allocated to either
6 administrative or implementation activities in Exhibit 3, Appendix D.

²⁴ See generally R.13-11-005, D.16-08-019, *Decision Providing Guidance for Initial Energy Efficiency Rolling Portfolio Business Plan Filings* (Aug. 18, 2016) (Establishes specific third-party program design and delivery rules for IOUs to encourage greater third-party participation in EE).

²⁵ Implementation costs associated with competitively-solicited third-party contracts will be considered per se reasonable, but only if the third-party contract is approved through the established advice letter process (for the IOU PAs). See D.21-05-031, p. 33.

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 2
ATTACHMENT A
QUASHAUN VALLERY RESUME

Quashaun Vallery

Senior Regulatory and Reporting Manager, MCE
1125 Tamalpais Ave. San Rafael, CA 94901

RELEVANT SKILLS AND EXPERIENCE

- Progressive experience in water and energy efficiency programs.
- Cost-effectiveness Analysis.
- Reporting and Regulatory Compliance.
- Data Analysis and Management.
- Quality Assurance and Control.

EDUCATION

University of California, Santa Barbara 2015
Bachelor of Arts in Environmental Studies

WORK EXPERIENCE

MCE San Rafael, CA, 2018 – Present

Senior Regulatory & Reporting Manager
Regulatory & Reporting Manager
Customer Programs Specialist

- Manage regulatory compliance filings and reporting of MCE's portfolio of energy efficiency programs.
- Work collaboratively with MCE's Legal and Policy department by providing regulatory and policy analysis, developing content for filings, supporting the development of policy recommendations, and determining impacts of potential policy on MCE's energy efficiency programs.
- Manage MCE's Evaluation, Measurement & Verification budget including development, management, and coordination of program evaluation studies.
- Represent MCE at the Reporting Program Coordination Group (PCG) at the California Public Utilities Commission (CPUC).

Frontier Energy Oakland, CA, 2015 – 2018

Present Senior Program Coordinator
Program Coordinator

- Provided regulatory and reporting services to ensure clients' compliance with the CPUC's regulatory reporting requirements.
- Supported clients in securing energy efficiency funding through the support of regulatory filings, including cost-effectiveness analysis.

- Reported energy savings on behalf of clients administering energy efficiency programs; Streamlined reporting processes by developing reporting procedures and automation.
- Represented clients at the Reporting Program Coordination Group (PCG) at the CPUC.

Santa Clarita Water Division - Santa Clarita, CA 2014 - 2015

Conservation Technician - Temporary

- Implemented programs to meet the company's water efficiency goals, optimize delivery, and improve the effectiveness of the programs to customers.
- Improved marketing and outreach efforts utilizing Constant Contact.
- Streamlined rebate processing for water conservation programs.
- Analyzed water production and consumption data to evaluate the effectiveness of water conservation efforts.
- Developed a water enforcement process to comply with the State Water Resources Control Board (SWRCB) conservation regulations.

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 2
ATTACHMENT B
PROGRAM MAPPING TABLE

Table 2: Mapping MCE Programs to Implementation Contract Type and Incentive Structure Type

Program ID	Program Name	Implementation Contract Type	Incentive Structure Type
MCE01	MFES	Equity	Equity
MCE01c	MF SEM	Non-Metered P4P	SEM
MCE01d	Res Marketplace	Marketplace	Marketplace
MCE02a	Com Deemed	Non-Metered P4P	Traditional Custom/Deemed
MCE02b	Com Custom	Non-Metered P4P	Traditional Custom/Deemed
MCE02c	Com SEM	Non-Metered P4P	SEM
MCE02d	Com NMEC	Marketplace	Marketplace
MCE07	SF HERS	Behavioral	Non-incentive
MCE08	SF HES	Equity	Equity
MCE10a	Ind Deemed	Non-Metered P4P	Traditional Custom/Deemed
MCE10b	Ind Custom	Non-Metered P4P	Traditional Custom/Deemed
MCE10c	Ind SEM	Non-Metered P4P	SEM
MCE11a	Ag Deemed	Non-Metered P4P	Traditional Custom/Deemed
MCE11b	Ag Custom	Non-Metered P4P	Traditional Custom/Deemed
MCE11c	Ag SEM	Non-Metered P4P	SEM
MCE16	WE&T	Market Support	Non-incentive
MCE17	Com Equity	Equity	Equity

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 3
SEGMENTATION STRATEGY

MARIN CLEAN ENERGY
 TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
 EXHIBIT 2
 CHAPTER 3
 SEGMENTATION STRATEGY

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Attachment A: Jennifer Green Resume		

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1 **1. Strategies Driving Distribution of Budget Among Segments**

2 Marin Clean Energy (MCE) bases its portfolio budgeting strategy for Resource
3 Acquisition, Market Support, and Equity segments on the objectives of each segment.

- 4 • The **Resource Acquisition segment** encompasses programs with a primary
5 purpose of delivering cost effective avoided cost benefits to the electricity and
6 natural gas systems.¹ These programs also have the ability to deliver these benefits
7 in the short-term.² Programs allocated to this segment are designed to maximize
8 Total System Benefits (TSB). Resource programs are a combination of existing
9 programs and new programs that build on strategies that MCE has successfully
10 developed to date, such as the expansion of normalized metered energy
11 consumption (NMEC) programs into the residential sector;
- 12 • The **Equity segment** is comprised of programs with a primary purpose of providing
13 energy efficiency to hard-to-reach (HTR), underserved customers, and
14 disadvantaged communities (DACs) in advancement of the California Public
15 Utilities Commission’s (CPUC or Commission) Environmental and Social Justice
16 (ESJ) Action Plan.³ Improving access to energy efficiency (EE) for ESJ
17 communities, as defined in the ESJ Action Plan, may provide non-energy benefits
18 (NEBs) such as increased comfort and safety, improved indoor air quality, and
19 more affordable utility bills. This is consistent with Goals 1, 2, and 5 in the ESJ

¹ Rulemaking (R.) 13-11-005, Decision (D.) 21-05-031, *Assessment of Energy Efficiency Potential and Goals and Modification of Portfolio Approval and Oversight Process*, p. 14 (May 20, 2021).

² Short-term is defined as during the approved budget period for the portfolio, *i.e.*, program years 2024 – 2027.

³ D.21-05-031, p. 14; *see* Commission’s Draft ESJ Action Plan version 2.0 (Oct. 2021), available at: <https://www.cpuc.ca.gov/esjactionplan/>.

1 Action Plan.⁴ Programs in this segment are designed to serve “Equity customers”⁵
2 that would otherwise be challenging to serve under the Resource Acquisition
3 segment’s cost effectiveness requirements. MCE’s Equity programs offer
4 additional technical support, reduced or no copays, and targeted marketing to
5 participating customers;

- 6 • The **Market Support segment** consists of programs with a primary objective of
7 supporting the long-term success of the EE market by educating customers, training
8 contractors, building partnerships, or moving beneficial technologies towards
9 greater cost effectiveness.⁶ MCE has one program in the Market Support segment
10 that is designed to support a workforce that can install advanced EE and
11 electrification measures. This program does not claim savings, but instead supports
12 other programs that incentivize electrification by increasing the available trained
13 contractor pool.

14 To determine the appropriate allocation of funding across segments, MCE first projected
15 its budget for the Resource Acquisition segment of the portfolio. MCE describes its zero-based
16 budgeting approach for portfolio planning in more detail in Exhibit 2, Chapter 2. After determining
17 its Resource Acquisition budget, MCE extrapolated the budget for Equity and Market Support
18 programs by applying the budget cap for Equity and Market Support programs as determined by

⁴ Goals 1, 2, and 5 of the Commission’s ESJ Action Plan are as follows: Goal 1 – Consistently integrate equity and access considerations throughout Commission regulatory activities.; Goal 2 – Increase investment in clean energy resources to benefit ESJ communities, especially to improve local air quality and public health.; Goal 5 – Enhance outreach and public participation opportunities for ESJ communities to meaningfully participate in the Commission’s decision-making process and benefit from Commission programs. *See* Commission’s ESJ Action Plan at 20, available at: <https://www.cpuc.ca.gov/esjactionplan/>.

⁵ MCE further defines “Equity customer” for the purposes of this application consistent with relevant Commission guidance and D.21-05-031 in Exhibit 2, Chapter 3, Section 4.2.

⁶ D.21-05-031, p. 14.

1 D.21-05-031.⁷ As a next step, MCE populated the Equity and Market Support segments with
 2 existing programs designed primarily to meet the objectives of those segments. MCE then used
 3 unallocated funding under the 30% cap to propose new Equity programs that can meet customer
 4 needs previously unaddressed by MCE’s existing programs.

5 **2. Resource Acquisition**

6 **2.1. Distribution of Budget to Resource Acquisition Segment**

7 Table 3-1 shows the annual budget and the percentage of MCE’s total portfolio budget
 8 attributable to the Resource Acquisition segment. The rationale for distributing the budget to the
 9 Resource Acquisition segment is described in section 1 above.

10 *Table 3-1: Annual Budget of Resource Acquisition Segment*

Year	Segment	Annual Spending Budget	Percent of Portfolio
2024	Resource	\$ 12,720,602	66%
2025	Resource	\$ 12,884,684	66%
2026	Resource	\$ 12,925,454	66%
2027	Resource	\$ 13,092,689	66%
Total		\$ 51,623,429	66%

11

12 **2.2. Resource Acquisition Goals, Strategies and Outcomes**

13 MCE devised Resource Acquisition programming to cost-effectively deliver savings and
 14 benefits while reaching priority communities and customers. As a relatively small program
 15 administrator (PA) compared to the investor-owned utilities (IOUs), MCE uses creative
 16 contracting and deploys programming with distinct delivery channels for different customer
 17 sectors. MCE’s smaller size also allows it to be nimbler and more responsive to evolving customer
 18 needs, which is necessary to serve its diverse customer base. Driven by its mission and not share-
 19 holder profits, MCE has the latitude to be a flexible and innovative community partner in

⁷ Per D.21-05-031, Equity and Market Support programs must be limited to a maximum of 30% of the entire portfolio budget. See D.21-05-031, COL9 at 75.

1 delivering customer-oriented services. Shaped by these characteristics and challenges, MCE has
 2 developed goals, strategies and targeted outcomes for the Resource Acquisition segment which are
 3 shown in the figure below.

4 *Figure 3-1: Resource Acquisition Segment Goals, Strategies and Outcomes*



5
 6
 7 MCE developed the goals of the Resource Acquisition segment to balance several interests
 8 and demands. The goals include (1) meeting or exceeding the TSB metric set by the Commission;
 9 (2) reducing risk exposure as a means to protect ratepayer funding; and (3) ensuring programs

1 provide value to participating customers. Achieving these goals and arriving at the expected
2 outcomes requires MCE to implement a multi-faceted strategy incorporating best-practices,
3 innovative approaches, and lessons learned from MCE’s years of experience administering EE
4 programs. MCE describes these programmatic strategies in the following, focusing on (1) the
5 Marketplace program model; (2) Strategic Energy Management (SEM) and behavioral messaging
6 and (3) financing.

7 Marketplace Programs

8 MCE deploys a range of strategies to achieve outcomes that are consistent with its goals.
9 Fundamental to a number of those strategies is expanding on the concept of pay-for-performance
10 (P4P) programming. MCE is not only expanding the application of P4P programming, but is also
11 revisiting the metric for performance. MCE is moving away from savings as the metric for
12 measuring performance and instead using TSB. This strategy leverages a population-level NMEC
13 program design to quantify savings, and advances data analytics to assess customer load shapes
14 and the load shape of savings that accrue to the portfolio. In short, this strategy sets payment
15 structures not just based on total energy impacts, but on when exactly the savings occur—which
16 creates a more direct linkage between incentives and the value delivered to the system.

17 Payable rates are calculated by first quantifying the avoided cost value of metered savings,
18 which are then extrapolated across the useful life of an EE measure. The lifecycle avoided cost
19 value of a project comprises its TSB. The payable value of these projects is calculated as the TSB
20 minus the cost considerations (*e.g.* administration) that must be applied to determine the total
21 resource cost. The remaining benefits are paid out to the aggregator⁸, who have full flexibility to
22 use program payments to reduce customer costs as-needed.

⁸ In this Application, MCE defines an “aggregator” as a vendor or provider of an EE or demand management service that aggregates a number of customers for participation in an MCE Marketplace

1 The P4P structure based on TSB is core to MCE’s Marketplace Programs which include
2 MCE’s Efficiency Markets (described in Chapter 4) and Peak FLEXmarket programs (described
3 in Chapter 8). The P4P structure is also what the Commission established as the basic ground rules
4 for the statewide Market Access Program (MAP) which was recently approved by the Commission
5 in D.21-12-011.⁹

6 Within MCE’s Marketplace programs, providers must estimate the forecasted value of their
7 projects, which relies on predicted savings values. By applying an appropriate load shape and
8 expected useful life (EUL), aggregators can estimate a project’s TSB value as well as their
9 performance payment (as described above). This forecasted value is what project aggregators can
10 reference when determining appropriate cost-sharing arrangements with customers, which may be
11 influenced by a number of transaction and other cost considerations. Furthermore, project
12 aggregators have an incentive to forecast project value accurately since a percentage of the
13 project’s forecasted value is deducted from the eventual payments. Forecasting value too high will
14 result in a disproportionately high application of program costs, which chips away at the resulting
15 payment. Alternatively, forecasting value too low may lead to the eventual project value exceeding
16 the value of their reserved incentive. While there are a number of benefits from administering
17 programs in this way, the most important may be that it embeds cost-effectiveness in any program
18 payment, since the available funding for project payments cannot exceed applicable costs. While
19 the applicable costs may fluctuate over time depending on the portfolio needs or regulatory

program. An aggregator is distinct from a traditional program “implementer” which MCE defines in this Application as a single implementation partner under a particular EE program (not including Marketplace programs).

⁹ R.13-11-005, D.21-12-011, *Energy Efficiency Actions to Enhance Summer 2022 and 2023 Electric Reliability*, OP1 at 59 (Dec. 2, 2021). The “Market Access” program uses population-level NMEC rules and the P4P concept to incentivize implementers to find and deliver EE projects that deliver *measurable* peak or net peak demand savings (similar to MCE’s Efficiency Market programs, but with an emphasis on peak and net peak benefits).

1 direction (*e.g.* increasing total resource cost (TRC) ratio thresholds), program payments will
2 simply adjust to all costs that must be considered.

3 The strategic importance of the Marketplace program design and benefits-based
4 performance payment structure is twofold: (1) it delivers on outcomes (*e.g.*, aligning incentives
5 and program expenditures with benefits delivered, which evolves in parallel with avoided cost
6 updates); and (2) it enables a broad array of strategies (*i.e.*, a diversified network of EE and
7 demand management providers). First, under traditional EE or conventional P4P programs, there
8 is little upside for providers to seek out customers who have the potential to save energy during
9 high-value peak hours,¹⁰ or focus on hourly impacts associated with premium avoided cost values.
10 But with performance payments aligned with benefits, participants are incentivized to recruit high
11 value customers, and deliver projects that deliver more TSB, knowing that they will be
12 compensated for additional value delivered.

13 Moreover, as a portfolio management strategy, the Marketplace model opens the door to a
14 much larger group of providers instead of a small, select group of implementation partners more
15 common to traditional EE portfolios. This results in an increase in the diversity of EE services
16 provided under the program umbrella. It is also a valuable strategy for customers who may have
17 unique needs and energy pain points not captured by program designs focused on smaller subsets
18 of measures or target markets. Diversifying the pool of participants through this model also
19 reinforces MCE's confidence in achieving its goals, since the program's funding is not locked up
20 with individually contracted implementation partners subject to payment caps tied to assumed
21 deliverable value. Instead, funding is allocated to providers who have submitted complete projects,
22 and funds are only paid once the TSB of metered projects has been verified. This in turn minimizes

¹⁰ Peak hours are defined as 4 p.m. to 9 p.m. from June 1 through September 30 each year.

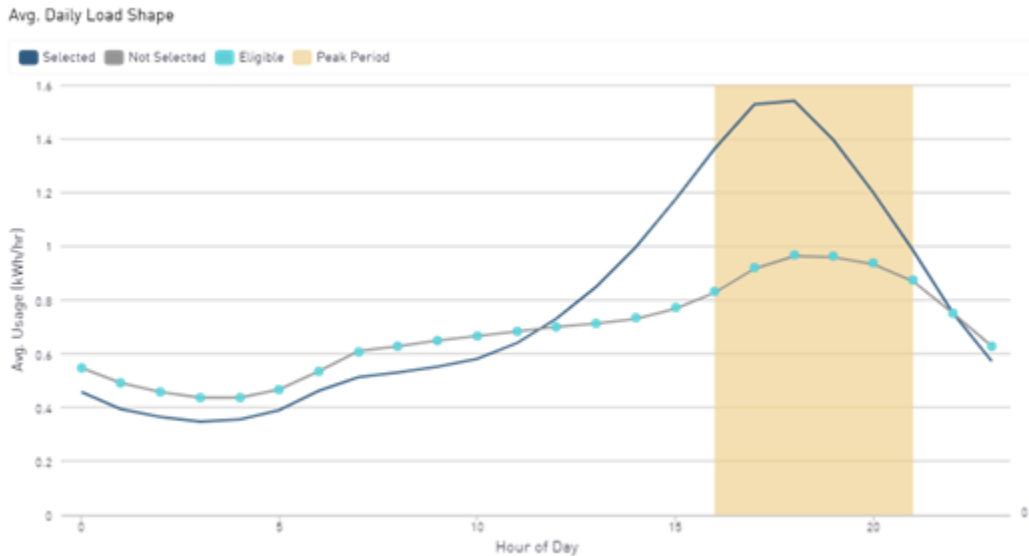
1 the risk of portfolio underperformance, programmatic downtime and administrative waste that is
2 commonplace in the traditional solicitation and contract management models. The Marketplace
3 model allows MCE to continue innovating instead of simply closing programs that are not cost
4 effective or productive as a standalone program.

5 The flexibility that MCE's Marketplace programs provide is also not limited to
6 administrative advantages and broad market access. MCE's Marketplace programs also afford
7 providers significant leeway to develop customer offers as they see fit, based on each provider's
8 strengths, business models, and variable customer needs rather than on prescriptive measure lists.
9 At the end of the day, it is in the interest of the programs, customers and aggregators to generate
10 valuable impacts, and it is the providers themselves who are often best positioned to make
11 decisions that facilitate results and improve project uptake among customers. These decisions
12 include strategies for identifying and engaging customers, project specifications, scope and
13 appropriate measures, as well as customer incentive structures and rebate payments. Ultimately,
14 providers' business models are largely rooted in project sales; the role of MCE's Marketplace
15 programs is simply to make MCE's service area a highly attractive place to do business. To that
16 end, MCE also supports participating aggregators in a number of different ways, including the
17 provision of co-branded marketing collateral, alignment with financing opportunities, and support
18 from MCE's business relationship managers.

19 In addition, MCE uses advanced meter data analytics to support Marketplace providers.
20 Advanced meter data analytics allows MCE to identify high value customers based on load shape
21 or other customer attributes. From an avoided cost perspective, the most valuable customers to
22 serve are those who have outsized demand exposure in peak hours. For example, the figure below
23 describes a subset of customers whose overall consumption is aligned with the subset's average,

1 but whose summer peak demand is exceptionally high. This group of customers presents clear
2 opportunities for peak period savings which may generate higher avoided cost value.

3 *Figure 3-2: Advanced Meter Data Analysis for Marketplace Providers*



4
5 Alternatively, MCE can leverage data analytics to identify customer load shapes that fit
6 with specific aggregator business models. These models can use varying criteria, including a
7 customer’s temperature dependent load, baseload, or location, to assess opportunities in
8 refrigeration, controls, lighting, or heating, venting and air conditioning (HVAC) retrofits. MCE
9 can refer customers to specific program partners based on the results of the data analysis.

10 The central role of data and the deployment of NMEC methods—paired with comparison
11 groups—has also generated new opportunities to integrate demand management¹¹ alongside EE
12 retrofits or as standalone projects. MCE’s Peak FLEXmarket, which launched in 2021, integrates
13 demand management with EE.¹² The methods deployed in the Efficiency Market and the Peak

¹¹ MCE defines “demand management” as the umbrella term for customer responsiveness to price, behavior or equipment-driven signals which enable load shifting, load shedding, load shaping, and demand response (DR).

¹² MCE’s Peak FLEXmarket program is described in more detail in Exhibit 2, Chapter 8.

1 FLEXmarket programs allow MCE to accurately attribute savings to both long-term energy
2 efficiency and seasonal demand flexibility or demand response (DR). Together, these programs
3 remove a number of barriers that have previously stifled the integration of EE and demand
4 management.

5 Overall, MCE's Marketplace programs value EE and demand management side by side,
6 and improve grid reliability by driving EE and demand management savings that coincide with
7 peak demand hours. MCE anticipates these strategies will result in benefits for both customers and
8 the grid, and that ratepayer funds in the Resource Acquisition segment are spent primarily on cost
9 effective programs that generate TSB.

10 Strategic Energy Management and Behavioral Messaging

11 Another strategy that MCE employs in the Resource Acquisition segment is to seek out no-
12 and low-cost savings opportunities through SEM and behavioral messaging. SEM and behavioral
13 messaging both focus on highly cost-effective energy savings and conservation opportunities. But
14 the two offerings differ insofar as SEM is a high-touch delivery model providing tailored, high-
15 value customer service generally focused on the largest energy consumers, whereas behavioral
16 messaging is a light-touch approach and is best applied with residential customers. SEM often uses
17 a phased, incremental approach in which no- and low-cost measures are pursued first, followed by
18 higher capital-intensive projects once benefits are realized. It can also serve as a gateway for
19 participation in MCE's Peak FLEXmarket, since SEM customers often have high peak
20 consumption and SEM workshops offer a seamless opportunity to introduce demand management
21 concepts, recommendations and training. Behavioral messaging, on the other hand, consists of
22 regular communication to customers about their energy consumption patterns coupled with
23 recommended behavioral changes to encourage energy conservation through EE and

1 electrification. MCE’s Home Energy Report (HER) program is an example of a behavioral
2 messaging strategy.

3 An outcome of this strategy is that opportunities, benefits, and savings are optimized for
4 each customer. Both SEM and behavioral messaging guides customers to act on no- and low- cost
5 opportunities while promoting additional programs and offerings to encourage deeper involvement
6 in EE activities.

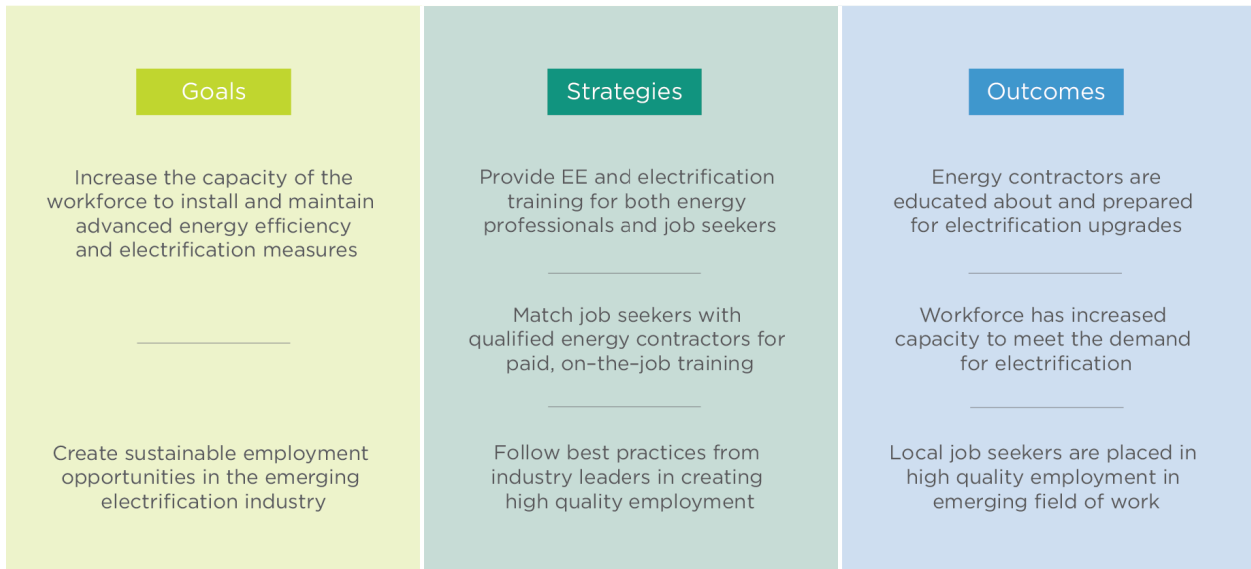
7 Financing

8 MCE proposes a strategy in its Resource Acquisition segment to identify and connect
9 financing solutions with customers and Marketplace aggregators. Identifying financing solutions
10 facilitates customer and aggregator action, both within the Marketplace and conventional EE
11 programs. This includes innovative third-party offerings such as the National Energy Improvement
12 Fund’s (NEIF) “rebate bridge” for aggregators, which addresses a challenge that many aggregators
13 face when considering participation in a NMEC program—waiting a year to be paid. MCE also
14 collaborates with customer financing solutions from third-party providers (e.g., Pacific Gas and
15 Electric Company’s (PG&E) on-bill financing (OBF) program) that ensure customers have
16 resources available to keep projects affordable.

17 Deployed in tandem, MCE’s Resource Acquisition segment strategies (i.e., Marketplace
18 programs, SEM and behavioral messaging, and financing) will result in the MCE service area
19 being an optimal location for providers to invest in EE because providers and customers have
20 confidence in the framework for receiving compensation and the upfront financial support to
21 implement beneficial EE projects.

1 specifically support and grow the electrification workforce. MCE identified a number of specific
 2 barriers in its service area that hinder the widespread adoption of advanced EE and electrification
 3 equipment. The first of these barriers is the availability of a trained workforce, in part because job
 4 seekers are not aware of the opportunities for sustainable careers in EE and electrification. Another
 5 barrier is the reticence of energy professionals to introduce technologies that they have not been
 6 trained to install and maintain, can be more expensive and complex to install and maintain, and
 7 are not yet as widely available as their gas counterparts. To overcome these barriers, MCE
 8 developed the following goals, strategies and outcomes for the Market Support segment illustrated
 9 in the figure below.

10 *Figure 3-3: Market Support Segment Goals, Strategies and Outcomes*



11
 12 The goals of the Market Support segment reflect the need for a highly skilled,
 13 knowledgeable, and motivated workforce to help drive the market toward clean and efficient
 14 building solutions. One goal of this segment is to increase the capacity of the workforce to install
 15 and maintain advanced EE and electrification measures. The second and related goal is to create
 16 opportunities for sustainable employment in the emerging electrification industry. MCE plans on

1 reaching these goals through the following strategies: (1) energy and electrification education; (2)
2 match job seekers with energy professionals; and (3) creating high-quality employment.

3 Energy and Electrification Education

4 MCE’s Market Support strategy will include developing resources to educate both energy
5 professionals and job seekers on the fundamentals of electrification including its technical,
6 environmental, and economic aspects. In regard to job seekers, MCE will collaborate with industry
7 partners and local training programs to develop and offer training with curricula focused on
8 electrification while reaching a wide audience of prospective employees. To reach energy
9 professionals, MCE will provide electrification and advanced EE education opportunities via
10 workshops and field meetings, seeking to improve the knowledge and skills of the existing EE
11 workforce and allowing them to expand into new areas of the industry.

12 An expected outcome of these educational strategies is an energy professional industry that
13 is prepared to install advanced EE and electrification upgrades while also being able to convey the
14 value proposition of electrification to end users. This preparation is a crucial factor in transforming
15 electrification from a niche upgrade to standard practice. Another outcome of MCE’s educational
16 strategies is increasing the workforce’s capacity to meet the demand for electrification. The
17 increased availability of skilled and knowledgeable electrification professionals can help
18 customers make the transition to electric homes and businesses whether they are operating in
19 partnership with a program or moving forward on their own.

20 Match Job Seekers with Energy Professionals

21 Another strategy for achieving Market Support goals is to match job seekers with the
22 energy contractors that perform electrification or other advanced EE installations for paid, on-the-
23 job training. MCE’s program implementers will work to ensure that recent graduates of energy

1 industry training programs are adequately prepared to step into jobs in the electrification field.
2 More specifically, MCE will help place local graduates in long-term employment opportunities
3 and will offer paid, on-the-job training to defray costs for contractors to vet new potential
4 employees, and to provide a stipend for job seekers as they engage in a new career path.

5 The expected outcome of this strategy is to grow the qualified workforce that can support
6 a growing demand for qualified and advanced EE installations including, but not limited to,
7 electrification measures.

8 Creating High Quality Employment

9 MCE proposes a third strategy focused on following best practices from industry leaders
10 in creating high quality employment. MCE will ensure that its WE&T efforts prioritize equity, job
11 access for local residents, and fair employment opportunities for all job seekers. MCE will achieve
12 this goal by partnering with local workforce development groups such as the High Road to
13 Building Decarbonization in the San Francisco Bay Area Project (High Road),¹⁴ which is at the
14 forefront of ensuring that the jobs created by the building decarbonization industry are high quality.
15 Working with organizations advancing High Road approaches, MCE forges partnerships with
16 employers to make investments in career paths for their staff. These partnerships are essential for
17 fostering robust workforce development and creating growth opportunities in the EE and
18 electrification industry.

19 The expected outcome of this strategy is that local graduates are placed in high-quality,
20 long-term employment opportunities in a sustainable and growing field of employment.

¹⁴ High Road Training Partnerships Projects – High Road to Building Decarbonization in the San Francisco Bay Area at <https://cwdb.ca.gov/initiatives/high-road-training-partnerships/>.

1 **3.3. Projected Annual Portfolio- and Sector-level Metrics**

2 The Commission determined annual portfolio- and sector-level metrics for MCE’s EE
3 portfolio in D.18-05-041, *Decision Addressing Energy Efficiency Business Plans* (May 31, 2018).
4 Those metrics still apply as per D.21-05-031.¹⁵ See Exhibit 3, Appendix A for a table of portfolio
5 and sector-level metrics for all programs under MCE’s EE portfolio for PYs 2024-2031.

6 **3.4. Market Support Segment Metrics**

7 D.21-05-031 directed all PAs to develop metrics for evaluating progress of Market Support
8 and Equity programs in the absence of strict cost-effectiveness limitations.¹⁶ The Commission also
9 determined that those metrics will be developed via a California Energy Efficiency Coordinating
10 Committee (CAEECC) working group (WG) and noted that it would evaluate these metrics when
11 deciding whether to approve portfolio proposals from all PAs.¹⁷ In response to the directive from
12 D.21-05-031, the CAEECC facilitators convened a Market Support Metrics Working Group
13 (MSMWG) to develop sub-objectives and associated metrics for the Market Support segment. The
14 MSMWG met four times between July and September 2021, with additional work by a sub-group
15 of members, and concluded with the October 6, 2021 submission of a final report to the
16 Commission for consideration.¹⁸ The MSMWG final report included several consensus
17 recommendations and one non-consensus recommendation. For the non-consensus
18 recommendation, the MSMWG final report provides two options, with supporting rationales. PAs
19 were directed to choose the option that best suits their programs and applications.

¹⁵ D.21-05-031, p. 10.

¹⁶ *Id.*, p. 23

¹⁷ *Id.*

¹⁸ All documentation relating to the MS Metrics WG can be found on the CAEECC website at:
<https://www.caeec.org/market-support-metrics-wg>.

1 In its application, MCE follows all of the consensus recommendations set forth in the
2 MSMWG final report that are applicable to MCE's Market Support program. The non-consensus
3 recommendation pertains to target-setting for Market Support segment metrics, and the MSMWG
4 final report provides two options from which PAs may choose. Under Option 1, PAs will set targets
5 for Market Support segment metrics following the collection of two years of data (or a baseline
6 has been set using reasonable proxy data). Under Option 2, PAs will propose targets in their budget
7 applications and/or set a date certain by which they will propose targets for all Market Support
8 segment metrics. MCE adopts Option 1, and will track and report on all relevant Market Support
9 metrics during program years 2022 and 2023. Thereafter, MCE will propose appropriate targets
10 based on the collected data in its 2023 true-up AL.¹⁹ As noted in the MSMWG final report, it can
11 be difficult to determine realistic and meaningful targets for new programs, pilots, and/or programs
12 that are still being designed. Additionally, existing programs that are being moved into the Market
13 Support segment may not have existing data that is relevant to the new Market Support segment
14 metrics, which can also frustrate efforts to set reasonable and meaningful targets. Option 1 should
15 allow sufficient time to collect data relevant to Market Support segment metrics and propose
16 appropriate targets in the 2023 true-up AL.

17 See Exhibit 3, Appendix C for a table of Market Support metrics.

18 **3.5. Segment-specific Coordination**

19 Coordination on Market Support programs occurs at the program and sector level and is
20 described in Exhibit 2, Chapters 4 and 5.

¹⁹ Pursuant to Option 1 for target-setting, as set forth in the MSMWG final report. D.21-05-031 requires that on September 1 in each odd year, each program administrator file an advice letter adjusting its technical inputs, forecasts and portfolio to account for changes in EE potential and goals. D.21-05-031, OP 10 at 83.

1 **3.6. Interaction with Market Transformation Activities**

2 In 2019, a Market Transformation WG hosted by the CAEECC submitted a report
3 proposing a “market transformation framework” for adoption by the Commission.²⁰ The market
4 transformation framework, as described in the report, aimed to create long-lasting, sustainable
5 changes in the structure of California’s EE market by funding innovative and early-stage EE
6 technologies, programs and other strategies that would help achieve California’s energy efficiency,
7 equity and greenhouse gas (GHG) reduction goals. MCE submitted comments which largely
8 supported the market transformation framework, but made certain targeted recommendations
9 regarding the use of the framework and the role of the Market Transformation Administrator
10 (MTA).²¹

11 In December 2019, the Commission adopted the market transformation framework.²² The
12 framework details strategies, stakeholder roles and responsibilities, a statewide administrator,
13 budgets, cost-effectiveness, and coordination with Resource Acquisition programs.²³ The
14 framework anticipates a single, statewide MTA responsible for administering the framework and
15 coordinating with similar entities in other states, but does not select a statewide MTA.²⁴ Instead,
16 the Commission directed PG&E to act as the statewide lead responsible for selecting an
17 independent, statewide MTA. PG&E has since issued a request for proposals (RFP) from qualified

²⁰ R.13-11-005, The Natural Resources Defense Council (NRDC) Motion Seeking Commission Ruling and Comment Period on the California Energy Efficiency Coordinating Committee Market Transformation Working Group Report, Attachment A (Mar. 19, 2019)

²¹ R.13-11-005, Comments of Marin Clean Energy on Market Transformation Working Group Report (May 6, 2019).

²² R.13-11-005, D.19-12-021, *Decision Regarding Frameworks for Energy Efficiency Regional Energy Networks and Market Transformation* (Dec. 5, 2019).

²³ *Id.*, Attachment A.

²⁴ *Id.*

1 third-parties to serve as California’s independent statewide MTA (solicitation opened on March
2 10, 2021 and closed on June 30, 2021).

3 No more than 36 months after PG&E selects and enters into a contract with an MTA,
4 PG&E is required to file, on behalf of the MTA, an application with the Commission for approval
5 of an initial tranche of market transformation initiatives (MTI).²⁵ The MTA will have a five-year
6 budget of \$250 million for the first tranche of MTIs²⁶—that five-year period and \$250 million
7 budget will begin after the Commission approves or modifies the application for the initial set of
8 MTIs.²⁷ The MTA must also designate a “Market Transformation Advisory Board” to advise it on
9 its plans and activities.²⁸

10 Building upon this background, the Commission authorized the further segmentation of the
11 EE portfolio into the Resource Acquisition, Market Support and Equity segments in D.21-05-
12 031.²⁹ The Decision also determined that all activities under the market transformation framework
13 adopted by D.19-12-021 will be treated completely separate from the rest of the (segmented) EE
14 portfolio, particularly in regards to budget and cost-effectiveness requirements.³⁰

15 MCE intends to continue tracking the development of MTIs and coordinate as needed once
16 additional details become available. Many of MCE’s existing programs are already designed with
17 market transformation concepts and goals in mind. As described above, MCE’s Market Support
18 segment consists of a single program, the WE&T program. The program aims to foster the long-
19 term success of the EE market by educating customers, training contractors and job seekers, and
20 building meaningful partnerships. Over the medium-term, MCE will engage with the MTA to

²⁵ *Id.*, OP9 at 91.

²⁶ *Id.*, OP7 at 90.

²⁷ *Id.*, OP9 at 91.

²⁸ *Id.*, OP8 at 90.

²⁹ D.21-05-031, OP2 at 81.

³⁰ *Id.*, p. 22

1 ensure coordination and to ensure consistency between MCE’s Market Support programs and the
2 MTIs emerging under the market transformation framework.

3 **4. Equity**

4 **4.1. Distribution of Budget to Equity Segment**

5 Table 3-3 shows the annual budget and the percentage of MCE’s total portfolio budget
6 attributable to the Equity segment. The rationale for distributing budget to the Equity segment is
7 described in section 1 above.

8 *Table 3-3: Annual Budget of Equity Segment*

Year	Segment	Annual Spending Budget	Percent of Portfolio
2024	Equity	\$ 4,748,416	25%
2025	Equity	\$ 4,841,891	25%
2026	Equity	\$ 4,857,455	25%
2027	Equity	\$ 4,949,016	25%
Total		\$ 19,396,778	25%

9

10 **4.2. Equity Strategies, Goals, and Outcomes**

11 Creating more equitable communities is a core tenet of MCE’s mission and vision and is
12 central to how MCE approaches EE program design and delivery for its increasingly diverse and
13 growing customer base.³¹ Serving MCE’s communities means taking a holistic view on how to
14 best support disadvantaged, HTR, and underserved communities. MCE participated actively in the
15 CAEECC Equity Metrics Working Group to ensure that programs proposed under the Equity
16 segment are practical yet ambitious in supporting eligible customers and communities.

17 For the purposes of this application, disadvantaged communities (DACs) are defined in
18 D.18-05-041 as those designated as such by the California Environmental Protection Agency
19 (CalEPA).³² D.18-05-041 also defines HTR customers through a set of criteria including

³¹ See MCE’s mission and vision, available at: <https://www.mcecleanenergy.org/about-us/>.

³² D.18-05-041, Section 2.5.1 at 39.

1 geographic location, primary language spoken, income (for residential customers), business size
2 (for small business customers), and whether the customer is a renter or lessor.³³

3 While the Commission has not previously defined the term “underserved,” the final report
4 of the CAEECC Equity Metrics Working Group recommends three options for how PAs may
5 define “underserved” in their applications.³⁴ Option 1 allows PAs to use the Commission’s
6 definition of ESJ communities, as set forth in its ESJ Action Plan.³⁵ Option 2 allows PAs to begin
7 with the ESJ Communities definition and also propose additional categories of underserved
8 customers, along with an accompanying rationale supporting the addition. Option 3 allows PAs to
9 define for themselves what “underserved” will mean in the context of their Equity segment
10 programs.

11 Consistent with D.21-05-031,³⁶ MCE elects Option 2. The ESJ Action Plan defines ESJ
12 Communities as those that are (1) predominantly communities of color or low-income; (2)
13 underrepresented in the policy setting or decision-making process; (3) subject to a disproportionate
14 impact from one or more environmental hazards; and (4) likely to experience disparate
15 implementation of environmental regulations and socioeconomic investments in their
16 communities. This includes, but is not limited to, (1) DACs as defined by CalEPA; (2) all tribal
17 lands; (3) low-income households; and (4) low-income census tracts. As a modifier to the

³³ *Id.*, Section 2.5.2 at 41.

³⁴ CAEECC Equity Metrics Working Group Final Report, Section 5.3 at 21.

³⁵ The ESJ Action Plan was adopted in February 2019 and is currently undergoing an update process; however, the update does not contemplate changes to this definition of ESJ Communities. *See* Draft ESJ Action Plan version 2.0 (October 2021), available at: <https://www.cpuc.ca.gov/esjactionplan/>.

³⁶ Defining the Equity segment as, “Programs with a primary purpose of providing energy efficiency to hard-to-reach or underserved customers and disadvantaged communities in advancement of the Commission’s Environmental and Social Justice (ESJ) Action Plan; Improving access to energy efficiency for ESJ communities, as defined in the ESJ Action Plan, may provide corollary benefits such as increased comfort and safety, improved indoor air quality, and more affordable utility bills, consistent with Goals 1, 2, and 5 in the ESJ Action Plan.” *See* Draft ESJ Action Plan at 14-15.

1 definition of ESJ communities, MCE proposes to include households at or below 400% of the
2 Federal Poverty Level (FPL) or 80% average median income (AMI). MCE proposes this
3 modification to help fill an eligibility gap for ratepayers that earn more than the common income-
4 based eligibility thresholds but are still in need of financial assistance for EE treatments. Additional
5 modifiers specific to the commercial sector will be explored further in the new Commercial Equity
6 program’s design phase and through community engagement. In this application, MCE refers to
7 all categories of customers eligible for its proposed Equity segment programs using the umbrella
8 term “Equity Customers.” MCE defines “Equity customers” as residential customers and
9 businesses in ESJ communities.³⁷

10 To date, MCE has experienced the following challenges serving Equity customers:

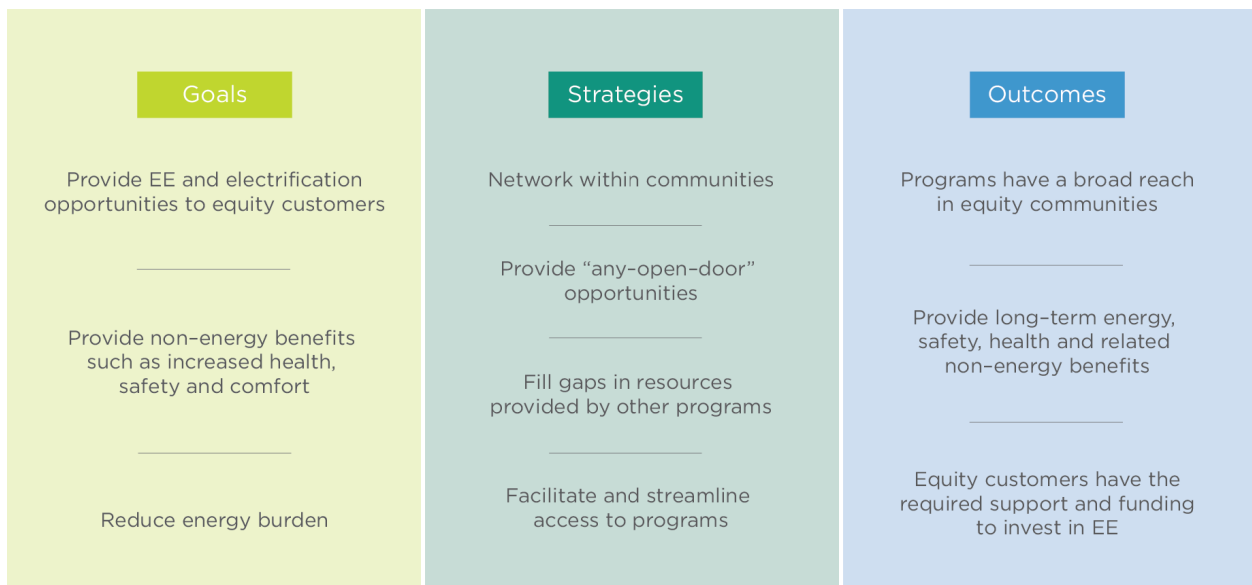
- 11 • Split incentives for tenants and landlords often prevent upgrades because (1) the
12 landlord has a limited incentive to reduce utility bill costs where the tenant pays the
13 utility bill; and (2) the tenant has limited incentive to invest in efficient equipment
14 they cannot take with them when they move out;
- 15 • Eligibility guidelines for low-income residential programs are set at a state level
16 using 200% of FPL as a benchmark, which can exclude low-income renters living
17 in higher cost of living areas;
- 18 • It is more difficult to provide behavioral interventions to customers that may not
19 have reliable or affordable internet access;
- 20 • Language barriers can prevent non-English speakers from participating;
- 21 • Small commercial customers may lack the staff bandwidth, specific technical
22 expertise, or capital to invest in EE improvements;

³⁷“ESJ communities” defined by the Commission’s ESJ Action Plan (2019) with the additional income modifier described above.

- 1 • Small commercial customers are also often tenants and face the split incentive
2 dilemma described above; and
- 3 • Commercial EE programs tend to direct attention towards larger customers who
4 may present larger savings opportunities, resulting in a lack of service to small
5 commercial customers.

6 With this background and shaped by its mission and customer priorities, MCE has
7 developed a set of goals for the Equity segment along with proposed strategies and projected
8 outcomes, as shown in the figure below.

9 *Figure 3-4: Equity Segment Goals, Strategies and Outcomes*



10

11 A goal of the Equity segment is to provide EE and electrification opportunities to Equity
12 customers, both residential and non-residential, as defined above. Equity customers often face
13 higher energy burdens and suffer from negative environmental health impacts at home and work,
14 both of which can be mitigated through EE and electrification. This leads to the second goal of the
15 Equity segment which is to provide NEBs such as (1) increased health, comfort, safety, and

1 resilience; (2) improved air quality; and (3) more affordable utility bills.³⁸ These benefits are not
2 accounted for in the Resource Acquisition segment benefits calculation, but are often the impetus
3 for taking action in underserved communities and are consistent with California’s evolving EE
4 policy goals.³⁹

5 MCE proposes four strategies to reach the goals described above: (1) community
6 engagement; (2) “Any Open Door” strategies; (3) fill gaps in resources provided by other
7 programs; and (4) facilitate access to programs.

8 Community Engagement

9 One vital strategy for achieving MCE’s Equity goals is meaningful community engagement
10 and networking.⁴⁰ This includes forming partnerships with trusted community-based organizations
11 (CBOs) and residents to help design, promote and evaluate the benefits of MCE’s EE programs.⁴¹
12 MCE’s community engagement process will ensure that the benefits of the programs align with,

³⁸ Draft ESJ Action Plan at 6 (“Goal 2: Increase investment in clean energy resources to benefit ESJ communities, especially to improve local air quality and public health.”); R.13-11-005, *Assigned Commissioner and Administrative Law Judges’ Amended Scoping Ruling*, p. 6 (Dec. 23, 2021); D.21-05-031, p. 15.

³⁹ D.21-05-031, p. 11 (“The traditional definition of...programs which deliver energy efficiency savings, neglects the nuance that certain programs that deliver some energy savings have other primary objectives, such as supporting equity goals...These programs serve an important function, but because of their high costs, tend to weigh down portfolio-level cost effectiveness calculations.”); California Energy Commission, *Low-Income Barriers Study, Part A: Overcoming Barriers to Energy Efficiency and Renewables for Low-Income Customers and Small Business Contracting Opportunities in Disadvantaged Communities*, December 2016, at 1 (summarizing the requirements of SB 350), 3, 14, 59.

⁴⁰ ESJ Action Plan at 7 (“Goal 5: Enhance outreach and public participation opportunities for ESJ communities to meaningfully participate in the [Commission]’s decision-making process and benefit from [Commission] programs.”).

⁴¹ California Environmental Justice Alliance, *Building a Just Energy Future: A Framework for Community Choice Aggregators to Power Equity and Democracy in California*, pp. 6-7 (2020), available at: <https://caleja.org/wp-content/uploads/2020/11/CEJA-CCA-REPORT-SINGLE-PAGE.pdf> (recommending CCAs promote equity through coordination with local CBOs, accessible information and outreach, and community-driven local program design).

1 and meet an accurate baseline of, community-driven needs.⁴² This information will be relevant to
2 both ensuring the success of Equity programs and for mitigating barriers for Equity customer
3 participation in EE programs more broadly.

4 This strategy is also based on developing multilingual outreach and program collateral to
5 ensure that communities have access to information in their primary languages. Another tactic
6 under this strategy is recruiting trade allies to canvas eligible communities within MCE’s service
7 area. MCE will work with community program partners that have ready access to key audiences
8 to ensure funds are spent efficiently through these partners via email and through in-person
9 recruitment and outreach events.

10 Any Open Door Strategies

11 The second strategy that MCE employs is to provide “Any Open Door”⁴³ opportunities for
12 customers to participate in a variety of different programs. Under this model, MCE will coordinate
13 with local and statewide partners to offer a suite of services to its customers irrespective of their
14 economic or housing situation. This entails stacking and leveraging multiple program offerings to
15 maximize customer benefit, particularly for Equity customers. In the “Any Open Door” model,
16 customers can easily learn about multiple programs for which they may be eligible, no matter
17 which program they engage with first.

18 For example, in the current program cycle, MCE has coordinated efforts under its
19 multifamily programs with Bay Area Regional Energy Network’s (BayREN’s) Bay Area
20 Multifamily Building Enhancements (BAMBE) program to ensure that multifamily properties

⁴² The Greenlining Institute, Equitable Building Electrification Framework, pp. 6, 30 (2019), available at:
https://greenlining.org/wp-content/uploads/2019/10/Greenlining_EquitableElectrification_Report_2019_WEB.pdf.

⁴³ “Any open door” refers to MCE’s strategy to coordinate program delivery in a way that allows customers access to more programs and benefits by breaking down silos between programs.

1 have access to comprehensive EE solutions. Since both PAs share common implementers for
2 multifamily programs, program staff and implementers can easily collaborate to determine the best
3 path for the customer. Another example from the current program cycle is MCE’s coordination
4 with BayREN on MCE’s Home Energy Savings (HES) and BayREN’s Home+ programs. Program
5 implementers seek to ensure comprehensive services to customers through regular coordination
6 and communication. This sharing of information also ensures that more moderate-income
7 customers in the Bay Area have access to a low- or no-cost EE and electrification upgrade program
8 and are directed to the most appropriate program offering. Finally, MCE works with local
9 government agencies to promote programs and services for residential customers. One example of
10 a collaboration is MCE’s work with the County of Marin on its “Electrify Marin”⁴⁴ program.

11 The “Any Open Door” model also connects customers with programs outside of EE that
12 are supported by a variety of funding sources such as other distributed energy resource (DER)
13 ratepayer-funded programs, grant-funded programs, or programs funded through MCE’s
14 generation revenues. One such example is MCE’s Income Qualified Solar Program, which
15 supplements GRID Alternatives’ incentives to provide no-cost solar to low-income properties.
16 Another is the Marin Community Foundation (MCF) Healthy Homes grant, administered by MCE,
17 which provides funding to income-qualified Marin residents for additional health and safety
18 upgrades. More detailed information on coordination with other EE and DER programs is provided
19 in Exhibit 2, Chapter 5, Section 6.

⁴⁴ Electrify Marin is a natural gas appliance replacement rebate program offered by the County of Marin. Additional details can be found at: <https://www.marincounty.org/depts/cd/divisions/sustainability/energy-programs/electrify>.

1 Fill Gaps in Resources Provided by Other Programs

2 MCE proposes a third strategy focused on filling gaps in resources provided by other
3 programs. This includes reaching those residential customers that are above the income threshold
4 for the Energy Savings Assistance (ESA) program⁴⁵ but still require support to invest in energy
5 efficiency. These customers tend to lack the resources to afford multi-measure, comprehensive,
6 long-term home EE and electrification upgrades. MCE’s programs offer no-cost assessments and
7 scopes of work that include EE and electrification measures. In addition, MCE supports additional
8 services such as electric panel upgrades to facilitate electrification and envelope retrofits to reduce
9 energy usage and improve comfort. These types of upgrades (*e.g.*, electric panel upgrades) are
10 often not supported by traditional EE programs yet present a major hurdle for adopting innovative
11 EE measures to improve the comfort, health and safety of homes.

12 In the commercial sector, gaps are often created when programs seek to serve high value,
13 high consumption customers. Gaps may also surface when programs focus on a sub-sectors or
14 technology that do not lend themselves to wide-scale adoption. MCE intends to explore two data-
15 driven strategies to counteract this tendency. The first is to review historical participation records
16 and program participation in specific communities. Using a five-year historical analysis, it may be
17 possible to draw useful conclusions on which geographic regions or customer segments have likely
18 been underserved by EE programs over a longer period of time. The second data-driven strategy
19 is to identify commercial customers who have relatively low annual consumption, or who have
20 sub-optimal load shapes for participation in MCE’s Marketplace programs. The Marketplace

⁴⁵ Energy Savings Assistance programs offer certain income qualified customers a range of energy efficiency measures and weatherization including attic insulation, energy efficient refrigerators, energy efficient furnaces, weatherstripping, caulking, low-flow showerheads, water heater blankets, and envelope repairs. *See* Cal. Pub. Util. Comm’n, Energy Savings Assistance, available at: <https://www.cpuc.ca.gov/consumer-support/financial-assistance-savings-and-discounts/energy-savings-assistance>.

1 program and Resource Acquisition programs generally will tend to recruit customers based on
2 their annual consumption, load shape and avoided cost potential. To ensure that customers with
3 low annual consumption or low avoided cost values are also served, MCE will consider leveraging
4 data and customer targeting to identify the commercial customers who may otherwise be
5 overlooked by the Resource Acquisition portfolio.

6 Facilitate Access to Programs

7 The fourth strategy is to facilitate and streamline access to EE programs for Equity
8 Customers. MCE offers no-cost assessments, provides program materials and assistance in
9 different languages, and develops scopes of work for customers to facilitate and streamline their
10 participation in EE programs. MCE also provides support with filling in application forms and
11 technical assistance throughout the project planning and installation process.

12 The projected outcome of MCE’s Equity segment is that MCE programs have a broad reach
13 in Equity communities to provide real and long-term energy, health and safety benefits. This aligns
14 with MCE’s mission and ensures that the customers with the greatest need have access to the
15 benefits of EE and electrification.

16 **4.3. Projected Annual Portfolio- and Sector-level Metrics**

17 Annual portfolio- and sector-level metrics for MCE’s EE portfolio were determined in
18 D.18-05-041 (*Decision Addressing Energy Efficiency Business Plans* (May 31, 2018)) and still
19 apply as per D.21-05-031.⁴⁶ See Exhibit 3, Appendix A for a table of portfolio and sector-level
20 metrics for all programs under MCE’s EE portfolio for PYs 2024-2031.

⁴⁶ D.21-05-031, p. 10.

1 4.4. Equity Segment Metrics

2 As described in section 3.4 above for the Market Support segment, D.21-05-031 directed
3 all PAs to develop metrics for evaluating progress of Market Support and Equity programs in the
4 absence of strict cost-effectiveness limitations.⁴⁷ The Commission also determined that those
5 metrics will be developed via a CAEECC WG and noted that it would evaluate the metrics when
6 deciding whether to approve portfolio proposals from all PAs.⁴⁸ In response to the Commission’s
7 directive in D.21-05-031, the CAEECC facilitators convened an Equity Metrics Working Group
8 (EMWG) to develop metrics for the Equity segment. The EMWG met four times between July
9 and September 2021, and also hosted a public workshop to solicit input on the Equity segment
10 objective and metrics from a broader range of stakeholders. The EMWG submitted its
11 recommendations in a final report for the Commission’s consideration in October 2021.⁴⁹ The
12 EMWG final report included several consensus recommendations and three non-consensus
13 recommendations. For each non-consensus recommendation, the EMWG final report provides two
14 or more options, with supporting rationales. PAs were directed to choose the option that best suits
15 their programs and applications.

16 In its application, MCE follows all of the consensus recommendations set forth in the
17 EMWG final report that are applicable to MCE’s Equity segment programs. Similar to the
18 MSMWG, target-setting for Equity segment metrics was a non-consensus recommendation, and
19 the EMWG provides two options from which PAs may choose. Under Option 1, PAs will set
20 targets for Equity segment metrics following the collection of two years of data (or a baseline has
21 been set using reasonable proxy data). Under Option 2, PAs will propose targets in their budget

⁴⁷ *Id.*, p. 23

⁴⁸ *Id.*

⁴⁹ All documentation relating to the Equity Metrics WG can be found on the CAEECC website at:
<https://www.caeccc.org/equity-metrics-working-group-meeting>.

1 applications and/or set a date certain by which they will propose targets for all Equity segment
2 metrics. MCE adopts Option 1, and will track and report on all relevant Equity metrics during
3 program years 2022 and 2023. Thereafter, MCE will propose appropriate targets based on the
4 collected data in its 2023 true-up AL. Similar to the MSMWG, the EMWG final report notes that
5 it can be difficult to determine realistic and meaningful targets for new programs, pilots, and/or
6 programs that are still being designed. This is the case for MCE’s forthcoming small commercial
7 Equity segment program, which is still under development. Additionally, existing programs that
8 are being moved into the Equity segment may not have existing data that is relevant to the new
9 Equity segment metrics, which can also frustrate efforts to set reasonable and meaningful targets.
10 This rationale applies to MCE’s Multifamily Energy Savings and Home Energy Savings programs,
11 both of which are ongoing programs being moved into the new Equity segment.⁵⁰ Option 1 should
12 allow sufficient time to collect data relevant to Equity segment metrics and propose appropriate
13 targets in the 2023 true-up AL. Consistent with a EMWG final report non-consensus
14 recommendation,⁵¹ MCE proposes conducting meaningful community engagement to further
15 develop these Equity segment metrics in partnership with Equity customers in our service area.⁵²

16 See Exhibit 3, Appendix C for a table of Equity metrics.

17 **4.5. Segment-specific Coordination**

18 Coordination on Equity programs occurs at the program and sector level and is described
19 in Exhibit 2, Chapters 4 and 5.

⁵⁰ As discussed in Exhibit 2, Chapter 4 (Sector Strategy), Section 8.4.

⁵¹ EMWG Final Report, p. 14 (Principle 7: Community Engagement, Option 2: Community Engagement as a Principle), available at <https://www.caeccc.org/equity-metrics-working-group-meeting>.

⁵² As discussed in Exhibit 2, Chapter 4, Section 5.4.2.

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 3
ATTACHMENT A
JENNIFER GREEN RESUME

Jennifer Green

Manager of Customer Programs, MCE
1125 Tamalpais Ave. San Rafael, CA 94901

RELEVANT SKILLS AND EXPERIENCE

- 18 years experience with California energy efficiency policy, regulatory, legislative environment; energy program design, execution, and evaluation; government program design, implementation and reporting.
- Management of MCE's residential and Workforce Education & Training energy efficiency and decarbonization program design, implementation, and reporting.
- Strong commitment to and experience with diversity, equity and inclusion in MCE residential programs and workforce development initiatives.
- Developed and managed municipal energy programs for the City of San Diego.
- Originated and managed a multi-year, multi-partner contract that resulted in: 200+ in-home water and energy consumption assessments.

EDUCATION

San Diego State University, San Diego, CA, 2008, Master of Arts, Public Policy and Political Science

California State University, Sacramento, 1993, Bachelor of Arts, Journalism

Building Performance Institute, New York, 2015, Building Analyst and Envelope Certification

WORK EXPERIENCE

MCE San Rafael, CA, 09/2019 – Present

Manager of Customer Program

- Program design and management of MCE's residential energy efficiency, WE&T and decarbonization portfolio implementation, serving multifamily and single family residential sectors and energy industry workforce.
- Management of MCE's residential energy efficiency equity and general market teams, including California Public Utilities Commission (CPUC) and MCE-ratepayer funded programs.

Center for Sustainable Energy (CSE) 2005-2013, 2016-2018

Senior Manager, Distributed Energy Resources

- Led and executed municipal contract projects for California jurisdictions to enact climate change goals, including development, implementation and evaluation of:
 - Program and project proposals, negotiations, and contract management;
 - Detailed program budgets and true-ups from program inception to evaluation;

- Reporting to CPUC, California Energy Commission, municipal and regional governments.
- Developed and managed proposals for distributed generation, renewables, and energy efficiency programs, including outreach and education, technical skills and quality assurance with local and state industry and municipal partners.
- Built municipal partnerships, staff support for commercial real estate construction, and contractor industry-focused municipal working groups.
- Fostered external energy policy, regulatory, and business partnerships.
- Presented to local, state, regional, business, utility audiences on energy demand side management, distributed generation, and policy/regulatory issues.

Policy and Legislative Manager

- Formulated organizational position documents on renewables, distributed generation, and energy efficiency programs for state and local decision-makers.
- Fostered relationships and collaborations with local and state governments, renewables, distributed generation, and demand side management.
- Developed energy legislative and policy forums with local and statewide elected officials.
- Staffed a regional energy working group with business, advocacy and municipal members.

Gammage and Green, LLC 2014-2016

Owner, Home Energy Rating Service (HERS) Rater

- Developed and managed all financial, marketing, client procurement and engagement, and sustainability efforts for emerging HERS rater company.
- Presented Building Performance Institute rater training curriculum to contractor industry professionals.
- Provided technical support to contractors to ensure compliance with California building standards.
- Performed over 300 HERS verifications.

San Diego Regional Chamber of Commerce 2004-2005

Policy Manager

- Managed regional energy policy, transportation and small business advocacy committees consisting of leading businesses, advocacy groups, and municipal members in San Diego's regional business organization.
- Provided analysis to internal/external audiences on energy, transportation, and small business issues.

San Diego State University 2001-2004

International Admissions Manager

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 4
SECTOR STRATEGY

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 4
SECTOR STRATEGY

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1 **1. Strategies Driving Distribution of Budget Among Sectors**

2 Marin Clean Energy (MCE) developed a budget for its 2024-2027 Portfolio Plan that is
3 based on a zero-based budgeting process.¹ The zero-based budgeting process determines budgets
4 at a program level, grounded in an assessment of Total System Benefit (TSB) potential by program
5 and the implementation, administrative and market support needed to achieve that potential. The
6 distribution of budget across sectors is determined by adding the budgets associated with the
7 individual programs in each sector and is shown in Table 4-1 below.

8 *Table 4-1: Budget Distribution Among Sectors²*

Primary Sector	Total Spending	Budget Request	Percent of Portfolio
Agricultural	\$	2,944,302	4%
Commercial	\$	32,257,036	41%
Industrial	\$	4,381,792	6%
Residential	\$	31,437,077	40%
Cross-Cutting	\$	7,197,110	9%
Total	\$	78,217,316	100%

9

10 **2. Sector Descriptions**

11 MCE presently offers robust and targeted energy efficiency (EE) programs in the
12 agricultural, commercial, industrial and residential sectors, as well as a Workforce, Education and
13 Training (WE&T) program, which is considered “cross-cutting.” MCE is proposing to continue
14 running programs in each of these sectors in program years (PYs) 2024-2027. MCE does not
15 propose a dedicated public sector program for the 2024-2027 budget cycle, although public sector
16 customers may participate in any other MCE program for which they qualify. To date, examples
17 include public sector properties that have enrolled in the Commercial Program, as well as water
18 treatment facilities and school districts that have enrolled in Strategic Energy Management (SEM)

¹ MCE’s zero-based budgeting process is described in detail in Exhibit 2, Chapter 2.

² EM&V costs, which account for 4% of the annual portfolio budget, are included in the cross-cutting sector.

1 pathways under the Industrial and Commercial programs. A brief description of the sectors
2 covered by MCE programs during the PY 2024-2027 timeframe is listed below.

3 Agricultural Sector

4 MCE serves approximately 4,400 agricultural accounts within its service area, consuming
5 over 106,000 MWh annually. This represents a relatively small portion of MCE’s non-residential
6 customer base (3% in terms of non-residential load and 1% of MCE’s total electricity load).
7 However, the agricultural sector’s demand is growing, and MCE expects increasingly intense fire
8 seasons and long-duration droughts to amplify that sector’s energy needs over the portfolio period.

9 Commercial Sector

10 MCE serves approximately 55,000 commercial accounts, as well as an additional 4,000
11 non-residential customers that have no further secondary segment classification per their North
12 American Industry Classification System (NAICS)³ codes. MCE’s commercial sector consumes
13 an estimated 2.7 million MWh of electricity annually, which represents roughly 68% of all MCE
14 non-residential consumption, and 35% of MCE’s total electricity load. As MCE does not offer a
15 dedicated EE program for the public sector, MCE’s non-residential EE programs also serve its
16 roughly 6,800 public sector accounts, which normally participate in the commercial program (and
17 occasionally in the industrial program). MCE’s commercial program design is grounded in its
18 recognition of a diverse customer base, leading to flexible strategies and a nimble program
19 structure that can easily enlist the support of a broad network of providers and EE services.

³ “North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing and publishing statistical data related to the U.S. business economy.” United States Census Bureau, available at: <https://www.census.gov/naics/>.

1 Industrial Sector

2 MCE serves approximately 6,000 industrial accounts, who collectively consume
3 approximately 950,000 MWh annually. This represents approximately 24% of MCE’s non-
4 residential load and 12% of MCE’s total electricity load. Characteristics of industrial customers
5 and their energy priorities are highly variable. MCE’s industrial program acknowledges inherent
6 differences in industrial facilities and emphasizes integrated program offerings under a single
7 programmatic umbrella.

8 Residential Sector

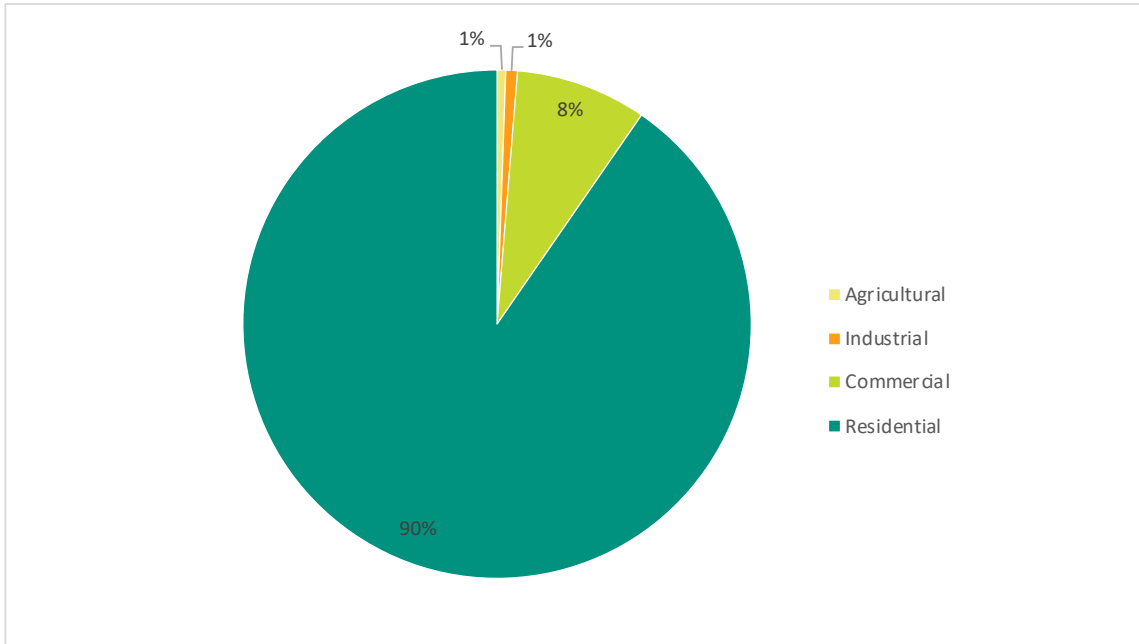
9 MCE serves approximately 487,000 residential customer accounts, making up
10 approximately 90 percent of MCE’s total customer accounts. Residential customers consume
11 approximately 3.8 million MWhs annually, which represents 48.5% of MCE’s total electricity
12 load. Approximately 26% of residential customers are multifamily and 74% are single-family
13 customers. MCE will offer EE programs to both single-family and multifamily properties, with
14 some programs focusing on reaching the end-user (*i.e.*, homeowner or renter), and others
15 incorporating unique strategies that are attractive to property owners and managers to address split
16 incentive challenges.

17 Cross-Cutting Sector

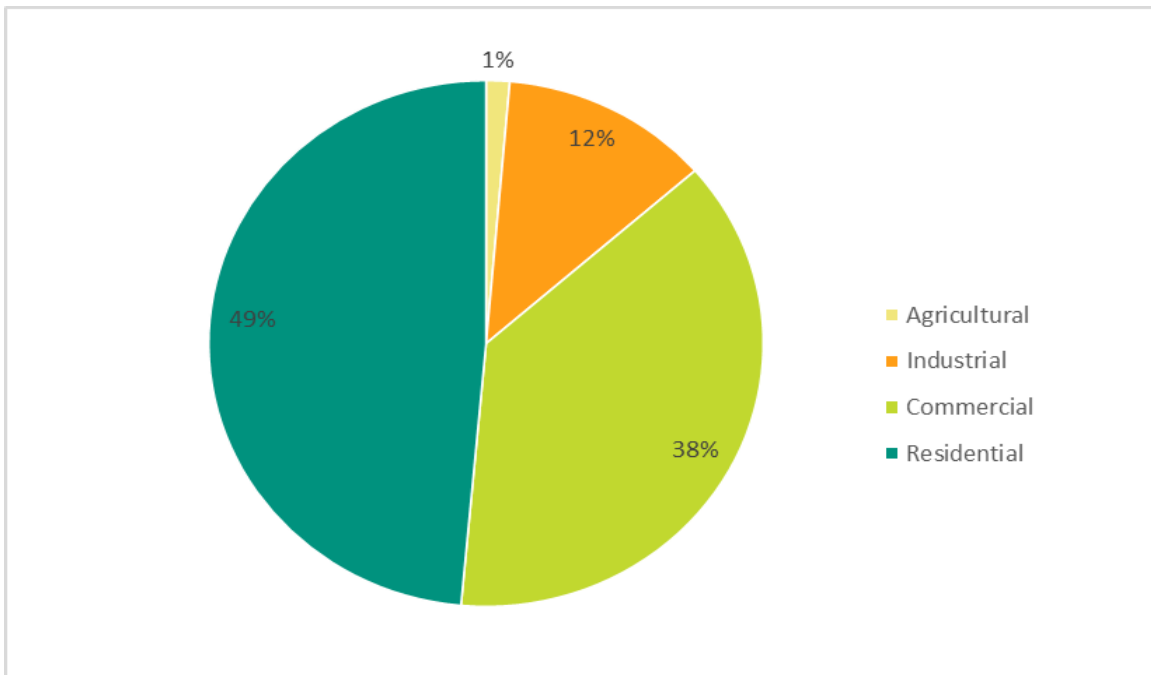
18 “Cross cutting” refers to those programs that provide a benefit across several sectors,
19 programs, and potentially multiple segments. Cross-cutting programs also straddle multiple MCE
20 and state policy objectives, including decarbonization, EE policy goals (*i.e.*, TSB), dovetailing
21 with Distributed Energy Resource (DER) programs, and more. MCE proposes its WE&T program
22 which provides education and on-the-job training opportunities to grow a sustainable and highly
23 skilled EE workforce as its exclusive cross-cutting program in PY 2024-2027.

1 The following graphics display the distribution of customer accounts and load per sector
2 in MCE's service area.

3 *Graphic 4-1: Number of Customer Accounts per Sector*



4
5 *Graphic 4-2: Electricity Usage per Sector*



6
7

1 **3. Distribution of Budget Among Sectors**

2 Table 4-2 below shows the budget and the percentage of MCE’s total portfolio budget
3 attributable to each sector for each year of the Portfolio Plan period. This budget allocates more
4 funding to the commercial and residential sectors (around 40% each), and less funding to the
5 industrial, agricultural and cross-cutting sectors (between 4-9% each). This is appropriate as both
6 the residential and commercial sectors have unique characteristics that merit a greater focus in
7 MCE’s EE programming. As noted above, the residential sector makes up the highest number of
8 MCE customer accounts (around 90% of total customer accounts). The commercial sector, on the
9 other hand, provides the greatest opportunities for achieving cost-effective savings. The industrial
10 and agricultural sectors, on the other hand, are much smaller within MCE’s service area, justifying
11 the comparatively lower funding rates. The rationale for distributing the budget among sectors is
12 further described in Section 1 above.

1

Table 4-2: Budget Distribution Across Sectors for PYs 2024-2027

Year	Primary Sector	Annual Spending Budget	Percent of Portfolio
2024	Agricultural	\$ 726,866	4%
	Commercial	\$ 7,948,028	41%
	Industrial	\$ 1,087,157	6%
	Residential	\$ 7,706,967	40%
	Cross-Cutting	\$ 1,804,621	9%
	Portfolio Total	\$ 19,273,639	100%
2025	Agricultural	\$ 732,727	4%
	Commercial	\$ 8,056,302	41%
	Industrial	\$ 1,092,434	6%
	Residential	\$ 7,845,113	40%
	Cross-Cutting	\$ 1,795,673	9%
	Portfolio Total	\$ 19,522,249	100%
2026	Agricultural	\$ 738,999	4%
	Commercial	\$ 8,066,539	41%
	Industrial	\$ 1,098,080	6%
	Residential	\$ 7,879,290	40%
	Cross-Cutting	\$ 1,801,113	9%
	Portfolio Total	\$ 19,584,021	100%
2027	Agricultural	\$ 745,710	4%
	Commercial	\$ 8,186,167	41%
	Industrial	\$ 1,104,122	6%
	Residential	\$ 8,005,707	40%
	Cross-Cutting	\$ 1,795,702	9%
	Portfolio Total	\$ 19,837,407	100%

2

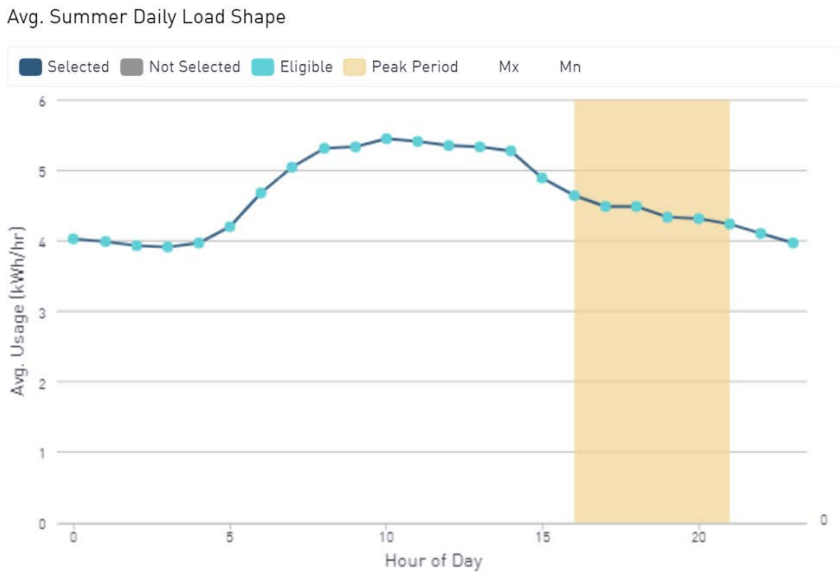
3 4. Agricultural Sector

4 4.1. Agricultural Sector: Goals, Strategies and Outcomes

5 As mentioned above, MCE serves approximately 4,400 agricultural accounts within its service
6 area, consuming over 106,000 MWh annually. This represents a relatively small portion of MCE's
7 non-residential customer base (3% in terms of non-residential load and 1% of MCE's total
8 electricity load).

1 Despite the relatively small size of MCE’s agricultural sector, there are still several important
 2 reasons to improve EE uptake among agricultural customers. First, the sector’s electricity
 3 consumption across MCE’s service area is trending upwards with a 22.6% year-over-year increase
 4 in electricity consumption between 2019 and 2020. Second, the load and diversity of agricultural
 5 customers increased significantly with the addition of Solano County into MCE’s service area in
 6 the spring of 2020, which added 1,500 accounts for a total of roughly 4,400 agricultural accounts.
 7 It is also important to note that there may be additional Solano County cities joining MCE
 8 throughout the four-year Portfolio Plan period. Third, the agricultural sector also has unique
 9 seasonal load shapes that introduce several opportunities for delivering optimized, load-shaped
 10 energy efficiency. Figures 4-1 – 4-3 below summarize seasonal load shapes in the summer, winter,
 11 and shoulder seasons. Summer demand is nearly twice that found in the winter, and while
 12 agricultural demand certainly spikes in summer and fall harvests, there may still be strong potential
 13 to reduce summertime baseload.

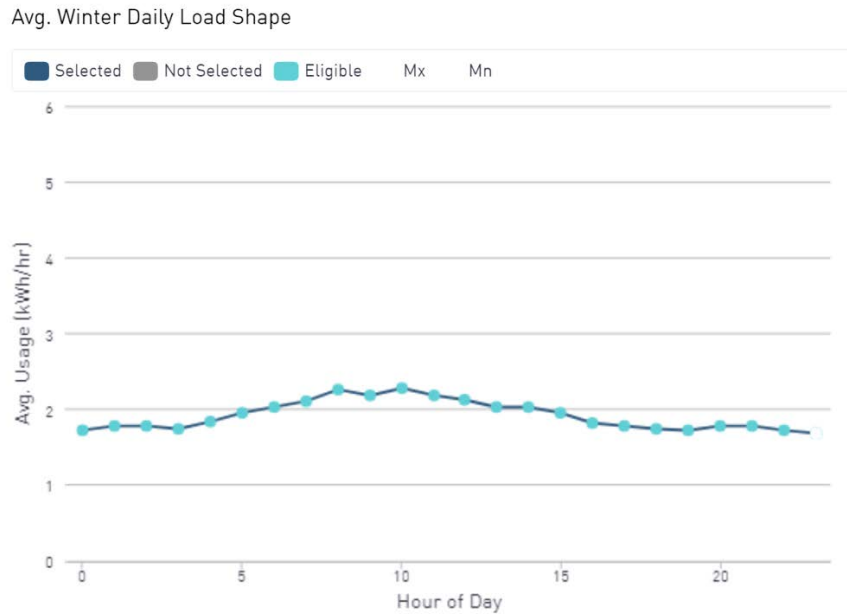
14 *Figure 4-1: Average Summer Daily Load Shapes for Agricultural Customers*



15
 16

1

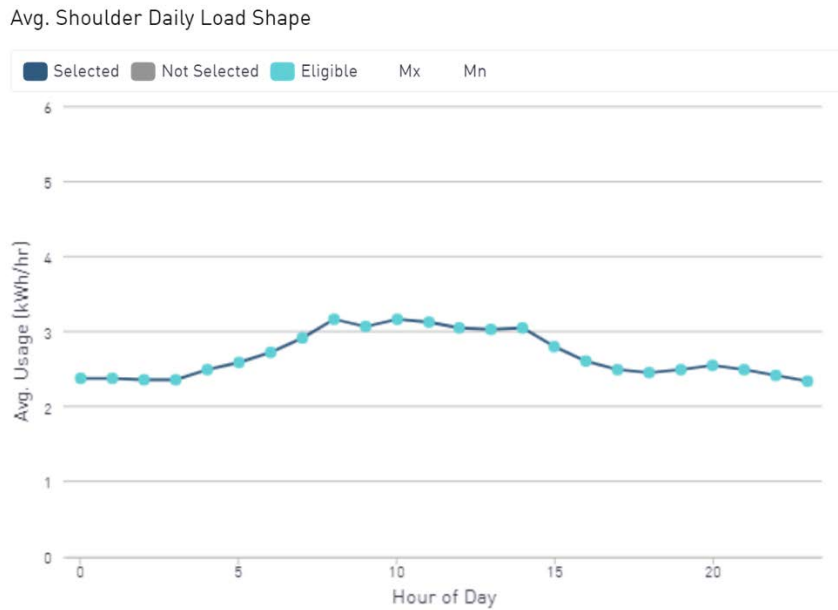
Figure 4-2: Average Winter Daily Load Shapes for Agricultural Customers



2

3

Figure 4-3: Average Shoulder Daily Load Shapes for Agricultural Customers



4

5 Fourth, agricultural customers tend to have energy challenges that are specific to their

6 unique operations. Measures for the agricultural sector are not conducive for the deemed delivery

7 channel as there is often considerable operational variation among agricultural customers with key

1 energy drivers stemming from specialized equipment or the unique ways the equipment is used.
2 The following example illustrates this challenge. In 2021, MCE offered enhanced rebates for a
3 number of deemed products within the agricultural program. Despite the increase in rebates, there
4 was no measurable increase in measure uptake in the sector. MCE learned from this
5 implementation outcome that its program design for agricultural customers should be grounded in
6 individual customer needs and interests, rather than relying on simplistic approaches such as
7 additional rebate funding.

8 The 2021 Potential and Goals (P&G) Study⁴ highlighted some related findings in the
9 Industrial/Agricultural Market Saturation Study (Market Study).⁵ Within the agricultural markets
10 surveyed, customers demonstrated a relatively high awareness of EE measures: with 100% end-
11 user awareness of technologies such as variable frequency drives (VFDs) on pumps, efficient fans,
12 efficient pumps and motors, and efficient heating, ventilation and air conditioning (HVAC). Yet,
13 researchers found market saturation of these technologies still relatively low, estimated at 32% for
14 VFDs on pumps, ~50% for efficient fans, pumps and motors, and 44% for efficient HVAC
15 equipment. The reason for this discrepancy may lie in a key identified barrier, which is that
16 industrial and agricultural customers are concerned about production disruptions. For a number of
17 the measures included in the Market Study, it seems that customers are aware of the potential
18 benefits but may need tailored support to understand how those measures could be implemented
19 with minimal impact to their operations.

⁴ Available at: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/energy-efficiency-potential-and-goals-studies/2021-potential-and-goals-study>.

⁵ Available at: https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/energy-efficiency/2021-potential-goals-study/industrial-ag-market-saturation-study-final.pdf?sc_lang=en&hash=123825958BE1A39B21ED8E4592D8F665.

1 Another noteworthy challenge in serving the agricultural sector is that smaller farms are
2 sometimes on commercial rates rather than agricultural rates, which makes it difficult to produce
3 generalized statements or data for the sector and can lead to challenges in identifying eligible
4 customers. Furthermore, many aspects of agricultural operations do not fit neatly into traditional
5 agriculture operations (*e.g.* winery tasting rooms adjacent to a vineyard, food processing
6 equipment, retail operations, etc.). In short, agricultural sector energy pain points are diverse, and
7 the EE programs that serve them should reflect that diversity in their strategies and the services
8 and incentives that they offer.

9 With these unique characteristics, opportunities, challenges and lessons learned in mind,
10 MCE has developed the following goals, strategies, and outcomes for its agricultural sector shown
11 in Figure 4.4 below.

1

Figure 4-4: Goals, Strategies and Outcomes of the Agricultural Sector



2

3 As a contributor to MCE’s Resource Acquisition portfolio, the goal of the agricultural
 4 sector is to achieve or exceed TSB metrics and to ensure that the program services provided are
 5 valuable to participating agricultural customers throughout MCE’s service area. MCE proposes a
 6 number of strategies to reach these goals: (1) joint program implementation for agricultural and
 7 industrial customers; (2) Strategic Energy Management (SEM) programming; (3) scaling
 8 incentives based on TSB; (4) customer identification based on data analytics; (5) marketing with
 9 local agricultural organizations; and (6) “Any Open Door” engagement.

10 Joint Program Implementation for Agricultural and Industrial Customers

11 MCE first proposes joint program implementation of both the agricultural and industrial
 12 programs under the same overarching program umbrella. In customer-facing program materials

1 and in third-party implementation, the offering is referred to as the MCE Agricultural and
2 Industrial Resource (AIR) Program. MCE designed a single program serving both the agricultural
3 and industrial sectors based on two findings following its solicitations for third-party
4 implementation of these programs in 2019, and subsequent years of implementation.

5 First, MCE found significant administrative and cost efficiencies in implementing these
6 programs with a single partner. Because MCE’s agricultural and industrial customer base is
7 smaller than that of the IOUs, there is less potential to deliver impacts and provide performance
8 payments for those impacts to providers when designing entirely separate programs.

9 Second, from an implementation perspective, MCE finds similarities in the ways it reaches
10 both customer types and addresses their energy pain points. For example, MCE observes difficulty
11 serving both sectors with deemed measures because agricultural and industrial energy end-uses
12 are often unique to their business and facility. Moreover, many energy systems such as VFDs,
13 pumps and motors, boilers, heat recovery, cold storage, and operational considerations are
14 common to both agricultural and industrial customers. In summary, joint implementation of
15 MCE’s agricultural and industrial programs under the MCE AIR Program enables valuable
16 services to customers and offers a greater opportunity to implementers than stand-alone offerings.

17 Strategic Energy Management

18 MCE proposes a second strategy to reach the goals of the Agricultural sector focused on
19 the use of SEM and custom projects that are identified through SEM engagement. As part of this
20 approach, MCE will focus on individual customer needs identified through SEM coaching. SEM
21 provides customers with a single point of contact for their energy journey and a tailored focus on
22 a specific customer’s operations. SEM seeks to find the customer’s energy pain points and
23 opportunities for efficiency within the context of their existing business and operations to deliver

1 no- and low-cost savings. While participating agricultural customers can certainly access deemed
2 product rebates or develop custom projects, SEM remains an ideal pathway for identifying these
3 projects and remains central to program recruitment and customer engagement. As mentioned
4 above, agricultural customers may be aware of EE measures, but may require additional support
5 for implementing these upgrades with minimal disruption to their businesses.

6 Scaling Incentives Based on TSB

7 MCE proposes a third strategy in the agricultural sector to scale incentive payments based
8 on TSB, which applies program expenditures to the benefits delivered. MCE will build on its
9 success with this strategy in the Efficiency Market programs and explore further development
10 within the SEM framework. Like savings based on normalized metered energy consumption
11 (NMEC), SEM savings are grounded in hourly interval data, which may provide opportunities to
12 introduce time-dependent savings valuations based on their avoided cost value. Leading with SEM
13 and scaling payments to attract beneficial projects will result in an outcome in which programs
14 optimize TSB and savings for customers.

15 Customer Identification Based on Data Analytics

16 Fourth, MCE proposes a strategy using data analytics to identify customers with the
17 greatest savings and TSB potential. This data-centered approach allows MCE to flag customers
18 who can benefit from offerings such as SEM participation and its longer-term approach to energy
19 savings and demand management. Furthermore, the agricultural sector's unique seasonal load
20 shapes suggest significant energy savings potential during high value periods. Analyzing meter
21 data for peak usage, seasonal variation, and temperature dependency can tease out potential
22 proposed energy measures. MCE will encourage these customers to adopt measures that reduce
23 peak usage and shift load to off-peak periods by offering higher incentive rates for peak period

1 reductions. This delivers benefits for both the participating customer (*i.e.*, cost savings) and for the
2 grid (*i.e.*, grid reliability) benefiting all ratepayers.

3 Marketing with Local Agricultural Organizations

4 MCE proposes a fifth strategy to engage local agricultural organizations to help market
5 programs and their benefits to customers. With the diversity of agricultural operations in MCE
6 service area, collaborations with County farm bureaus and other sustainability-based
7 organizations, such as Napa Green,⁶ are crucial for driving and retaining participation in programs.
8 For example, MCE finds Napa Green a proven and highly valuable partner generally, but also
9 specifically for customer recruitment to the MCE AIR Program. Using data analytics and
10 partnering with local organizations to identify and recruit customers will enhance the reach of
11 MCE’s EE programs in the agricultural community.

12 Any Open Door

13 MCE proposes a sixth and final strategy to leverage EE as an opportunity to promote other
14 complementary sustainability and energy initiatives through its “Any Open Door” strategy. MCE
15 acknowledges customers’ “entry points” into EE are variable, and complimentary programs that
16 respond to their broader needs may drive stronger engagement with EE programs on the whole.
17 SEM participants are, almost by default, energy-engaged and are well situated to explore related
18 energy and sustainability projects. MCE observed real results from coordinated approaches to
19 customer engagement, with some SEM participants pursuing EE, battery storage, or electric
20 vehicle (EV) charging simultaneously. To this end, MCE may incorporate additional workshops
21 outside of the EE paradigm into SEM programming, to introduce new topic areas such as water

⁶ Napa Green is a non-profit membership organization dedicated to fostering “certified sustainable, responsible businesses committed to the environmental stewardship and climate action in Napa County.” Available at: <https://napagreen.org/>.

1 management, grid reliability, customer resiliency, and emissions management. This approach will
2 allow MCE representatives to raise awareness about energy use and associated economic and
3 environmental impacts and serve as a bridge to additional reliability benefits and greenhouse gas
4 (GHG) reductions. Simultaneously, this approach enhances trust between MCE and participating
5 customers that benefit programmatic outcomes.

6 For example, MCE will offer SEM customers dedicated training on demand management
7 opportunities and MCE's DER programs. SEM participants are great candidates for inclusion in
8 MCE's reliability-focused Peak FLEXmarket program, which provides incentives for both daily
9 load shifting and/or event-based demand response (DR) during summer peak hours.⁷ SEM can
10 also incorporate water management as a core element, highlighting the water-energy nexus and
11 the more basic business need of managing water wisely to improve the bottom line and alleviate
12 water stress. Additional opportunities may be found in MCE's DER programs (*e.g.*, MCE's Energy
13 Storage Program⁸ or MCE's transportation electrification programs⁹), or programs and initiatives
14 outside of MCE's purview, including those offered by the California Air Resources Board (CARB)
15 and the Bay Area Air Quality Management District (*e.g.*, FARMER program¹⁰ and FRIP
16 Program¹¹), or local sustainability-focused organizations such as Napa Green. In summary, leading

⁷ MCE's Peak FLEXmarket program is described in more detail in Exhibit 2, Chapter 8.

⁸ MCE's Energy Storage Program connects customers with existing or new solar to available incentives, program funding, performance payments, and financing to help install battery storage. Available at: <https://www.mcecleanenergy.org/facility-energystorage/>.

⁹ MCE offers a variety of transportation electrification programs. Learn more at <https://www.mcecleanenergy.org/transportation-electrification/>.

¹⁰ The Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program provides funding for agricultural equipment, heavy-duty trucks, agricultural pump engines, tractors, and other equipment used in agricultural operations. Available at: <https://ww2.arb.ca.gov/our-work/programs/farmer-program>.

¹¹ The F-Gas Incentive Program (FRIP) promotes the voluntary adoption of new, climate-friendly, low global warming potential refrigerant technologies. Available at: <https://ww2.arb.ca.gov/our-work/programs/FRIP>.

1 with EE programs provides a pathway for agricultural customers to become more energy aware,
2 efficient, sustainable, and resilient.

3 **4.2. Sector-Specific Coordination**

4 Most of MCE’s coordination efforts in the agricultural sector occur at the program level,
5 instead of the sector level, and are described in Section 4.4.3 below. In addition, MCE describes
6 general program coordination principles and activities with other EE program administrators
7 (PAs), as well as programs and initiatives outside of the EE framework, in Exhibit 2, Chapter 5,
8 Section 6.

9 Regarding sector-specific collaboration for the agricultural sector, MCE will coordinate
10 with the local and regional government departments in their respective counties. This includes, but
11 is not necessarily limited to, the Contra Costa County Department of Agriculture, Marin County
12 Department of Agriculture, the Napa County Agricultural Commissioner’s Office, and the Solano
13 County Agriculture Department. MCE will also collaborate with County Farm Bureaus as well as
14 community-based organizations (CBOs) such as Napa Green and Marin Carbon Project.¹²
15 Engagement and leveraging relationships with CBOs are key strategies to promote equitable
16 outcomes of this program.¹³ Lastly, MCE will coordinate with water districts to promote programs
17 for agricultural customers and potentially develop co-branding efforts.

¹² The Marin Carbon Project (MCP) is a consortium of independent agricultural institutions that seeks to enhance carbon sequestration in rangeland, agricultural, and forest soils through applied research, demonstration and implementation in Marin County. Available at: <https://www.marincarbonproject.org/>.

¹³ Commission. Draft ESJ Action Plan 2.0, available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/news-office/key-issues/esj/draft-cpuc-esj-2010262021c.pdf>, p. 5; California Energy Commission, SB 350 Barriers Study, available at: https://assets.ctfassets.net/ntcn17sslow9/3SqKkJoNIvts2nYVPAOmGH/fe590149c3e39e51593231dc60e0eeff/TN214830_20161215T184655_SB_350_LowIncome_Barriers_Study_Part_A_Commission_Final_Report.pdf, p. 9 (The Legislature should direct funding for all state programs to collaborate with trusted and qualified community-based organizations in community-centric delivery of clean energy programs, in coordination with local governments...”).

1 **4.3. Program Categorization by Segment**

2 As described above, the agricultural sector program is implemented jointly with the
3 industrial sector program as the MCE AIR Program. The MCE AIR program is categorized within
4 the Resource Acquisition segment of MCE’s EE portfolio. It comprises eight sub-programs, four
5 for each sector, which exist as sub-programs primarily for the purpose of streamlined, accurate
6 reporting. Details for the agricultural sector are shown in the table below.

7 *Table 4-3: Agricultural Programs by Segment*

Program Name	Segment
MCE02a: Agricultural Deemed	Resource Acquisition
MCE02b:Agricultural Custom	Resource Acquisition
MCE02c:Agricultural Strategic Energy Management	Resource Acquisition
MCE02d:Agricultural Normalized Metered Energy Consumption	Resource Acquisition

9 **4.4. Program Details**

10 **4.4.1. Program Cards**

11 MCE provides a description of each program offered in the agricultural sector in
12 Attachment A, Section 1.

13 **4.4.2. New Programs**

14 MCE is not planning to develop new programs to serve the agricultural sector in the PY
15 2024-2027 timeframe.

16 **4.4.3. Program-specific Coordination**

17 MCE describes general program coordination principles and activities with other EE Pas,
18 as well as programs and initiatives outside of the EE framework, in Exhibit 2, Chapter 5, Section
19 6. The information below focuses on coordination efforts that are specific to MCE’s AIR program.

20 The Joint Cooperation Memorandum (JCM) with Pacific Gas & Electric Company
21 (PG&E), described in more detail in Exhibit 2, Chapter 6, Section 5, produces a framework for

1 coordination between MCE and PG&E programs. However, much of the coordination itself occurs
2 between individual programs and program management staff. The program managers who oversee
3 PG&E's and MCE's non-residential EE programs will continue to meet once per month to discuss
4 updates to existing programs, new programs coming online, regulatory and technical topics,
5 coordination issues and program data. These meetings are productive and valuable and ensure that
6 both MCE and PG&E are aware of impactful program or portfolio changes.

7 MCE does not coordinate with Bay Area Regional Network (BayREN) directly on the
8 MCE AIR program as BayREN does not administer agricultural or industrial EE programs.
9 However, MCE does provide information on the program so that BayREN is equipped to reference
10 customer or project leads as they identify them.

11 **5. Commercial Sector**

12 **5.1. Commercial Sector: Goals, Strategies and Outcomes**

13 As mentioned above, MCE serves approximately 55,000 commercial accounts, as well as
14 an additional 4,000 non-residential customers that have no further secondary segment
15 classification per their NAICS codes. MCE's commercial sector consumes an estimated 2.7
16 million MWh of electricity annually, which represents roughly 68% of all MCE non-residential
17 consumption, and 35% of MCE's total electricity load. As MCE does not offer a dedicated EE
18 program for the public sector, MCE's non-residential EE programs also serve its roughly 6,800
19 public sector accounts, which normally participate in the commercial program (and occasionally
20 in the industrial program).

21 MCE's commercial program will continue to play a central role in achieving energy
22 savings and TSB goals. Beyond the sheer size of the market segment, MCE continues to find the
23 most opportunity in this sector. This is supported by the key findings from the 2021 P&G Study's

1 Market Adoption Report—among residential, multifamily, and commercial customers surveyed,
2 commercial customers exhibited the lowest awareness and participation rates in EE programs.¹⁴ In
3 addition, only 13% had participated in demand management programs. This contrasts not only
4 with residential and multifamily customers, but also with awareness and participation rates
5 discovered in the Industrial/Agricultural Market Saturation Study, where awareness ranged from
6 71-100%, and participation ranged from 27%-75%.¹⁵ This indicates significantly undeveloped
7 potential, with few commercial programs to-date providing enough reach to serve the commercial
8 sector comprehensively.

9 MCE’s experience serving the commercial sector positions it well to continue driving
10 innovation. The commercial sector’s diverse range of customers can create a number of challenges
11 in program design, especially since this sector has historically provided—and is expected to
12 continue to provide—a significantly portion of the portfolio’s benefits. Traditionally, commercial
13 EE programs have aimed to serve specific business sectors within the commercial market
14 separately. Examples include commercial programs targeted towards grocers, educational
15 facilities, office buildings and/or healthcare facilities. Measure-focused programs, such as HVAC,
16 lighting or retro-commissioning, are another example of tailored and specialized commercial EE
17 programs. These measure-centric program designs may serve larger EE PAs quite well, as they
18 enable an outsized focus on specific products and strategies, and the market size is large enough
19 to warrant this approach. However, they also place unnecessary limits on the scope of programs

¹⁴ Opinion Dynamics, California Energy Efficiency Market Adoption Characteristics Study (Apr. 16, 2021), available at: https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/energy-efficiency/2021-potential-goals-study/market-adoption-report-final.pdf?sc_lang=en&hash=131848F75C4A50EB35D9247F45FB4257.

¹⁵ Guidehouse, Inc., Industrial/Agricultural Market Saturation Study (Apr. 16, 2021), available at: https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/energy-efficiency/2021-potential-goals-study/industrial-ag-market-saturation-study-final.pdf?sc_lang=en&hash=123825958BE1A39B21ED8E4592D8F665.

1 and ignore the fact that commercial customers may have more common energy interests than
2 differences.

3 MCE believes, based on its experience implementing commercial programs, that a different
4 approach is needed to meet variable customer needs and to deliver administrative efficiencies.
5 Instead of offering separate commercial programs focusing on a particular customer type or EE
6 measure, MCE offers one single commercial program divided into several sub-programs based on
7 participation pathways. Multiple implementation partners, who collectively bring different
8 skillsets to meet different customer needs, serve the program. Similar to MCE's AIR program
9 described above, it is advantageous for customers, ratepayers and MCE to aggregate program
10 services under a single program umbrella, particularly those that seek to scale and achieve
11 maximum impact.

12 While a far-reaching commercial program introduces opportunity, it also creates new
13 challenges. MCE proposes to overcome these challenges through its holistic program design and
14 projected administration. MCE's commercial program will:

- 15 • Reliably serve a wide range of customers, building types and operating
16 characteristics;
- 17 • Support different participation pathways (*e.g.*, custom, NMEC, SEM), with the
18 technical and administrative resources to support each;
- 19 • Operate at scale while protecting ratepayer funding; and
- 20 • Streamline measurement and verification (M&V), reporting, contracting and
21 administration.

1 An additional challenge for the commercial program is ensuring that Equity customers¹⁶
2 are also recipients of the program’s services, benefits, and funding. In general, the commercial
3 sector offers significant opportunities for cost-effective savings. These opportunities are created
4 when identifying and conducting outreach with the customers who have the most opportunity to
5 save, or whose consumption in the peak hours is unusually high. Working with these customers is
6 an ideal strategy from a Resource Acquisition standpoint, but inevitably leads to inequities in
7 access to program services. This may only exacerbate existing challenges that commercial
8 programs have in serving hard-to-reach (HTR) and other Equity customers. To date, MCE has
9 worked to foster program participation with HTR customers¹⁷ by simply providing premium
10 incentive rates. While this has yielded some positive results in MCE’s service to small and medium
11 businesses (SMB), delineating the EE portfolio between Resource Acquisition and Equity
12 segments creates an opportunity to launch a program specifically designed to meet the needs of
13 commercial Equity customers. Commercial Equity customers face unique barriers to accessing
14 EE and clean energy opportunities including, but not limited to, contracting constraints, a lack of
15 effective outreach, relevant data gaps, financial obstacles, specific technical assistance needs, and
16 workforce needs.¹⁸

17 Shaped by these challenges, MCE has developed the following goals, strategies, and
18 outcomes for its commercial program as outlined in the figure below.

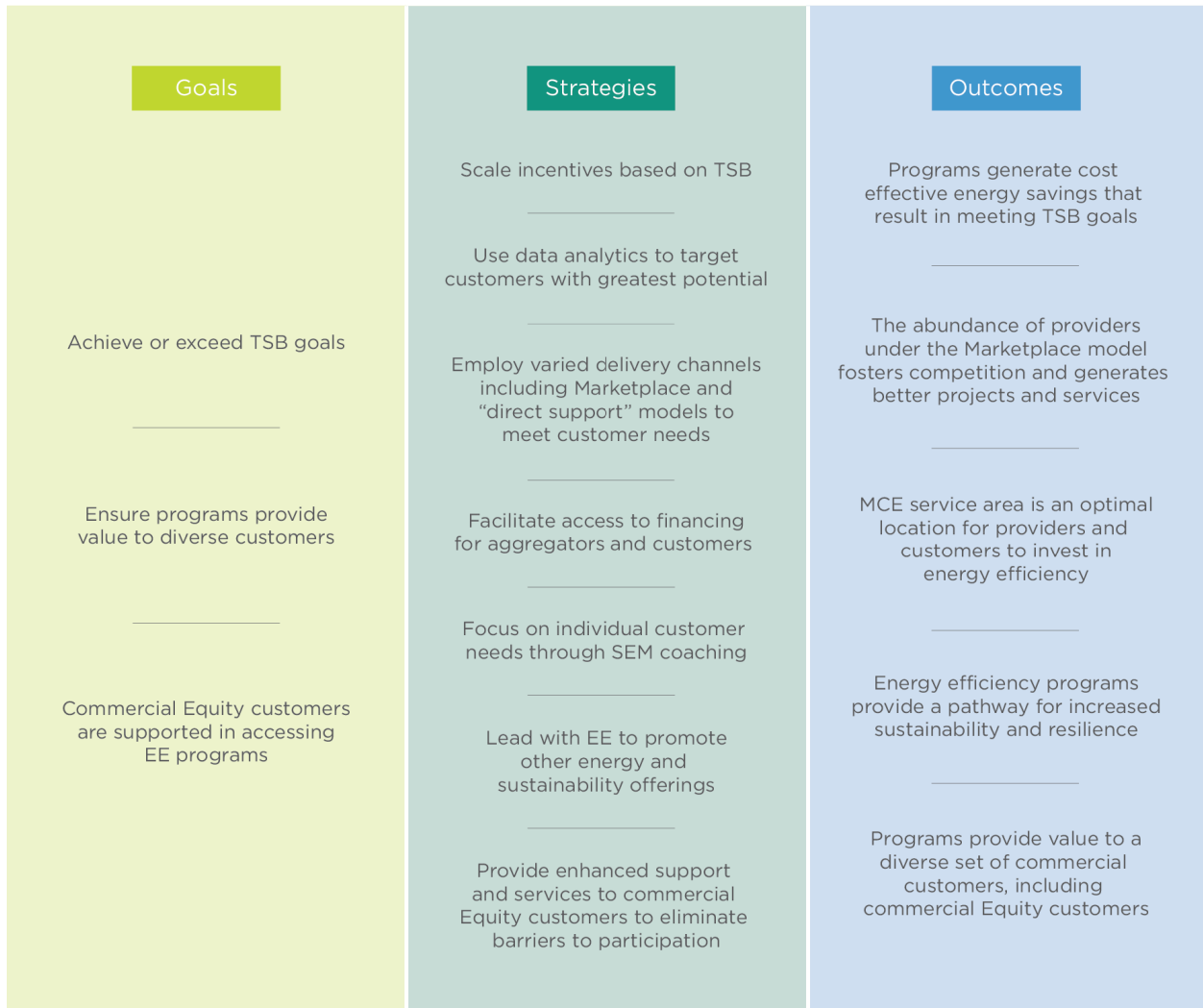
¹⁶ MCE defines “Equity customers” in Exhibit 2, Chapter 3, Section 4.

¹⁷ Non-residential hard-to-reach (HTR) customers are defined in Resolution G-3497, modified to include disadvantaged communities in geographic criteria per Application (A.) 17-01-013, Decision (D.) 18-05-041, *Decision Addressing Energy Efficiency Business Plans* (May 31, 2018).

¹⁸ California Energy Commission, SB 350 Low-Income Barriers Study, available at: https://assets.ctfassets.net/ntcn17ss1ow9/3SqKkJoNIvts2nYVPAOmGH/fe590149c3e39e51593231dc60e0eeff/TN214830_20161215T184655_SB_350_LowIncome_Barriers_Study_Part_A_Commission_Final_Report.pdf, pp. 4; 9-10; 64; 69-70.

1

Figure 4-5: Goals, Strategies and Outcomes of the Commercial Sector



2

3 The goals of MCE’s commercial program are to (1) achieve or exceed TSB metrics; (2)
 4 ensure that the program provides value to a broad range of diverse customers, and (3) ensure
 5 commercial Equity customers have equitable access to EE program funding. Consistent with the
 6 Commission’s Environmental and Social Justice (ESJ) Action Plan Goals 2 and 7, MCE aims to
 7 increase investment in clean energy resources in disadvantaged and underserved areas while
 8 simultaneously promoting vital economic and workforce development opportunities.¹⁹ MCE is

¹⁹ See Commission’s ESJ Action Plan, version 1.0 (Feb. 2019), available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/news-office/key-issues/esj/environmental-and-social-justice.pdf> (Goal 2: Increase investment in clean energy resources to benefit ESJ communities,

1 proposing the following strategies to reach these goals: (1) varied delivery channels, including
2 Marketplace and “Direct Support” models; (2) financing; (3) SEM programming; (4) commercial
3 Equity programming; (5) customer identification through data analytics; and (6) “Any Open Door”
4 engagement.

5 Varied Delivery Channels, Including Marketplace and “Direct Support” Models

6 MCE’s first strategy for the commercial sector is employing varied delivery channels,
7 including the Marketplace model²⁰ and a “direct support” model to meet customer needs. The aim
8 is to present an array of offerings in which nearly any customer can participate.

9 The core delivery channel within the commercial program will be the Commercial
10 Efficiency Market. MCE describes the basic concept and advantages of “Marketplace Programs”
11 in detail in Exhibit 2, Chapter 3, Section 2 (*i.e.*, the Resource Acquisition segment description).
12 The following section highlights some of these advantages and focuses on how the Efficiency
13 Market supports MCE’s goals and expected outcomes for the commercial sector specifically.

14 The Efficiency Market receives the vast majority of program funding allocation under
15 MCE’s Commercial Program because of its strategic importance in providing a broad array of
16 services to the commercial sector and minimizing risk. This model—grounded in population level
17 NMEC and a benefits-based pay-for-performance (P4P) structure—increases the number of
18 vendors who can leverage program funds, thereby delivering more solutions, more customer
19 participation, increased savings and cost-effectiveness through benefits-based payment structures.

especially to improve local air quality and public health; Goal 7: Promote economic and workforce development opportunities in ESJ communities).

²⁰ MCE’s Marketplace programs include its Efficiency Markets (described herein) and Peak FLEXmarket programs (described in Exhibit 2 Chapter 8). The Marketplace model is described in more detail in Exhibit 2, Chapter 3, Section 2.2.

1 MCE aims to expand the pool of participating vendors by maintaining a robust program budget
2 that inspires confidence and represents opportunity.

3 MCE acknowledges inherent differences in opportunities between the myriad of customer
4 types, sizes and business models within the commercial sector, and emphasizes integrating diverse
5 program offerings under one program umbrella. The commercial program focuses on balancing
6 customer needs with the principles of energy efficiency-as-a-resource, through an overarching
7 program architecture that can achieve that balance, ultimately driving toward a transformed
8 market. Within the Marketplace model, no single implementation partner is provided guaranteed
9 funding under a contract. Instead, program partners are paid purely on the benefits delivered, and
10 not until the benefits are delivered. This also ensures that a more diverse group of customers stand
11 to benefit from the services and products provided under the umbrella of aggregators' portfolios.
12 The commercial program's funding is open to participating aggregators²¹ regardless of the sub-
13 sector or customer group (*e.g.*, SMB, office, grocery, retail, etc.) that they serve.

14 The Marketplace model also provides administrative efficiency. Elements that contribute
15 to efficiency include a P4P program model that is grounded in "embedded" M&V, with portfolio
16 results verified through the application of NMEC methods rather than individual project and
17 measure verification efforts. Furthermore, the flexibility to form new partnerships through the
18 Marketplace model allows for improvements to be introduced without resulting programmatic
19 downtime, or vendor-specific contracts and contract management.

²¹ In this Application, MCE defines an "aggregator" as a vendor or provider of an EE or demand management service that aggregates a number of customers for participation in an MCE Marketplace program. An aggregator is distinct from a traditional program "implementer" which MCE defines in this Application as a single implementation partner under a particular EE program (not including Marketplace programs).

1 The Commercial Program will also use other delivery channels to serve commercial
2 customers. Those delivery channels rely on more direct support from MCE and MCE-contracted
3 implementers, who leverage both custom and deemed pathways. This level of customer service is
4 primarily directed towards energy-engaged customers who have specific interests in energy
5 efficiency. In the SMB sector, MCE will maintain a semi-traditional program model which has
6 generated a reliable flow of projects and savings since 2017. While this model is difficult to scale
7 outside of the SMB sector, the reliable delivery of cost-effective savings and clear customer value
8 justify its continued presence within the commercial program. In the large commercial sector,
9 MCE will continue to offer SEM participation, discussed in more detail below, as well as custom
10 projects that MCE identifies through the course of SEM engagement. These projects are not
11 claimed with SEM energy models, but instead treated as separate custom projects.

12 Due to the commercial program’s varied offerings, MCE’s funding will remain relatively
13 fluid among the various delivery channels and EE providers to ensure MCE supports the most
14 successful delivery channels and providers.

15 Financing

16 As described above, NMEC programs are an integral part of MCE’s Commercial Program.
17 However, NMEC programs face the inherent structural challenge that savings and TSB
18 achievements are not fully understood until at least one year of post-intervention interval data
19 collection and analysis. Generally, a NMEC project developer must wait a year before program
20 performance payments are made. Recognizing this cash-flow challenge for providers, which can
21 hinder program participation, MCE has enlisted the support of the National Energy Improvement
22 Fund (NEIF) to offer innovative financing options for participants in the Efficiency Market. NEIF
23 deploys “Rebate Bridge” financing, whereby it pays a majority of forecasted incentive dollars to

1 participating providers immediately upon project completion. NEIF assesses the risk of financing
2 through a review of past project performance and an aggregators' savings or TSB realization rate.
3 MCE proposes deepening the relationship with NEIF and other financing providers in future
4 program years.

5 In addition to this innovative financing solution geared at aggregators, MCE also supports
6 customers directly in accessing PG&E's on-bill financing (OBF) program. MCE and PG&E
7 worked closely to outline a process through which MCE program participants can simultaneously
8 leverage PG&E's financing services. With MCE's involvement in the project submission, PG&E
9 is able to ensure that the projects themselves are excluded from a duplicative claim within PG&E's
10 OBF portfolio. With upfront project costs often serving as the sole barrier to project
11 implementation, coordinating with PG&E's OBF Program has opened up new opportunities to
12 both customers and project developers.

13 By employing varied delivery channels and offering financing solutions, MCE is able to
14 realize its desired outcome of establishing its service area as an optimal location for providers to
15 invest in EE. MCE strongly believes that an abundance of active service providers fosters healthy
16 competition and generates better projects and services.

17 Strategic Energy Management

18 MCE proposes to focus on individual customer needs through SEM programming. SEM
19 provides customers with a single point of contact for their energy journey and a tailored focus on
20 a specific customer's operations. SEM helps identify customers' energy pain points and
21 opportunities for efficiency, with the aim of delivering no- and low-cost savings. While
22 participating commercial customers can certainly access deemed product rebates or develop

1 custom projects, SEM is the ideal pathway for identifying these projects and remains central to
2 program recruitment and customer engagement.

3 MCE proposes to offer SEM to commercial, agricultural, industrial and multifamily
4 customers. While the initial cohorts in the IOU-administered SEM programs focused primarily on
5 industrial and food processing customers, the 2019 P&G Study²² noted clear opportunity in a
6 number of commercial market segments as well. Customers that would benefit most from SEM in
7 the commercial sector included campuses with multiple buildings, customers with a portfolio of
8 buildings, or other commercial buildings with complex energy systems. This may include schools,
9 colleges, healthcare and large office buildings. In MCE's experience, commercial customers
10 benefit equally from SEM participation, alongside industrial and agricultural customers.

11 While SEM may be required to generate energy models that can accurately measure
12 Behavioral, Retro-commissioning and Operational (BRO) savings in complex industrial facilities,
13 the benefits of SEM participation are experienced equally across industrial, commercial or
14 agricultural customer sectors. While theoretically it is possible to leverage site-level NMEC to
15 quantify BRO savings in a commercial facility, the value-add of SEM's structure and delivery of
16 workshops, treasure hunts, performance tracking and customer engagement provides an
17 established framework for generating verifiable impacts. Furthermore, it is essentially a
18 prerequisite for SEM customers to engage with energy topics and their own consumption and
19 hence, SEM provides a valuable opportunity to build relationships with customers and to explore
20 additional EE projects, or demand management opportunities.

²² See 2019 Energy Efficiency Potential and Goals Study (Jul. 1, 2019), available at:
<https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M309/K725/309725430.PDF>.

1 Commercial Equity Programming

2 MCE proposes to provide enhanced support and services to Equity commercial customers
3 in disadvantaged, HTR, and underserved communities to eliminate participation barriers.
4 Consistent with the Commission’s ESJ Action Plan Goal 2, MCE will increase investment in clean
5 energy resources to benefit disadvantaged, HTR and underserved communities.²³ Developing EE
6 offerings and benefits to underserved commercial customers is a longstanding objective of MCE’s
7 commercial EE programming and a gap in the state’s Equity programs.²⁴ However, to date, MCE
8 has been limited in offering Equity-focused EE programming to commercial customers due to
9 portfolio cost-effectiveness requirements. Studies have shown that traditional cost-effectiveness
10 tests and requirements, especially those that exclude consideration of non-energy benefits (NEBs),
11 limit EE and clean energy investments in disadvantaged, HTR, and underserved communities.²⁵
12 With the segmentation of the EE portfolio into Resource Acquisition, Market Support and Equity
13 segments, MCE is now in the position to offer an Equity program specifically focusing on
14 commercial customers as further described in Section 5.4.2 below. MCE will pair this
15 programmatic offering with enhanced engagement of, and technical assistance to, potential

²³ Available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/news-office/key-issues/esj/environmental-and-social-justice.pdf>, p. 6 (“Goal 2: Increase investment in clean energy resources to benefit ESJ communities, especially to improve local air quality and public health.”).

²⁴ California Energy Commission, SB 350 Low-Income Barriers Study, available at: https://assets.ctfassets.net/ntcn17sslow9/3SqKkJoNIvts2nYVPAOmGH/fe590149c3e39e51593231dc60e0eeff/TN214830_20161215T184655_SB_350_LowIncome_Barriers_Study_Part_A_Commission_Final_Report.pdf, pp. 1, 3, 5 (identifying policy, market, and structural barriers for local businesses in ESJ communities).

²⁵ California Energy Commission, SB 350 Low-Income Barriers Study, available at: https://assets.ctfassets.net/ntcn17sslow9/3SqKkJoNIvts2nYVPAOmGH/fe590149c3e39e51593231dc60e0eeff/TN214830_20161215T184655_SB_350_LowIncome_Barriers_Study_Part_A_Commission_Final_Report.pdf, p. 3 (“Unrecognized non-energy benefits. Non-energy benefits are often not considered in cost-effectiveness tests, which devalues some of the most important factors that motivate investment in clean energy upgrades, such as family health and safety, comfort, and tenant retention.”).

1 commercial Equity customers.²⁶ As these customers by definition face historic barriers to
2 participation, MCE finds enhanced engagement and assistance an essential strategy for
3 programmatic success.

4 Customer Identification Through Data Analytics

5 MCE proposes using data analytics to prioritize customers with the greatest potential as
6 another strategy for its commercial sector programming. This data-centered approach identifies
7 customer profiles that indicate significant energy savings potential during high value periods and
8 can suggest specific offerings to reduce energy consumption. Analyzing meter data for peak usage,
9 seasonal variation, and temperature dependency can tease out potential proposed energy measures.
10 MCE will encourage these customers to adopt measures that reduce peak usage and shift load to
11 off-peak periods by offering higher incentives rates for peak period reductions.

12 Focusing on SEM, providing support to eliminate barriers, and using data analytics all
13 contribute to an outcome in which programs provide value to a diverse set of commercial
14 customers, from large to small, and including Equity customers.

15 Any Open Door

16 MCE proposes a strategy to leverage EE as an opportunity to promote other complementary
17 sustainability and energy offerings (what MCE calls an “Any Open Door” strategy). The
18 Commercial Program’s EE offerings serve as a bridge for participants (either vendors or
19 customers) to engage in other energy management and GHG-reduction activities. For instance,
20 demand management benefits can be seamlessly captured by the Efficiency Market model
21 aggregators who also participate in MCE’s Peak FLEXmarket program, described in more detail
22 in Exhibit 2, Chapter 8. The opportunity presented by the Peak FLEXmarket program ensures that

²⁶ Commission, ESJ Action Plan 1.0, 2019 (Goal 5: Enhanced Outreach).

1 adequate incentives are in place for providers to augment their customer offers with flexible
2 equipment specifications, controls systems, or even dispatchable devices and building
3 management systems. This strategy works for Marketplace aggregators, but also any other MCE
4 program partner.

5 In addition, EE programs can create a pathway to other MCE DER programs that focus on
6 resiliency and GHG emissions reductions, like MCE’s Energy Storage program. The outcome
7 realized from these “Any Open Door” efforts is that leading with EE programs provides a pathway
8 for commercial customers to be more energy-engaged, efficient, sustainable and resilient in their
9 operations overall.

10 **5.2. Sector-specific Coordination**

11 Most of MCE’s coordination efforts occur at the program level, instead of the sector level,
12 and are described in Section 5.4.3 below. In addition, MCE describes general program
13 coordination principles and activities with other EE PAs, as well as programs and initiatives
14 outside of the EE framework, in Exhibit 2, Chapter 5, Section 6.

15 Regarding coordination efforts for the commercial sector specifically, MCE deploys the
16 following tactics. To help overcome barriers to participation for commercial customers in general,
17 and commercial Equity customers in particular, MCE will coordinate with organizations that
18 specialize in assisting small businesses including, but not limited to, the individual county chapters
19 of the Small Business Development Center, merchant associations such as the California Grocers
20 Association, Napa Green and the California Restaurant Association, and CBOs such as the
21 Richmond Community Foundation. MCE will continue to build on successful partnerships with
22 local chambers of commerce active in the small business community within MCE’s footprint, as
23 well as additional local government agencies best positioned to deliver EE.

1 **5.3. Program Categorization by Segment**

2 MCE will offer two programs for the commercial sector in the PY 2024-2027 timeframe.
3 First, MCE’s Commercial Program is categorized within the portfolio’s Resource Acquisition
4 segment. It comprises four sub-programs, which exist as sub-programs for the purpose of
5 streamlined and accurate reporting. Second, MCE will offer a new Commercial Equity program
6 which is categorized within the portfolio’s Equity segment.

7 *Table 4-4: Commercial Programs by Segment*

Program Name	Segment
MCE02a: Commercial Deemed	Resource Acquisition
MCE02b: Commercial Custom	Resource Acquisition
MCE02c: Commercial Strategic Energy Management	Resource Acquisition
MCE02d: Commercial Marketplace	Resource Acquisition
MCE17: Commercial Equity	Equity

8
9 **5.4. Program Details**

10 **5.4.1. Program Cards**

11 MCE provides a description of each program offered in the commercial sector in
12 Attachment A, Section 2.

13 **5.4.2. New Programs**

14 MCE intends to launch a Commercial Equity program in 2023 with a focus on meeting the
15 needs of commercial Equity customers located within HTR, underserved and disadvantaged
16 communities. Planning, program development, and a competitive solicitation for that program are
17 expected to occur in summer 2022. As mentioned in the barriers and strategies sections above, past
18 efforts to reach commercial Equity customers focused largely on paying premium incentive rates

1 within the existing commercial program. Access to those rates was limited to customers who met
2 the existing definition of hard-to-reach.²⁷

3 While MCE’s Commercial Equity Program is in early phases of program design and final
4 program requirements are to be developed, MCE plans to broaden the customer eligibility
5 requirements for the new Commercial Equity program beyond HTR customers. In recent times,
6 programs geared at Equity customers have often focused on serving disadvantaged communities
7 (DACs) as defined by the CalEnviroScreen tool.²⁸ While the DAC designation is an important one
8 to consider in any Equity-focused programming, MCE believes that a broader definition of Equity
9 is beneficial in program planning. Hence, MCE builds its Equity customer²⁹ focus in conjunction
10 with the Commission’s updated “ESJ communities” definition, guidance and strategies.³⁰

11 Second, MCE intends to conduct market assessments and community engagement among
12 commercial customers within the ESJ communities to understand energy-related needs as well as
13 the customer value of NEBs that may be derived. MCE will develop this program to meet the
14 needs and interests of commercial Equity customers as its primary purpose. This is also the

²⁷ D.18-05-041 also defines HTR communities through a set of criteria including geographic location, primary language spoken, income (for residential customers), business size (for small business customers), and rentership.

²⁸ CalEnviroScreen is a screening methodology that can be used to help identify California communities that are disproportionately burdened by multiple sources of pollution. The CalEnviroScreen mapping tool can be found here: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>.

²⁹ Further defined in Exhibit 2, Chapter 3, Section 4.2.

³⁰ Commission, ESJ Action Plan, available at: <https://www.cpuc.ca.gov/news-and-updates/newsroom/environmental-and-social-justice-action-plan> (““Environmental and Social Justice Communities” or “ESJ Communities” are identified as those where residents are: Predominantly communities of color or low-income; Underrepresented in the policy setting or decision-making process; Subject to a disproportionate impact from one or more environmental hazards; and Likely to experience disparate implementation of environmental regulations and socio-economic investments in their communities. These communities also include, but are not limited to: Disadvantaged Communities (Defined as census tracts that score in the top 25% of CalEnviroScreen 3.0, along with those that score within the highest 5% of CalEnviroScreen 3.0’s Pollution Burden but do not receive an overall CalEnviroScreen score); All Tribal lands; Low-income households (Defined as household incomes below 80 percent of the area median income); and Low-income census tracts (Defined as census tracts where aggregated household incomes are less than 80 percent of area or state median income).”)

1 rationale for why this program will fall within the Equity segment, rather than confine the
2 program's services and offers to the limitations of the Resource Acquisition segment.

3 **5.4.3. Program-specific Coordination**

4 MCE describes general program coordination principles and activities with other EE PAs,
5 as well as programs and initiatives outside of the EE framework, in Exhibit 2, Chapter 5, Section
6 6. The information below focuses on coordination efforts that are specific to MCE's commercial
7 program.

8 Both MCE and PG&E must meet cost-effectiveness requirements and thus are neither
9 restricted from offering overlapping programs nor are limited to offering EE programming in
10 certain sectors only. As such, coordination between the two PAs is essential to avoid customer
11 confusion and double dipping. The JCM with PG&E, described in more detail in Exhibit 2, Chapter
12 6, Section 5, produces a framework for coordination between MCE and PG&E programs. Much
13 of the coordination between MCE and PG&E occurs between individual programs and program
14 management staff. The program managers who oversee PG&E's and MCE's non-residential EE
15 programs meet once per month to discuss updates to existing programs, new programs coming
16 online, regulatory and technical topics, coordination issues, and program data. These meetings are
17 productive and valuable and ensure that both MCE and PG&E are aware of any program or
18 portfolio changes.

19 MCE and BayREN both offer commercial EE programs under the current portfolio cycle.
20 The BayREN Business Program serves commercial customers that MCE's commercial programs
21 may also serve. Because of the potential for overlap between offerings, MCE and BayREN will
22 work closely together to minimize customer confusion and duplication of effort. MCE and
23 BayREN will revisit an existing JCM as new programs come online to ensure appropriate

1 coordination as portfolios change. MCE will also look for opportunities to layer with BayREN's
2 programs where appropriate, thereby offering MCE-BayREN shared customers a more holistic
3 program offering and optimized measure selection. Similar to its coordination efforts with PG&E,
4 MCE's engagement with BayREN includes discussions on marketing, policy, and double dipping
5 prevention. The BayREN and MCE program teams will continue to meet on a regular basis to
6 discuss program coordination as they implement programs to the same customer base.

7 **6. Cross-cutting Sector**

8 **6.1. Cross-cutting Sector: Goals, Strategies and Outcomes**

9 As California pursues electrification strategies to achieve state and local GHG emissions
10 reduction policies,³¹ challenges to widespread adoption still persist. Throughout 2020 and 2021,
11 MCE conducted four roundtables with energy industry professionals, interviewed ten contractors,
12 and conducted 11 ride-alongs (virtual and onsite) to gather feedback about related workforce gaps.
13 MCE provides a report on the findings of the roundtables in Attachment B. Based on the
14 information collected, MCE has concluded that there is a growing need for a well-trained
15 workforce to promote, install, and maintain electrification equipment.³² The importance of WE&T
16 activities to promote a sustainable EE industry was also confirmed by several stakeholders during

³¹ California Energy Commission, Local Ordinance Exceeding the 2019 Energy Code, available at: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency-3>; CARB, 2022 Scoping Plan Update, Building Decarbonization Workshop, available at: <https://ww2.arb.ca.gov/resources/documents/sp22-buildings-ws>.

³² See also UCLA Luskin Center for Innovation and Inclusive Economics, California Building Decarbonization Workforce Needs and Recommendations, 2019, available at: https://innovation.luskin.ucla.edu/wp-content/uploads/2019/11/California_Building_Decarbonization.pdf, pp. 29-31.

1 MCE’s stakeholder engagement discussions held in preparation of this Application (e.g., Sierra
2 Club and members of MCE’s Community Power Coalition).³³

3 MCE has identified six major challenges impeding the development of a skilled
4 electrification workforce:

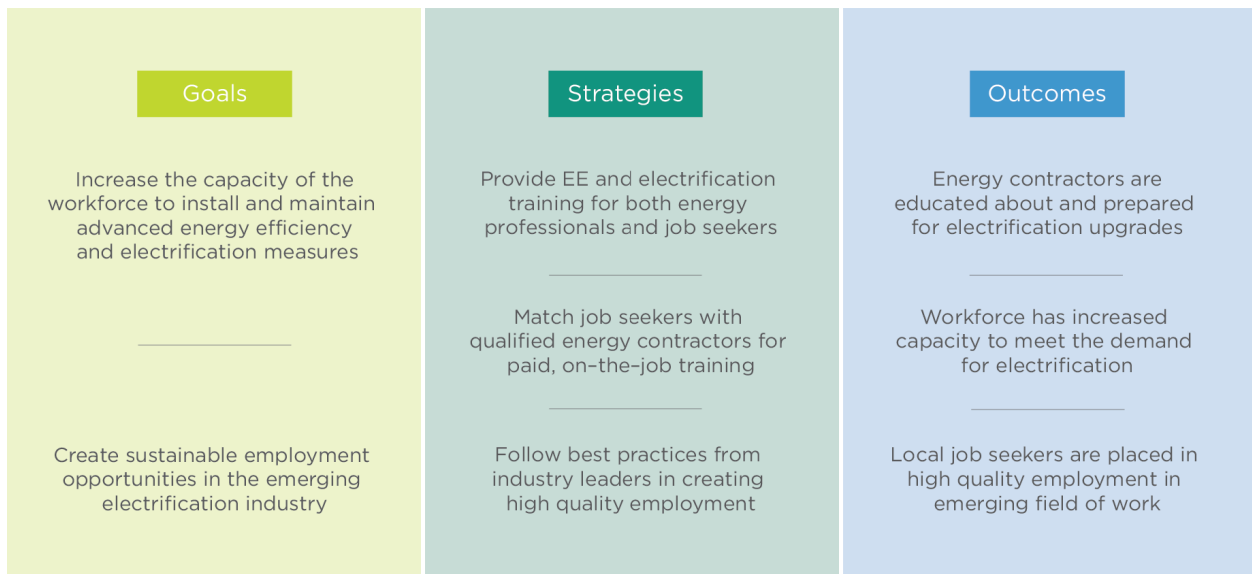
- 5 1. Insufficient access to substantive electrification education and mentorship
6 opportunities for energy industry professionals. Today, there are relatively few
7 energy contractors prepared to meet the electrification needs of the next several
8 years, especially in the residential sector;
- 9 2. Substantial gap between workforce demand and the current supply in the EE
10 industry in general and the electrification sector specifically;
- 11 3. Lack of opportunities for energy industry professionals seeking new staff to connect
12 with job seekers through a third party. In general, workforce investment boards, as
13 well as job assistance platforms and agencies, focus on a broader spectrum of
14 industries, making it more challenging to focus on the merits of a career in EE and
15 electrification specifically;
- 16 4. Job seekers need services that allow them to get paid and receive wrap-around
17 services for work done on-the-job as they are vetted by contractors;
- 18 5. Contractors and other existing energy professionals are struggling to find job
19 seekers who not only have the capacity to learn a trade, but also the willingness to
20 work in a physically challenging line of work; and

³³ MCE’s Community Power Coalition is a group of organizations that works to address the challenges faced by historically marginalized communities in our service area. Members include the Asian Pacific Environmental Network (APEN), Communities for a Better Environment (CBE), the Marin Conservation League, Sustainable Rossmoor, Richmond Build, and representatives from several of MCE’s member cities.

1 6. Lack of technical and practical job-readiness training for job seekers provided by
2 technical experts in the field.

3 To address these challenges, MCE will employ a cross-cutting WE&T program fostering
4 new technology adoption, nimble accommodation for new policies and regulations, and workforce
5 development. The goals, strategies and outcomes for the cross-cutting sector are outlined in the
6 figure below.

7 *Figure 4-6: Goals, Strategies and Outcomes of the Cross-cutting Sector*



8
9 MCE’s goal for the cross-cutting sector is to increase the capacity of the workforce to
10 install and maintain emerging EE and electrification measures. A second and related goal is to
11 create opportunities for sustainable employment in the emerging electrification industry. MCE is
12 proposing the following strategies to reach these goals: (1) create educational resources; (2) foster
13 partnerships; (3) provide training for EE contractors; (4) offer training for job seekers; and (5) job-
14 matching for sustainable high-quality employment.

15 Educational Resources

16 First, MCE will develop resources to educate job seekers and energy professionals on the
17 fundamentals of electrification including technical, safety, environmental, and economic aspects.

1 MCE will develop training resources including classroom curriculum, course materials, and
2 webinar content relevant to current and future EE programming needs. For energy professionals
3 seeking to improve their knowledge and skills, MCE will provide electrification and EE education
4 opportunities allowing them to expand into new areas of the industry. These WE&T activities will
5 serve as an educational resource demonstrating the methods and procedures for identifying
6 opportunities and installing the latest EE technologies. MCE will also highlight connections to
7 programs promoting EE measures that utilize new skills in order to cultivate sustainable careers.

8 Partnerships

9 Second, MCE will build and strengthen partnerships with regional groups such as CBOs,
10 educational institutions, local government and workforce development partners. For example,
11 MCE will partner with the College of Marin, Rising Sun Center for Opportunity, and local
12 workforce investment boards to identify qualified potential job seekers and grow the pool of
13 qualified workers through agreements with these and other regional training and workforce
14 development entities. Partners can recruit interested job seekers and pass them on to the program's
15 employer of record to begin the program application process. These partnerships are essential for
16 scaling the necessary resources to meet the growing workforce need.

17 Training for EE Contractors

18 Third, MCE will provide advanced training opportunities that allow EE contractors to
19 expand skills and knowledge within their own organization, and to utilize skills gained to teach
20 new staff about electrification and EE principles and best practices. Through onsite training (*i.e.*,
21 working with contractors in the field on their own projects), paired with online and classroom
22 resources, MCE and its community and implementation partners will facilitate the development of
23 a skilled workforce that can support the state's decarbonization goals. Mentoring and training for

1 industry professionals working in MCE’s service area conveys additional benefits. It can ensure
2 that any contractor involved in a project that is supported by an MCE EE program carries out
3 MCE’s mission and commitment to support decarbonization and meaningful job development.

4 Training for Job Seekers

5 Fourth, MCE will provide vital training for job seekers. For newcomers to the sustainable
6 energy field, the focus of this training will be to provide practical skills that are applicable and
7 long-lasting in an ever-adapting and growing industry like EE and electrification. MCE’s intent is
8 to teach the skills and knowledge required to perform increasingly complex EE and electrification
9 installations like heat pump water heaters (HPWHs) and heat pump HVAC systems. Other useful,
10 persistent skills for job seekers include best practices for safety, health and energy conservation.
11 These are skills that continue to develop over time and sustain jobs for a trained workforce well
12 into the future.

13 An expected outcome of these strategies are energy professionals that are educated and
14 prepared to install electrification upgrades while also being able to convey the value proposition
15 of electrification to end users. This is a crucial factor in transforming electrification from a niche
16 upgrade to standard practice. Another outcome that MCE expects from these strategies is a
17 workforce that has increased capacity to meet the demand for electrification. The enhanced
18 availability of skilled and knowledgeable electrification professionals can help customers
19 transition to electric homes and businesses whether they are operating in partnership with a
20 program or individually. With the drive toward electrification accelerating, a properly trained
21 workforce is critical for scaling building decarbonization strategies and reaching state climate
22 goals.

1 Job Matching for Sustainable, High-quality Employment

2 Fifth, MCE will match job seekers with the energy contractors that perform heat pump-
3 and other high-tech installations for paid, on-the-job training. In addition to facilitating training
4 opportunities, MCE will also help place local graduates in long-term, high-quality employment
5 situations. With the assistance of industry and implementation partners, MCE will facilitate
6 introductions between job seekers and vetted contractors. Because job seekers in this field do not
7 have access to wages while they are training on the job, MCE’s WE&T program provides a wage
8 comparable to that which will be provided by contractors should they get hired full time after a
9 short trial period. For the contractor, they can build initial relationships to ensure there is a good
10 fit prior to making an investment in full-time employment for the job seeker. This will facilitate
11 stronger and greater employment matches. Through paid, on-the-job training for job seekers, both
12 contractors and job seekers can determine if there are further mutually beneficial opportunities for
13 long-term employment.

14 When offering these job matching services, MCE will follow best practices from industry
15 leaders to create high quality employment. MCE will ensure that the program prioritizes equity
16 and job access for local residents by partnering with local workforce development groups such as
17 the High Road to Building Decarbonization in the San Francisco Bay Area Training Partnership
18 Program (High Road) which endeavors to ensure that the jobs created by the building
19 decarbonization industry are high quality jobs.³⁴ Working with organizations participating in High
20 Road, MCE will forge partnerships with employers to make investments in career paths for their
21 staff. This includes instituting minimum hiring standards for employers that want to participate in

³⁴ High Road Training Partnership, High Road to Building Decarbonization in the San Francisco Bay Area, available at: https://cwdb.ca.gov/wp-content/uploads/sites/43/2021/04/2021.HRTP_.RisingSun_ACCESSIBLE.pdf.

1 MCE’s WE&T program. These partnerships are essential for fostering robust workforce
2 development and creating growth opportunities in the EE and electrification industry.

3 An expected outcome of MCE’s job matching services is to ensure that local job seekers
4 are placed in long-term, high-quality employment in an emerging field of work.

5 **6.2. Sector-specific Coordination**

6 MCE’s coordination efforts in the cross-cutting sector occur at the program level, instead
7 of the sector level, and are described in Section 6.4.3 below. In addition, MCE describes general
8 program coordination principles and activities with other EE PAs, as well as programs and
9 initiatives outside of the EE framework, in Exhibit 2, Chapter 5, Section 6.

10 **6.3. Program Categorization by Segment**

11 MCE’s WE&T program is categorized within the Market Support segment.

12 *Table 4-5: Cross-cutting Programs by Segment*

Program Name	Segment
MCE 16: Workforce Education and Training Program	Market Support

14 **6.4. Program Details**

15 **6.4.1. Program Cards**

16 MCE provides a description of its WE&T program in Attachment A, Section 3.

17 **6.4.2. New Programs**

18 MCE is not planning to develop new cross-cutting programs in PYs 2024 - 2027.

19 **6.4.3. Program-specific Coordination**

20 In MCE’s service area, both PG&E and MCE offer WE&T programs, including in-person
21 and virtual trainings on various EE and electrification subjects. Continued coordination between
22 MCE’s and PG&E’s WE&T programs will ensure that ratepayer funds deliver resources efficiently
23 and effectively across the shared territories. PG&E and MCE’s coordination efforts will offer

1 transparency through regular communication, ensuring efficiency through a collaborative
2 approach to any shared resources, and providing support for the success of programs across the
3 service area. In order to operationalize this, PG&E and MCE will meet regularly to coordinate the
4 WE&T programs and discuss the development of new trainings to maximize the scope and breadth
5 of the trainings available to the market. For example, PG&E and MCE will provide each other
6 with a list of its trainings on a quarterly basis. While MCE and PG&E's trainings are generally
7 distinct and will focus on different forms of contractor education and workforce development,
8 PG&E and MCE will coordinate on leveraging and marketing each other's resources and materials
9 when appropriate to maximize the value from those efforts to ratepayers.

10 Furthermore, MCE will provide its announcements of industry roundtables and direct
11 vendor outreach collateral to PG&E as it is developed and distributed. During MCE and PG&E's
12 monthly WE&T check ins, MCE and PG&E will share lessons learned related to areas of interest
13 from industry roundtables and vendor outreach.

14 **7. Industrial Sector**

15 **7.1. Industrial Sector: Goals, Strategies and Outcomes**

16 As mentioned above, MCE serves approximately 6,000 industrial accounts, who
17 collectively consume approximately 950,000 MWh annually. This represents approximately 24%
18 of MCE's non-residential load and 12% of MCE's total electricity load. MCE's industrial program
19 caters to a sector with a wide variety of business and facility types. The program acknowledges
20 the challenges in serving the myriad types and sizes of facilities while integrating diverse program
21 offerings under one umbrella.

22 One of the primary challenges of serving the industrial sector is creating the space and
23 time to communicate with customers about the benefits of energy efficiency. Industrial customers

1 have some of the highest energy use and costs yet are often focused on other priorities—such as
2 production needs, quality, safety and standard maintenance—rather than energy efficiency. In a
3 similar vein, as flagged in the agricultural section in this chapter (as a finding of the 2021 Potential
4 and Goals Study’s Agricultural/Industrial Market Saturation Study),³⁵ one of the most common
5 barriers impacting EE project decisions, across all industrial and agricultural subsectors, were
6 concerns about potential disruptions to business operations. These customers require specialized
7 support to bring savings opportunities to fruition and build trust in EE recommendations. Without
8 specialized support, customers lacked confidence in the appropriateness, accuracy, and ability of
9 recommendations to deliver expected savings with minimal impact to facility operations.

10 Many industrial customers struggle with how best to evaluate and implement cost-effective
11 EE improvements due to limited bandwidth and/or hesitation to adopt new technologies. Due to
12 competing priorities for resources within a business, it can be challenging to gain the attention of
13 key decision-makers without having a succinct, and ideally pre-determined, EE strategy that will
14 bring financial and operational benefits. In addition to resource limitations, there are often only
15 limited windows of opportunity to engage with customers or install measures if there are unique
16 production cycles where equipment downtime is a non-starter, or if budgetary planning cycles are
17 a prerequisite in project planning. Improving the efficiency of the equipment and processes driving
18 their business is often not the priority of the facility staff.

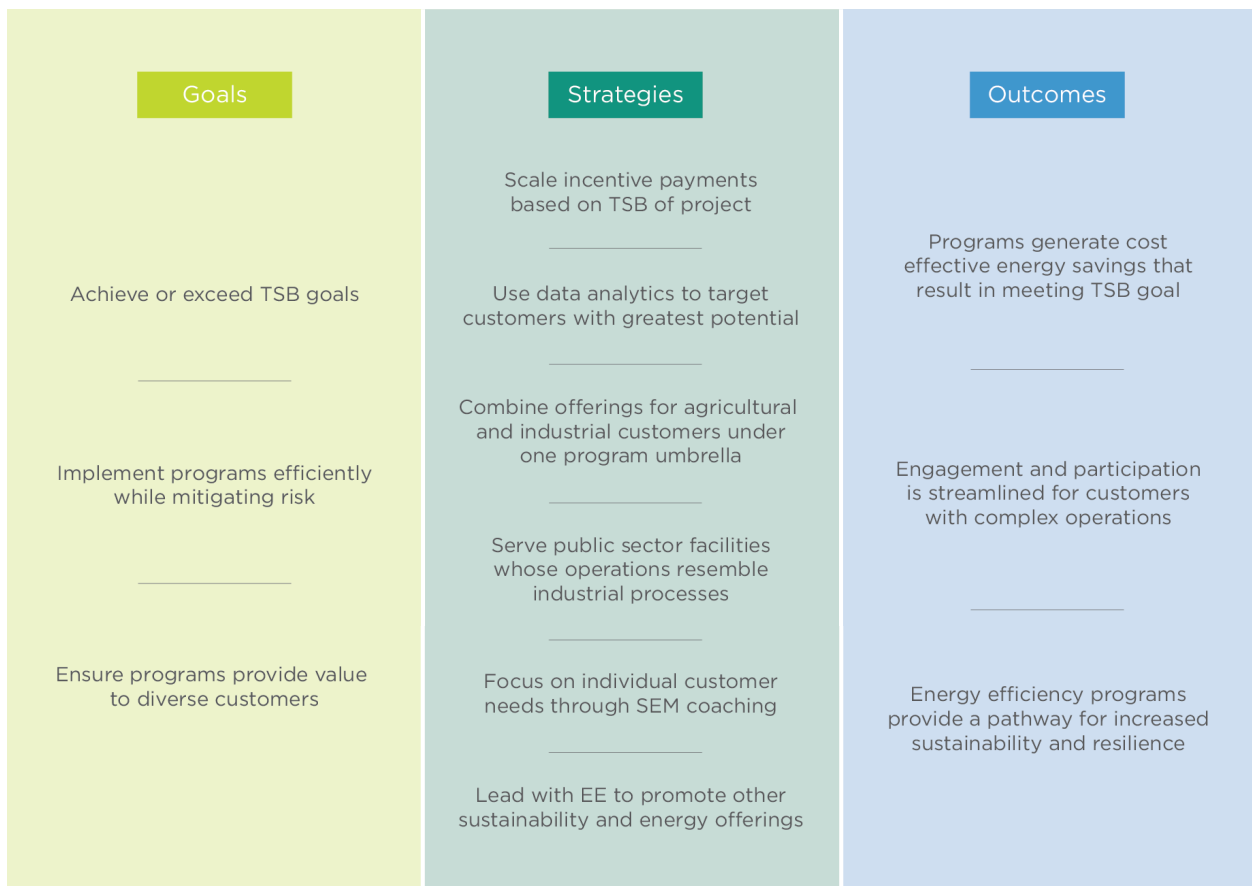
19 EE measures for the industrial sector are not conducive for the deemed delivery channel as
20 industrial customer profiles vary significantly, and industrial customers often use highly
21 specialized equipment for which there is no relevant workpaper. Administrative and

³⁵ Available at: https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/energy-efficiency/2021-potential-goals-study/industrial-ag-market-saturation-study-final.pdf?sc_lang=en&hash=123825958BE1A39B21ED8E4592D8F665.

1 implementation challenges can also surface in industrial program deployment. Industrial
 2 customers' energy end-uses and drivers are often heavily dependent on site-specific operations and
 3 production output. As a result, these customers are generally an ill fit for NMEC programs—either
 4 site or population-level—since savings are unlikely to be adequately modeled or captured by meter
 5 data alone and need to be further contextualized based on site-specific characteristics and variation
 6 in production, time of year, or other variables.

7 Based on these characteristics and challenges, MCE has developed goals, strategies, and
 8 outcomes for the industrial sector which are outlined in the figure below.

9 *Figure 4-7: Goals, Strategies and Outcomes of the Industrial Sector*



10

11 The goal of the industrial sector is to achieve or exceed TSB metrics, to implement
 12 programs efficiently while mitigating risk, and to ensure that program services provided are

1 valuable to participating industrial customers throughout MCE’s service area. MCE proposes six
2 strategies to reach these goals: (1) joint implementation for agricultural and industrial sectors; (2)
3 SEM programming; (3) incentives based on TSB; (4) data analytics; (5) serve public sector
4 customers whose operations resemble industrial processes; and (6) “Any Open Door” engagement.

5 Joint Implementation for Agricultural and Industrial Sectors

6 As described in the agricultural sector section above, MCE proposes joint program
7 implementation of a program targeting both agricultural and industrial customers as the
8 “Agricultural and Industrial (AIR) Program”. This largely administrative strategy sets the stage
9 for a number of key program features. Per the agricultural sector’s strategy section discussion, a
10 single program is justified by administrative and cost efficiencies, as well as common interventions
11 that are well suited to both agricultural and industrial customers.

12 Strategic Energy Management

13 MCE proposes to focus on individual customer needs through SEM coaching, workshops
14 and cohorts within the joint implementation approach. SEM provides customers with a single point
15 of contact for their energy journey and a tailored focus on a specific customer’s operations. It seeks
16 to find the customers’ energy pain points and opportunities for efficiency, with the aim of
17 delivering on no- and low-cost savings. While participating industrial customers can certainly
18 access deemed product rebates or develop custom projects, SEM is the ideal pathway for
19 identifying these projects and remains central to program recruitment and customer engagement.
20 For this reason, SEM is the “go-to” delivery channel within the MCE AIR Program.

21 Incentives Based on TSB

22 MCE proposes to scale incentive payments based on TSB which applies program
23 expenditures to the benefits that the program delivers. While MCE’s SEM models to-date have yet

1 to account for hourly savings impacts, MCE believes that it is possible, and that it would be a
2 valuable addition to SEM incentive structures. This modification may eventually produce
3 additional grid benefits and improved cost-effective outcomes. Leading with SEM and scaling
4 payments to attract beneficial projects will result in an outcome in which programs generate TSB
5 and energy savings for customers.

6 Data Analytics

7 As described above, many customers within the industrial sector have complex operations.
8 MCE proposes a set of strategies to simplify engagement and participation for these customers.
9 MCE first proposes using data analytics to identify customers with the greatest savings potential.
10 Industrial customers typically have energy usage profiles that vary depending on their processes.
11 A data-centered approach analyzes customer data to identify customers who can benefit from
12 offerings such as SEM participation and its longer-term approach to energy savings and demand
13 management. Furthermore, customer data analysis can identify customer profiles indicating
14 significant energy savings potential during high value periods. Analyzing meter data for peak
15 usage, seasonal variation, and temperature dependency can tease out potential proposed energy
16 measures. MCE will encourage these customers to adopt measures that reduce peak usage and shift
17 load to off-peak periods by offering incentives rates that are higher for peak period reductions.
18 This delivers benefits for both the participating customer (*i.e.*, cost savings) and for the grid (*i.e.*,
19 grid reliability) benefiting all ratepayers.

20 Serve Public Sector Customers Whose Operations Resemble Industrial Processes

21 MCE proposes to serve public sector facilities whose operations resemble industrial
22 processes under the MCE Air Program to simplify engagement. These public sector facilities that
23 run process-oriented operations, such as water and wastewater treatment plants, will be welcomed

1 participants in MCE’s AIR Program. These special district and municipal facilities are excellent
2 candidates for SEM engagement with some of them already participating in current cohorts.

3 Any Open Door

4 MCE proposes to leverage EE as an opportunity to promote complementary sustainability
5 and energy initiatives. MCE will offer additional workshops outside of the EE paradigm within its
6 SEM programming, to introduce new topic areas such as water management, grid reliability,
7 customer resiliency and emissions management. This approach will allow MCE representatives to
8 raise awareness about energy use, as well as associated economic and environmental impacts, and
9 serve as a bridge to additional reliability benefits and GHG reduction opportunities. MCE will
10 offer SEM customers dedicated training on demand flexibility opportunities and MCE’s DERs
11 programs. This may be an impactful strategy, as demand management program participation
12 remains low, even among high consuming industrial customers according to findings of the
13 Agricultural and Industrial Market Saturation Study.³⁶ The program will also aim to incorporate
14 water management as a core element, highlighting the water-energy nexus and the more basic
15 business need of managing water wisely to improve both the bottom line and alleviate water
16 shortages. In addition, SEM will connect customers to other available local and regional offerings
17 (e.g., water districts), and where possible, introduce representatives from these programs during
18 the delivery of SEM training and workshops. In summary, leveraging EE programs provides a
19 pathway for industrial customers to be more energy aware, efficient, sustainable and resilient.

³⁶ Available at: https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/energy-efficiency/2021-potential-goals-study/industrial-ag-market-saturation-study-final.pdf?sc_lang=en&hash=123825958BE1A39B21ED8E4592D8F665, p. 21.

1 **7.2. Sector-specific Coordination**

2 Most of MCE’s coordination efforts occur at the program level, instead of the sector level,
3 and are described in Section 7.4.3 below. In addition, MCE describes general program
4 coordination principles and activities with other EE PAs, as well as programs and initiatives
5 outside of the EE framework, in Exhibit 2, Chapter 5, Section 6.

6 Regarding sector-specific collaboration for the industrial sector, MCE will coordinate with
7 industry specific trade associations such as the California Manufacturers & Technology
8 Association, California League of Food Producers, and Northern California Chapter of the
9 American Public Works Association to promote MCE offerings.

10 **7.3. Program Categorization by Segment**

11 The MCE industrial program is categorized within the Resource Acquisition segment and
12 is implemented jointly with the agricultural program as the MCE AIR Program. The program
13 includes eight sub-programs, four for each sector, which exist as sub-programs primarily for the
14 purpose of streamlined and accurate reporting. Details for the industrial sector are shown in the
15 table below.

16 *Table 4-6: Industrial Programs by Segment*

Program Name	Segment
MCE10a: Industrial Deemed	Resource Acquisition
MCE10b: Industrial Custom	Resource Acquisition
MCE10c: Industrial Strategic Energy Management	Resource Acquisition
MCE10d: Industrial Normalized Metered Energy Consumption	Resource Acquisition

18 **7.4. Program Details**

19 **7.4.1. Program Cards**

20 MCE provides a description of each program offered in the industrial sector in Attachment
21 A, Section 4.

1 **7.4.2. New Programs**

2 MCE is not planning to develop new programs to serve the industrial sector in PYs 2024-
3 2027.

4 **7.4.3. Program-specific Coordination**

5 MCE describes general program coordination principles and activities with other EE PAs,
6 as well as programs and initiatives outside of the EE framework, in Chapter 5, Section 6. The
7 information below focuses on coordination efforts that are specific to MCE’s industrial programs.

8 The JCM with PG&E, described above and in Exhibit 2, Chapter 6, produces a framework
9 for coordination with PG&E programs, but much of the coordination itself occurs between
10 individual programs and program management staff. The program managers who oversee PG&E
11 and MCEs non-residential EE programs meet once per month to discuss updates to existing
12 programs, new program launches, regulatory and technical topics, coordination issues, and
13 program data. These meetings are productive and valuable and ensure that both MCE and PG&E
14 are aware of impactful program or portfolio changes.

15 MCE does not coordinate with BayREN directly on the MCE AIR program as BayREN
16 does not administer agricultural or industrial EE programs, but shares information on the program
17 for appropriate BayREN customer referrals.

18 **8. Residential Sector**

19 **8.1 Residential Sector: Goals, Strategies and Outcomes**

20 As mentioned above, MCE serves approximately 487,000 residential customer accounts,
21 which make up approximately 90 percent of MCE’s total customer accounts. Residential
22 customers consume approximately 3.8 million MWhs annually, which represents 48.5% of MCE’s
23 total electricity load. Approximately 26% of residential customers are multifamily and 74% are

1 single-family customers. MCE began offering residential EE programs in 2013 and has since
2 grown its residential EE portfolio significantly to encompass a wide array of multifamily and
3 single-family offerings. During this time, MCE has observed several challenges in this sector
4 which are outlined below.

5 Multifamily properties face challenges unique to the relationship between property owners,
6 managers, and tenants of those properties. Typically, there is the issue of “split incentives”, *i.e.*,
7 benefits may not be realized by the entity responsible for covering the costs of the EE upgrade.
8 For example, the property owner or manager may have difficulty supporting an EE project where
9 upgrades will cost them money and provide a benefit to the tenant in the form of lower bills and
10 new, efficient appliances. Because of this, it is more common for property managers and/or owners
11 to take an interest in common area upgrades that could result in energy and cost savings for them
12 rather than the tenants. Property managers and/or owners also typically have several competing
13 tasks and obligations related to the properties they oversee, which makes it difficult to focus on
14 energy-saving matters. On the tenant side, on the other hand, there is little incentive to pay for in-
15 unit upgrades that stay with and enrich the property owner upon move-out. This challenge applies
16 to market rate, moderate- and low-income properties alike.

17 MCE has also experienced challenges specifically related to serving tenants in multifamily
18 settings. Contractors and program implementers often experience greater difficulty gaining access
19 to units because of lack of trust by tenants and sometimes property managers or owners. It is
20 difficult to get access to in-unit usage data without express consent of tenants, which requires
21 communication and trust-building by the contractor. This can be time- and effort-intensive, leading
22 to high program administrative costs. Determining tenant income levels, where necessary to

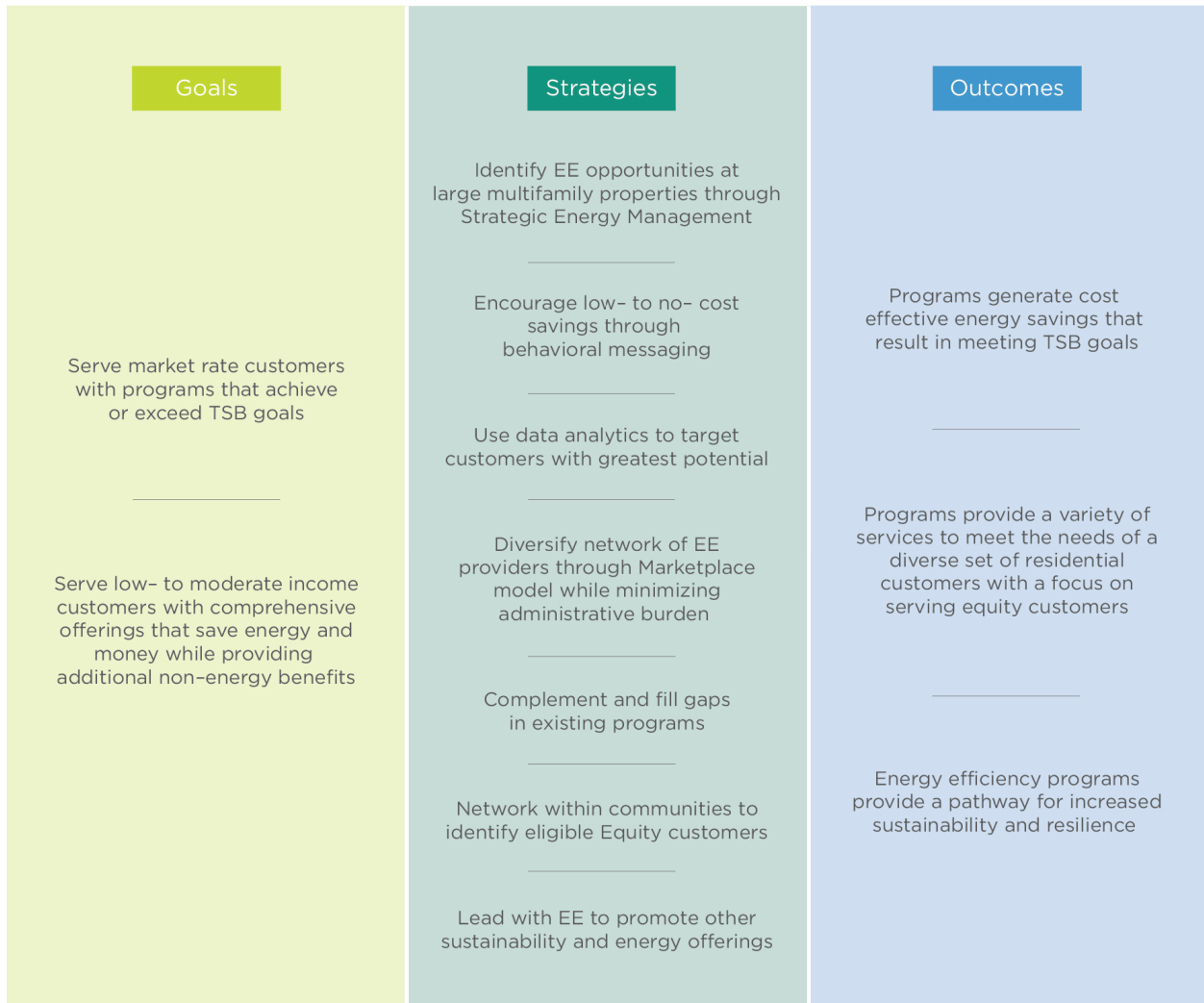
1 establish which program is appropriate for a given property, presents an additional challenge for
2 program implementers.

3 Reaching and serving single-family residential customers has its own set of challenges. A
4 HTR segment of this sector is those property owners whose income exceeds low-income EE and
5 electrification program income levels (*e.g.*, the State’s Energy Savings Assistance (ESA)
6 program),³⁷ but still lack the resources to fund home upgrades. In addition, even if these customers
7 receive incentives for EE and electrification measures, the cost for ancillary measures (*e.g.*, electric
8 panel upgrades, support structures, light carpentry, safety testing) often prevents them from
9 participating in programs. For single-family residential customers, providing cost-effective and
10 scalable, broad-reaching programs is a challenge. With a four-county footprint, MCE customers
11 span all demographics, and programs need to be nimble enough in outreach and offerings to serve
12 all of them. Motivated mostly by Equity considerations, MCE has developed goals, strategies and
13 expected outcomes for its residential programs which are outlined in the figure below.

³⁷ Energy Savings Assistance (ESA) Program provides no-cost weatherization services to consumers who meet the California Alternate Rates for Energy (CARE) income limits. CARE income guidelines can be found at: <https://www.cpuc.ca.gov/consumer-support/financial-assistance-savings-and-discounts/california-alternate-rates-for-energy>.

1

Figure 4-8: Goals, Strategies and Outcomes of the Residential Sector



2

3 MCE’s goals for the residential sector are two-fold, based on the income level of the target
4 customers. First, MCE intends to serve low- to moderate-income customers with comprehensive
5 offerings that save energy and money while providing additional NEBs. Second, MCE plans to
6 serve market-rate residential customers with programs that meet or exceed TSB thresholds.
7 Underlying these goals is the need to reach a broad swath of customers, geographically,
8 demographically, and economically. This requires programs that are easy to launch and manage,
9 succeed at providing education and sparking interest in EE and electrification, and deliver a high
10 TSB. MCE is proposing to reach these goals through implementing the following programmatic

1 strategies: (1) SEM for multifamily housing; (2) behavioral messaging through Home Energy
2 Reports (HERs); (3) Marketplace programs; (4) filling gaps for moderate-income customers; (5)
3 community engagement; and (6) “Any Open Door” strategies.

4 SEM for Multifamily

5 MCE proposes to identify and address opportunities to improve energy management at
6 larger multifamily properties through SEM. MCE has administered SEM programming as a
7 participation pathway under the umbrella of the agricultural, industrial and commercial programs
8 since 2019. While SEM in California was originally designed to apply to industrial customers,
9 MCE has taken a more expansive view on the customer segments that stand to benefit from the
10 multi-year engagement of the SEM model. MCE’s SEM programming for multifamily is
11 administered and implemented consistent with the California Industrial SEM Design Guide and
12 California Industrial SEM M&V Guide with exceptions (e.g., different workshop topics and
13 spacing) documented in the implementation plan for the program. In short, while SEM Design and
14 M&V guides provide a strong framework for implementing and evaluating SEM savings from
15 facilities with complex energy drivers, there are few reasons why customers with less complex
16 operations would not benefit from the same approach to energy management training, goal setting,
17 tracking and continuous improvement. This has already been demonstrated in MCE’s extension of
18 SEM eligibility to commercial customers.

19 SEM moves the energy management conversation beyond capital equipment upgrades to
20 focus on how management processes, systems and policies can improve to save energy. Savings
21 are realized year-over-year as participants develop a culture of continuous improvement. The
22 program helps properties identify and implement unique energy savings opportunities.
23 Participating properties form a cohort and progress together through a series of facilitated

1 workshops. Workshops teach participants how to map energy usage across their respective
2 properties and to develop a list of opportunities for potential energy savings. Savings estimates
3 and customer incentives for operations and maintenance, retro-commissioning and behavioral
4 measures will be calculated using pre- and post-measurement interval data.

5 Behavioral Messaging through Home Energy Reports

6 MCE proposes to encourage low- to no-cost savings in both single-family and multifamily
7 properties through behavioral messaging. This approach presents the highest savings potential for
8 residential interventions but delivers fewer TSB due to the short expected useful life (EUL) of
9 these measures. Behavioral savings are an increasingly important component of EE programs.
10 MCE uses data analytics to identify single-family homes with high savings potential. Using an
11 NMEC-based algorithm that identifies electricity consumption down to the measure level, MCE's
12 Home Energy Report (HER) program provides customers with information about their behaviors
13 and identifies resources for no-cost energy saving ideas. No-cost EE actions like plug load
14 reduction will continue to be a critical component to introduce energy savings concepts for
15 customers who are not yet ready to invest money in energy upgrades. MCE will fine-tune current
16 behavioral messaging to maximize the opportunities for small savings on a per-household basis
17 that can add up to larger load reduction opportunities in aggregate. Furthermore, MCE will employ
18 behavioral messaging to facilitate the installation of technologies that will enable load-shifting and
19 demand management solutions.

20 The strategies described above will help MCE achieve energy savings and TSB goals. Over
21 the long-term, MCE hopes communities and properties influenced by SEM and behavioral
22 messaging will have the resources required to move forward with more impactful EE and
23 electrification upgrades.

1 Marketplace Programs

2 Building on MCE’s existing Commercial Efficiency Market, MCE proposes to extend its
3 Marketplace programs to the residential sector to foster cost-effective residential EE programs.
4 Much like the Commercial Efficiency Market, the Residential Efficiency Market will leverage a
5 P4P structure grounded in TSB, with a maximum cost-effective value paid to participating
6 aggregators once applicable program costs are accounted for. The Marketplace program model
7 incentivizes aggregators to deliver high value EE savings through a combination of long-term
8 energy efficiency and peak-period focused savings. Furthermore, it removes a number of barriers
9 to participation in traditional EE programs, while providing aggregators with significant flexibility
10 in determining the optimal mix of measures, incentives and customers that can deliver value. The
11 Residential Efficiency Market program, while new to the EE portfolio in PY 2024, will build on a
12 Residential Market Access Program (MAP) that MCE intends to launch in 2022.³⁸

13 Filling Gaps for Moderate-Income Customers

14 MCE proposes providing EE and electrification offerings to complement and fill gaps in
15 existing programs. This includes reaching owners of properties that house tenants that marginally
16 exceed income eligibility requirements for traditional low-income programs. The tenants at these
17 properties may fall outside the qualification requirements for the Low-Income Weatherization
18 Program (LIWP), the Low-Income Home Energy Assistance Program (LIHEAP), the ESA
19 program or the Family Energy Rate Assistance (FERA) program, but still require assistance for

³⁸ MCE timely filed Advice Letter 60-E with the Commission requesting approval of MCE’s Residential MAP for PYs 2022 and 2023 on February 7, 2022.

1 EE upgrades. MCE offers programs specifically geared at these low- to moderate-income
2 customers.

3 MCE plans to provide an additional pathway for customers to access and benefit from
4 electrification. Measures and incentives for HPWH and heat pump space conditioning will be
5 available through multifamily and single-family programs across all income levels. In addition,
6 MCE will evaluate funding ancillary home upgrades that will allow electrification to move forward
7 (e.g., electrical panel upgrades to accommodate heavier electrical loads).

8 Community Engagement

9 MCE proposes community engagement and networking to facilitate participation of
10 vulnerable customers in EE programming and identify customers eligible for Equity programs.
11 Several stakeholders recommended this strategy in discussions leading up to the drafting of this
12 Application. MCE will continue to leverage local partnerships to maximize its reach with Equity
13 customers. Through expert input and experience in the low- and moderate-income multifamily
14 spaces, MCE learned that property owners often drive program participation, with key buy-in from
15 tenants. By providing education to both owners and tenants, as well as to local, trusted community-
16 based partners, MCE has been able to earn the trust of tenants and explain the benefits of energy
17 upgrades to property owners. MCE's experience teaches that communicating regularly with
18 community leaders and trusted community-based partners helps MCE better serve customers'
19 needs and encourages them to seek beneficial EE solutions. As an example, MCE received positive
20 feedback for partnering with CBOs and other local partners for neighborhood canvassing within
21 the Home Energy Savings (HES) Program.

1 By providing offerings that fill gaps, facilitating electrification, and foster community
2 engagement, MCE’s anticipated outcome is to offer low-to moderate-income customers a level
3 playing field to access EE programming.

4 Any Open Door

5 MCE proposes a final strategy to leverage EE as an opportunity to promote complimentary
6 sustainability and energy offerings. The residential sector’s EE offerings serve as a bridge for
7 participants (either vendors/aggregators or customers) to engage with other energy management
8 and GHG-reduction activities. When appropriate, MCE will promote demand management and
9 resiliency opportunities alongside EE offerings. For example, MCE can stack its residential EE
10 program offerings on top of its Energy Storage Program so that homeowners and/or property
11 owners/managers can maximize the benefits of reducing load prior to adding storage solutions. In
12 addition, MCE will connect customers to other available local and regional offerings (e.g., the
13 Solar for Multi-Family Affordable Housing (SOMAH) program)³⁹ and where possible, introduce
14 representatives from these programs during project delivery. Coordination with other EE and DER
15 programs is described in more detail in Exhibit 2, Chapter 5, Section 6.

16 MCE anticipates that its “Any Open Door” strategy will provide a stronger pathway to
17 increase residential customers’ EE benefits, knowledge, resilience and program engagement.

18 **8.2 Sector-specific Coordination**

19 Most of MCE’s coordination efforts occur at the program level, instead of the sector level,
20 and are described in Section 8.4.3 below. In addition, MCE describes general program

³⁹ The Solar on Multifamily Affordable Housing (SOMAH) Program provides financial incentives for installing photovoltaic (PV) energy systems on multifamily affordable housing. Available at: <https://calsomah.org/>.

1 coordination principles and activities with other EE PAs, as well as programs and initiatives
2 outside of the EE framework, in Exhibit 2, Chapter 5, Section 6.

3 In regards to sector-specific collaboration for the residential sector, MCE will coordinate
4 with local and statewide partners to offer a suite of services to residential customers irrespective
5 of their economic or housing type. Locally-led, MCE works closely with local government
6 agencies to promote programs and services for residential customers. One example is the
7 collaboration with the County of Marin on its “Electrify Marin” program,⁴⁰ which incentivizes
8 electrification upgrades. Under this partnership, MCE coordinates with Electrify Marin to
9 maximize incentives to lower the cost of electrification leading to beneficial outcomes for
10 customers.

11 Within the DER space, MCE and GRID Alternatives (GRID) share leads to promote
12 electrification and EE upgrades to solar customers. For example, if a GRID customer is interested
13 in, and qualifies for, MCE EE incentives, GRID will pass that lead to MCE’s residential single-
14 family and multifamily electrification incentive opportunities that can extend the value proposition
15 even further.

16 Statewide, MCE will work with the Technology and Equipment for Clean Heating⁴¹
17 (TECH) initiative to promote all available electrification technologies in MCE’s service area,
18 including those already offered and emerging under statewide incentive programs. MCE will
19 coordinate with TECH partners to provide information through the “Switch Is On” marketing and
20 outreach campaign.

⁴⁰ Available at: <https://www.marincounty.org/depts/cd/divisions/sustainability/energy-programs/electrify>.

⁴¹ Available at: <https://energy-solution.com/tech/>.

8.3 Program Categorization by Segment

MCE’s residential programs include three programs and one sub-program, split between the Resource Acquisition and Equity segments. Details are shown in the Table below.

Table 4-7: Residential Programs by Segment

Program Name	Segment
MCE 01: Multifamily Energy Savings Program	Equity
MCE01c: Multifamily Strategic Energy Management	Resource Acquisition
MCE07: Single-family Home Energy Report program	Resource Acquisition
MCE08: Home Energy Savings	Equity

8.4 Program Details

8.4.1 Program Cards

MCE provides a description of each program offered in the residential sector in Attachment A, Section 5.

8.4.2 New Programs

Energy efficiency and electrification technologies are evolving at a rapid pace. At the same time, new requirements for codes and standards in California make achieving a cost-effective program portfolio increasingly complex and challenging for PAs. This confluence of regulatory and technological changes necessitates new programs to deliver the benefits that customers and regulators demand. In response to these drivers and its mission to reduce GHG emissions, MCE plans to introduce a new residential Marketplace program that leverages population-level NMEC, time-dependent savings valuation, and market access to foster innovation and broader participation.⁴²

⁴² The new Residential Efficiency Market will be similar to the Residential Market Access Program that MCE has proposed to the Commission for program years 2022 and 2023 in MCE Advice Letter 60-E from February 7, 2022. However, the program will be considered “new” under this portfolio filing as this will be the first time that the program will be incorporated into the EE portfolio.

1 The new Residential Efficiency Market program evaluates and pays for projects based on
2 the TSB value generated. This incentivizes participants to seek out the most valuable savings
3 opportunity, accomplished by prioritizing ideal customers, scaling impacts, or specifying products
4 that can achieve peak period impacts. The Marketplace model also provides participating
5 aggregators with significant flexibility on customer engagement, and in determining optimal cost-
6 sharing arrangements with customers. To implement this innovative approach, MCE will harness
7 the existing structure and platform behind the Commercial Efficiency Market and apply it to the
8 residential sector. MCE’s Marketplace programs are described in more detail in Exhibit 2, Chapter
9 3, Section 2.2 (the Resource Acquisition segment).

10 **8.4.3 Program-specific Coordination**

11 As customer programs expand and evolve, coordination between PAs is critical to
12 maintaining high-level of service to customers and to deliver the best system outcomes. MCE
13 engages in direct coordination with BayREN and PG&E to avoid duplication of effort, unnecessary
14 spending, customer and contractor confusion, and stranded opportunities.

15 Under the Commission’s current portfolio cycle, MCE and BayREN coordinate across
16 residential programs (BayREN Home+ and Bay Area Multi-family Building Enhancements
17 (BAMBE)) that serve similar customers as MCE’s Multifamily Energy Savings (MFES) program,
18 Low-Income Families and Tenants (LIFT), and Home Energy Savings (HES). Due to the shared
19 customer base and similar measure offerings, MCE and BayREN will work closely together to
20 minimize customer confusion and duplication of effort. As new programs come online, the existing
21 JCM between MCE and BayREN will be re-visited to ensure that the coordination is appropriate
22 as portfolios change. MCE will also look for opportunities to layer on to each other’s programs

1 where useful in offering MCE-BayREN shared customers a more holistic program offering and
2 optimized measure selection.

3 Engagement efforts with BayREN will include discussions on marketing, policy and
4 double dipping prevention. BayREN and MCE program teams will hold regularly scheduled
5 meetings to discuss program coordination.

6 Coordination with PG&E

7 MCE and PG&E conduct monthly program coordination meetings to provide program
8 updates, to discuss collaboration opportunities, and to develop solutions in areas where both PAs
9 may be offering similar programs to the same customers. For example, MCE and PG&E's Home
10 Energy Report (HER) programs are similar in scope. With respect to customer outreach or double
11 dipping prevention, MCE and PG&E work closely together to coordinate on program marketing
12 and implementation. As programs evolve and expand for both PAs, MCE and PG&E will continue
13 to share and refine program designs and implementation strategies.

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 4
ATTACHMENT A
PROGRAM CARDS

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EXHIBIT 2
CHAPTER 4
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PROGRAM CARDS

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1. Program Cards for Agricultural Sector

Program Name: MCE Agricultural Program	
<p>Program IDs: MCE11 (a, b, and c)</p> <p>New / <u>Existing</u></p> <p>Link to implementation plan if existing: https://cedars.sound-data.com/documents/download/2414/main/</p>	
Portfolio Segment: Resource Acquisition	Implementation Party: Third-party implementer
Applicable Sector: Agricultural	Market Sub-Sector: Farming, Food Production, Wineries, Beverage Production, Food Processing
Sector Challenge: Limited capacity to evaluate technical opportunity, long payback periods, project visibility, seasonal workflow disruption to business and project prioritization.	Sector Opportunity: No- and low-cost savings opportunities delivered through Strategic Energy Management (SEM), integrated sustainability initiatives which address energy, reliability, greenhouse gas (GHG) emissions, refrigerants, and water efficiency and/or conservation.
Known Equity Concerns in the Selected Markets: Farmworker housing can be especially hard to serve with residents experiencing high pollution burdens at home and at work. However, significant savings opportunities likely exist, and residents would benefit from energy upgrades that also improve their health, safety and comfort.	Proposed Solutions to Equity Concerns: Community engagement and partnerships with community-based organizations are a key strategy to promote equitable outcomes. If potential projects are identified at farmworker housing, the project will be transitioned to MCE’s multifamily program for continued support.
<p>Program Description: The MCE Agricultural and Industrial Resource Program (“MCE AIR Program”, or the “Program”) provides a comprehensive approach based on individual customer needs and opportunities through multiple participation pathways, including SEM, custom and meter-based strategies. The Program is designed to provide individualized services to agricultural and industrial customers. It accomplishes this through energy management training, the identification of energy efficiency (EE) and conservation opportunities, financial and technical feasibility analyses, engineering and design support, alignment with financing opportunities, and program incentives.</p>	

<p>Intervention Strategy: SEM, custom, meter-based strategies, scaling incentives based on Total System Benefit (TSB) and marketing with local agricultural organizations.</p>	<p>Program Metrics: 2024-2027 Cumulative Targets 3,927,115 Net kWh 318 Net kW 124,624 Net Therms \$2,643,990 Total System Benefits (TSB)</p>
<p>High-level description of delivery workforce including necessary scale and its risks: Third-party implementation partners, contractors. Required workforce is readily available, however agricultural customers are typically rural and hard to reach which may present a challenge to the workforce.</p>	
<p>Market Actors Necessary for Success: Third-party implementation partners, local government, local agricultural organizations, community-based organizations (CBOs).</p>	
<p>Solicitation Strategy: Utilized a competitive solicitation for third-party implementation.</p>	<p>Transition Plan: N/A</p>
<p>Expected Program Life: Ongoing without anticipated end date.</p>	<p>Short Term Plan: Dedicated marketing campaign in collaboration with local agricultural organizations, SEM recruitment.</p>
<p>Cost Effectiveness TRC: 0.82 PAC: 0.91</p>	<p>Long Term Outlook: Sustained program operation and delivery on goals.</p>
<p>Proposed Annual Budgets for 2024-2027: 2024: \$726,866 2025: \$732,727 2026: \$738,999 2027: \$745,710 Total: \$2,994,302</p>	<p>Anticipated directional and scale: Limited intention to scale further.</p>
<p>Implementation Plan: https://cedars.sound-data.com/documents/download/2414/main/</p>	

2. Program Cards for Commercial Sector

Program Name: MCE Commercial Program	
<p>Program ID: MCE02 (a, b, c and d) New / <u>Existing</u> Link to implementation plan if existing: MCE02 (a, b, and c) - https://cedars.sound-data.com/documents/download/2410/main/ MCE02d - https://cedars.sound-data.com/documents/download/2425/main/</p>	
Portfolio Segment: Resource Acquisition	Implementation Party: Third-party implementer
Applicable Sector: Commercial	Market Sub-Sector: Any
<p>Sector Challenge: The challenges are primarily in designing and administering a program that can:</p> <ul style="list-style-type: none"> - Serve as a value-added service for a wide range of customers, building types and operating characteristics, and provide different participation pathways depending on diverse customer needs; - Operate at scale while protecting ratepayer funding; - Streamline measurement and verification (M&V), reporting, contracting and administration. 	<p>Sector Opportunity: The commercial sector presents significant opportunities as a Resource Acquisition energy efficiency (EE) program. Through the Efficiency Market (sub-program MCE02d), there is a unique opportunity for aggregators to capture savings and decarbonization benefits from a wide array of interventions. Nearly any provider or technology who can deliver on meter-verified Total System Benefits (TSB) values with their customer base can participate. This may include the opportunity to test new technologies, new customer engagement strategies, and the layering of flexibility and demand-response (DR) value to stimulate high value projects in concert with MCE’s Peak FLEXmarket program.</p> <p>Additional opportunity can be found in the continuation of the commercial Strategic Energy Management (SEM) program, and the development of commercial custom and deemed projects. Both participation pathways have been reliable contributors to the Commercial program since its launch. .</p>

<p>Known Equity Concerns in the Selected Markets: Commercial Equity customers have received little to no support from ratepayer funded EE programs.</p>	<p>Proposed Solutions to Equity Concerns: Conduct community engagement to inform design and launch of a new commercial Equity program aimed at reaching Equity customers with valuable and beneficial program services. This standalone Commercial Equity program is to be developed in 2022 and is included in the description of new programs in Exhibit 2, Chapter 4.</p>
<p>Program Description: The MCE Commercial Energy Efficiency Program (the “Commercial Program” or “Program”) acknowledges differences in opportunities between the various types and sizes of commercial customers and emphasizes integrating diverse program offerings under one umbrella.</p> <p>The Program provides a comprehensive approach to EE programming and projects, designed with explicit focus on TSB, risk reduction, and customer value. The Program leverages the Efficiency Market model to work with a diverse group of providers who can deliver results at scale. The Program also contracts directly with multiple implementation partners, to address unique customer needs and open the door to various participation pathways, including SEM, custom and deemed projects.</p>	
<p>Intervention Strategy: Population-level normalized-metered energy consumption (NMEC), SEM, deemed and custom.</p>	<p>Program Metrics:</p> <p>2024-2027 Cumulative Targets</p> <p>43,522,922 Net kWh</p> <p>4,112 Net kW</p> <p>1,193,206 Net Therms</p> <p>\$37,894,026 TSB</p>
<p>High-level description of delivery workforce including necessary scale and its risks: Since MCE is not directly contracted with providers in the Efficiency Market model, there is an inherent risk that Marketplace participation simply does not occur at the scale anticipated. The Marketplace participants, as well as the workforce expected to deliver projects, will be derived from the value proposition created by the Efficiency Market itself. In other words, the strength of the Efficiency Market model and the participating workforce is a function of the available program budget within MCE’s service area. Participant confidence in the funding of the Efficiency Market at scale will strengthen participation and innovation.</p> <p>The delivery workforce for SEM programming is comprised of MCE staff; the program’s implementation partner, including a SEM coach; engineering support; and energy modelers. The delivery workforce for custom and deemed project development includes the program’s</p>	

implementation partners, as well as a network of contractors – primarily electrical and HVAC contractors -who are enlisted to supply equipment and complete installations.

Market Actors necessary for success: Third-party implementation partners, Efficiency Market aggregators, contractors and engineering firms.

Solicitation Strategy: Utilized a competitive solicitation for third-party implementation.

Transition Plan: N/A

Expected Program Life: Ongoing without anticipated end date.

Short Term Plan: Continued expansion of the Efficiency Market and Commercial SEM, integration of demand management through MCE’s Peak FLEXmarket, integration of low-global warming potential (GWP) refrigerant retrofit/replacement projects.

Cost Effectiveness:

TRC: 1.11

PAC: 1.35

Long Term Outlook Sustained implementation as a core, contributing program to TSB goals. The Program will remain flexible by design, and responsive to evolving customer and grid needs.

Proposed Annual Budgets for 2024-2027:

2024: \$6,922,267

2025: \$7,051,795

2026: \$7,055,592

2027: \$7,183,265

Total: \$28,212,918

Anticipated directional and scale: Continuous growth through 2027. MCE will balance budgets between the different sub-programs and participation pathways dependent on program uptake.

Implementation Plan:

MCE02 (a, b, and c) - <https://cedars.sound-data.com/documents/download/2410/main/>

MCE02d - <https://cedars.sound-data.com/documents/download/2425/main/>

3. Program Cards for Cross-Cutting Sector

Program Name: Workforce Education and Training	
<p>Program ID: MCE16</p> <p>New / <u>Existing</u></p> <p>Link to implementation plan if existing:</p> <p>https://cedars.sound-data.com/documents/download/2424/main/</p>	
Portfolio Segment: Market Support	Implementation Party: Third-party implementer
Applicable Sector: Cross-cutting	Market Sub-Sector: Energy efficiency (EE) and electrification workforce
Sector Challenge: Electrification and home performance technology installation methods are not widely known. It is difficult for energy contractors to find entry-level staff to fill the need for growing businesses. Job seekers do not know about electrification related job opportunities in the growing energy field.	Sector Opportunity: The program offers job matching, education and training, as well as ongoing wrap-around services to ensure sustainable job opportunities.
Known Equity Concerns in the Selected Markets: Underserved job seekers in Environmental and Social Justice (ESJs) are not typically targeted for and supported in opportunities to work in energy efficiency, home performance, and the electrification sector.	Proposed Solutions to Equity Concerns: Develop educational resources on electrification fundamentals and career opportunities for underserved job seekers. Partner with community-based organizations (CBOs), municipalities, educational providers, local workforce organizations and other partners that focus on providing connections and career development to these job seekers to recruit them into MCE’s program.
<p>Program Description: The WE&T program consists of two components:</p> <p><u>Contractor mentoring and training:</u> MCE will work with participating contractors and other energy professionals to introduce the challenges and barriers to promoting, designing, and installing electrification measures and high-performance EE work. Ongoing information gathering will inform program design updates and guide the development of best practices training materials for participating contractors that lack experience in electrification. The program’s implementer will conduct field mentorships to participating contractors to provide in-the-field training on building science fundamentals, trade- or measure-specific best</p>	

practices, building science resources, and electrification training. Throughout the duration of the program, MCE will continue to develop and refine training materials.

Job-seeker training and job matching: MCE will continue to partner with workforce development organizations, educational providers, CBOs and others to develop a job seeker pipeline. MCE will continue to work with contractors that have participated in the WE&T program and connect them with job seekers for on-the-job experience, paid through the program. The goal for this component of the program is to successfully match local job seekers with EE contractors for long-term careers in the EE and electrification fields.

Intervention Strategy:

Onsite EE, home performance, and electrification mentoring through field meetings for energy professionals.
 Provide training opportunities such as workshops and educational videos for both job seeker and energy professionals.
 Match trained energy professionals with job seekers for paid, on-the-job training.

Program Metrics:

As a non-resource program, WE&T does not have energy savings or Total System Benefits (TSB) targets. The program will track the applicable portfolio metrics, as well as the applicable metrics developed for the Market Support segment.

High-level description of delivery workforce including necessary scale and its risks:

MCE’s WE&T program is a workforce development program, the implementers are the workforce needed to build and maintain the workforce. MCE’s technical implementer recruits and trains existing energy industry professionals. MCE’s program partner matches job seekers with trained industry professionals and provides wrap-around services for job seekers as they move through the program. CBOs and educational partners assist in program recruitment.

This program can be scaled to reach additional audiences as it matures by leveraging recruitment partners like CBOs, education providers, workforce development organizations and municipalities. Program management of tasks related to recruitment and ongoing wrap-around services can also be scaled to meet the needs of a growing number of job seekers as the program evolves. On the training side, since most of the educational opportunities currently offered are available online, there is an almost unlimited capacity to grow the educational offering. In terms of scaling onsite training, the implementation team will need to grow to accommodate a growing workforce of electrification and EE contractors.

Market Actors necessary for success: Electrification equipment manufacturers, electrification contractors, job seekers, CBOs, local government partners, and workforce development organizations.

Solicitation Strategy: Third-party solicited. MCE utilized a request for proposal (RFP) process to select primary program

Transition Plan: N/A

<p>implementation partners. Additionally, MCE utilizes a request for qualifications (RFQ) process to identify qualified potential partners that aid in identifying job seekers. This includes, but is not limited to, technical education providers, workforce boards, local CBOs, and municipalities. Qualified potential partners have several opportunities to collaborate with MCE, e.g. through recruitment, marketing, education, and training.</p>	
<p>Expected Program Life: The Program launched in 2020 and there is no anticipated end date.</p>	<p>Short Term Plan: Continue coordinating with existing and emerging local WE&T programs to increase education and training opportunities.</p>
<p>Cost Effectiveness: No savings claimed for this program.</p>	<p>Long Term Outlook: Successful training of energy professionals and job seekers throughout MCE’s service area that results in sustainable careers in energy efficiency, home performance, and electrification.</p>
<p>Proposed Annual Budgets for 2024-2027: 2024: \$1,033,676 2025: \$1,014,783 2026: \$1,017,752 2027: \$1,002,206 Total: \$4,068,417</p>	<p>Anticipated directional and scale: No significant change in scale anticipated.</p>
<p>Implementation Plan: https://cedars.sound-data.com/documents/download/2424/main/</p>	

4. Program Cards for Industrial Sector

Program Name: MCE Industrial Program	
<p>Program ID: MCE10 (a, b, and c) New / <u>Existing</u> Link to implementation plan if existing: https://cedars.sound-data.com/documents/download/2418/main/</p>	
Portfolio Segment: Resource Acquisition	Implementation Party: Third-party implementer
Applicable Sector: Industrial	Market Sub-Sector: Light Industrial, Manufacturing, Cold Storage, Laboratory, Water/Wastewater, Food Processing
<p>Sector Challenge: Energy savings are generally secondary considerations relative to the efficiency of industrial production, as production levels have a greater impact on revenue generation. Other considerations for industrial customers include budgetary planning cycles and capital planning processes, payback requirements, non-energy benefits, equipment downtime. Some customers may have unique or propriety processes that can impact their ability to undertake efficiency projects. Finally, industrial customers may currently lack awareness of existing energy efficiency programs, offerings and opportunities.</p>	<p>Sector Opportunity: No- and low-cost savings opportunities delivered through strategic energy management (SEM), peak demand reduction potential through the integration of load shifting or demand response (DR), greenhouse gas (GHG) emissions reduction potential (e.g., back-up generators, refrigerants, diesel consumption).</p>
<p>Known Equity Concerns in the Selected Markets: Industrial customers' associated greenhouse gas emissions can have a disproportionate impact on ESJ communities.</p>	<p>Proposed Solutions to Equity Concerns: Strengthening the resiliency, sustainability and energy efficiency of industrial customers supports reducing the disproportionate impacts of industrial activities on ESJ communities.</p>

<p>Program Description: The MCE Agricultural and Industrial Resource Program (the “AIR Program”, or the “Program”) provides a comprehensive approach based on individual customer needs and opportunities through multiple participation pathways, including EM”, custom and meter-based strategies. The Program is designed to provide individualized services to agricultural and industrial customers. It accomplishes this through energy management training, the identification of energy efficiency and conservation opportunities, financial and technical feasibility analyses, engineering and design support, alignment with financing opportunities, and program incentives.</p>	
<p>Intervention Strategy: SEM, custom, and deemed (as applicable).</p>	<p>Program Metrics:</p> <p>2024-2027 Cumulative Targets</p> <p>5,826,644 Net kWh</p> <p>65 Net kW</p> <p>598,092 Net Therms</p> <p>\$4,896,772 TSB</p>
<p>High-level description of delivery workforce including necessary scale and its risks: Third-party implementation partners, contractors. No identified risks, required workforce is readily available.</p>	
<p>Market Actors necessary for success: Third-party implementation partners, local government, and industry associations.</p>	
<p>Solicitation Strategy: Utilized a competitive solicitation for third-party implementation.</p>	<p>Transition Plan: N/A</p>
<p>Expected Program Life: Ongoing without anticipated end date.</p>	<p>Short Term Plan: Dedicated marketing campaign in SEM recruitment.</p> <p>Explore technical viability of an incentive structure based in Total System Benefits (TSB).</p> <p>Add flexible load or DR elements through MCE’s Peak FLEXmarket, as well as opportunities in the use of low global warming potential (GWP) refrigerants.</p>
<p>Cost Effectiveness:</p> <p>TRC: 1.03</p> <p>PAC: 1.13</p>	<p>Long Term Outlook: Sustained program operations and delivery on goals.</p>

Proposed Annual Budgets for 2024-2027:

2024: \$1,087,157

2025: \$1,092,434

2026: \$1,098,080

2027: \$1,104,122

Total: \$4,381,792

Anticipated directional and scale: Limited intention to scale further.

Implementation Plan: <https://cedars.sound-data.com/documents/download/2418/main/>

5. Program Cards for Residential Sector

Program Name: Multifamily Energy Savings Program	
<p>Program ID: MCE01 New / <u>Existing</u> Link to implementation plan if existing: https://cedars.sound-data.com/documents/download/2461/main/</p>	
Portfolio Segment: Equity	Implementation Party: Third-party implementer
Applicable Sector: Residential	Market Sub-Sector: Multifamily Residential
<p>Sector Challenge: Split incentive issues that are common with multifamily programs. Upfront costs for moderate- and low-income customers. Access to in-unit usage data.</p>	<p>Sector Opportunity: MCE’s multifamily program supports low- and moderate-income multifamily properties with direct install measures that complement the statewide Energy Savings Assistance (ESA) program. Implementer uses comprehensive audit of energy patterns to determine best-fit upgrades.</p>
<p>Known Equity Concerns in the Selected Markets: Split incentives for renters often prevent upgrades. Eligibility guidelines for low-income multifamily programs are set at a state level using Federal Poverty Level (FPL) as a benchmark, which can exclude low-income renters living in areas with a higher cost of living. Lack of Non-Energy Benefits (NEBs) valuation discourages investments in ESJ communities and for Equity customers. Lack of available capital for low and moderate-income households to invest in EE offerings.</p>	<p>Proposed Solutions to Equity Concerns: Implement direct install measures that complement ESA program offerings as applicable and appropriate. Educate property owners, tenants, and managers on electrification options and offer technical assistance. Provide incentives for property owners/managers, as well as bill savings, upgrades and other NEBs for residents. Conducting meaningful community engagement with community-based organizations and other local partners to support participation of Equity customers.</p>

Program Description: The Multifamily Energy Savings (MFES) program provides electrification measures to low- and moderate-income residents and owners of multifamily buildings in the MCE service area. MFES services will include no-cost property assessments, project scope development, and program assistance throughout the project lifetime. Coaching and behavioral education will further support the installation of electrification measures. Rebates and direct installation measures may be provided for a set of energy efficiency (EE) measures specifically tailored for multifamily properties. Benefits for residents will include installation of in-unit electrification measures as appropriate with the goal to lower energy bills.

Intervention Strategy:

Downstream – implementer will provide incentives and upgrades to multifamily tenants and property owners.
Provide technical assistance.

Program Metrics:

2024-2027 Cumulative Targets

1,656,830 Net kWh
0 Net kW
4,599 Net Therms
\$396,479 TSB

High-level description of delivery workforce including necessary scale and its risks:

Implementer will manage the day-to-day implementation of this program with support from their trade allies that complete the direct installs. Since the electrification workforce is newer and has not scaled to the level of the EE industry, the MFES program will also be supported by MCE’s workforce, education and training (WE&T) program.

Market Actors necessary for success: Technology manufacturers, EE and electrification contractors, electrification training partners.

Solicitation Strategy: Utilized a competitive solicitation for third-party implementation.

Transition Plan: This program is currently part of MCE’s portfolio of programs and will continue into the 2024-2027 program cycle. Minor changes to improve on the program design and delivery will be made as needed.

Expected Program Life: Ongoing without anticipated end date.

Short Term Plan: Continue to recruit new properties into the program to participate in electrification and EE upgrades in multifamily properties.

Cost Effectiveness:

TRC: 0.22
PAC: 0.24

Long Term Outlook: Expand program offering to also include multi-measure behavioral education in addition to the EE and electrification upgrades.

Proposed Annual Budgets for 2024-2027:

2024: \$582,445

2025: \$628,105

2026: \$648,877

2027: \$659,882

Total: \$2,519,308

Anticipated directional and scale changes in budget for years 2028-2031: The program is anticipated to continue the same savings and cost trajectory into 2031, contingent on successful program outcome.

Implementation Plan: <https://cedars.sound-data.com/documents/download/2461/main/>

Program Name: Multifamily Strategic Energy Management	
Program ID: MCE01c New / <u>Existing</u> Link to implementation plan if existing: https://cedars.sound-data.com/documents/download/2466/main/	
Portfolio Segment: Resource Acquisition	Implementation Party: Third-party implementer
Applicable Sector: Residential	Market Sub-Sector: Multifamily residential
Sector Challenge: Split incentives between property owners and tenants. Access to in-unit utility data (multiple customers within a property). Awareness of operational energy savings opportunities.	Sector Opportunity: With buy-in from decision makers at a property, the program can facilitate energy- and cost-savings opportunities for both common areas and tenant units. Program implementers will work with MCE to analyze consumption and make recommended upgrades, as well as track energy savings at the meter.
Known Equity Concerns in the Selected Markets: Split incentives for renters often prevent upgrades. Lack of available capital for low and moderate-income households to invest in EE offerings. Lack of Non-Energy Benefits (NEBs) valuation discourages investments in ESJ communities and for Equity customers.	Proposed Solutions to Equity Concerns: Split incentives solutions: customized technical assistance to overcome challenges that property owners/managers have with analyzing potential upgrade measures and understanding the value proposition for the property. Provide energy tracking model to illustrate savings potential and results. Assessment of low cost/no cost behavioral and capital opportunities throughout the property. Provide a range of participation options to best meet the current needs and abilities of unique multifamily properties. Conducting meaningful community engagement with community-based organizations and other local partners to support participation of Equity customers.

<p>Program Description: The Multifamily Strategic Energy Management (SEM) program will drive measurable savings by engaging with property owners and managers to implement energy efficiency (EE) projects and create an energy strategy with a focus on low- to no-cost Behavioral, Retro-commissioning and Operational (BRO) measures.</p>	
<p>Intervention Strategy: Downstream: The program uses property owner/manager/tenant energy coaching, technical assistance, tenant engagement, and savings incentives to facilitate upgrades. The Program will streamline the customer offer and experience, reduce administrative costs to improve cost effectiveness. The Program can serve a property manager’s entire portfolio concurrently. Through a pay-for-performance model, the implementer is paid a fixed \$/kWh and therms saved. Savings are calculated using a normalized metered energy consumption (NMEC) model which provides the most accurate way of determining real energy savings and implementer payments.</p>	<p>Program Metrics:</p> <p>2024-2027 Cumulative Targets</p> <p>5,526,391 Net kWh</p> <p>0 Net kW</p> <p>121,216 Net Therms</p> <p>\$3,295,300 TSB</p>
<p>High-level description of delivery workforce including necessary scale and its risks: The program implementer is the main workforce to be designated for this program. Most of the interventions will be behavioral. Any upgrades that will be implemented will necessitate properly trained contractors and staff. The program will be rolled out in cohorts, which should prevent any scaling issues on the part of the implementer.</p>	
<p>Market Actors necessary for success: The program targets both multifamily property owners and managers that own several properties as well as those who own just a single property.</p>	
<p>Solicitation Strategy: Utilizing existing SEM implementation partner.</p>	<p>Transition Plan: Minor changes to improve on the program design and delivery will be made as needed.</p>
<p>Expected Program Life: Ongoing without anticipated end date.</p>	<p>Short Term Plan: Recruitment of annual cohorts.</p>

<p>Cost Effectiveness: TRC: 1.04 PAC: 1.07</p>	<p>Long Term Outlook: Additional cohorts based on success of initial program offering until all applicable multifamily buildings have been served.</p>
<p>Proposed Annual Budgets for 2024-2027: 2024: \$759,576 2025: \$768,450 2026: \$777,945 2027: \$788,105 Total: \$3,094,076</p>	<p>Anticipated directional and scale changes in budget for years 2028-2031: Based on a successful program outcome the program will continue at approximately the same scale past 2027.</p>
<p>Implementation Plan: https://cedars.sound-data.com/documents/download/2466/main/</p>	

Program Name: Home Energy Report	
Program ID: MCE07 New / Existing Link to implementation plan if existing: https://cedars.sound-data.com/documents/download/2462/main/	
Portfolio Segment: Resource Acquisition	Implementation Party: Third-party implementer
Applicable Sector: Residential	Market Sub-Sector: Single Family Residential
Sector Challenge: No access to measure-level costs and savings potential information.	Sector Opportunity: Normalized metered energy consumption (NMEC) methodology with randomized control trial (RCT) measurement and verification. Targeting customers at any income level. Measure-level specificity using implementer’s algorithm.
Known Equity Concerns in the Selected Markets: Difficulty in providing behavioral interventions to customers with language barriers which can prevent non-English speakers from participating.	Proposed Solutions to Equity Concerns: Development of program collateral and interventions in multiple languages.
Program Description: The Home Energy Report (HER) program offers behavior intervention strategies to residential participants with the goal of achieving short-term energy and budget savings that can persist and produce long-term energy savings behaviors. This will be achieved by fostering participant engagement, ensuring participant satisfaction and providing energy education and upgrades through regular and participant-specific touch points in the form of paper or digital Home Energy Reports (HERs) and a web-based education portal.	
Intervention Strategy: Home Energy Reports with consumption trends and savings opportunities unique to the user.	Program Metrics: 2024-2027 Cumulative Targets 15,439,128 Net kWh 0 Net kW 0 Net Therms

	\$1,321,957 TSB
<p>High-level description of delivery workforce including necessary scale and its risks: Program implementers: very low risk for workforce shortages that would hinder the progress of the program, both short- and long-term.</p>	
<p>Market Actors necessary for success: Program implementers, vendors on web portal that customers can contact to get measures installed.</p>	
<p>Solicitation Strategy: Utilized a competitive solicitation for third-party implementation.</p>	<p>Transition Plan: This program is currently part of MCE’s portfolio of programs and will continue into the 2024-2027 program cycle. Changes to improve on the program design and delivery will be made as needed based on program impacts and evaluation feedback</p>
<p>Expected Program Life: The program began in 2021 and has no anticipated end date.</p>	<p>Short Term Plan: Launch Smart Shop on web portal to encourage program participants to purchase and install energy saving measures. Customize HERs to MCE customers’ unique needs and consumption patterns.</p>
<p>Cost Effectiveness: TRC: 1.01 PAC: 1.01</p>	<p>Long Term Outlook: Depending on long-term savings, impacts MCE will determine if other behavioral strategies should be considered</p>
<p>Proposed Annual Budgets for 2024-2027: 2024: \$323,511 2025: \$352,206 2026: \$327,018 2027: \$328,958 Total: \$1,304,693</p>	<p>Anticipated directional and scale changes in budget for years 2028-2031: Future scale of the program to be determined based on the trajectory of savings achieved by the current program design.</p>
<p>Implementation Plan: https://cedars.sound-data.com/documents/download/2462/main/</p>	

Program Name: Home Energy Savings	
Program ID: MCE08 New / <u>Existing</u> Link to implementation plan if existing: https://cedars.sound-data.com/documents/download/2413/main/	
Portfolio Segment: Equity	Implementation Party: Third-party implementer
Applicable Sector: Residential	Market Sub-Sector: Single Family Residential
Sector Challenge: Moderate income customers (defined by MCE as 200-400% federal poverty level (FPL)) do not have the financial resources to participate in market-rate programs.	Sector Opportunity: This program is offered to moderate income customers whose household income falls between 200% and 400% FPL. There is an opportunity to offer a lower cost program to these customers to allow them to perform upgrades that would otherwise be too expensive.
Known Equity Concerns in the Selected Markets: Lack of available capital for low and moderate-income households to personally invest in EE offerings. Moderate-income customer historically have not qualified for other low-income programs because of eligibility requirements. Lack of Non-Energy Benefits (NEBs) valuation discourages investments in ESJ communities and for Equity customers.	Proposed Solutions to Equity Concerns: Provide a no-cost incentive program that delivers energy savings, as well as NEBs like health, safety and comfort benefits through comprehensive upgrades.
Program Description: The Home Energy Savings (HES) program provides energy-savings kits, virtual assessments, and no-cost home energy efficiency (EE) and electrification upgrades to eligible homeowners and tenants in single-family dwellings in MCE’s service area. The program achieves economies of scale by using a trade ally (i.e., contractor) to recruit participants on a	

neighborhood-by-neighborhood basis, and by procuring large quantities of upgrade measures with established upstream partners.

Intervention Strategy: Downstream: in-home or virtual energy assessments; energy-saving toolkits; incentives to cover 100 percent of upgrades to facilitate EE and electrification measures.

Program Metrics:
2024-2027 Cumulative Targets
 2,242,438 Net kWh
 202 Net kW
 84,032 Net Therms
 \$1,645,534 TSB

High-level description of delivery workforce including necessary scale and its risks: The program is served by a third-party implementer with close partnerships with several trade ally contractors that can be added to the programs’ roster as it grows. This will preclude staffing shortages on the installation side. The implementer will scale their staffing needs as the program grows to accommodate management of additional trade allies.

Market Actors necessary for success: Trade allies to complete installations, manufacturers to provide additional electrification measures as they reach the market.

Solicitation Strategy: Utilized a competitive solicitation for third-party implementation.

Transition Plan: This program is currently part of MCE’s portfolio of programs and will continue into the 2024-2027 program cycle. Minor changes to improve on the program design and delivery will be made as needed.

Expected Program Life: Ongoing with no anticipated end date.

Short Term Plan: Continue comprehensive upgrades based on assessments by trusted trade allies.

Cost Effectiveness:
 TRC: 0.16
 PAC: 0.16

Long Term Outlook: Upgrade all eligible households to meet electrification goals, support state decarbonization goals and increase customer energy and cost savings.

Proposed Annual Budgets for 2024-2027:
 2024: \$3,140,210

Anticipated directional and scale changes in budget for years 2028-2031: The program will scale based on successful implementation

2025: \$3,209,280
2026: \$3,197,629
2027: \$3,286,233
Total: \$12,833,352

and estimates of continuing need over the next four years.

Implementation Plan: <https://cedars.sound-data.com/documents/download/2413/main/>

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 4
ATTACHMENT B
FINDINGS OF MCE ROUNDTABLES FOR WE&T PROGRAM



MARIN COUNTY | NAPA COUNTY | UNINCORPORATED CONTRA COSTA COUNTY | UNINCORPORATED SOLANO COUNTY
BENICIA | CONCORD | DANVILLE | EL CERRITO | FAIRFIELD | LAFAYETTE | MARTINEZ | MORAGA | OAKLEY
PINOLE | PITTSBURG | PLEASANT HILL | RICHMOND | SAN PABLO | SAN RAMON | VALLEJO | WALNUT CREEK

MCE's Workforce Education and Training (WE&T) Planning and Roundtable Summaries *July – October 2020*

Introduction

To ensure that MCE's Workforce Education and Training (WE&T) program met the needs of the communities it aims to serve, the WE&T team hosted events that specifically targeted stakeholder groups to get their perspective on high-performance building practices and the challenges they face as the industry continues to change.

Over the course of 2020, the team hosted three roundtables:

1. Contractor Roundtable on July 2, 2020
2. Young Professional and Worker Roundtable on August 18, 2020
3. Training Organization Roundtable on October 29, 2020

Roundtable 1

The first roundtable was a 90-minute zoom discussion with contractors operating in MCE's service territory on July 2, 2020. The goal of the roundtable was to work directly with stakeholders to determine the needs of the contractor community to further high-performance building best practices and establish outreach strategies that would best translate to real-world impacts.

For the first roundtable, AEA solicited input from 20 contractors. Of that pool, three contractors attended the roundtable, and five contractors in total provided feedback on program design through phone calls. Points raised by contractors during the roundtable include:

- Lack of skilled labor, permitting issues, lack of consumer education and awareness were identified as barriers to taking on additional high-performance work
- Trade coordination was not a hindrance, and contractors tend to have colleagues with other specialties who they can call for specialized help when needed
- If they need resources, they lean on the PG&E Pacific Energy Center and manufacturer assistance
- Contractors identified NATE and in-house training as the most successful ways to train their workforce

CONCORD OFFICE: 2300 Clayton Road, Suite 1150, Concord, CA 94520

SAN RAFAEL OFFICE: 1125 Tamalpais Avenue, San Rafael, CA 94901

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Program Integration

Based on the discussion, our takeaways were that building up the labor force rather than the contractor base would be most helpful. Construction and trades work in general has a hard time finding labor, and that effect is more pronounced for high-performance projects. As solutions, contractors suggested paying contractors for their workers to go through existing programs, and working directly with trade schools to find potential fits and subsidize their internships. Both of these suggestions eventually became pillars of the trainee program, which includes a classroom component designed to introduce students to the basics of high-performance buildings prior to their paid traineeship with a qualified contractor.

Additional Recommendations

The WE&T team aims to continue to solicit contractor feedback on the industry, high-performance buildings, and the utility of training programs. AEA will continue to conduct this research during contractor field meetings by asking questions about the contractor workforce and high-performance projects in order to round out our understanding of these issues and increase the number of contractors who were able to provide feedback to the program.

Roundtable 2

The second roundtable was aimed at young professionals, recent graduates, and workers who had recently completed a job training program. During the session, the WE&T team learned about the students' perspective on entering the contractor workforce and what training methods helped them feel equipped to work on high-performance buildings. We discussed the challenges and opportunities in the high-performance building industry among six attendees over 90 minutes. Some of the themes that emerged during the discussion included:

- The coronavirus pandemic had a substantial effect on their education, in some cases preventing them from completing valuable field work and limiting their ability to find a job upon program completion
- Soft skills and fieldwork opportunities were among the most useful components of their training
- Many of them had interest in building efficiency, but never had the opportunity to explicitly learn about it
- Many women expressed concerns over gender bias on job sites and in hiring
- Overall, the jump from education to full-time work was challenging, and the group was eager to share and learn about resources that could help someone find work

Program Integration

The second roundtable helped the WE&T team better understand the challenges that workers and emerging professionals face working on high-performance buildings, and the group provided many ideas about how to address these challenges. In response to this feedback, the WE&T team expanded its vision of the internship to include a series of training modules to incorporate critical soft skills and building science knowledge into the curriculum. In addition, the trainee portion of

CONCORD OFFICE: 2300 Clayton Road, Suite 1150, Concord, CA 94520

SAN RAFAEL OFFICE: 1125 Tamalpais Avenue, San Rafael, CA 94901

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the program is designed specifically to aid in the transition from formal education to full-time work in the high-performance building. The internship does this by placing young professionals in paid roles with vetted contractors that are able to provide a pathway to long-term employment.

Roundtable 3

As the WE&T team developed a skilled workforce for high-performance building work, the third roundtable expanded the team's understanding of existing programs and challenges in the field from people already working in this space. Like the other roundtables this session lasted 90 minutes and had 12 attendees from 10 organizations. Main takeaways from the discussion included:

- Services for job seekers in the trades exist in many forms, including on-the-job training, pre-apprenticeship programs, direct placement, and resume/interview assistance and coaching

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 5
PORTFOLIO MANAGEMENT

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TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 5
PORTFOLIO MANAGEMENT

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1 **1. Overview**

2 Marin Clean Energy (MCE) prioritizes the active management of its energy efficiency (EE)
3 portfolio. Active management allows MCE to (1) adapt to a rapidly changing environment
4 (including major recent developments in the areas of policy, regulation, markets, and technology);
5 (2) serve an expanding service area; and (3) maintain MCE’s commitment to its mission and cost-
6 effectiveness. Achieving this objective requires thoughtful goal-setting, rigorous metrics-tracking,
7 and prudent risk management. This flexible and active approach is critical for successful program
8 administration.

9 MCE’s active portfolio management allows it to quickly make incremental improvements
10 or wholesale changes to underperforming programs. MCE has developed a process for utilizing
11 this flexibility to enact course corrections to keep the portfolio on target. Successful execution of
12 MCE’s portfolio management approach includes coordination with partners and stakeholders to
13 maximize impact and to deliver optimized system and customer benefits.

14 **2. Portfolio Optimization and Risk Management**

15 **2.1 Using Goals and Metrics for Portfolio Optimization**

16 Goals and metrics inform MCE’s approach to optimizing its EE portfolio. MCE begins by
17 tracking each program’s status within a Program Management Platform which provides program
18 performance data. MCE produces and regularly reviews program status reports, which include
19 information such as energy savings and expenditures to date, as well as total number of projects.
20 In addition, the team tracks pipeline and commitment data as an indicator of future program
21 performance. MCE staff reviews performance data on a monthly basis, at a minimum, to determine
22 whether each program is progressing toward goals.

1 Sector and segment-specific metrics allow MCE to track with greater detail how programs
2 are contributing to portfolio goals and objectives. As an example, MCE tracks customer types for
3 certain programs to make sure those programs are engaging a broad set of customers and that any
4 single category of customer is not over- or under-represented. MCE also reviews metrics and seeks
5 to develop more nuanced insights on overall portfolio performance and identify opportunities or
6 new strategies to bring underperforming programs back on track.

7 **2.2 Meeting Goals and Targets**

8 MCE has developed a multi-faceted plan to stay on-track in meeting its energy savings and
9 Total System Benefit (TSB) goals, as well as cost-effectiveness targets. This plan includes (1)
10 performance-based contracting; (2) data analytics; (3) aligning programs with TSB; (4) including
11 no- and low-cost measure offerings through an SEM approach; and (5) tracking policy-driven
12 Equity metrics.

13 First, one of the most critical components of MCE’s approach is using performance-based
14 contracting with program implementers. Performance-based contracting imbeds cost-effectiveness
15 requirements at the project level. On the ground, this means that projects are only eligible to
16 participate in performance-based programs if they are individually cost effective. This helps ensure
17 MCE meets its cost-effectiveness requirements for the Resource Acquisition segment.¹

18 Second, MCE applies data analytics, embedded in the suite of meter-based programs, and
19 a customer-profile focus to maximize end users’ potential energy savings during high avoided-
20 cost hours. EE projects with these “high potential” customers will likely deliver greater benefits
21 relative to the cost of implementation. Third, and further underscoring the emphasis on delivering

¹ Per Rulemaking (R.) 13-11-005, Decision (D.) 21-05-031, *Assessment of Energy Efficiency Potential and Goals and Modification of Portfolio Approval and Oversight Process* (May 20, 2021) MCE’s EE portfolio must be cost-effective at the segment-level. More specifically, MCE’s Resource Acquisition segment must meet or exceed a total resource cost (TRC) ratio of 1.0. See D.21-05-031, COL 8 at 75.

1 high value savings, MCE will align incentives with TSB wherever possible for programs in the
2 Resource Acquisition segment.

3 Fourth, MCE will also design programs that focus on low- to no-cost measures to meet
4 goals and targets. These measures deliver the most efficiency gains for the lowest participant cost,
5 which makes it easy for customers to engage in highly cost-effective projects. The Strategic Energy
6 Management (SEM) programs for industrial, agricultural, commercial and multifamily customers
7 and the behavioral program for single-family customers are particularly good at identifying low-
8 to no-cost savings opportunities.

9 Fifth, for programs in the Market Support and Equity segments that are not exclusively
10 pursuing TSB goals, metric tracking will be key to understanding how those programs are
11 performing and what non-energy benefits (NEBs) customers are experiencing. MCE plans to track
12 these segments with the metrics developed by the California Energy Efficiency Coordinating
13 Committee (CAEECC) Metrics Working Groups.²

14 **2.3 Risk Management Approach**

15 Administering an ambitious and innovative portfolio of programs inherently involves
16 careful management of a range and variety of risks. As a mid-sized and nimble program
17 administrator, MCE is well-suited to manage risk and adapt to unforeseen challenges. MCE's
18 general risk management strategy is to diversify its programmatic approaches and pool of partners,
19 thereby maximizing its available tools to overcome potential challenges. Additionally, MCE will
20 use lean and flexible contracting strategies to minimize the associated administrative burdens

² CAEECC, Equity Metrics Working Group Final Report (2021), available at: <https://www.caeccc.org/equity-metrics-working-group-meeting>; Market Support Metrics Working Group Final Report, available at: <https://www.caeccc.org/market-support-metrics-wg>. *See also* Exhibit 2, Chapter 3, Sections 3.4 and 4.4.

1 associated with changing circumstances. MCE has identified a number of specific risks that may
2 impact its portfolio and developed specific responsive approaches to mitigate these risks.

3 MCE is seeking to mitigate the risk of not meeting cost-effectiveness targets due to fixed
4 implementation costs that cannot be scaled down with program underperformance. To mitigate
5 this risk, MCE will employ a pay-for-performance (P4P) framework to minimize upfront costs to
6 ratepayers and share risk across multiple parties, including implementation partners. A P4P
7 approach automatically reduces the implementation cost associated with a program that is
8 underperforming. Furthermore, a program that employs P4P contracting with multiple
9 implementation partners through a Marketplace³ model provides an opportunity for the partners to
10 earn more by delivering greater benefits. This can foster a greater sense of opportunity and
11 competition among implementation partners and enhance the program’s ability to meet goals cost
12 effectively.

13 MCE second identified a potential risk that energy savings may not be realized during the
14 most valuable hours of the day (*i.e.*, peak or net peak hours in the late afternoon and early evening,
15 driven by the neck of the duck curve).⁴ Savings in this period deliver the most system benefits
16 including reduced grid congestion and lower GHG emissions. While the shift to tracking goals
17 using TSB instead of first year annual savings partially mitigates this risk, MCE plans to maximize
18 the value of energy savings achieved using a meter-based approach that aligns incentives and
19 implementation payments with TSB instead of per-kWh or per-therm rates. This tactic will

³ MCE’s Marketplace programs include the Commercial Efficiency Market, the Residential Efficiency Market, as well as the Peak FLEXmarket program. More information on Marketplace programs can be found in Exhibit 2, Chapter 3 and Chapter 8.

⁴ Peak and net peak hours are defined as 4 p.m. – 9 p.m. and 7 p.m. – 9 p.m., respectively. For an explanation of the “duck curve”, *see* https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf.

1 motivate implementation partners and customers to develop projects delivering the higher system
2 benefits.

3 A third risk is committing to a project that reduces portfolio cost-effectiveness. This can
4 lead to a misallocation of resources with too much staff time spent on low benefit and/or savings
5 projects. To address this risk, MCE forecasts the project TSB prior to commencing the project.
6 This allows MCE to judge the merits of a project before committing funds to it. Furthermore,
7 implementer and customer payments are tied to TSB, providing an additional safeguard to ensure
8 cost effectiveness.

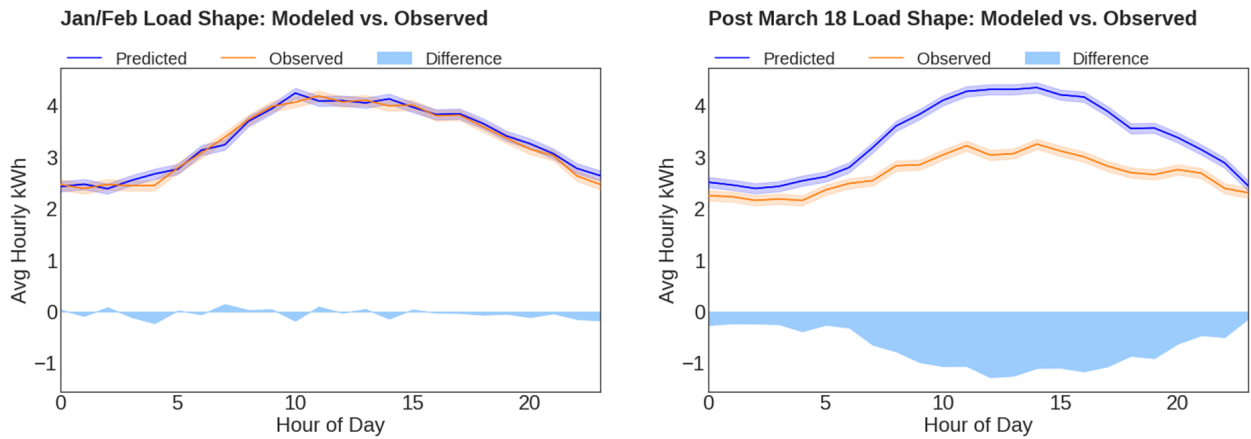
9 The fourth risk that MCE identified is leaving opportunities on the table by contracting
10 directly with a limited number of implementation partners. While MCE has valuable relationships
11 directly with a number of implementation partners, the rapid evolution of EE technology and
12 market offerings requires the ability to move quickly to adapt to the latest trends. One of the best
13 ways to do this is to leverage expertise in the field. Recruiting customers and developing high
14 benefit opportunities is a key responsibility of MCE's program partners. MCE's preferred
15 approach for engaging with its partners is through the Marketplace model. Within the Marketplace
16 model, MCE is able to engage new program partners through a simplified process and without
17 having to sign customized implementation contracts with each partner. This provides MCE with
18 broader reach and specialized offerings while minimizing risk and upfront contracting cost to the
19 program. Moreover, MCE customers will have better access to a greater variety of energy services
20 through the Marketplace programs.

21 The last portfolio risk highlighted by MCE is program underperformance due to
22 unanticipated events or circumstances. This may include economic downturns, market disruption
23 from policy or technology changes, and other unforeseen events. MCE will mitigate this risk by

1 developing and deploying a wide range of programs with various delivery methods and eligible
2 customers. MCE will administer a resilient portfolio and adapt to unexpected events through
3 diverse offerings, delivery channels, and customers.

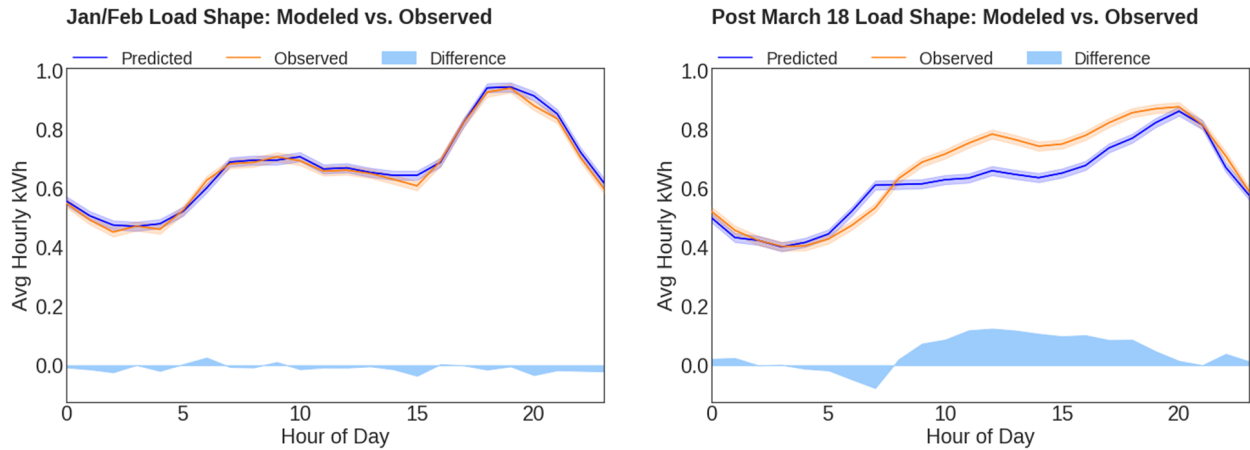
4 In addition to the risks outlined above, the COVID-19 pandemic presented an
5 unprecedented challenge for all program administrators (PAs), including MCE, over the past two
6 years. COVID-19 disrupted business-as-usual significantly and changed customers' energy usage
7 patterns drastically. The following two graphics show how energy usage patterns changed for both
8 commercial (Figure 5-1) and residential customers (Figure 5-2) between January/February 2020
9 (i.e., before the COVID-19 pandemic) and post-March 18, 2020 (i.e., during the Covid-19
10 pandemic).

11 *Figure 5-1: Commercial Customer Energy Usage Pattern Changes Post Covid-19 Pandemic*



12

1 *Figure 5-2: Residential Customer Energy Usage Pattern Changes Post Covid-19 Pandemic*



3 Maintaining the EE portfolio during the Covid-19 pandemic required MCE to remain
4 flexible in its programmatic approaches and to allow for local or program-specific solutions
5 wherever possible. MCE remained flexible throughout the pandemic, allowing work to continue
6 where it was acceptable to both partners and customers and did not violate any local public health
7 guidance. Although most work was disrupted in the early weeks of the pandemic, MCE worked
8 individually with each program team to collaboratively make decisions on where work could
9 continue and where it needed to be adjusted. This allowed MCE to remain engaged with its
10 customers to deliver EE solutions, even under unprecedented and challenging circumstances. MCE
11 will apply a similar approach to potential future widespread disruptions, including the ongoing
12 COVID-19 pandemic.

13 **3. Approach to Flexible Portfolio Management**

14 Meeting goals and targets requires MCE to remain flexible in managing its portfolio in the
15 face of changing market conditions and regulatory requirements. As discussed in detail in Section
16 2 above, MCE incorporates active and flexible portfolio management through multiple strategies,
17 including Marketplace program design, P4P incentives, and making course-corrections based on
18 regularly tracking segment- and sector-specific metrics toward progress. Maintaining flexibility

1 protects MCE’s portfolio from unforeseen circumstances that may adversely affect one or more of
2 its programs.

3 For additional flexibility, MCE may reallocate its budget among programs as needed. MCE
4 will regularly review program budgets and savings, and reallocate funding from underperforming
5 programs to programs that have the capacity to deliver more benefits as needed. This will ensure
6 MCE directs funds to the most effective programs. MCE will take resolute action to reallocate
7 resources away from programs that underdeliver to prevent unnecessary spending on
8 underperforming programs and accelerate benefit accumulation.

9 Fund shifting is just one strategy used to keep the portfolio on track towards goals.
10 Underperforming programs will also undergo the process described in the following section to
11 determine the necessary corrective activities that MCE should take.

12 **4. Procedures and Thresholds for Course Correction**

13 MCE will map out expected program performance over the four-year program cycle while
14 taking into account variables such as seasonal program impacts, project sales cycles, program ramp
15 up, potential policy changes and market conditions. Actual performance relative to projected goals,
16 targets and metrics will be reviewed at least monthly by program and quarterly for the whole
17 portfolio. MCE will institute course correction plans for programs that are projected to
18 underperform. The threshold for establishing a course correction plan will depend on the program
19 and context for underperformance and will be determined on a case-by-case basis. For example,
20 some programs may underperform due to later-than-anticipated launch dates and will not require
21 a course correction plan. The course correction plan will include (1) determining corrective
22 actions; (2) identifying responsible parties; and (3) outlining the expected timeline for
23 improvement. If improvements are not demonstrated in the specified timeframe, MCE will

1 reassess the program to determine if it is appropriate to revise the course correction plan or consider
2 program closure.

3 As directed in D.21-05-031, PAs will file a mid-cycle advice letter (AL) with revised
4 forecasts for the remaining two years of the four-year program cycle.⁵ MCE will report out on the
5 adaptive management actions that it has taken in that mid-cycle AL. MCE will also use the mid-
6 cycle AL to close underperforming programs as needed. However, MCE will not wait until the
7 mid-cycle AL to close out underperforming programs. If MCE determines that programs should
8 be closed at other points during the program cycle, it will do so via a separately filed Tier 2 AL.
9 MCE may determine the circumstances that warrant program closure without first instituting a
10 course correction plan. If MCE decides to close a program, it will follow the Program
11 Closure/Launch Checklist that was created by Energy Division staff as directed by Ordering
12 Paragraph 12 of D.21-05-031.⁶

13 **5. Third-Party Programs**

14 **5.1. MCE's Responsibility to Third-Party Implementers**

15 MCE is not required to follow the third-party program rules that apply to the utility PAs.⁷
16 Nevertheless, MCE relies heavily on third-party implementers for the majority of its EE programs.
17 MCE considers several factors in its decision to contract with a third-party implementer for a
18 particular service. First, MCE looks for opportunities to leverage the innovation of its

⁵ D.21-05-031, OP 10 at 83.

⁶ The Program Closure/Launch Checklist is available at: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/rolling-portfolio-program-guidance>, under the title "Program Closure/Launch Checklist", and at the California Energy Efficiency Coordinating Committee's website available at: <https://www.caeccc.org/cpuc-documents>.

⁷ See generally R.13-11-005, D.16-08-019, *Decision Providing Guidance for Initial Energy Efficiency Rolling Portfolio Business Plan Filings* (Aug. 18, 2016) (Establishes specific third-party program design and delivery rules for investor-owned utilities (IOUs) to encourage greater third-party participation in EE).

1 implementers and bring promising new ideas to the market. MCE also considers several factors
2 including staff capacity and expertise, duration of need, and availability of particular tools or
3 resources to support program design and implementation. If it is determined that a need would best
4 be met through a contract with a third-party, MCE follows its solicitation guidelines in selecting
5 an implementation partner. MCE generally requires competitive solicitations for contracts above
6 \$60,000. MCE anticipates that nearly all of its EE third-party agreements will be in excess of this
7 amount and will be completed through a competitive solicitation.

8 MCE also engages with multiple partners through an alternative solicitation path, the
9 Marketplace model. The Marketplace model (which is described in detail in Exhibit 2, Chapter 3,
10 Section 2) serves as an incubator for new program ideas or delivery channels to encourage and
11 solicit innovative ideas from the broader energy industry. Under a Marketplace program,
12 implementation partners are free to employ any delivery strategies or mix of measures. Both the
13 competitive solicitation process and the Marketplace model enable MCE's programs to benefit
14 from the innovation and support of third parties. MCE will continue to prioritize these partnerships
15 across all sectors throughout program years (PYs) 2024 – 2027.

16 **5.2. Supplier Diversity**

17 MCE's mission and vision includes offering economic and workforce benefits and creating
18 more equitable communities.⁸ To this end, MCE's supplier diversity efforts focus on support of
19 local businesses and economic development within MCE's service area. To achieve these goals,
20 MCE's Board of Directors adopted a Sustainable Workforce and Diversity Policy⁹ in 2014 to help
21 MCE leverage procurement activities to deliver on MCE's mission. This policy directs MCE to

⁸ See MCE's mission and vision, available at <https://www.mcecleanenergy.org/about-us/>.

⁹ Available at: <https://www.mcecleanenergy.org/wp-content/uploads/Policy-011-MCE-Sustainable-Workforce-Policy-v3.pdf>.

1 support and contract with local businesses, union labor, and local apprenticeship programs
2 wherever possible, and includes contracting guidelines for MCE’s EE programs.

3 MCE pursues broad outreach for current and upcoming procurement opportunities to
4 ensure that local businesses, including small and diverse businesses, are aware of MCE
5 solicitations. MCE advertises all solicitations through a robust set of communication channels,
6 both general and focused, in order to reach a wide range of interested bidders. In addition to more
7 traditional outreach to trade associations and other industry-specific information sources, MCE’s
8 strategy includes significant engagement with local chambers of commerce and business
9 organizations. This includes local ethnic chambers of commerce and organizations that support
10 small businesses. Finally, as a standard practice, MCE’s website offers interested parties the
11 opportunity to subscribe to be notified of upcoming solicitations.¹⁰

12 As a local government agency, MCE is constitutionally precluded from establishing
13 preferences for certain kinds of diverse businesses.¹¹ This also precludes MCE from setting goals,
14 even informally or aspirationally, for procurement from diverse businesses. However, the
15 Marketplace model discussed above is particularly well-suited to reach a wide variety of service
16 providers, including small businesses and new market entrants offering promising products or
17 services. In particular, the streamlined process for provider participation in a Marketplace program,
18 as opposed to the direct contracting process, reduces barriers to entry for new and/or small
19 businesses.

¹⁰ Find MCE’s upcoming solicitations at <https://www.mcecleanenergy.org/opportunities/>

¹¹ California Proposition 209 (1996) constitutionally prohibits state and local government agencies, including MCE, from granting preferential treatment to “any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting.”

1 Relatedly in 2021, MCE’s Board of Directors adopted a Resolution committed to
2 Advancing Racial Equity.¹² MCE incorporates its commitment to advancing racial equity and
3 equitable outcomes in its supplier diversity efforts in concert with its complementary efforts in
4 energy services, customer programs, community engagement, workforce development, power
5 procurement, policy, and human resources.¹³

6 **6. Portfolio Coordination**

7 A key element of MCE’s active management approach is coordinating its EE portfolio both
8 with other PAs and other energy-related offerings described in sections below.

9 **6.1 Coordination with Other Energy Efficiency Program Administrators**

10 As EE programs continually expand and evolve, coordination between MCE and other EE
11 PAs is critical to maintaining high levels of service and delivering the best outcomes for customers
12 and the energy system. It is essential for innovation and cost effectiveness that some overlapping
13 programs exist in a particular geography. To manage and optimize this overlap, MCE engages in
14 direct coordination with Pacific Gas and Electric Company (PG&E) and the Bay Area Regional
15 Energy Network (BayREN) to avoid duplication of effort, unnecessary spending, customer and
16 contractor confusion and stranded opportunities. The coordination is also memorialized in a Joint
17 Cooperation Memorandum (JCM). MCE and PG&E developed this JCM in compliance with D.18-
18 05-041. The California Public Utilities Commission (CPUC or Commission) required MCE and
19 PG&E to develop a JCM that:

- 20 • Summarizes the programs that MCE intends to run;

¹² MCE, Resolution 2021-04 (2021), available at: <https://www.mcecleanenergy.org/wp-content/uploads/2021/05/MCE-Resolution-2021-04-Committing-to-Advance-Racial-Equity.pdf>. Also included as Exhibit 1, Chapter 1, Attachment B.

¹³ MCE, Resolution 2021-04, p. 3 (2021), available at: <https://www.mcecleanenergy.org/wp-content/uploads/2021/05/MCE-Resolution-2021-04-Committing-to-Advance-Racial-Equity.pdf>.

- 1 • Summarizes the programs that PG&E offers to the extent they overlap with the
- 2 programs that MCE intends to run;
- 3 • Describes how MCE and PG&E will work with each other so that customers are
- 4 informed of all options; and
- 5 • Describes how MCE and PG&E will ensure customers are aware of the others’
- 6 programs, where that administrator does not have a similar offering.¹⁴

7 The Commission similarly required other PAs with overlapping service areas to develop
8 annual JCMs.¹⁵ Subsequently, in D.21-05-31, the Commission required all PAs to continue to
9 prepare and submit JCMs according to the existing requirements in D.18-05-041, “except that the
10 JCMs may be included for the upcoming program year as an attachment in each program
11 administrator’s Energy Efficiency Annual Report.”¹⁶

12 **6.1.1 Coordination with PG&E**

13 Sector- and program-level coordination between MCE and PG&E occurs in monthly
14 check-ins, as well as ad-hoc email communications. In these meetings, MCE and PG&E address
15 new and ongoing coordination issues related to all relevant programs. MCE and PG&E coordinate
16 across four main areas to update each other on program developments across EE program
17 offerings. The four areas are:

- 18 • **Customer Choice and Information Sharing:** Since customers have a choice
- 19 between participating in complementary PG&E or MCE programs, both PAs will
- 20 educate their customer engagement staff on these programs to help customers
- 21 access the appropriate programs. This helps mitigate duplication of effort as

¹⁴ Application (A.) 17-01-013, D.18-05-041, *Decision Addressing Energy Efficiency Business Plans*, OP 38 at 190 (May 31, 2018).

¹⁵ *Id.*

¹⁶ D.21-05-031, OP 7 at 82.

1 customers are provided with relevant complementary program information
2 regardless of which PA they approach. To facilitate staff education, PG&E
3 designates staff within their organization as a point of contact for the MCE staff on
4 questions regarding program options. Similarly, MCE program staff are designated
5 to address questions from PG&E staff.

6 Furthermore, both PG&E and MCE access program documentation
7 available on California Energy Data and Reporting System (CEDARS) and use it
8 as reference when communicating program options to customers. PG&E and MCE
9 will keep program documents up-to-date in CEDARS and communicate program
10 updates as needed during regularly scheduled coordination meetings.

- 11 • **Marketing:** MCE and PG&E will coordinate marketing activities to avoid
12 customer confusion as well as bolster each other's offerings with the intent of
13 providing customers a valuable and streamlined outreach experience. This includes
14 providing an overview of upcoming campaigns including scheduled timelines and
15 customer segments of focus. Coordination in marketing efforts allows both MCE
16 and PG&E to avoid unnecessary spending and leverage each other's efforts in
17 customer engagement and outreach campaigns.
- 18 • **Policy:** MCE and PG&E acknowledge that policy requirements for EE programs
19 can change over time and affect the need for coordination. Staff will use regular
20 calls to check in on policy and regulatory changes and discuss coordination on any
21 relevant changes.
- 22 • **Double Dipping Prevention:** PG&E and MCE are aware that customers may seek
23 to obtain incentives for the same measures from both organizations (an outcome

1 known as “double dipping”) and have established protocols to prevent such
2 behavior. These measures include data sharing and regular communication about
3 any potentially duplicative projects.

4 **6.1.2 Coordination with BayREN**

5 MCE and BayREN have a rich relationship of coordination across similar or related EE
6 programs, driven by MCE and BayREN’s common requirement to achieve meaningful and
7 effective programs and a strong record of trust and cooperation. Under the current portfolio cycle,
8 MCE and BayREN coordinate across residential and commercial programs including (1) MCE’s
9 Home Energy Savings (HES); (2) MCE’s Multifamily Energy Savings (MFES); (3) MCE’s
10 Multifamily SEM program; (4) MCE’s Commercial Program; (5) BayREN Home+; (6) Bay Area
11 Multifamily Building Enhancements (BAMBE); and (7) BayREN Business.

12 Similar to MCE’s programs, BayREN’s programs focus on, but are not exclusive to, hard-
13 to-reach customers. Because of the overlap between these offerings, MCE and BayREN continue
14 to work closely together to minimize customer confusion and duplication of effort. An existing
15 JCM between MCE and BayREN will be re-visited as new programs launch to consider the need
16 for additional coordination. MCE and BayREN will also look for opportunities to layer onto each
17 other’s programs where appropriate, thereby offering its shared customers more holistic services
18 and optimized measure selection.

19 MCE’s engagement with BayREN includes similar discussions as those with PG&E on
20 marketing, policy, double dipping prevention and customer choice and information sharing. The
21 BayREN and MCE program teams meet on a regular basis to discuss program coordination and
22 will continue to do so as long as they implement programs serving the same customer base.

6.1.3 Complementary Program Offerings

MCE's programs are constantly evolving to respond to new market conditions, new savings opportunities and evolving regulations. As such, it is difficult to fully predict the multiple ways in which MCE programs will complement other PAs' programs in 2024-2027. Below is a discussion of how MCE programs have been designed to complement existing programs to date.

- **Collaborating with BayREN and other local government initiatives:** As discussed above, MCE engages BayREN and other local government agencies to develop opportunities to work together to improve service to customers. The desired outcome is to reduce customer confusion and to improve the success of outreach and programmatic efforts;
- **Filling gaps in resources provided by other programs:** MCE's HES Program has been designed to fill the gap between market-rate residential EE programs and the low-income focused Energy Savings Assistance (ESA) Program, including MCE's Low-Income Families and Tenants (LIFT) program. The HES Program, which provides free audits and no-cost direct install efficiency upgrades, serves moderate income customers who do not qualify for low-income programs. These customers are unlikely to be able to afford the out-of-pocket expenses associated with market rate programs.
- **Referring customers to PG&E financing offerings:** MCE and PG&E work together to enable non-residential customers participating in MCE's EE programs to access PG&E on-bill financing (OBF) programs. When projects enrolled in an MCE program utilize PG&E OBF, MCE program managers coordinate directly with PG&E OBF program managers to ensure that the customer and project meets

1 OBF eligibility requirements. MCE will also work directly with the PG&E program
2 manager to provide the project details required for the OBF program to reserve the
3 loan. At project completion, MCE facilitates loan disbursement by assisting the
4 customer in gathering close-out documents including scope of work, invoices, and
5 inspection reports. This referral process allows projects going through MCE's EE
6 programs to access PG&E's OBF programs, thereby reducing up-front costs to the
7 customer.

8 **6.2 Coordination With Other Energy Programs**

9 MCE describes coordination with other ratepayer-funded EE programs considered under
10 this Application in section 6.1 above. MCE describes coordination with any other demand-side
11 customer program outside the EE paradigm and offered by the State, MCE itself, or any other
12 entity in section 6.3 below.

13 **6.3 Coordination With Other Demand-side Programs**

14 MCE customers have access to an array of energy-related program offerings to serve their
15 varying needs and will often require guidance to navigate the myriad of choices. In stakeholder
16 engagement meetings in preparation of this Application, MCE received feedback from several
17 stakeholders that education, coordination and "breaking down barriers" between the wide variety
18 of distributed energy resource (DER) programs is essential for engaging customers in clean energy
19 programs. Through its "Any Open Door" approach, MCE provides information about the full suite
20 of program opportunities and resources available when a customer approaches MCE about any of
21 MCE's program offerings. To facilitate maximally beneficial customer participation in all eligible
22 programs, MCE informs customers about:

- 1 1. Ratepayer-funded programs offered by other EE PAs for which MCE does not
2 have a comparable offering (see Section 6.1, above);
- 3 2. Programs and initiatives focusing on electrification measures;
- 4 3. Programs focusing on other demand-side distributed energy resources (DER)
5 programs such as demand management,¹⁷ solar and storage programs, or
6 transportation electrification programs;
- 7 4. Programs providing financial support to Equity Customers; and
- 8 5. Programs focusing on health and safety improvements.

9 Beyond simply cross-promoting programs or resources, MCE has experience integrating
10 several programs for a streamlined customer experience. However, MCE also recognizes that
11 customers may not have the capacity and/or resources to participate in every available program.
12 In these cases, MCE will employ staged program leveraging. This is an approach to allow
13 customers and MCE to focus on the programs that offer the largest value first. After a successful
14 project, MCE will explore opportunities for the same customer to enroll in additional programs.

15 The following section describes coordination with other demand-side programs for each of
16 the categories outlined above at a high level, and provides a few specific examples of coordination
17 and “stacking” of demand-side programs. In the future, MCE will continue to follow new program
18 offerings developed by the State and other entities and will incorporate them into its “Any Open
19 Door” model as feasible.

¹⁷ MCE defines “demand management” as the umbrella term for customer responsiveness to price, behavior or equipment-driven signals which enable load shifting, load shedding, load shaping, and demand response (DR).

6.3.1 Coordination with Electrification Initiatives

Due to California’s ambitious decarbonization and GHG reduction goals, the State has been increasingly focused on developing electrification¹⁸ initiatives to transition away from gas-powered appliances.¹⁹ MCE has been strongly supporting this move towards building electrification through various channels. First and foremost, MCE developed its Workforce Education and Training (WE&T) program specifically to educate and prepare a skilled and qualified electrification workforce (see more details in Exhibit 2, Chapter 4, Section 6). Additionally, MCE will continue to coordinate with the regional electrification programs offered by BayREN and PG&E to support further electrification in MCE’s service area.

MCE will seek to maximize available funding for electrification measures by coordinating the layering of available offerings and incentives. Regional activities and programs (*e.g.*, Marin County’s Electrify Program)²⁰ will be amplified by statewide programs including the Technology and Equipment for Clean Heating (TECH) Initiative and the Self Generation Incentive Program (SGIP). MCE will coordinate with TECH on providing guidance on electrification product incentives, pilots, workforce development and training opportunities, as well as expanding consumer awareness and targeting messaging to Equity customers. In 2021, MCE’s Home Energy Savings (HES) program implementer won a TECH quick start grant to incorporate more electrification measures into MCE’s program.

¹⁸ MCE recognizes “building electrification” is one of several important strategies required to achieve broader “building decarbonization” that results in the reduction of buildings’ greenhouse gas and air toxics emissions.

¹⁹ Gridworks, California’s Gas System in Transition (2019), available at: https://gridworks.org/wp-content/uploads/2019/09/CA_Gas_System_in_Transition.pdf, p. 1 (“...the lowest societal cost path to reducing California’s GHG emissions includes high levels of building electrification supplied from a decarbonized electric sector.”).

²⁰ Electrify Marin is a natural gas appliance replacement rebate program offered by the County of Marin. Additional details can be found at: <https://www.marincounty.org/depts/cd/divisions/sustainability/energy-programs/electrify>.

1 MCE will also leverage emerging SGIP heat pump water heater (HPWH) incentives to
2 further motivate customers to adopt efficient electrification measures.²¹ Moreover, SGIP’s
3 proposed requirements for built-in load shifting capability for eligible products aligns with MCE’s
4 goal to increase demand management capabilities. Along with anticipated reductions in equipment
5 and installation costs as the industry scales, these programs will move a greater share of the market
6 toward electrification and closer to California’s decarbonization goals. Coordination amongst
7 these electrification offerings is key to maintaining focus on priority segments and avoiding
8 duplication of efforts and market confusion. Moreover, close coordination can lead to economies
9 of scale and the opportunity for MCE to realize the benefits of working with larger statewide
10 programs.

11 Finally, MCE will remain actively engaged in the regulatory proceedings at the
12 Commission that coordinate DERs and EE with electrification. The Decarbonization, SGIP, EE,
13 and ESA proceedings all relate to electrification and recognize it as a pillar for reaching
14 California’s decarbonization goals. MCE is committed to remaining a contributing and influential
15 partner, providing leadership in areas of flexible resources, electrification, and Equity, while
16 creating programming that deploys customer-appropriate, integrated solutions for decarbonization.

17 **6.3.2 Coordination with Other Demand-Side DER Programs**

18 To facilitate integration of its EE offerings with demand management programs, MCE
19 launched the Peak FLEXMarket program in the summer of 2021.²² The program builds on the

²¹ On December 23, 2021, the Assigned Commissioner in Rulemaking 20-05-012 issued a ruling providing a proposal to allocate \$40 million in cap-and-trade allowance proceeds to the SGIP Heat Pump Water Heater (HPWH) sub-program. Under the proposal, funding would be used to provide SGIP HPWH incentives to gas ratepayers. *See also* R.20-05-012 Proposed Decision Establishing Heat Pump Water Heater Program Requirements, February 11, 2022.

²² MCE subsequently received approval from the Commission in D.21-12-011 to use unrequested EE funds to continue and expand the program in 2022 and 2023. MCE proposes continued authorization in this application to extend the program through 2027 as described in Exhibit 2, Chapter 8.

1 structure of MCE’s Commercial Efficiency Market which is grounded in population-level
2 normalized-metered energy consumption (NMEC) methodologies and an assessment of hourly
3 energy impacts. The Peak FLEXmarket provides incentives for daily load shifting during the peak
4 hours, and higher incentives during demand response (DR) event hours. The Peak FLEXmarket
5 presents an opportunity for providers to enroll EE projects directly into an MCE demand
6 management program, and be rewarded for the value of energy impacts so long as the long-term
7 EE savings and short-term demand reduction impacts can be isolated from one another. This
8 provides participants with an incentive to develop comprehensive scopes of work which include
9 flexible devices that provide enhanced grid benefits alongside long-term EE savings. In this
10 Application, MCE proposes an even further integration of EE and demand management solutions
11 by incorporating the Peak FLEXmarket program into MCE’s EE portfolio in PYs 2024-2027.
12 More details can be found in Exhibit 2, Chapter 8.

13 In addition, MCE closely coordinates its EE offerings with its other DER-focused
14 programs. In 2020, MCE launched an Energy Storage Program with the goal of increasing
15 resiliency for customers located in high fire threat districts (HFTD) and impacted by public safety
16 power shutoffs (PSPS) events.²³ Both residential and non-residential customers are eligible for
17 MCE’s Energy Storage Program and MCE staffers ensure that any customers interested in MCE’s
18 EE programs receive education on the opportunities to install solar and storage supported by
19 MCE’s Energy Storage Program. It is also important to note that the MCE Energy Storage Program
20 in turn leverages the SGIP, the State’s main ratepayer-funded incentive program for customer-side
21 energy storage systems. Hence, customers who participate in MCE’s Energy Storage Program can

²³ MCE’s Energy Storage Program connects customers with existing or new solar to available incentives, program funding, performance payments, and financing to help install battery storage. *See* Marin Clean Energy Energy Storage Program at <https://www.mcecleanenergy.org/home-energystorage/>.

1 not only benefit from MCE’s financial offerings under the program but can also access SGIP
2 funding (if eligible and available).

3 **6.3.3 Coordination with Programs for Equity Customers**

4 When MCE engages with customers interested in MCE’s EE offerings, MCE program
5 staffers ensure that the customer is taking advantage of all the financial support and bill relief
6 programs that are available from the State and other entities. Some of these programs have long-
7 standing coordination efforts (*e.g.*, MCE routinely refers customers to the California Alternate
8 Rates for Energy (CARE), Family Electric Rate Assistance (FERA), Low-Income Home Energy
9 Assistance (LIHEAP) and Low-Income Weatherization Program (LIWP) programs).

10 Most notably, MCE’s own Low-Income Families and Tenants (LIFT) program is an
11 example of successful Equity program integration. This program, which was authorized through
12 the Energy Savings Assistance (ESA) program, layers additional funding for low-income
13 customers on top of existing rebates offered through the EE Multifamily Energy Savings (MFES)
14 program. Qualified properties receive funding for the core MFES measures plus additional
15 measures such as electrification upgrades that are only available through LIFT. The process is
16 seamless from the customer’s perspective, and MCE allocates energy savings and expenses
17 between the two programs on the back-end with no double-counting.

18 Furthermore, one of the most encouraging developments in the regulatory sphere in
19 California in recent years has been an increased focus on developing ratepayer-funded programs
20 supporting Equity customers.²⁴ These programs include, but are not limited to, the Disadvantaged
21 Communities (DAC) Green Tariff (DAC-GT) and Community Solar Green Tariff (CS-GT)

²⁴ MCE defines Equity customers as all categories of customers eligible for its proposed Equity segment programs). See more in Exhibit 2, Chapter 3, Section 4.

1 programs. MCE is a program administrator for the DAC-GT/ CS-GT programs²⁵ and as such can
2 easily identify eligible customers and stack program participation when a customer participates in
3 an EE program.

4 Additionally, MCE participates in the Arrearage Management Program (AMP), which
5 provides debt forgiveness for participating customers who pay their current monthly bills on-time
6 and in full.²⁶ MCE ensures that customers enrolled in AMP are offered the opportunity to
7 participate in EE, demand management, or other programs that could help them save money on
8 their energy bills, thereby helping to ensure participating customers can afford their monthly bills
9 and receive debt forgiveness. MCE will also participate in the forthcoming Percentage of Income
10 Payment Plan (PIPP) pilot, which will test whether billing based on a percentage of participating
11 customers' income, rather than on usage, helps reduce risk of disconnection for the most at-risk
12 customers.²⁷ MCE will ensure that all customers who participate in its PIPP pilot are offered the
13 opportunity to participate in EE programs, not only to reduce energy use but to ensure customers
14 can receive NEBs including health, safety and comfort improvements in their homes.

15 Finally, MCE ensures that eligible customers can access any rate or tariff support and bill
16 relief program that MCE offers. For example, "MCE Cares" is a bill relief program that MCE
17 launched in 2020 using operational funds to support residents and businesses suffering adverse
18 financial impacts from the COVID-19 Pandemic.²⁸

²⁵ The DAC-GT/ CS-GT programs were adopted by the Commission in D.18-06-027 and provide a 20% discount on the electric portion of the utility bill for eligible customers living in DACs.

²⁶ The AMP was authorized in R.18-07-005, D.20-06-003, *Phase I Decision Adopting Rules and Policy Changes to Reduce Residential Customer Disconnections for the Larger California-Jurisdictional Energy Utilities* (Jun. 11, 2020).

²⁷ The PIPP pilot was authorized in R.18-07-005, D.21-10-012, *Decision Authorizing Percentage of Income Payment Plan Pilot Programs* (Oct. 7, 2021).

²⁸ MCE additionally supports customers through its participation in the California Arrearage Payment Program (CAPP). "CAPP offers financial assistance for California energy utility customers to help reduce

6.3.4 Coordination with Health and Safety Programs

An example of program coordination for health and safety improvements is the leveraging of MCE’s HES program to serve Contra Costa County’s Asthma Mitigation Project participants. The Asthma Mitigation Project is a statewide program providing funding for local grantees to offer asthma home visit services to individuals with poorly controlled asthma, with a focus on low-income communities and communities of color.²⁹ MCE partners with Contra Costa Health Services, the local grantee of the Asthma Mitigation Project, to develop a home asthma assessment pilot. The goal is to provide comprehensive environmental health services that will improve the health, safety, and efficiency of low- to moderate-income homes within the County. In addition, the initiative strives to provide asthma patients seamless access to health, education, and built environment interventions to reduce asthma triggers, leading to fewer asthma-related missed days of work and school, hospitalizations, emergency room visits and less medication usage. The Asthma Mitigation Project expands upon the home visiting activities by incorporating home assessment and remediation service provisions. The project’s home-based delivery model supplements traditional clinical care and highlights the NEBs of traditional EE measures. Participating single-family customers who could benefit from EE home upgrade measures will be referred into HES.

6.4 Stakeholder Engagement

During the development of this application, MCE engaged the following stakeholders for feedback on its 2024-2031 strategic Business Plan and its 2024-2027 Portfolio Plan: the California Efficiency and Demand Management Council (CEDMC), California Environmental Justice

past due energy bill balances that increased during the COVID-19 pandemic.” Available at: <https://www.csd.ca.gov/Pages/CAPP.aspx>.

²⁹ Available at: <https://www.shfcenter.org/asthma>.

1 Alliance (CEJA), Public Advocates Office (CalAdvocates), Natural Resources Defense Council
2 (NRDC), Sierra Club, and Small Business Utility Advocates (SBUA). MCE also engaged with
3 members of its Community Power Coalition, which includes a diverse range of organizations that
4 work with MCE to address the challenges faced by historically marginalized communities in
5 MCE’s service area.³⁰

6 Stakeholders sought clarification on a number of key topics, including how community
7 choice aggregator (CCA), utility, and regional energy network (REN) programs coordinate; how
8 cost effectiveness is calculated for NMEC programs and for electrification measures; and how
9 MCE’s Commercial Efficiency Market and Peak FLEXMarket programs work together.
10 Stakeholders were also interested in how MCE approached its Equity and Market Support
11 segments, and how MCE decided which programs to include in those segments. MCE has woven
12 stakeholder feedback into this Application and indicated, in the sections to which it is applicable,
13 how the feedback from stakeholders has influenced program design and policy recommendations.

14 Generally, stakeholders expressed significant support for MCE’s focus on electrification,
15 including the workforce development program included in its Market Support segment.
16 Stakeholders also expressed support for MCE’s program coordination strategy, and its efforts to
17 integrate program delivery behind-the-scenes, which allows customers to access more programs
18 and benefits by breaking down silos between programs. In particular, stakeholders appreciated the
19 program coordination strategy as applied in programs that support low-income or otherwise
20 underserved customers and communities. Stakeholders noted that ease of participation should be
21 a priority for MCE, and urged MCE to make participation in EE programs as accessible as possible.

³⁰ Members of MCE’s Community Power Coalition include the Asian Pacific Environmental Network (APEN), Communities for a Better Environment (CBE), the Marin Conservation League, Sustainable Rossmoor, Richmond Build, and representatives from several of MCE’s member cities.

- 1 Finally, members of the Community Power Coalition noted additional opportunities for MCE to
- 2 support county-based efforts on building efficiency, given the close working partnership MCE has
- 3 built with its member counties and cities.

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 5
ATTACHMENT A
SUSTAINABLE WORKFORCE AND DIVERSITY POLICY



SUSTAINABLE WORKFORCE POLICY: 011

Support of local businesses, union labor and apprenticeship and pre-apprenticeship programs that create employment opportunities are important components of building and sustaining healthy and sustainable communities. It is in the interest of MCE to provide fair compensation and sustainable workforce opportunities within a framework of competitive service and the promotion of renewable energy, energy efficiency and greenhouse gas reduction.

MCE recognizes the importance of locally-generated renewable energy in assuring that California is provided with (1) adequate supplies of renewable energy for economic growth, (2) sustained local job opportunities and job creation, and (3) effective means to reduce the impacts of greenhouse gas emissions. MCE also recognizes the opportunities that energy efficiency programs provide for local workforce training and employment.

MCE supports fair compensation in direct hiring, renewable development projects, energy efficiency programs and in procurement of MCE services and supplies. MCE also supports quality apprenticeship and pre-apprenticeship training programs in construction craft occupations to foster long-term, fairly compensated employment opportunities for program graduates and believes that local apprenticeship and pre-apprenticeship programs are an efficient vehicle for delivering quality training in construction industry craft occupations.

MCE therefore desires to facilitate and encourage the following objectives:

- (1) Support for and direct use of local businesses;
- (2) Support for and direct use of union members from multiple trades;
- (3) Support for and use of training and apprenticeship and pre-apprenticeship programs from within MCE's service territory; and
- (4) Support for and direct use of green and sustainable businesses.

MCE will support the objectives stated above in the following way:

MCE Power Purchase Agreements with Third Parties

Marin Clean Energy shall collect information from respondents to any Open Season and/or RFP process regarding past, current and/or planned efforts by project developers and their contractors to:

- Employ workers and use businesses from the MCE service territory.
- Employ properly licensed (AB, C10, C46) contractors and certified electricians.
- Utilize multi-trade project labor agreements on the proposed project or any prior project developments.
- Utilize local apprentices, particularly graduates of pre-apprenticeship programs.
- Pay workers the correct prevailing wage rates for each craft, classification and type of work performed.
- Display a poster at jobsites informing workers of prevailing wage requirements.
- Provide workers compensation coverage to on-site workers.
- Support and use apprenticeship programs.

Relevant information submitted by bidders will be used to evaluate potential workforce impacts of proposed projects with the goal of promoting fair compensation, fair worker treatment, multi-trade collaboration, and support of the existing wage base in local communities where contracted projects will be located.

MCE Owned Generation Projects

Any MCE-owned renewable development project shall use best efforts to support local businesses, union labor and apprenticeship programs through multi-trade agreements and/or through multiple agreements for work. Each contractor or subcontractor performing work on any MCE-owned project shall use a combination of local labor, union labor and apprenticeship and shall endeavor to follow fair compensation practices. For each renewable energy project MCE or its contractor shall employ on its regular workforce at least one employee who is enrolled and participating in a local apprenticeship program. Apprenticeship programs must have been approved by the State Department of Apprenticeship Standards.

MCE Feed-In Tariff Projects

Each contractor or subcontractor performing work on any MCE Feed-in Tariff project shall use commercially reasonable efforts to utilize local businesses, union labor, multi-trade agreement, apprenticeship programs, and/or fair compensation practices.

MCE Energy Efficiency Projects

MCE shall use best efforts to support local businesses, union labor, and local apprenticeship programs in the implementation of its energy efficiency programs. Each contractor or subcontractor performing work on any MCE energy efficiency program shall use commercially reasonable efforts to utilize local businesses, union labor, local apprenticeship, and fair compensation practices in program implementation.

MCE Services and Supplies

MCE shall use best efforts to support local business and fair compensation in the purchase of services and supplies for the agency. MCE will proactively seek services from local businesses and businesses that have been Green Business certified and/or are taking steps to protect the environment.

MCE Direct Hiring

MCE shall use reasonable efforts to recruit local employees and graduates of local programs, schools, colleges and universities. MCE will use best efforts to provide fair compensation for its employees that aligns with regional market indicators for compensation levels for each position.

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 6
EVALUATION, MEASUREMENT AND VERIFICATION

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 6
EVALUATION, MEASUREMENT AND VERIFICATION

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1 **1. Planned EM&V Studies and Activities**

2 Marin Clean Energy (MCE) plans to pursue evaluation, measurement and verification
3 (EM&V) studies that augment capabilities in administering data-driven programs and drive the
4 adoption of electrification measures. MCE’s portfolio relies increasingly on program designs
5 grounded in normalized metered energy consumption (NMEC), pay-for-performance (P4P)
6 programming, and Strategic Energy Management (SEM) to align with Assembly Bill 802
7 (Williams, 2015) and Senate Bill 350 (De León, 2015).¹ MCE anticipates this will likely continue
8 in the coming years.

9 As many of these program design concepts are a relatively new addition to the energy
10 efficiency (EE) portfolio, MCE anticipates the need for EM&V studies to further investigate these
11 programmatic concepts. MCE describes a few ideas for potential EM&V studies in the following
12 sections. All of these studies are currently in early planning stages. Following an assessment of
13 the budget requirements for each of the studies below, MCE will advance one or multiple EM&V
14 studies into the scoping and implementation phase

15 **1.1. Marketplace EM&V Study**

16 MCE leverages embedded measurement and verification (M&V) as a key element of the
17 Marketplace² program model. Population-level NMEC savings assessments, as well as their Total

¹ AB 802 and SB 350 direct a data-driven approach to measuring energy savings. AB 802 requires the Commission to “authorize electrical corporations or gas corporations to provide financial incentives, rebates, technical assistance, and support to their customers to increase the energy efficiency of existing buildings based on all estimated energy savings and energy usage reductions, taking into consideration the overall reduction in normalized metered energy consumption as a measure of energy savings.” SB 350 requires energy efficiency savings and demand reductions “shall be measured, taking into consideration the overall reduction in normalized metered electricity and natural gas consumption where these measurement techniques are feasible and cost effective.”

² MCE’s Marketplace programs include the Commercial Efficiency Market, the Residential Efficiency Market, as well as the Peak FLEXmarket program. More information on Marketplace programs can be found in Exhibit 2, Chapter 3 and Chapter 8.

1 System Benefits (TSB) value, are a core feature of the programs’ design. However, with the
2 prospect of using “custom” or “blended” avoided cost curves within Marketplace savings claims,
3 MCE believes there is valuable opportunity to review a number of aspects of the Marketplace
4 program model in an EM&V study, including, but not limited to: (1) the application of CalTRACK
5 2.0 methods; (2) the load shape of savings claims; and (3) avoided cost value. MCE proposes
6 leveraging services from a third-party analytics firm, or MCE’s own Technology and Analytics
7 department, to evaluate the savings and TSB determinations generated by the Marketplace
8 programs.

9 **1.2. Customer Experience Evaluation in Marketplace Programs**

10 MCE’s Marketplace programs deliver a number of strategic benefits as highlighted in
11 several chapters of this testimony. The Marketplace model is an excellent steward of ratepayer
12 funding, it can easily scale to optimize impacts, and it is a nimble structure which encourages
13 participation and results-oriented projects. However, the Marketplace model operates “upstream”
14 of customers; i.e., enrollment and performance payments are focused on participating aggregators,
15 not individual customers themselves. MCE believes that an evaluation of the customer experience
16 within the Marketplace would provide a number of valuable insights that may improve the
17 Marketplace or similar programs in the long run. Possible areas of evaluation may include, but are
18 not limited to: (1) aggregator cost-sharing—or rebates and incentives—paid to customers; (2)
19 customer enrollment and messaging; (3) the development of aggregator sub-programs; (4)
20 strategies deployed in project specification to optimize TSB; and (5) customer interest in demand

1 management³ programs. This study would be performed early in the four-year cycle to allow
2 findings and recommendations to be incorporated into the program in later years.

3 **1.3. Fuel Substitution EM&V Study**

4 MCE is supportive of the continued growth of programs that emphasize fuel substitution,
5 replacing natural gas-consuming equipment with efficient, electric equivalents. Fuel substitution
6 has become a priority for local governments and the State alike,⁴ yet there is limited understanding
7 surrounding how and when electric equipment is used, as well as the benefits that accrue to
8 customers. This study would encompass a comprehensive evaluation of electrification programs
9 within MCE’s footprint, including the potential savings on customers’ bills and changes to the
10 electric load shape of participating customers over time.

11 **1.4. Multifamily Strategic Energy Management EM&V Study**

12 MCE is launching a multifamily residential Strategic Energy Management (SEM) program
13 in 2022. Much like non-residential SEM programs, the multifamily SEM program will be delivered
14 in a cohort format, with an emphasis on no- and low-cost savings opportunities. SEM is a long-
15 term approach to energy efficiency, which seeks to build a stronger energy management culture
16 among participating customers, and uses a framework for engagement and goal-setting designed
17 to deliver results that can be verified through the development of energy savings models. Because
18 this is the first residential SEM program launched in California, MCE is interested in an EM&V
19 study to evaluate the efficacy, barriers and opportunities specific to SEM in the multifamily sector.

³ MCE defines “demand management” as the umbrella term for customer responsiveness to price, behavior or equipment-driven signals which enable load shifting, load shedding, load shaping, and demand response (DR).

⁴ Sierra Club, California’s Cities Lead the Way to a Gas-Free Future, July 2021, available at: <https://www.sierraclub.org/articles/2021/07/californias-cities-lead-way-gas-free-future>.

1 This study would be conducted once MCE has sufficient multifamily SEM participation to
2 generate meaningful findings.

3 **2. Budget Allocation and Justification**

4 MCE’s proposed EM&V budget is \$1,251,477 over the 2024-2027 program timeframe.
5 MCE’s EM&V budget request is consistent with the 4 percent EM&V budget cap (as a percentage
6 of the total portfolio budget).⁵ MCE is requesting an increase of its portion of the overall EM&V
7 budget to 40 percent per Decision 16-08-019 to implement the innovative and important EM&V
8 studies outlined above.⁶

⁵ Application (A.) 08-07-021, D.09-09-047, *Decision Approving 2010 to 2012 Energy Efficiency Portfolios and Budgets*, OP 50 at 390 (Sep. 24, 2009).

⁶ Rulemaking (R.) 13-11-005, D.16-08-019, *Decision Providing Guidance for Initial Energy Efficiency Rolling Portfolio Business Plan Filings*, OP 16 at 112 (Aug. 18, 2016).

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 7
COST & COST RECOVERY

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
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CHAPTER 7
COST & COST RECOVERY

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1 **1. Summary of Costs at Portfolio-Level**

2 Table 7-1 shows MCE’s proposed costs at the portfolio level for each year of the four-year
 3 portfolio cycle (i.e., program years (PYs) 2024 – 2027). Budgets are presented in the standard
 4 energy efficiency (EE) budget categories of Administration, Marketing, Direct Implementation,
 5 Incentives, and evaluation, measurement and verification (EM&V).

6 *Table 7-1: Annual Spending Budget Request at Portfolio-Level for PYs 2024-2027*

Year	Admin	Marketing	Direct Implementation Non-Incentives	Direct Impementation Incentives	EM&V	Total
2024	\$ 1,168,696	\$ 155,000	\$ 11,841,531	\$ 5,337,467	\$ 770,946	\$ 19,273,639
2025	\$ 1,205,881	\$ 155,000	\$ 12,043,012	\$ 5,337,467	\$ 780,890	\$ 19,522,249
2026	\$ 1,244,925	\$ 155,000	\$ 12,063,269	\$ 5,337,467	\$ 783,361	\$ 19,584,021
2027	\$ 1,285,921	\$ 155,000	\$ 12,265,523	\$ 5,337,467	\$ 793,496	\$ 19,837,407

7
 8 MCE will include the revenue requirements associated with this budget in the true-up
 9 advice letter (AL) to be filed in September 2023.¹ That AL will include an estimate of unspent
 10 funds from the 2023 PY, actual unspent funds from 2022 and a true up, if needed, of any previous
 11 years’ unspent funds or committed funds.

12 **2. Description of Committed Funds**

13 MCE reserves funds across funding cycles associated with committed funds according to
 14 the definition provided in the EE Policy Manual: “Committed funds are defined as those associated
 15 with individual customer projects and/or are contained within contracts signed during a previous
 16 program cycle and associated with specific activities under the contract.”² Unlike unspent funds,
 17 committed funds are not available to offset future revenue requirements.

¹ Rulemaking (R.) 13-11-005, D.21-05-031, *Assessment of Energy Efficiency Potential and Goals and Modification of Portfolio Approval and Oversight Process*, p. 61; OP 10 at 83 (May 20, 2021).

² See EE Policy Manual, p. 20. Available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/e/6442465683-ee-policy-manual-revised-march-20-2020-b.pdf>.

1 **3. Cost Recovery**

2 MCE's approved energy efficiency budget is recovered by Pacific Gas & Electric
3 (PG&E) and transferred to MCE.

MARIN CLEAN ENERGY
TESTIMONY REGARDING 2024-2031 BUSINESS & PORTFOLIO PLAN
EXHIBIT 2
CHAPTER 8
PEAK FLEXMARKET

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CHAPTER 8
PEAK FLEXMARKET

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1 **1. Background**

2 On June 1, 2021, Marin Clean Energy (MCE) launched a self-funded demand management
3 program, the Peak FLEXmarket, which is an extension of MCE’s Efficiency Market programs.¹
4 Peak FLEXmarket is designed to improve the reliability of the grid by reducing demand during
5 times when the grid is strained. Peak FLEXmarket delivers peak and net peak² demand reductions
6 on a broad scale by opening up eligibility to a broader group of technologies and adding event-
7 driven demand response (DR) to the basic Marketplace program structure.

8 MCE’s Efficiency Market programs compensate aggregators based on the avoided cost
9 value³ of their projects, which weights the value of savings heavily towards the peak hours (during
10 which, savings provide more value to the system). In practice, this means that program payments
11 are made at variable rates: savings with high avoided cost value are paid proportionally more than
12 savings with less avoided cost value, resulting in a clear incentive to pursue savings that occur
13 during the summer peak hours. When MCE launched its first Marketplace program – the
14 Commercial Efficiency Market – in early 2021, the program received interest from aggregators
15 that were active in the DR arena, since peak period impacts were paid at a premium. However, at
16 that point in time, the program did not include any incentives for customers to deliver demand
17 flexibility. Hence, MCE launched the Peak FLEXmarket program using the same fundamental
18 program platform to unlock the value of demand flexibility from the same providers delivering

¹ MCE’s Efficiency Market programs are the Commercial Efficiency Market and the Residential Efficiency Market as further described in Exhibit 2, Chapter 3, Section 2.2.

² Peak and net peak demand hours are defined as 4-9 p.m. and 7-9 p.m., respectively, during June 1 and September 30 each year.

³ Energy + Environmental Economics (“E3”) developed the methodology for estimating the value of avoided costs for use in evaluating distributed energy resource programs in California. Available at: https://www.ethree.com/public_proceedings/energy-efficiency-calculator/ (“E3 Avoided Cost Calculator”).

1 traditional energy savings.⁴ Peak FLEXmarket operates in parallel to, and complements, MCE’s
2 Efficiency Market programs.

3 Whereas the Efficiency Market programs are restricted to delivering cost-effective energy
4 efficiency (EE), Peak FLEXmarket is focused specifically on load shifting, shaping and demand
5 reduction during the peak summer hours, and can seamlessly integrate the value of EE into the
6 development of new projects that combine efficiency and demand management measures. It
7 compensates EE providers for their contributions to grid reliability, and similarly, encourages
8 traditional DR providers to consider both the customer and system value of deeper, long-term EE
9 projects.

10 On August 6, 2021, the California Public Utilities Commission (CPUC or Commission)
11 published an Email Ruling in Rulemaking 13-11-005 inviting parties to submit proposals for
12 specific actions that the Commission can take to expedite or accelerate clean energy project
13 development in response to projected energy supply shortages during the afternoon-evening peak
14 and net peak periods of high power demand during summer months.⁵ In response to this Email
15 Ruling, MCE proposed that the Commission authorize ratepayer funding, drawn from MCE’s
16 unrequested EE funds,⁶ to scale Peak FLEXmarket and to achieve expanded customer access that
17 will deliver increased peak load reduction and grid benefits during the summers of 2022 and 2023.

18 Decision (D.) 21-12-011 from December 2021 granted this request and allowed MCE to
19 fund the implementation of Peak FLEXmarket in program years (PYs) 2022 and 2023 by

⁴ MCE’s Commercial Energy Efficiency Market and Peak FLEXmarket share the same fundamental measurement and verification (M&V) methods, web portal and program platform.

⁵ R.13-11-005, Administrative Law Judge’s August 6, 2021 Email Ruling Requesting Comments/Proposals to Address Governor’s Proclamation of July 30, 2021.

⁶ MCE defines “unrequested funds” as the differences between the funds approved in MCE’s Business Plan for PYs 2018-2023 and the total budget that MCE had requested to date in its annual budget advice letters (ABAL) during the same timeframe.

1 leveraging unrequested EE funding, acknowledging both the potential for the program to support
2 grid reliability goals, as well as the complementary nature of the program with the Commercial
3 Efficiency Market program (which will expand to the residential sector, with the approval of this
4 application).⁷ The Commission also authorized the development of the statewide “Market Access
5 Program” (MAP) which is modeled after MCE’s Efficiency Market and Peak FLEXmarket
6 programs. More specifically, the Decision states that it provides “[a]uthorization for Marin Clean
7 Energy to shift funds to enhance their Peak FLEXmarket program, **on which the Market Access
8 program [...] is based.**”⁸ Furthermore, the Decision specifically allowed program administrators
9 (PAs) to carry over the MAP into the new portfolio cycle beyond 2023 by including such proposals
10 in their four-year portfolio filings in February 2022.⁹

11 Pursuant to this guidance from D.21-12-011, MCE finds it reasonable to request continued
12 funding for the Peak FLEXmarket program under this Application for PYs 2024-2027 to further
13 the integration of EE and demand management programs, while also helping the State achieve its
14 critical grid reliability goals. It is unlikely that California’s grid reliability challenges will be
15 resolved by 2024, and one of the best opportunities to strengthen the value of EE and demand
16 flexibility is by ensuring that these project types are deployed synergistically. To accomplish this,
17 providers must be presented with opportunities to participate concurrently in EE and demand
18 management markets that are, for the most part, siloed elsewhere. On the back-end, programs must
19 also be accountable for how they spend ratepayer dollars – aligning program expenditures with
20 value generated, with technical solutions that can attribute savings to different value streams (*e.g.*,
21 demand response versus long-term energy efficiency). The Peak FLEXmarket incorporates all of

⁷ Rulemaking (R.) 13-11-005, D.21-12-011, *Energy Efficiency Actions to Enhance Summer 2022 and 2023 Electric Reliability*, OP 2 at 60 (Dec. 2, 2021).

⁸ *See id.*, p. 2 (emphasis added).

⁹ *Id.*, p. 27.

1 these elements in its design, resulting in an attractive market opportunity for aggregators, and a
2 program framework that is accountable to ratepayer funding.

3 The Peak FLEXMarket has been included in this Application outside of the core EE
4 portfolio and budget request due to a more expansive view of project eligibility and the limitations
5 of the Cost Effectiveness Tool (CET) that confine its use to traditional energy efficiency, as
6 described in more detail in Section 5 below.

7 **2. Program Scope and Value**

8 MCE’s Peak FLEXmarket is a market-driven demand management program that enhances
9 grid reliability by reducing peak load. The Peak FLEXmarket incentivizes demand reduction
10 during summer peak periods in two ways: (1) daily load shifting and (2) event-based demand
11 response. Daily load shifting—known as “Flex Savings” in Peak FLEXmarket—are measured load
12 reductions occurring during peak hours on weekdays throughout the summer. Event-based demand
13 response—known as “Resiliency Events” in Peak FLEXmarket—incentivize demand reductions
14 during period of high grid congestion, power shortages, or high prices, and are currently called at
15 MCE’s discretion. To date, Resiliency Events have been called when California Independent
16 System Operator (CAISO) day-ahead market prices exceed \$200/MWh for more than two hours,
17 or when one hour exceeds \$300/MWh. In the future, Resiliency Events may be adjusted to the
18 CAISO Alert, Warning, Emergency process, which issues notifications when operating reserves
19 or transmission capacity limitations threaten the ability of CAISO to safely and reliably operate
20 the grid.¹⁰

¹⁰ See CAISO AWE, *available at*: <http://www.caiso.com/informed/Pages/Notifications/NoticeLog.aspx>.

1 **2.1 Measures and Technologies**

2 One of the primary attributes of a price-signal driven program is that it enables Peak
3 FLEXmarket to remain technology- and measure-agnostic: it is a program framework with the
4 tools to measure and value hourly reductions in energy use, regardless of how those impacts were
5 generated. In concert with MCE’s Efficiency Marketplace programs, Peak FLEXmarket
6 accommodates the integration a wide range of demand management strategies, including, but not
7 limited to, EE, energy storage systems, smart thermostats, building/equipment controls and
8 behavioral DR.

9 **2.2 Compensation Structure**

10 MCE expects that Peak FLEXmarket will introduce peak and net peak incentive rates that
11 mirror those of the MAP.¹¹ The Peak FLEXmarket provides payments for daily load shifting
12 during summer peak and net peak hours. In addition, Peak FLEXmarket will also incorporate an
13 event-based DR compensation structure – as approved within D 21-12-011 – that mirrors the
14 structure of the Emergency Load Reduction Program (ELRP),¹² or other value for DR load impacts
15 as determined by the Commission. Altogether, Peak FLEXmarket’s compensation structure
16 accomplishes two important goals.:

- 17 1. It enables MCE to contribute to grid reliability during periods of peak energy
18 demand and grid stress by calling DR events; and

¹¹ The final incentive rates for the MAP for PYs 2022 and 2023 have not been determined yet at the time of filing of this Application.

¹² The Commission created the Emergency Load Reduction Program (ELRP) in 2021 to pilot a new DR approach to help avoid rotating outages during peak summer electricity usage period from May through October. The program is designed to compensate customers for reducing energy consumption or for increasing electricity supply during periods of electrical grid emergencies. The ELRP is managed by the three investor-owned utilities (IOUs) (Pacific Gas and Electric Company, Southern California Edison Company and San Diego Gas and Electric Company). CPUC, ELRP, available at: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/demand-response-dr/emergency-load-reduction-program>.

- 1 2. It serves as a comprehensive program that can stimulate investment in projects and
2 interventions that are incremental and complementary to traditional EE projects and
3 generate normalized metered energy consumption (NMEC)-verified total system
4 benefits (TSB).

5 To-date, Peak FLEXmarket has incentivized load shifting and shedding out of the peak
6 hours – which MCE refers to as “Flex Savings” – at \$150/MWh. However, further analysis of
7 avoided cost values has shown that smoothing some of the simulated avoided cost spikes results
8 in higher values for peak and net peak hours. Net peak incentives will be refined based on MCE’s
9 experience administering the program in PYs 2022 and 2023, and in coordination with other MAP
10 PAs. Flex Savings are measured leveraging population-level NMEC paired with a comparison
11 group adjustment and payable across all weekday peak hours (4 p.m. – 9 p.m.) throughout the peak
12 season (June 1 through September 31). Incorporating a value for daily load shifting under the Peak
13 FLEXmarket program is central to stronger engagement in flexibility programs because:

- 14 ● It ensures that load shifting out of the peak hours becomes common practice,
15 consistent and achievable, rather than leaning on DR purely as an emergency lever;
16 ● Daily load shifting aligns with customer benefits, much like energy efficiency and
17 a customers’ potential for cost avoidance likely outweighs the benefits of
18 standalone DR participation;
19 ● Numerous demand management solutions can be leveraged every day and not just
20 during DR events. Traditional DR baseline measure methods and incentive
21 structures may result in a disincentive to regularly reduce demand in the days prior
22 to DR events, and therefore fall short of their potential. This dilemma is resolved

1 through Peak FLEXmarket’s innovative measurement and verification (M&V)
2 methods and payment structure; and

- 3 ● There are carbon emissions reductions, grid resiliency, and cost benefits that can
4 be realized if load-shifting is more commonly practiced.

5 A second compensation stream for the Peak FLEXmarket program are the payments for
6 participation in DR events. DR events are intended to incentivize demand reduction during periods
7 of high grid congestion, power shortages, or high prices. DR events to-date have been triggered by
8 high prices in the CAISO day-ahead market, and have been called at the discretion of MCE,
9 although they have generally aligned with CAISO Flex Alerts.¹³ Participants are notified no less
10 than 24 hours in advance of a DR event. DR payments will align with the rates paid by ELRP or
11 other Commission-directed value, currently set at \$2,000/MWh.

12 **2.3 Measurement and Verification**

13 Peak FLEXmarket is supported by a robust M&V plan, and a program platform that is
14 regularly updated with interval meter data covering MCE’s entire service area. The platform can
15 also target customers for engagement, based on a variety of load shape characteristics and customer
16 classifications, including annual usage, peak usage, cooling-dependent load, their “ramp” and
17 more.

18 M&V methods deployed in Peak FLEXmarket are open-source and publicly available.
19 Energy impacts are determined through the CalTRACK 2.0¹⁴ methods, paired with a comparison

¹³ A “Flex Alert” is “a call for consumers to voluntarily conserve electricity when there is a predicted shortage of energy supply, especially if the grid operator needs to dip into reserves to cover demand.” *See* California Independent System Operator, Summer Readiness and Flex Alerts, available at: <http://www.caiso.com/about/Pages/News/SummerReadiness-FlexAlerts.aspx>.

¹⁴ The current v. 2.0 CalTRACK methods documentation and technical appendix are available at <http://docs.caltrack.org/en/latest/methods.html>.

1 group adjustment.¹⁵ Overall, these methods demonstrate meaningful improvements over
2 commonly used DR baseline methodologies, which may undervalue DR impacts and thus
3 discourage deeper engagement from providers and customers.¹⁶ Existing methods may also
4 discourage daily load reduction, since most DR programs lack an integrated value proposition for
5 reductions in demand outside of called DR events. These methods provide MCE with a pathway
6 to reliably and verifiably integrate demand management into EE programs.

7 **2.4 Value Proposition**

8 In summary, integrating the Peak FLEXmarket program under MCE’s 2024-2027 EE
9 portfolio enables a number of strategic benefits:

- 10 • Program administration is simple and efficient through the Marketplace model
11 because it allows MCE to incorporate a variety of different aggregators and project
12 types into the program;
- 13 • There is minimal risk to program funding, as program payments (including the
14 majority of administrative costs) are made entirely on the basis of performance.
15 Furthermore, MCE does not need to solicit for or contract directly with Marketplace
16 participants, thereby introducing few barriers to entry;

¹⁵ A comparison group is a group constructed after participants have been enrolled in a program, wherein the purpose is to compare energy consumption changes from program participants against non-participants with otherwise similar usage characteristics. Comparison group analysis can help determine net savings by accounting for externally driven changes or trends that affect energy usage across all customers or all customers within a segment. (NMEC Rulebook at 21, available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/n/6442463694-nmec-rulebook2-0.pdf>.)

¹⁶ See U.S. Department of Energy and National Renewable Energy Laboratory “Study of Demand Response during the California August 2020 blackouts”, pp.6-7 (Dec. 2020) (explaining the drawbacks of prevailing DR baseline methodologies and noting that “current baseline methods understate performance on the days when the grid has the greatest need for demand response, resulting in reduced incentive to support the grid in future events. More accurate methods for measurement and verification will help companies...bring more flexible demand from local distributed energy resources to help balance the grid.”), available at [https://assets.website-files.com/5cb0a177570549b5f11b9550/6050a2a48c39eb09319c9382_Quantifying%20The%20OhmConnect%20Virtual%20Power%20Plant%20During%20the%20California%20Blackouts%20\(1\).pdf](https://assets.website-files.com/5cb0a177570549b5f11b9550/6050a2a48c39eb09319c9382_Quantifying%20The%20OhmConnect%20Virtual%20Power%20Plant%20During%20the%20California%20Blackouts%20(1).pdf).

- 1 ● MCE can avoid prescriptive solutions for how load reduction should occur. In other
2 words, customers and/or aggregators can participate in Peak FLEXmarket with a
3 behavioral DR offering, a device-enabled strategy (*e.g.*, batteries, smart
4 thermostats), or any other solution that generates verifiable results. By offering a
5 payment for energy reductions that values a range of resources equally, the Peak
6 FLEXmarket ensures that incentives flow to projects with verifiable impacts and
7 allows for different BTM solutions to work together in a coordinated way;
- 8 ● The program design is simple and attractive to demand management providers,
9 (including those more traditionally aligned with EE programs) and lends itself to
10 seamless integration with existing EE programs. To date, Peak FLEXmarket has
11 engaged aggregators who are new to DR programs and MCE program partners who
12 have traditionally been aligned with EE project development. These partners have
13 now been presented with a value proposition for demand management and a clear
14 directive to maximize TSB, which can be incorporated into new project
15 specifications and incentive structures. Integrating EE and demand management is
16 not only sensible from a load management standpoint, it is also critical to unlocking
17 value for customers, and helping to carry the cost of smart, dispatchable
18 technologies; and
- 19 ● Peak FLEXmarket represents a new way of thinking about the value of DR and
20 demand management. It removes the existing disincentive for aggregators and
21 customers to reduce peak demand on a daily basis. In other DR programs, doing so
22 would reduce the baseline from which demand response is often measured (“10 in

1 10” baseline load profile),¹⁷ thereby reducing the customer’s expected load
2 reduction credit.

3 **3. Program Goals**

4 MCE has developed a proposed budget for the Peak FLEXmarket to accommodate 22.5
5 MW of forecasted capacity between PYs 2024 and 2027, corresponding to 4,950MWh of
6 annualized peak period energy savings and 1,350 MWh delivered during estimated DR event
7 hours. MCE notes that these forecasts may vary due to (1) the evolution of the MAP and its rules
8 and requirements; and (2) the proportion of the participating load that opts to participate in both
9 daily load shifting and DR events, or DR events alone. MCE also intends to remain in regular
10 communication with Commission’s Energy Division staff throughout the program period on its
11 goals and rules as discussed further in Section 5 below.

12 **4. Program Budget**

13 MCE proposes the Commission approve \$26.3M in funding for MCE to continue offering
14 the Peak FLEXmarket program during the PY 2024-2027 EE portfolio cycle. A summary of the
15 annualized budget request is provided in the table below.

¹⁷ The “10 in 10” baseline methodology takes the average customer load from the 10 previous days and applies a same-day load adjustment factor to account for weather. *See, infra*, n.23, (comparing DR baseline methodologies).

Table 8-1: Proposed Program Budget for Peak FLEXmarket in PYs 2024-2027

	Annualized Budget	Total 2024-2027 Budget
General and Administrative Overhead	\$262,800.00	\$1,051,200.00
Direct Implementation Non-Incentive	\$197,100.00	\$788,400.00
M&V	\$985,500.00	\$3,942,000.00
ME&O	\$197,100.00	\$788,400.00
Subtotal Non-Incentive Budget	\$1,642,500.00	\$6,570,000.00
Maximum Load Shifting Budget	\$2,227,500.00	\$8,910,000.00
Maximum DR Budget	\$2,700,000.00	\$10,800,000.00
Subtotal Incentive Budget	\$4,927,500.00	\$19,710,000.00
Total Program Budget	\$6,570,000.00	\$26,280,000.00

At this stage, MCE finds that it is most important to signal an intent to continue the Peak FLEXmarket and to establish a budget basis to inspire confidence in the market among participating aggregators beyond its initial approval through PY 2023. It is important to emphasize that the vast majority of the proposed program budget would be paid only on a performance basis, using advanced M&V standards. If savings are not achieved, payments will not be made, translating into a uniquely low-risk opportunity to deploy ratepayer funding to enhance grid reliability. Furthermore, MCE will continue to review and fine-tune program goals (and subsequently budgets) throughout the PY 2024-2027 period.

The following sections provide more detail on how the proposed budget for the Peak FLEXmarket program was developed.

4.1 Incentive Budget

As shown in Table 8-1, MCE’s budget projection is largely driven by incentive payments for load shifting and event-based DR, which account for 75% of the budget. First, MCE calculates the budget for “FLEX Savings” (*i.e.*, daily load shifting incentives) assuming a rate of \$450/MWh for 11.25 MW of load shifted across the summer peak hours. This rate is a significant increase over the Peak FLEXmarket’s initial load shifting rate of \$150/MWh, but has been proposed in

1 response to the Commission’s request for a kicker rate within the MAP that provides additional
2 payments for demand reductions during peak and net peak hours.¹⁸ The load shifting budget covers
3 half of the flexible load under management within the program. These load shifting assumptions
4 are grounded in the fact that (1) not all Peak FLEXmarket participants will regularly shift load;
5 and (2) not all will be eligible to do so as customers may lack sufficient baseline data.

6 Second, MCE calculates the maximum annual DR budget assuming an incentive rate of
7 \$2,000/MWh for up to 60 hours annually for the full 22.5 MW of flexible capacity. This rate was
8 set to maintain consistency with the ELRP.

9 **4.2 Non-Incentive Budget**

10 A key advantage to leveraging Peak FLEXmarket in PYs 2024-2027 is that all the one-
11 time program start-up costs have already been funded either through MCE’s own funding or
12 through authorized ratepayer funding per D.21-12-011. MCE forecasts modest ongoing
13 administrative costs due to the market-driven program participation model, while leveraging
14 “embedded” M&V which limits unsubstantiated or unnecessary spend of ratepayer dollars.

15 The total “Non-Incentive Budget” – including Administrative, M&V, and marketing,
16 education and outreach (ME&O) budgets – has been estimated at 25% of the total program budget,
17 with the remaining 75% being paid as incentives. It is important to note that while MCE does
18 expect a minimum of fixed costs to apply to the program to staff the program, a majority of the
19 M&V and administrative costs will also align with program performance, scaling up only as the
20 program itself expands. This is consistent with the contract mechanisms currently in place to
21 support other Marketplace programs.

¹⁸ See D.21-12-011, OP 1 at 59.

1 **5. Incorporation into EE Application for PYs 2024 – 2027**

2 MCE would like to be able to integrate the Peak FLEXmarket into the Resource
3 Acquisition segment of its EE portfolio. However, certain technical limitations prevented MCE
4 from doing so. First, the Commission’s Cost Effectiveness Test (CET) is not designed to calculate
5 avoided costs and accurate TSB for DR events. The CET currently requires PAs to choose a
6 prescriptive load shape and provide an effective useful life (EUL) of at least one year for each
7 participating measure. However, demand management measures under the Peak FLEXmarket
8 program may be developed to only deliver energy savings and peak demand reduction during the
9 peak hours of the summer months. Due to this limitation, the TSB value of these savings may not
10 be accurately forecasted within the current CET. This makes it difficult for PAs to incorporate
11 Peak FLEXmarket into the Resource Acquisition segment of their EE portfolios.

12 MCE recommends that the Commission update the CET to allow for the use of custom
13 load shapes and the calculation of TSB for partial months of the year (MCE discusses this issue
14 further in Exhibit 1, Chapter 3). This will enable PAs to accurately reflect programs like the Peak
15 FLEXmarket and the new statewide MAPs within the Resource Acquisition segment of the EE
16 portfolio.

17 Once the tools appropriately reflect the value demand management measures can offer to
18 customers, the grid, and the State as a whole, MCE will re-run its EE portfolio budget, savings and
19 cost-effectiveness numbers including the Peak FLEXmarket program and make the findings
20 available to the Commission and stakeholders. MCE commits to ongoing communication with the
21 Commission and parties to R.13-011-005 to inform holistic EE and DR programmatic decision-
22 making moving forward.

1 **6. Conclusion**

2 In light of California’s increasing focus on long-term grid reliability needs,¹⁹ the
3 Commission has called for greater integration between EE and demand management programs to
4 help deliver improved reliability outcomes.²⁰ MCE’s Peak FLEXmarket program can be an
5 integral part of the solution to increase system reliability during times of grid stress. It is also an
6 excellent model to closer integrate EE and demand management programs by allowing aggregators
7 flexibility in “bundling” services and offerings as they see fit to achieve long-term EE savings and
8 peak demand reductions in tandem. The Commission has recognized the potential of Peak
9 FLEXmarket and authorized MCE to use unrequested EE funding to scale the program in PYs
10 2022 and 2023. MCE requests that the Commission authorize continued funding of its Peak
11 FLEXmarket program through PY 2027 as a part of this Application, but outside of the current EE
12 portfolio budget request (as presented in Exhibit 1, Chapter 2 and Exhibit 2, Chapter 2).

¹⁹ See e.g. Executive Department State of California, Proclamation of a State of Emergency, July 30, 2021, <https://www.gov.ca.gov/wp-content/uploads/2021/07/Energy-Emergency-Proc-7-30-21.pdf>.

²⁰ R. 13-11-005, *Ruling requesting comments/proposals to address Governor’s Proclamation of July 30, 2021* (August 6, 2021).