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TESTIMONY OF MARIN CLEAN ENERGY REGARDING ITS APPLICATION FOR APPROVAL OF THE 2016 ENERGY EFFICIENCY BUSINESS PLAN

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1 CHAPTER 1: POLICY & PROGRAM OVERVIEW

2

A. Introduction

Marin Clean Energy ("MCE") is the first operating Community Choice Aggregator ("CCA") in California. MCE is currently the primary electricity provider in its service territory, offering electricity generation to 80% of eligible customers. MCE currently serves over 170,000 customers in the County of Marin, the cities of Benicia, El Cerrito, Richmond, San Pablo, and unincorporated Napa County. Energy Efficiency ("EE") is a central part of MCE's mission "to address climate change by reducing energy-related Greenhouse Gas ("GHG") emissions and… securing energy efficiency benefits."¹

10 Energy efficiency technologies and program capabilities are progressing rapidly. 11 Advanced metering technology has enabled customers to be in control of how and when they use 12 energy across their properties by integrating energy conservation, EE, distributed generation, and 13 demand response strategies into simple, easy to understand dashboards. These strategies are 14 enabling customers to become a part of the renewable energy solution, turning homes and 15 businesses into providers of grid services and achieving great advancements in attaining zero-net 16 energy for existing buildings. This is firmly in alignment with the Commission's Long Term Energy Efficiency Strategic Plan ("LTEESP").² To respond to these rapid changes, the energy 17 18 provider of the future needs to be much more nimble and locally responsive than utilities of the 19 past. MCE is this energy provider.

- 20
- The testimony adheres to the following topics:
- 21
- Chapter 1 Policy and Program Overview

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¹ The statement adds, "It is the intent of MCE to promote the development and use of a wide range of... energy efficiency programs...." MCE's mission statement available at: <u>http://mcecleanenergy.org/about-us/</u>.

² Marin Clean Energy, Energy Efficiency Business Plan ("Plan") at p. 12.

| 1 | • Chapter 2 – Program Highlights By Sector |
|--------|--|
| 2 | • Chapter 3 – Estimated Energy Savings |
| 3 | Chapter 4 – Energy Efficiency Program Budget |
| 4 5 | 1. The Commission Should Grant MCE's Request to Become the Default Energy Efficiency Program Administrator in Its Service Territory |
| 6 | MCE requests designation as the default program administrator for EE programs in its |
| 7 | service territory. Becoming the default Program Administrator ("PA") of EE programs is |
| 8 | necessary in order to ensure cost effective programs and avoid program overlap. ³ |
| 9 | MCE already offers a variety of EE programs to its customers and others in its service |
| 10 | territory. The California Public Utilities Commission ("Commission") certified portions of |
| 11 | MCE's first EE Plan. ⁴ MCE subsequently applied to administer expanded EE programs to all |
| 12 | ratepayers in its service territory in 2013-2014; the Commission approved an additional \$4.1 |
| 13 | million for MCE's expanded program offerings. ⁵ At the time, the Commission had directed |
| 14 | MCE to focus on gaps in existing Investor Owned Utility ("IOU") programs and hard to reach |
| 15 | market sectors. ⁶ To address policy issues regarding CCA EE Program Administrators ("PAs"), |
| 16 | the Commission established the first guidelines for CCA-administered EE programs and lifted |
| 17 | restrictions on the types of programs CCAs can apply to administer in Decision ("D.") 14-01- |

³ Plan at p. 12.

⁴ Resolution E–4518 certified MCE's energy efficiency plan was in compliance with requirements to administer funding under the Public Utilities Code section 381.1 (e)-(f); this funding was collected from MCE customers and only MCE customers were eligible to be treated under the 2012 program.

⁵ D. 12-11-015 approved MCE to administer funds under PUC code 381.1 (a-d); since these funds were collected from all customers in MCE's service territory, MCE is approved to provide services to all customers regardless of whether or not they participate in MCE's CCA program. ⁶ D. 12-11-015 at p. 45.

1 033. D. 14-01-033 also directed CCA PAs to achieve a Total Resource Cost ("TRC") ratio⁷ 2 equivalent to the Investor Owned Utility ("IOU") PA following the third year of program 3 administration.⁸ With the elimination of previous restrictions and with the advent of the ten year 4 rolling portfolio cycle, MCE seeks to expand its current programs and offer a balanced and 5 comprehensive portfolio of EE offerings to all customers in its service territory as the default 6 PA.⁹

7 MCE is proposing innovative programs, and has balanced its application to meet the cost 8 effectiveness requirements within a smaller, geographically constrained service territory. For the 9 success of MCE's emerging programs, it is important that the incumbent program administrators 10 work as partners, rather than competitors. This will ensure that thirty years of customer 11 relationships and brand recognition built up by the incumbent administrators during the time of 12 monopolized program administration do not translate to an uneven playing field, but instead 13 serve to minimize customer confusion and promote program uptake. Additionally, this will avoid 14 multiple PAs devoting resources to the same project thereby improving the cost effective use of 15 ratepayer funds regionally.

Where there is a need to accommodate statewide programs, MCE should serve as the fiscal agent for activities within its service territory, providing funding and claiming attribution for these programs.¹⁰

19

20

Should the Commission approve its application, MCE will be able to offer robust programs while coordinating with other PAs and implementers. This role will allow MCE to

⁷ The TRC ratio measures the net costs of a demand–side management program as a resource option based on the total costs of the program, including costs incurred by both the participants and the utilities, divided by the total benefits of the program, including energy cost savings. ⁸ Plan at 11.

⁹ Plan at 8.

¹⁰ Plan at 13.

achieve the required TRC, procure energy efficiency as an important resource in the overall
 supply side mix, and provide comprehensive programs to everyone in its member communities.

3

2. MCE's Strategic Advantages Are Grounded In Its Community

4 MCE's success derives from its focus on greenhouse gas mitigation, open and transparent 5 local governance, and strong community partnerships to achieve market penetration.

6 MCE's focus on reducing GHG emissions informs both the procurement strategy for the 7 agency and drives innovation in its EE programming. New programs that integrate demand side 8 reduction technologies will be fully integrated into MCE's EE program, driving down 9 administrative and implementation costs of multiple demand side strategies. MCE will utilize 10 high-efficiency natural gas measures and fuel-switching to achieve greater carbon reductions and 11 speed the transition to renewable energy integration. MCE will also align incentives with market 12 transformation indicators, which will allow MCE to take a long-term approach to EE program 13 planning and envision a future in which ratepayer subsidies are no longer necessary to motivate customer behavior.¹¹ 14

MCE is governed by local elected officials and supported by community leaders and local institutions.¹² As a CCA, MCE is driven by its mission and community input, not by shareholder profit.¹³ Electricity revenue is invested in energy programs that directly benefit constituents without diverting funds to private shareholders. MCE's EE programs are discussed at publicly noticed board meetings, which offer transparency and provide customers the opportunity to give immediate feedback on program design and implementation to both MCE staff and MCE's governing board.

¹¹ Plan at 16-17.

¹² Plan at 18.

¹³ Plan at 17.

1 MCE maximizes the strengths of a flexible, locally connected energy efficiency program 2 by developing a deep understanding of ratepayers' needs through extensive public input. MCE 3 held numerous public workshops over a year to solicit feedback on the proposed 2016 energy 4 efficiency program in various communities within its territory. The feedback provided by MCE's 5 community members from its public meetings is summarized in Appendix E of the Business Plan.¹⁴ Additionally, the Business Plan and Public Implementation Plans went through a rigorous 6 7 multiple-step review process by MCE's board of directors, comprised of elected officials from 8 the local governments that comprise MCE's service territory.

9 MCE relies on partnerships with members of its community to maximize market penetration.¹⁵ MCE collaborates with innovative companies, and activates community-based 10 11 organizations, schools, local companies, religious institutions, and other organizations as drivers 12 of energy efficient behaviors. Partnerships with community-based organizations that employ 13 local residents as part of energy efficiency solutions engage customers not only as ratepayers, but 14 as contractors, employers, workers, and community leaders. This community inclusion leads to 15 behavioral change across many sectors and increased local penetration to maximize program 16 participation.

17 18

3. A Market Analysis of MCE's Service Territory Indicates Robust Opportunities in Multiple Market Sectors

MCE is well-positioned to maximize EE programs in its service territory. First, given that MCE's mission is to reduce greenhouse gas emissions, it is aligned with the current cultural, political, and regulatory goals to the same end.¹⁶ Second, MCE's small size compared to that of

¹⁴ Plan at 76.

¹⁵ Plan at 19.

¹⁶ See e.g., SB 350 (2015), AB 32 (2006), LTEESP.

its competitor allows MCE to be more nimble, responsive, and targeted in its programs. Third,
 MCE's local governance structure and connection to its local community through its board of
 directors and advocate community are strengths because many communities want local control of
 energy services.¹⁷

5 Nearly 90% of all MCE's ratepayers are residential customers. However, the inclusion of 6 new communities into MCE has expanded MCE's customer base to include major agricultural, 7 industrial, and large commercial ratepayers. MCE's high energy-consuming accounts in 8 industrial, agricultural, and commercial make up 50% of its estimated electricity consumption 9 and over 20% of estimated natural gas consumption, representing an equally important 10 opportunity for efficiency.¹⁸ MCE's expanded EE portfolio provides programs designed for all 11 customers in its service territory.¹⁹

12 Construction in the residential sector within MCE's service territory took place primarily 13 between 1950-2000 with close to 50% of the buildings built between 1950 and 1975. The 14 exception is Benicia, which saw its greatest growth in the 1975–1999 timeframe.²⁰ This largely 15 older housing structure indicates significant opportunities for retrofit programs in the residential 16 sector.

MCE's diversity of commercial building vintage is a result of growth limits in Marin while considerable growth and expansion occurred during the same time period in other parts of its service territory, such as Benicia.²¹ These differing periods of growth and construction allow for a wide diversity of opportunities for EE programs' strategies for non-residential buildings.

- ¹⁸ Plan at 22.
- ¹⁹ Plan at 22.

¹⁷ Plan at 18.

²⁰ Plan at 24-25.

²¹ Plan at 25.

MCE exists in a highly regulated industry, with a long-established regulated monopoly as its primary competitor. MCE can provide targeted, relevant service focused on meeting the specific needs of its customers. Further, its small size allows MCE to more readily adapt to new energy savings technologies. By its very structure and scale, MCE can take calculated risks and be innovative in its approach to creating market transformation.

6

B. Business Model

MCE proposes integrated solutions to address demand reduction, including energy efficiency, on-site energy storage, and water reduction measures. This allows MCE to streamline the customer experience with a Single Point of Contact ("SPOC") and also track opportunities for further engagement with individuals via a sophisticated Customer Relationship Management software platform ("CRM").²²

121. The Customer SPOC Enables Straightforward Navigation of13Intersecting Demand Side Reduction Programs

14 Through the SPOC, MCE guides the property owner through the process of adopting 15 energy efficiency measures, from initial contact to project completion. As a facilitator, MCE 16 works with different entities, including community organizations and contractors, to ease the 17 process of adopting energy efficiency measures for property owners (Figure 1).²³

²² Plan at 28.

²³ Plan at 28-29.





3 Through this approach, MCE will effectively remove barriers for property owners and 4 residents that face implementation challenges by providing the following tools and advantages:

• Uniform and bundled presentation of opportunities: MCE will present available incentives for all relevant technologies in an integrated application. With this approach, customers can easily aggregate the measures they are interested in without navigating multiple programs. This allows for efficiency in implementation as well; multiple demand side strategies can be accessed through one customer touch point. MCE also offers to help complete applications for multiple programs, eliminating extra work and information redundancies for customers.

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- **Personalized attention and follow-through**: A SPOC delivery model provides more personalized attention and more follow through to reduce customer confusion and increase project completion rate.
- Project phasing: MCE remains in contact with participating properties over time
 and encourages property owners to implement projects in phases. This allows
 customers to take advantage of large project incentives without having to implement
 improvements all at once. This also helps customers develop a road map for
 efficiency when financial or other limitations do not allow for a fully comprehensive
 retrofit at first.
- Increased financing options: MCE partners with local banks and PACE
 programs to serve building owners who have limited access to private or low-cost
 financing for retrofits and are underserved by the existing marketplace.²⁴
- 132. A CRM Software Platform Supports A Sustained Relationship14Between the Customer's Property and MCE's Programs

15 A sophisticated CRM system allows MCE to comprehensively track a customer's 16 property, the customer's desired programs, costs associated with those programs, and ongoing 17 opportunities.²⁵

The CRM system can integrate customer energy use data with building data to help the SPOCs develop an understanding of the customer's energy saving potential and opportunities. CRM software logs customer interactions to track the SPOC's engagement with the customer and their project over time. By seamlessly integrating the SPOC and CRM systems, MCE's program allows for a rapid feedback loop in tracking the impact of the project and provides

1

2

²⁴ Plan at 29-30.

²⁵ Plan at 30.

opportunities for customers to relay feedback on the program. The CRM will play a crucial role
 in facilitating properties of MCE customers to move toward Zero Net Energy ("ZNE") buildings.

3

Additionally, opportunities for future improvements are recorded in the CRM system every time a customer receives an integrated efficiency assessment. If a customer decides not to take action on a property improvement or replace an inefficient appliance, the energy professional conducting the assessment will collect information to support follow-up when the appliance is closer to end-of-life or when a new incentive or technology arises. This increases the likelihood that non-early adopters will consider efficient equipment at future key trigger points, such as at times of equipment failure or refinancing.

10 11

3. MCE's Multi-Step Customer Value Chain Provides Robust Opportunities for Engagement

MCE provides many opportunities for robust engagement with its programs and offerings through: targeted outreach to customers; customized assessments of properties; aggregating local, regional, statewide, and national rebates and incentives through the SPOC; offering lowcost financing; providing technical assistance; partnering with local workforce development organizations; and rigorously evaluating program performance.²⁶

17 ///

²⁶ Plan at 30-31.

CHAPTER 2: PROGRAM HIGHLIGHTS BY SECTOR

MCE proposes a highly integrated delivery of programs organized by sector (i.e. residential, agricultural, commercial). Each of the programs has specific strategies, but these are not intended as discrete programs; rather they are complimentary approaches which can be employed seamlessly depending on the best fit for the customer. In this section, MCE summarizes key program activities by sector:

- 7 Multifamily Residential
- 8 Single-family Residential
- 9 Industrial
- 10 Agricultural
- 11 Commercial

Many of these programs contain cross-cutting strategies which have been embedded into the discrete program sectors, including emerging technology and financing programs. In addition, MCE supports the success of its energy efficiency programs with complementary workforce development and training. A workforce development strategy will support all of MCE's EE programs, and though embedded within each program it is also discussed separately to describe the distinct strategy that MCE will deploy.

18

A. Multifamily Residential Program²⁷

19 Several key barriers inhibit energy efficiency upgrades in multi-family residential 20 buildings. One is the split incentive structure, where owners bear the investment costs for energy 21 consuming equipment or conservation upgrades while tenants receive the savings.

²⁷ Plan at 34-37.

| 1 | MCE's phased approach, enabled by the SPOC and the CRM system, allows owners to |
|----|---|
| 2 | plan larger projects that take advantage of maximum incentive levels but are implemented over |
| 3 | time, as tenants turn over. A combination of light-touch, bundled, and customized measures |
| 4 | helps to accommodate the specialized needs of each multi-family building upgrade opportunity. |
| 5 | Core activities of MCE's multifamily residential program include: |
| 6 | • Provide participants with a SPOC that specializes in multifamily properties to |
| 7 | serve as a facilitator and participant advocate, guiding property owners through |
| 8 | the process from initial contact to project completion. |
| 9 | • Develop an integrated assessment process that streamlines multiple program |
| 10 | offerings into one customer report. |
| 11 | • Deploy sophisticated CRM software, allowing for an ongoing relationship |
| 12 | between the property and the program. |
| 13 | MCE's multifamily residential program is characterized by these key innovations: |
| 14 | • Integrate energy savings and on-site generation opportunities to help property |
| 15 | owners see the full benefit of project upgrades, rather than isolated opportunities |
| 16 | by savings type. |
| 17 | • Enable building owners to capitalize on savings for large projects through project |
| 18 | phasing to allow property owners to complete improvements over time, as tenants |
| 19 | turn over. |
| 20 | • Encourage and reward a more comprehensive scope of work through a point- |
| 21 | based incentive structure, allowing property owners to identify potential rebates |
| 22 | based on planned improvements. |

Table 1. Multifamily Program Budget and Savings Summary (Years 1-4)²⁸

| Multifamily Summary | Year 1 | Year 2 | Year 3 | Year 4 |
|-------------------------------|------------------------------|-------------------------------|-------------------------------|---------------------------------|
| Total Resource Cost | 1.08 | | | 43 |
| Program Administrator Cost | 1.12 | | 1.60 | |
| Budget | \$1,017,403 | \$1,903,090 | \$2,050,768 | \$2,285,284 |
| Estimated Savings (Gross) | 210,714 kWh 42,819 therms | 631,653 kWh 127,774 therms | 918,695 kWh 201,192 therms | 1,144,949 kWh 232,502 therms |

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B. Single-Family Residential Program²⁹

3 MCE's proposed single-family program offers one-off rebates to customers who have 4 financial or structural barriers that prevent them from participating in Energy Upgrade 5 California: Home Upgrade Program. MCE also provides incentives and technical assistance to 6 customers who want to upgrade to ZNE. The program aims to help the highest energy users 7 reduce their consumption with energy management tools. Online tools and real-time feedback on 8 utility reports are emerging tactics that can help influence a family's interaction with energy use. 9 Core activities of MCE's single-family residential program include: 10 Provide participants with a SPOC who specializes in single-family residential • 11 properties to serve as a facilitator and participant advocate, guiding homeowners 12 through the process from initial contact to project completion. 13 Offer financing and rebates to help overcome upfront cost barriers. • 14 Provide the highest consuming customers with information about how they use •

- 15 energy and advice for how to reduce consumption.
- 16 MCE's single-family residential program is characterized by these key innovations:

²⁸ Plan at 34.

²⁹ Plan at 38-40.

| 1 | • An online portal that provides a one-stop-shop for customers to (i) understand |
|----|---|
| 2 | energy usage; (ii) identify upgrade opportunities; (iii) search available rebates and |
| 3 | licensed contractors; and (iv) perform cost comparisons of energy efficiency |
| 4 | appliances. |
| 5 | • Access to one-off energy efficiency rebates for homeowners who have financial |
| 6 | or structural barriers that prevent them from participating in Energy Upgrade |
| 7 | California: Home Upgrade Program. |
| 8 | • Additional incentives and technical assistance to educate and enable ZNE |
| 9 | customers to improve their homes' efficiency beyond code. |
| 10 | • Home Utility Reports that help the highest energy customers reduce their energy |
| 11 | consumption by providing a comparison to similar homes nearby. |
| 12 | • Online social networking platforms that stimulate behavior changes by utilizing |
| 13 | tactics such as competitions and do-it-yourself ("DIY") tutorials on a YouTube |
| 14 | channel. |
| 15 | Table 1. Single Family Program Budget and Savings Summary (Years 1-4) ³⁰ |
| | |

| Single Family Summary | Year 1 | Year 2 | Year 3 | Year 4 |
|-------------------------------|------------------------------|------------------------------|---------------------------------|---------------------------------|
| Total Resource Cost | 0.98 | | 1.77 | |
| Program Administrator Cost | 0.94 | | 1.80 | |
| Budget | \$1,261,007 | \$1,787,024 | \$1,882,828 | \$2,028,090 |
| Estimated Savings (Gross) | 492,451 kWh 39,177 therms | 946,222 kWh 94,796 therms | 1,235,809 kWh 134,150 therms | 1,464,787 kWh 166,734 therms |

³⁰ Plan at 38.

C. Industrial Program³¹

| 2 | Industrial activities vary significantly by region within MCE's territory, though most |
|----|---|
| 3 | present major opportunities for energy use reduction, water conservation, and distributed |
| 4 | generation. The high-intensity energy demand of on-site food production and processing makes |
| 5 | many agricultural sites ineligible for agricultural accounts, and instead these sites are enrolled in |
| 6 | either the industrial or commercial rate classes. MCE's Industrial Program is designed to serve |
| 7 | both manufacturing and refinery facilities as well as large agricultural producers. Industrial |
| 8 | customers are 0.3% of all MCE accounts, and its annual electricity consumption is estimated to |
| 9 | be 18% of electricity consumption by all customer accounts. ³² |
| 10 | Core activities of MCE's industrial program include: |
| 11 | • Provide participants with a SPOC who specializes in industrial properties to serve |
| 12 | as a facilitator and customer advocate and to help guide business owners through |
| 13 | the process from initial contact to project completion. |
| 14 | • Offer financing and rebates to help overcome upfront cost barriers. |
| 15 | • Offer technical assistance on energy efficiency measure selection, project |
| 16 | planning, and project management. |
| 17 | • Use billing data and building characteristics to identify the highest energy users |
| 18 | for targeted outreach. |
| 19 | • Utilize one-off or widget rebates as a marketing strategy to enroll new customers. |
| 20 | MCE's industrial program offers these key innovations: |
| 21 | • Partnerships with existing Green Certification Programs to promote energy |
| 22 | efficiency industries. |

 $\frac{^{31}}{^{32}} \frac{\text{Plan at 41-43.}}{^{32}} \frac{1}{^{32}} \frac{1}{^{3$

- A Continuous Improvement Peer Advisory group that offers training within a
 particular industry and shares best practices.
 - Pay-for-performance incentives.

 Table 2. Industrial Program Budget and Savings Summary (Years 1-4)³³

| Industrial Summary | Year 1 | Year 2 | Year 3 | Year 4 | |
|-------------------------------|-----------------------------|------------------------------|--------------------------------|--------------------------------|--|
| Total Resource Cost | 0. | 90 | 1.40 | | |
| Program Administrator Cost | 0.95 | | 1.63 | | |
| Budget | \$645,254 | \$679,209 | \$658,836 | \$681,777 | |
| Estimated Savings (Gross) | 561,260 kWh 7,779 therms | 831,285 kWh 17,827 therms | 1,392,544 kWh 25,606 therms | 1,029,529 kWh 22,365 therms | |

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6

D. Agricultural Program³⁴

MCE's Agricultural Program is designed to serve customers whose primary activity is
farming as well as to integrate with customers served under the Commercial Program or
Industrial Program that can also benefit from energy reductions on their agricultural lands.

MCE's Agricultural Program focuses on dairies and vineyards, the region's largest agricultural users. The seasonal nature of agricultural operations affects the cash flow of these businesses as well as the timing of when equipment is available to be upgraded. MCE can ramp up the activity of its Agricultural Program during the slow production seasons. Integrated on-site generation solutions capitalize on Feed-in Tariffs ("FIT") or Net Energy Metering ("NEM") during the off-season and supplement customer energy needs during periods of high production.

³³ Plan at 41.

³⁴ Plan at 44-46.

| 1 | Agricultural accounts constitute 1% of all MCE customer accounts, and makes up 1% of |
|----|--|
| 2 | electricity consumption of all MCE customer accounts. ³⁵ |
| 3 | Core activities of MCE's agricultural program include: |
| 4 | • Provide participants with a SPOC who specializes in agricultural properties to |
| 5 | serve as a facilitator and customer advocate and to help guide business owners |
| 6 | through the process from initial contact to project completion. |
| 7 | • Develop an integrated assessment process that streamlines multiple program |
| 8 | offerings into one customer report. |
| 9 | • Offer financing and rebates to help overcome upfront cost barriers. |
| 10 | • Provide technical assistance to develop customized energy upgrade projects that |
| 11 | meet the needs of the customer. |
| 12 | MCE's agricultural program offers these key innovations: |
| 13 | • Leverage existing certification programs to increase demand for green agricultural |
| 14 | practices. |
| 15 | • Design program and financing options that consider seasonal work cycles, which |
| 16 | impact cash flow and equipment use. |
| 17 | • Coordinate with the multi-family residential program to provide farmworker |
| 18 | housing energy efficiency assistance. |

³⁵ Plan at 24.

Table 3. Agricultural Program Budget and Savings Summary (Years 1-4)³⁶

| Agricultural Summary | Year 1 | Year 2 | Year 3 | Year 4 | |
|-------------------------------|-----------------------------|------------------------------|------------------------------|------------------------------|--|
| Total Resource Cost | 0. | 89 | 0.96 | | |
| Program Administrator Cost | 0.88 | | 0.99 | | |
| Budget | \$486,988 | \$749,686 | \$716,280 | \$733,800 | |
| Estimated Savings (Gross) | 482,778 kWh 9,450 therms | 808,062 kWh 18,900 therms | 565,167 kWh 31,104 therms | 760,222 kWh 31,104 therms | |

3

1

E. Commercial Program³⁷

4 MCE's Commercial Program is designed to serve both large and small commercial 5 customers. The program acknowledges inherent differences in opportunities between small and 6 large commercial properties, and emphasizes integrating diverse program offerings under one 7 umbrella while tailoring approaches to address distinct barriers. For small commercial 8 customers, a major barrier is the split incentive where landlords own the equipment but tenants 9 pay energy costs. For larger commercial properties, energy costs are generally a small proportion 10 of overall operating expenditures and dollar savings alone may not be enticing enough for these 11 customers to take action. Energy improvements must appeal to other company objectives, such 12 as corporate social responsibility and community visibility. Overall, commercial customers make 13 up 10% of all MCE customer accounts, and this sector's electricity consumption is estimated to be 31% of consumption by all MCE customer accounts.³⁸ 14

15

Core activities of MCE's commercial program include:

³⁶ Plan at 44.

³⁷ Plan at 47-49.

³⁸ Plan at 24.

| 1 | • Provide participants with a SPOC who specializes in commercial properties to |
|--|--|
| 2 | serve as a facilitator and customer advocate and to help guide business owners |
| 3 | through the process from initial contact to project completion. |
| 4 | • Rely on data driven outreach to improve MCE's sales approach. |
| 5 | • Provide low- or no-cost audits for small commercial properties with limited |
| 6 | financial resources. |
| 7 | • Provide extensive audits with customizable incentives for larger properties. |
| 8 | • Develop an integrated assessment process that streamlines multiple program |
| 9 | offerings into one customer report. |
| 10 | • Deploy user-friendly CRM software that supports ongoing relationships between |
| 11 | the business and the program. |
| | |
| 12 | MCE's commercial program offers these key innovations: |
| 12 13 | MCE's commercial program offers these key innovations:Innovative behavioral approaches that leverage web-based tools and software |
| 12 13 14 | MCE's commercial program offers these key innovations: Innovative behavioral approaches that leverage web-based tools and software programs. Depending on demand, offerings could also include competitions and |
| 12 13 14 15 | MCE's commercial program offers these key innovations: Innovative behavioral approaches that leverage web-based tools and software programs. Depending on demand, offerings could also include competitions and campaigns, social media, green teams, and interactive dashboards. |
| 12 13 14 15 16 | MCE's commercial program offers these key innovations: Innovative behavioral approaches that leverage web-based tools and software programs. Depending on demand, offerings could also include competitions and campaigns, social media, green teams, and interactive dashboards. Leverage existing and forthcoming benchmarking regulations as a means to assist |
| 12 13 14 15 16 17 | MCE's commercial program offers these key innovations: Innovative behavioral approaches that leverage web-based tools and software programs. Depending on demand, offerings could also include competitions and campaigns, social media, green teams, and interactive dashboards. Leverage existing and forthcoming benchmarking regulations as a means to assist customers to (i) compare their usage to their peers and best-in-class operations, |
| 12 13 14 15 16 17 18 | MCE's commercial program offers these key innovations: Innovative behavioral approaches that leverage web-based tools and software programs. Depending on demand, offerings could also include competitions and campaigns, social media, green teams, and interactive dashboards. Leverage existing and forthcoming benchmarking regulations as a means to assist customers to (i) compare their usage to their peers and best-in-class operations, and (ii) to incentivize upgrades and enhancements. |
| 12 13 14 15 16 17 18 19 | MCE's commercial program offers these key innovations: Innovative behavioral approaches that leverage web-based tools and software programs. Depending on demand, offerings could also include competitions and campaigns, social media, green teams, and interactive dashboards. Leverage existing and forthcoming benchmarking regulations as a means to assist customers to (i) compare their usage to their peers and best-in-class operations, and (ii) to incentivize upgrades and enhancements. Offer financing options through MCE on-bill repayment to improve small |
| 12 13 14 15 16 17 18 19 20 | MCE's commercial program offers these key innovations: Innovative behavioral approaches that leverage web-based tools and software programs. Depending on demand, offerings could also include competitions and campaigns, social media, green teams, and interactive dashboards. Leverage existing and forthcoming benchmarking regulations as a means to assist customers to (i) compare their usage to their peers and best-in-class operations, and (ii) to incentivize upgrades and enhancements. Offer financing options through MCE on-bill repayment to improve small commercial customers' access to capital, one of the primary barriers for energy |
| 12 13 14 15 16 17 18 19 20 21 | MCE's commercial program offers these key innovations: Innovative behavioral approaches that leverage web-based tools and software programs. Depending on demand, offerings could also include competitions and campaigns, social media, green teams, and interactive dashboards. Leverage existing and forthcoming benchmarking regulations as a means to assist customers to (i) compare their usage to their peers and best-in-class operations, and (ii) to incentivize upgrades and enhancements. Offer financing options through MCE on-bill repayment to improve small commercial customers' access to capital, one of the primary barriers for energy efficiency upgrades in the small commercial sector. |

Table 4. Commercial Program Budget and Savings Summary (Years 1-4)³⁹

| Commercial Summary | Year 1 | Year 2 | Year 3 | Year 4 | |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| Total Resource Cost | Resource Cost 0.99 1.32 | | | | |
| Program Administrator Cost | 0. | 95 | 1.70 | | |
| Budget | \$1,281,695 \$1,538,746 | | \$1,944,654 | \$2,118,631 | |
| Estimated Savings (Gross) | 1,127,513 kWh 32,204 therms | 1,812,079 kWh 47,649 therms | 2,607,821 kWh 60,529 therms | 3,165,620 kWh 83,512 therms | |

1

3

F. Workforce Development⁴⁰

MCE supports the success of its energy efficiency programs with complementary workforce development and training. A trained workforce is essential to accomplishing market transformation, and MCE's growing network of trained local contractors can help achieve deeper market penetration by identifying trigger events that could bring customers to the energy efficiency program.

9 MCE's goal is to create meaningful employment pathways for workers who are new or 10 recently returning to the workforce. MCE engages community partners (i) to ensure the inclusion 11 of workers from disadvantaged communities; (ii) to build on existing success in the region; (iii) 12 to fill gaps in service; and (iv) to provide meaningful local workforce opportunities in connection 13 to MCE's EE and renewable energy projects. To date, MCE has contracted more than \$250,000 14 with RichmondBUILD, the Marin City Community Development Corporation, Rising Sun 15 Energy Center, and others to train and provide local workers to implement energy upgrades for 16 our energy efficiency programs.

17

Core activities of MCE's workforce development program include:

³⁹ Plan at 47.

⁴⁰ Plan at 50-52.

| 1 | • Work with local experts to align, leverage, and influence existing training |
|----|---|
| 2 | programs and energy efficiency markets in MCE's service territory. |
| 3 | • Offer stackable credential programs that provide workers with a broad spectrum |
| 4 | of transferable skills that qualify them for a variety of clean energy jobs. |
| 5 | • Provide on- and off-ramp from the program to careers for workers of varying |
| 6 | levels of experience and ambition. |
| 7 | MCE's workforce development program provides these community benefits: |
| 8 | • Skilled workers ensure that efficiency gains are met and that health and safety |
| 9 | issues are addressed. |
| 10 | • Marketing, education, and outreach activities increase the demand for skilled |
| 11 | labor in the region. |
| 12 | • Increase in skilled labor creates spillover ⁴¹ benefits for the whole community, not |
| 13 | just program participants. |
| 14 | /// |

⁴¹ Spillover is defined as "savings caused by the presence of the program but beyond programrelated savings." Energy Efficiency Policy Manual (v.5) at 56.

CHAPTER 3: ESTIMATED ENERGY SAVINGS

2 This section describes the methodology utilized by MCE to arrive at energy savings 3 targets that are both achievable and cost-effective. MCE first estimated likely participation rates to identify achievable savings targets within its service territory. MCE then developed a set of 4 5 measures for inclusion into the portfolio based on the Database for Energy Efficient Resources ("DEER"); the Commercial End–Use Survey ("CEUS");⁴² and Residential Appliance Saturation 6 Survey ("RASS")⁴³ data on appliances and energy use, the age and types of buildings in the 7 service territory, and past program data on the most common measures.⁴⁴ Finally, MCE utilized 8 all of this information to develop a robust set of $E3^{45}$ calculators that calculates the ratio of 9 10 estimated program benefits relative to estimated program costs.

11

A. Estimated Participation Rates⁴⁶

MCE estimated participation rates based on current energy efficiency program participation and past program data, and is confident in its ability to enroll customers at the rates noted. The following tables describe MCE's anticipated market participation over the next 10 years.

- 16
- 17

⁴² CEUS is a comprehensive study of commercial sector energy use, primarily designed to support the state's energy demand forecasting activities. The data was published in 2006, and the study was funded by the California Energy Commission.

⁴³ RASS is a residential mail survey that requested information on appliances, equipment, and general consumption patterns from California households. The most recent round of data collection was completed in 2010. The survey was funded and administered by the California Energy Commission.

⁴⁴ Plan at 53.

⁴⁵ The E3 calculator was developed for the CPUC to use in calculating the program cost to benefit ratios.

⁴⁶ Plan at 53.

 Table 5. Estimated Program Participation Rates (by Percent of All Accounts)

| Sector | 2–year Interval | 5–year Interval | 10–year Interval |
|--------------|--------------------|--------------------|---------------------|
| Residential | 0.25% | 1% | 3% |
| Commercial | 0.25% | 1% | 3% |
| Industrial | 0.50% | 2% | 6% |
| Agricultural | 0.50% | 2% | 6% |

MCE predicted participation rates in its EE programs for years 1-2, 3-5, and 6-10 (Table 6.) MCE predicts deeper market penetration over time. Anticipated ZNE participation is estimated over the life of the energy efficiency program and is not broken out by year.

These participation percentages were applied to the number of overall customer accounts
in MCE service territory to determine the number of customers the program will serve in each
customer segment, as displayed in the table below.

9

 Table 6. Estimated Program Participation Rates (by Number of Customers)⁴⁸

| Sector | 2-year Interval | 5–year Interval | 10–year Interval |
|--------------|--------------------|--------------------|---------------------|
| Residential | 586 | 2,344 | 7,032 |
| Commercial | 69 | 275 | 825 |
| Industrial | 4 | 17 | 50 |
| Agricultural | 10 | 42 | 125 |

10

11

B. Estimated Energy Savings Intensity⁴⁹

12 MCE anticipates mixed levels of actual energy savings from customers due to the varying

13 intensity of their individual efficiency projects. For most participants, per participant savings

²

⁴⁷ Plan at 54.

⁴⁸ Plan at 54.

⁴⁹ Plan at 54.

estimates range from 5% (low) to 10% (medium). For participants reaching for ZNE, MCE
 estimates that savings range from 30% to 70%.

3

C. Energy Efficiency Measures List⁵⁰

MCE developed a set of measures for inclusion into the energy savings portfolio based on the Database for Energy Efficient Resources ("DEER"), the California Commercial End-Use Survey ("CEUS") and Residential Appliance Saturation Study ("RASS") data on appliances and energy use, the age and types of buildings in the MCE service territory, and past program data on the most common measures. This measure list was used when populating the E3 calculator.

9

D. Declining Incentives Structure⁵¹

MCE plans to reduce incentives over time, following market trends indicating that customers rely less on financial incentives as motivation to implement specific energy efficiency measures and upgrades increases. Program participation benchmarks will trigger reductions in rebates based on the participation target. MCE estimates that these triggers will take place over the timeline below.

⁵⁰ Plan at 55.

⁵¹ Plan at 55.



Figure 2. Declining Incentive Structure Over Time⁵²

The timeline is dependent on participation rates. The figure below shows the relationship 3 4 between declining incentives and participation rates. Participation rates are defined as a percent of the 10-year participation goal. E3 calculators were developed to reduce incentives following 5 the trajectory depicted below. 6



Figure 3. Declining Incentives Tied to Participation Rates⁵³

1

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7

⁵² Plan at 54. ⁵³ Plan at 54.

E. Estimated Savings and Cost-Effectiveness⁵⁴

MCE estimated the total savings potential for the program by applying the percentage savings estimates to the average customer usage by sector at the assumed participation rates. Consumption estimates for MCE's accounts were based on historic utility account information by climate zone.

Once an estimate of feasible energy savings was achieved, MCE developed E3 calculators.⁵⁵ MCE's cost effectiveness calculations utilize the assumed participation rates and measures to arrive at the energy savings targets that allow MCE to achieve a cost-effective portfolio within the first 2 years. MCE expects an initial TRC close to 1.0 for the first year of implementation with improving cost effectiveness over time as participation rates increase and rebates decrease. Over the entire 10 year planning horizon in the business plan, MCE anticipates achieving a cost-effectiveness ratio of at least 1.25 (Table 8).



⁵⁴ Plan at 55.

⁵⁵ The E3 calculator is a spreadsheet–based tool developed by the CPUC that calculates the cost effectiveness of energy efficiency program portfolios according to several cost effectiveness tests, including the TRC.

⁵⁶ Plan at 65.

Electric (kWh) Savings

| | | Years | s 1–2 | Years 3–4 | | Years 5–10 | | Cumulative | |
|-----------|---|--|---|--|---|--|---|--|--|
| Program # | Main Program Name / Sub– Programs | EE Program Gross kWh Savings | % of Total Portfolio Savings Goal | EE Program Gross kWh Savings | % of Total Portfolio Savings Goal | EE Program Gross kWh Savings | % of Total Portfolio Savings Goal | Ten Year EE Program Gross kWh Savings | % of Total Portfolio Savings Goals |
| MCE01 | Residential Single Family | 1,438,673 | 18% | 2,700,596 | 19% | 7,888,020 | 16% | 7,888,020 | 16% |
| MCE02 | Residential Multifamily | 842,367 | 11% | 2,063,644 | 15% | 6,126,574 | 13% | 6,126,574 | 13% |
| MCE03 | Commercial | 2,939,592 | 37% | 5,773,441 | 41% | 20,473,964 | 42% | 20,473,964 | 42% |
| MCE04 | Industrial | 1,392,544 | 18% | 2,230,556 | 16% | 10,586,498 | 22% | 10,586,498 | 22% |
| MCE05 | Agricultural | 1,290,839 | 16% | 1,325,389 | 9% | 3,677,879 | 8% | 3,677,879 | 8% |
| Total | | 7,904,016 | 100% | 14.093.625 | 100% | 48,752,934 | 100% | 48,752,934 | 100% |

Table 10. Demand (kW) Savings (Portfolio Wide, Years 1-10)⁵⁸

Demand (kW) Savings

| | | Years 1–2 | | Years 3-4 | | Years 5–10 | | Cumulative | |
|-----------|---|--------------------------------------|---|--------------------------------------|---|--------------------------------------|---|--|--|
| Program # | Main Program Name / Sub– Programs | EE Program Gross kW Savings | % of Total Portfolio Savings Estimate | EE Program Gross kW Savings | % of Total Portfolio Savings Goal | EE Program Gross kW Savings | % of Total Portfolio Savings Goal | Ten Year EE Program Gross kW Savings | % of Total Portfolio Savings Goals |
| MCE01 | Residential Single Family | 88 | 26% | 340 | 43% | 1,026 | 46% | 1,454 | 43% |
| MCE02 | Residential Multifamily | 18 | 5% | 92 | 12% | 216 | 10% | 326 | 10% |
| MCE03 | Commercial | 96 | 29% | 202 | 26% | 423 | 19% | 721 | 21% |
| MCE04 | Industrial | 46 | 14% | 72 | 9% | 336 | 15% | 454 | 13% |
| MCE05 | Agricultural | 86 | 26% | 76 | 10% | 246 | 11% | 408 | 12% |
| Total | | 334 | 100% | 782 | 100% | 2,247 | 100% | 3,363 | 100% |

⁵⁷ Plan at 63. ⁵⁸ Plan at 63.

Gas (therm) Savings

| | | Years 1–2 | | Years 3–4 | | Years 5–10 | | Cumulative | |
|-----------|---|--|---|--|---|--|---|--|--|
| Program # | Main Program Name / Sub– Programs | EE Program Gross Therm Savings | % of Total Portfolio Savings Goal | EE Program Gross Therm Savings | % of Total Portfolio Savings Goal | EE Program Gross Therm Savings | % of Total Portfolio Savings Goal | Ten Year EE Program Gross Therm Savings | % of Total Portfolio Savings Goals |
| MCE01 | Residential Single Family | 133,973 | 31% | 300,884 | 31% | 823,047 | 26% | 1,257,904 | 27% |
| MCE02 | Residential Multifamily | 170,593 | 39% | 433,694 | 44% | 1,584,797 | 50% | 2,189,085 | 48% |
| MCE03 | Commercial | 79,853 | 18% | 144,041 | 15% | 330,278 | 10% | 554,171 | 12% |
| MCE04 | Industrial | 25,606 | 6% | 42,998 | 4% | 202,287 | 6% | 270,891 | 6% |
| MCE05 | Agricultural | 28,350 | 6% | 62,208 | 6% | 241,704 | 8% | 332,262 | 7% |
| Total | | 438,375 | 100% | 983,824 | 100% | 3,182,112 | 100% | 4,604,312 | 100% |

2

1

4. **Risk Mitigation**⁶⁰

The energy savings and associated cost effectiveness of the business plan assume that participation levels will continue to increase even as incentives decrease over time. This model has succeeded before when the California Solar Initiative demonstrated that increased market participation can result in decreased material and labor expenses. Emerging technology programs have also demonstrated a similar trajectory. However, in order to meet required cost effectiveness levels in later years of implementation, these assumptions must hold.

9 Therefore, MCE proposes a reconsideration of budget and incentive levels in the event 10 that assumptions underpinning the portfolio do not hold true. MCE will be responsible for 11 monitoring overall cost effectiveness of the portfolio. Variation in measure by measure 12 implementation can be managed through fund shifting or adjustment of incentives on individual 13 measures, which will be reported on an annual basis. However, if the level of fund shifting or 14 incentive adjustment required to maintain cost effectiveness exceeds the levels allowed by

⁵⁹ Plan at 64.

⁶⁰ Plan at 55.

Commission policy, then MCE will be required to re-evaluate the logic of its Business Plan.
 MCE proposes that the re-evaluation to be vetted first with CPUC identified stakeholder groups
 and MCE's community and governing body, then the revised Business Plan would be brought to
 Commission staff and ultimately the Commission for approval.
 ///

1 **CHAPTER 4: ENERGY EFFICIENCY PROGRAM BUDGET**

2 MCE estimates a ramp-up period will be needed for its programs. Budget and staffing 3 information has been presented for the first few years of portfolio implementation. Staffing is assumed static after year three, and further updates will be made with annual filings.⁶¹ 4

5

Figure 3. MCE Staffing Needs in 2017⁶²



6

Figure 4. MCE Staffings Needs in 2018 and Beyond⁶³





⁶² Plan at 66.

⁶³ Plan at 66.

| Program # | Main Program Name / Sub– Programs | Total Administrative Cost (Actual) | Total Marketing & Outreach (Actual) | Estimated Total Direct Implementation (Customer Services) | Estimated Direct Implementation (Incentives & Rebates) | Total Direct Implementation (Actual) | Total Budget By Progran (Actual |
|--------------|---|--|--|---|--|--|---|
| MCE01 | Residential Single Family | \$287,072 | \$301,570 | \$1,446,437 | \$897,918 | \$2,344,355 | \$2,932,99 |
| MCE02 | Residential Multifamily | \$272,289 | \$353,585 | \$1,343,376 | \$842,210 | \$2,185,586 | \$2,811,45 |
| MCE03 | Commercial | \$262,621 | \$373,923 | \$995,603 | \$1,088,294 | \$2,083,897 | \$2,720,44 |
| MCE04 | Industrial | \$124,419 | \$138,628 | \$670,068 | \$338,950 | \$1,009,019 | \$1,272,06 |
| MCE05 | Agricultural | \$112,578 | \$98,467 | \$623,127 | \$352,552 | \$975,679 | \$1,186,72 |
| | Total | | | | | | \$10,923,68 |
| | EM&V | | | | | | \$426.414 |

 Table 11. Overall Program Budget (Years 1-2)⁶⁴

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1

 Table 12. Overall Program Budget (Years 3-4)⁶⁵

| Program # | Main Program Name / Sub– Program | Total Administrative Cost (Actual) | Total Marketing & Outreach (Actual) | Estimated Total Direct Implementation (Customer Services) | Estimated Direct Implementation (Incentives & Rebates) | Total Direct Implementation (Actual) | Total Budget By Program (Actual) |
|--------------|--|--|--|---|--|--|--|
| MCE01 | Residential Single Family | \$373,277 | \$271,570 | \$1,766,541 | \$1,350,014 | \$3,116,555 | \$3,761,401 |
| MCE02 | Residential Multifamily | \$414,247 | \$449,557 | \$1,576,510 | \$1,729,921 | \$3,306,430 | \$4,170,235 |
| MCE03 | Commercial | \$400,000 | \$322,152 | \$1,719,642 | \$1,461,491 | \$3,181,133 | \$3,903,285 |
| MCE04 | Industrial | \$125,008 | \$138,628 | \$642,682 | \$379,063 | \$1,021,745 | \$1,285,381 |
| MCE05 | Agricultural | \$132,578 | \$103,467 | \$748,127 | \$404,582 | \$1,152,709 | \$1,388,754 |
| | Total | | | | | | \$14,509,055 |
| | EM&V | | | | | | \$591,893 |

3

4 5

A. Anticipated Inclusion of New Communities Within MCE's Service Territory Will Necessarily Affect Program Budgets

6 MCE often receives requests from new communities that seek to join its CCA program.

- 7 MCE anticipates that some of these communities may eventually join its service territory after a
- 8 series of evaluations, public notices, and public votes by each community's elected officials. To

⁶⁴ Plan at 61.

⁶⁵ Plan at 61. Program budget years 5-7 and 8-10 are provided in the Plan at 62.

ensure that MCE retains the ability to provide EE services to all its customers, MCE proposes a
 budget expansion mechanism designed to facilitate streamlined delivery of service to customers
 in its new communities.

4 In a year when MCE incorporates new customer accounts into its CCA program, MCE 5 proposes to file an annual budget filing that will also include an expanded budget request to 6 proportionally increase the budget to match its larger service territory. Since not all customer 7 sectors can be served with the same proportional spend, MCE will request to maintain the 8 spending level per customer account, differentiated by residential customers and non-residential 9 customers. This mechanism will maintain the appropriate spending level per customer sector and 10 provide sufficient resources to continue offering EE programs to all customers in its service territory.66 11

12 ///

⁶⁶ Plan at 58.

| 1 | APPENDICES |
|--------|--|
| 2 3 | Appendix A Statement of Qualifications of Rebecca Menten |
| 4 | Q1: Ms. Menten, please state your name, position, and address. |
| 5 | A1: My name is Rebecca Menten. I am the Energy Efficiency Director at Marin Clean Energy |
| 6 | (MCE). My business address is 1125 Tamalpais Avenue, San Rafael, California 94901. |
| 7 | Q2: Please describe your background. |
| 8 | A2: I am a full-time employee with MCE where I fulfill the role of Director of Energy |
| 9 | Efficiency. I have overseen the design, authorization, and implementation of energy efficiency |
| 10 | programs that focus on hard-to-reach customers and possess innovative and unique program |
| 11 | designs. Prior to this, I worked at the California Public Utilities Commission (CPUC) as a |
| 12 | Research Fellow in which my primary duties included assisting in the design and development of |
| 13 | low-income multifamily programs. I also worked on financing programs while at the CPUC. I |
| 14 | have also worked as an Energy Efficiency Specialist (II) at the California Energy Commission |
| 15 | (CEC) in the High Performance Building Standards Group. At the CEC, I served as Contract |
| 16 | Manager for the Local Government Commission contract, an American Recovery and |
| 17 | Reinvestment Act contract, which funded the statewide Energy Upgrade California activities. I |
| 18 | also served as the point person on energy efficiency financing. My final duties at the Energy |
| 19 | Commission involved serving as Program Manager for the Existing Buildings Energy Efficiency |
| 20 | Program. I also hold a Masters in Science from Humboldt State University. My resume is |
| 21 | attached as Exhibit B. |
| 22 | Q3: What is the purpose of your testimony? |

Testimony of Marin Clean Energy Appendix A-1

1 A3: As the Director of MCE's Energy Efficiency Programs, I am applying for funding for 2 MCE's 2016 and Beyond Energy Efficiency Programs. MCE is well poised to be the primary 3 provider for energy efficiency services in our territory with our deep understanding of and 4 connections to various communities in our territory, and our ability to be nimble and responsive 5 to our customers.

6 Q4: Does this conclude your statement of qualifications?

7 A4: Yes, it does.

Appendix B

Resume of Rebecca Menten

Testimony of Marin Clean Energy Appendix B-1

Rebecca Menten

Energy Efficiency Director, Marin Clean Energy 1125 Tamalpais Ave, San Rafael, 94901

Education

Humboldt State University

M.S. Environmental Systems: Energy, Environment, and Society

"Municipal Financing Programs as an Option to Overcoming Barriers to Energy Efficiency"

Interdisciplinary program focused on energy policy and climate change mitigation. Special research focuses include state and federal climate change legislation and program proposals. Thesis research on the applicability of PACE financing programs to resolve barriers to implementation of energy efficiency.

Humboldt State University

B.A. Political Science

Critical thinking and writing skills. Special focus in appropriate development, political economy, and political theory. Graduated *summa cum laude*.

Humboldt State University

B.A. French Language

French language studies with a concentration in African literature. One year abroad in France; one month abroad in Morocco. Graduated *summa cum laude*.

Work Experience

• Energy Efficiency Director: Marin Clean Energy

Leads energy efficiency activities for California's first community choice aggregator. Provides policy and program design for proceedings at the California Public Utilities Commission. Oversees implementation, ensuring compliance with applicable regulatory guidelines and reporting timeframes. Leads design of 2016 program planning, including an integrated program design with wide resource conservation implications.

May 2010

May 2007

May 2006

Sep. 2012 – Present

| Commission Specialist II (Efficiency): California Energy | Feb. 2011– Sep. 2012 |
|--|-----------------------|
| Commission | |
| Program Manager and financing lead for the Existing Building | |
| Program (AB 758). Developed program work plan, managed | |
| resources, and coordinated with stakeholders. | |
| Contract manager for the Local Government Commission Energy | |
| Upgrade California (EUC) project. Managed brand and web portal | |
| for statewide EUC effort and coordinate with intra-agency, local | |
| government, and industry stakeholders on program coordination. | |
| | |
| | |
| Research Fellow: California Public Utilities Commission | June 2010 – Feb. 2011 |
| Researched best practices in emerging residential whole building | |
| retrofit programs and working with IOU staff to incorporate best | |
| practices into IOU program design. Developed whole house pilot | |
| program that focused on accessibility to the low-income multifamil | у |
| sector. Also served as financing lead near the end of the term. | |
| | |
| Energy Program Specialist: City of Arcata | Feb. 2007 – June 2010 |
| Managed the City of Arcata energy program. Performed several | |
| greenhouse gas inventories, prepared and reviewed policies to | |
| mitigate carbon emissions, worked on regional green building | |
| program development, served as staff liaison for the Energy | |
| Committee including minutes and agendas. Primary project | |

• Independent Contractor: Humboldt County

developer for forestry carbon offset project.

Nov. - Dec. 2009

Lead role on writing a grant proposal to cover start up and operational costs for a seven county regional Property Assessed Clean Energy financing program. Advised on technical and financial feasibility and served as primary program designer.

1 **REBECCA MENTEN**

2 PREPARED TESTIMONY

- 3 1. CPUC Applications 14-11-007 *et al.*
- 4 Testimony of Marin Clean Energy Regarding A Proposed Low-Income Energy Efficiency Pilot
- 5 Program for the Program Years 2015-2017

Testimony of Marin Clean Energy Appendix B-4