

DOCKETED	
Docket Number:	23-LMS-01
Project Title:	Load Management Standards Implementation
TN #:	256857
Document Title:	MCE Load Management Standards Plan
Description:	MCE Load Management Standards Plan Submission
Filer:	Sabrina Soldavini
Organization:	Marin Clean Energy (MCE)
Submitter Role:	Applicant
Submission Date:	6/13/2024 5:04:28 PM
Docketed Date:	6/14/2024



June 13, 2024

Mr. Drew Bohan
Executive Director
California Energy Commission
715 P Street
Sacramento, CA 95814

RE: Submission of Marin Clean Energy's Load Management Standards Plan

Dear Mr. Bohan:

In accordance with Section 1623.1(a)(3)(A) of the California Energy Commission's (CEC) Load Management Standards, Marin Clean Energy (MCE) hereby submits its Load Management Standards Plan (Plan) to the CEC's Docket Number 23-LMS-01.

MCE's Plan was adopted and authorized for submission by MCE's Board of Directors in a duly noticed public meeting on May 16, 2024.

If you have any questions or additional information is required, please contact Sabrina Soldavini at ssoldavini@mcecleanenergy.org.

Sincerely,

Sabrina Soldavini
Manager of Policy
Marin Clean Energy
ssoldavini@mcecleanenergy.org



MARIN CLEAN ENERGY

LOAD MANAGEMENT STANDARDS PLAN

March 29, 2024

1 Table of Contents

1	Table of Contents	2
2	Introduction	3
2.1	About MCE	3
2.2	Load Management Standards	4
2.2.1	MCE LMS Plan and Board Authority	5
3	Access to Price Signals	8
3.1	Time-Dependent Rate Submission to MIDAS	8
3.1.1	Existing Rates Upload	8
3.1.2	Future Rates Upload	9
3.2	Plan to Provide Rate Identification Number(s) on Customer Billing Statements and Online Account Using Both Text and QR Code	9
3.3	Plans and Current Participation in the Development of Single Statewide RIN Access Tool	10
4	MCE Rates and Dynamic Rate Considerations	10
4.1	Overview of MCE’s Current Time-Dependent Rate Offerings	11
4.2	Dynamic Rates Evaluation	15
4.3	Dynamic Rate Development and Application Plan	20
5	Load Flexibility Programs	21
5.1	Overview of MCE Load Flexibility Programs	21
5.2	Evaluation of Programs	23
5.2.1	Cost Effectiveness	24
5.2.2	Equity	25
5.2.3	Technological Feasibility	25
5.2.4	Benefits to the Grid and Customers	26
6	Public Information Program	27
7	Appendix	29

2 Introduction

2.1 About MCE

Marin Clean Energy (“MCE”) is California’s first Community Choice Aggregation (“CCA”) Program, a not-for-profit Joint Powers Authority (“JPA”) that began serving customers in 2010. MCE’s mission is to confront the climate crisis by eliminating fossil fuel greenhouse gas (“GHG”) emissions, producing renewable energy, and creating equitable community benefits. MCE’s vision is to lead California to an equitable, clean, affordable, and reliable energy economy by serving as a model for community-based renewable energy, energy efficiency, and cutting-edge clean-tech products and programs.

As a load-serving entity (“LSE”) MCE provides electricity generation service to approximately 580,000 customer accounts. These accounts represent more than one million residents and businesses across four Bay Area counties.¹ MCE procures for annual retail sales of approximately 5,729 GWh and a peak load of more than 1,240 MW.

MCE provides service to approximately 87 percent of eligible customers within its service area, which is depicted below in Figure 1. MCE is also the default generation provider for any new or relocated customers therein.



Figure 1: MCE Service Area Map

¹ MCE serves communities across Contra Costa, Marin, Napa, and Solano counties. Those communities currently receiving service include: Unincorporated Contra Costa, Marin, Napa, and Solano counties and the Cities and Towns of Concord, Danville, El Cerrito, Lafayette, Martinez, Moraga, Oakley, Pinole, Pittsburg, Pleasant Hill, Richmond, San Pablo, San Ramon, Walnut Creek, Belvedere, Corte Madera, Fairfax, Larkspur, Mill Valley, Novato, Ross, San Anselmo, San Rafael, Sausalito, Tiburon, American Canyon, Calistoga, Napa, St. Helena, Yountville, Benicia, Vallejo, and Fairfield. MCE expects service to expand to include the City of Hercules in April of 2025.

As a JPA and local government agency, MCE is governed by a 34-member Board of Directors (“Board” or “Governing Board”) composed of elected representatives from MCE’s member communities. MCE’s Board sets policy for the agency and oversees operations, including rates and procurement planning. Through these representatives, MCE is controlled by and accountable to the communities MCE serves.

MCE was formed to empower its member communities to choose the generation resources that reflect their specific values and needs. As a mission-driven local government agency, MCE works toward the following:

- Reducing GHG emissions and accelerating the supply of clean energy being delivered to and used on the grid;
- Developing community programs and local energy projects to expand access to competitively priced renewable energy and energy efficiency programs for all customers;
- Creating economic and workforce benefits associated with renewable energy and energy conservation programs; and
- Leveraging energy and conservation spending to promote more equity throughout MCE’s communities and California.

2.2 Load Management Standards

In Docket Number 21-OIR-03 the California Energy Commission (“CEC”) adopted Revised Load Management Standards (“LMS” or “Standards”). The amendments to the LMS, which became effective on April 1, 2023, are intended to form the foundation for a statewide system of time and locational dependent signals that can be used by automation-enabled devices to encourage load flexibility on the electric grid. Simply, the Standards are intended to encourage automated load shifting of electricity to off-peak hours.

To accomplish the goals of the LMS, the regulations request California’s large CCAs,² investor-owned utilities (“IOUs”), and large publicly owned utilities (“POUs”) to offer customers access to rate-structures and/or programs that allow automated responses to prices or other grid signals to manage and optimize their energy use.

Specifically, the LMS request large CCAs to (1) develop and propose marginal cost-based rates that vary at least hourly³ or, (2) if the Board finds that implementing marginal cost-based hourly rates would not materially reduce peak load, be technologically feasible, and/or be cost-effective, offer a load flexibility program that allows at least one option for automating response to the CEC’s Market Informed Demand Automation Server (“MIDAS”) signals for customer classes where MCE’s Board determines such a program would materially reduce peak load and be cost-effective. For the purposes of this plan, MCE will refer to marginal cost-based rates that vary at least hourly as defined in the LMS as “hourly” or “dynamic” rates.

² The LMS define Large CCAs as any CCA that provides in excess 700 GWh of electricity to customers in any calendar year.

³Section 1623.1(b)(1) of the LMS define a marginal cost-based rate as the sum of the marginal energy cost, the marginal capacity cost (generation, transmission, and distribution), and any other appropriate time and location dependent marginal costs, including the locational marginal cost of associated greenhouse gas emissions, on a time interval of no more than one hour.

2.2.1 MCE LMS Plan and Board Authority

Section 1623.1(a) requests each large CCA submit a plan outlining how it plans to meet the objectives of the LMS to its Board by April 1, 2024.

As a large CCA that shares the goals and objectives of the LMS to better align demand of electricity with periods of high renewable energy supply and encouraging automated load shifting away from peak periods, MCE submits this plan to the Board for approval.⁴ The purpose of this plan is to identify the steps and activities MCE plans to voluntarily undertake which align with the goals of the LMS.

MCE notes that nothing in this plan overrides or supersedes MCE's Board's sole authority as the governing and rate-making body of MCE.⁵ Nothing in this plan implies any jurisdictional authority of the CEC over MCE's rates and rate programs. MCE is currently voluntarily taking reasonable steps that meet the standards within the LMS regulations.

Additionally, as outlined in the LMS, MCE's Board may approve a plan, or material revisions to a previously approved plan, that delays implementation of or modifies the goals of LMS Subsections 1623.1(b)-(c), if the Board determines that despite good faith efforts implementation:

- Would result in extreme hardship to MCE;
- Would result in reduced system reliability (e.g., equity or safety) or efficiency;
- Would not be technologically feasible or cost effective; or
- Must be modified to provide a more technologically feasible, equitable, safe, or cost-effective way to achieve the LMS or plan's goals.

Accordingly, MCE submits this plan to the Board for adoption and approval to implement as outlined herein. Table 1 below provides a list of each regulatory standard or goal as outlined in the LMS and MCE's plan to meet that standard or goal at the time of this writing. As described, MCE plans to continue to offer its portfolio of current and planned load flexibility programs and time dependent rates aimed at encouraging customers to use energy in off-peak hours, and will continue to explore how it may offer new cost-effective dynamic rates, pilots, and load flexibility programs that materially reduce peak load, encourage load control through automation, and provide reliability and environmental benefits for MCE customers and the California electric grid.

⁴ Consistent with Section 1623.1(a) of the LMS, MCE submitted this plan to its Board on March 29, 2024, and will submit this plan to the CEC within 30 days of Board approval.

⁵ Public Utilities Code Section 366.2(c)(3) provides that CCAs retain jurisdiction for setting rates for the electricity they purchase on behalf of their communities.

Table 1: MCE LMS Roadmap

Load Management Standards Section	Standard Description	Target Date	MCE Adopted Plan to Meet Standard
§1623.1(c)	Upload existing time-dependent rates to MIDAS database.	July 1, 2023	<p>Status: Achieved</p> <p>MCE plans to maintain future rates in MIDAS to the extent it is cost effective and technologically feasible. MCE cannot confirm that uploading future dynamic rates or programs to MIDAS will be cost effective or technologically feasible.</p>
§1623.1(a)(1)	<p>Develop and submit a plan for adoption to MCE’s Board addressing how MCE plans to meet objectives of the LMS.</p> <p>The plan is to be considered for adoption by MCE’s Board within 60 days of submission at a duly noticed public meeting.</p>	April 1, 2024	<p>Status: Achieved</p>
§1623.1(a)(3)(A)	Within 30 days of adoption of the plan, submit the plan to the CEC’s Executive Director.	30 Days After Board Adoption	<p>Status: MCE will submit this plan to the CEC within 30 days of Board adoption.</p>
§1623(c)	<p>Within one year of LMS effective date, provide customers access to their Rate Identification Numbers on billing statements and in online accounts using both text and quick response code format.</p>	April 1, 2024	<p>Status: In Progress, Expected to Achieve</p>
§1623(c)	<p>In conjunction with the other named LSEs, develop and submit to the CEC a plan for a single statewide standard tool for authorized rate data access by third parties and the terms and conditions for using the tool. Upon CEC approval, maintain and implement the tool.</p>	October 1, 2024	<p>Status: In Progress</p> <p>MCE is engaged in and monitoring the development process for the single statewide tool.</p>

Load Management Standards Section	Standard Description	Target Date	MCE Adopted Plan to Meet Standard
§1623.1(b)(3)	Submit to the CEC a list of load flexibility programs deemed cost effective by MCE. The portfolio of programs should provide at least one option to automate response to MIDAS signals for each customer class where MCE's Board has determined such a program would materially reduce peak load.	October 1, 2024	<p>Status: In Progress</p> <p>MCE cannot determine that such a program will materially reduce peak load for any customer class. MCE will submit a list of programs deemed cost effective to the CEC but does not expect to include an option to automate response to MIDAS signal at this time.</p>
§1623.1(a)(3)(C)	Submit annual reports to the CEC demonstrating implementation of the plan, as approved by the Board.	Annually	<p>Status: In Progress</p> <p>MCE will submit annual reports beginning one year after the adoption of this plan.</p>
§1623.1(b)(2)	Submit at least one marginal cost-based rate to MCE's Board for approval for any customer class(es) where such a rate will materially reduce peak load. An Information copy of the tariff applications will be provided to the CEC.	July 1, 2025	<p>Status: In Progress</p> <p>At this time MCE cannot determine that such a rate or will provide material, incremental reductions to peak load or be cost effective for any customer class.</p> <p>However, MCE is interested in collecting the data necessary to make such determinations and will continue to explore options to offer dynamic rate pilots in its service territory. MCE therefore recommends the Board modify this standard and determine that MCE may, but is not required to, propose such a rate or program by the target date.</p> <p>MCE will continue to evaluate and address in its next plan iteration and any annual reports.</p>
§1623.1(b)(4)	Offer each customer voluntary participation in either a marginal cost-based rate, if approved by the Board, or a cost-effective load flexibility program.	July 1, 2027	<p>Status: To be determined by future Board direction.</p> <p>MCE notes that this target date is after the next review of MCE's LMS is expected to be completed. As such, MCE will likely provide an update in its next LMS plan as appropriate.</p>

Load Management Standards Section	Standard Description	Target Date	MCE Adopted Plan to Meet Standard
§1623.1(b)(5)	Conduct a public information program to inform and educate affected customers on why marginal cost-based rates or load flexibility programs and automation are needed, how they will be used, and how these rates and programs can save customers money.	No Target Date Specified	Status: To be determined by future Board direction and future adoption of dynamic rates or load-modifying programs.
§1623.1(a)(1)(C)	Review the plan at least once every three years after the plan is adopted and submit a plan update to the Board if there is a material change.	Once Every Three Years	Status: MCE will review its LMS plan at least once every three years following the date of adoption.

3 Access to Price Signals

3.1 Time-Dependent Rate Submission to MIDAS

Adopted LMS Amendments Section 1623.1(c) requests each Large CCA upload existing time dependent rates to the MIDAS database by July 1, 2023. On June 1, 2023, the CEC issued Order No. 23-0531-109 approving an extension for CCAs to upload time-dependent generation rates by August 1, 2023, and any remaining time-dependending rates with rate modifiers by October 1, 2023. Large CCAs are also asked to upload any new time-dependent rates or changes to existing rates, prior to the effective date of that rate.

3.1.1 Existing Rates Upload

MCE successfully uploaded all of its 70 active Light Green service rates by the CEC’s target date of August 1, 2023, and uploaded its Deep Green service rates by the target date of October 1, 2023, to include time-dependent rates with additional modifiers. A complete list of rates uploaded to MIDAS and their associated Rate Identification Numbers (“RIN”) is included in Appendix A.

The period covered by the initial upload spanned between three and six months, due to data limitations of the MIDAS system. As such, MCE has made subsequent uploads to keep rates current in MIDAS:

1. In October 2023, MCE uploaded additional intervals to ensure all rates were up-to-date through December 31, 2023.

2. In November 2023, MCE uploaded additional intervals for all rates through May 1, 2024.⁶

3.1.2 Future Rates Upload

To the extent that uploading future rates is feasible and cost effective, MCE plans to maintain its generation rates in MIDAS so that customers and their devices may access them for device automation. However, MCE notes that if hourly rates are approved by MCE's Board, daily uploads of such rates to MIDAS will present significant challenges. Given the current structure of MIDAS and the lack of funding for LSEs to develop systems, processes, and improvements to MIDAS, MCE cannot at this time find that it is cost effective or feasible to maintain current and accurate rates for any future hourly rate offerings in MIDAS.

Nonetheless, MCE is engaged in and monitoring the Demand Flexibility Proceeding at the California Public Utilities Commission ("CPUC") and is committed to working with the CEC, CPUC, and other stakeholders to help customers automate behavioral changes in electric usage and looks forward to further discussion on how MIDAS may be updated and/or will interact with future rate platforms or repositories yet to be developed such as a CPUC approved Price Machine.

MCE recommends that any future rate repositories be equipped to provide composite rates if the goal is to provide customers with a composite or total real-time rate signal. As a CCA, MCE's Board has sole authority over its customers' generation rate component but has no authority to determine the distribution or transmission rate components of its customers' rates. Any distribution and transmission rate components charged to MCE customers are charged by Pacific Gas & Electric Company ("PG&E"). As such, MCE only plans to upload generation rate components to MIDAS and cannot take responsibility for, be required to calculate, or be required to upload marginal cost rates for rate components and myriad PG&E programs that it has no control over.

3.2 Plan to Provide Rate Identification Number(s) on Customer Billing Statements and Online Account Using Both Text and QR Code

Adopted LMS Amendments Section 1623(c)(4) requests each Large CCA to provide customers with access to their RIN on customer billing statements and online accounts using both text and quick response ("QR") or similar machine-readable digital code by April 1, 2024.

MCE customers receive their consolidated billing statements from PG&E. MCE provides itemized charges to PG&E through Electronic Data Interchange ("EDI") transactions. Therefore, MCE is reliant on PG&E to develop its EDI system to accept MCE RINs and display them on customer bills.

⁶ As of this writing, six of MCE's Light Green rates are not current in the MIDAS system. These rates serve a small number of large Commercial & Industrial and EV customers with legacy 12p-6p peak periods. Upload attempts are rejected with the message, "An error has occurred." MCE reached first reached out to CEC staff on November 30, 2023, and has had numerous, ongoing communications with CEC staff on this matter. The issue appears to reside with MIDAS, and not with MCE. CEC Staff has indicated they are aware of the issue, that it is not isolated to MCE and the CEC is working to resolve the issue. MCE will continue to engage and collaborate with the CEC in good faith to fix this issue.

CCAs have been working with PG&E to utilize PG&E's billing transactions to include a CCA specific RIN on customers' bills. MCE will supply MCE's RIN mapping table to PG&E who will then include it within the code and display customers' RINs on the generation portion of their bills. This interpretation has also been corroborated by PG&E in recent CPUC Advice Letters seeking approval to modify customers' bill presentations to include RINs and QR codes.

On January 16, 2024, PG&E filed Advice Letter 7136-E at the CPUC outlining the process it is undertaking to provide RINs on customer bills. As outlined by PG&E in its second supplemental Advice Letter 7136-E-B filed on March 1, 2024, customers on time-dependent rates will have their bills updated to include a QR code and the customer's RIN in the top right-hand corner of their bill, which can then be scanned to program a customer's device(s). PG&E notes that RINs will be presented the same way on both bundled and unbundled (CCA and Direct Access) customers' bills.

3.3 Plans and Current Participation in the Development of Single Statewide RIN Access Tool
Adopted LMS Amendments Section 1623(c)(1)-(3) requests all LSEs named in the Standards to work together to develop a plan for a single statewide standard tool for authorized rate data access by third parties, along with a single set of terms and conditions for third parties using the tool by October 1, 2024. The tool is to provide the customers' RINs, provide eligible RINs, enable switching to an available rate by an authorized third party, incorporate applicable cybersecurity measures, minimize enrollment barriers, and be accessible in digital, machine-readable format.

MCE is monitoring and engaging in the process to develop a Single Statewide RIN Access Tool and will continue to collaborate with other parties on the tool's development ahead of the October 1, 2024, target date. At the time of this writing MCE is unable to specifically identify the full scope and budget of integration of work; commit resources; or review, identify, and plan internal infrastructure needs until the Single Statewide Standard RIN Access Tool's scope has been designed and approved by the CEC.

4 MCE Rates and Dynamic Rate Considerations

Adopted LMS Amendments Section 1623.1(a)(1) requests each large CCA to develop a plan that evaluates the cost-effectiveness, equity, technological feasibility, benefits to the grid, and benefits to customers of dynamic rates for each customer class. After evaluating dynamic rates, the CCA may instead propose and evaluate specified programs and/or delay or modify its implementation of the LMS.

Adopted LMS Amendments Section 1623.1(b)(2) requests MCE apply to its rate-approving body for approval of at least one dynamic rate by July 1, 2025. The LMS state MCE is to apply for approval only of a dynamic rate only for those customer classes for which the Board determines such a rate will materially reduce peak load.

Adopted LMS Amendments Section 1623.1(b)(4) requests each CCA to offer to each of its electricity customers voluntary participation in either a dynamic rate developed according to Section 1623.1(b)(2), if such rate is approved by the Board, or a cost-effective load flexibility

program that allows automated response to MIDAS signals for each customer class the Board determines such a program would materially reduce peak load July 1, 2027.

This section provides an overview of MCE’s current time-dependent rates and its plan to evaluate and develop dynamic rates as stated in the LMS.

4.1 Overview of MCE’s Current Time-Dependent Rate Offerings

MCE currently offers several options for time-dependent or Time-Of-Use (“TOU”) pricing, consistent with the options available to the broader PG&E service area. Approximately 66 percent of MCE households are on time-dependent rates. Current residential rate options are displayed in the table below.

Table 2: Current MCE Residential Rate Offerings⁷

MCE Residential Rate	Description of Rate Periods
E-1	Flat Rate Pricing, not time dependent
E-TOU-C - Default Time-of-Use	Utilizes 4pm-9pm peak rates every day
E-TOU-D - Time-of-Use	Utilizes 5pm-9pm peak rates on non-holiday weekdays only
ELEC - Time-of-Use for Qualified Electric Technologies	Utilizes lower rates from 12am-3pm
EV2 - Time-of-Use for Electric Vehicles	Utilizes lower rates from 12am-3pm

Additionally, MCE continues to provide limited service to legacy residential rate schedules that are no longer available to new customers:

- E-TOU-B - Time-of-Use: Utilizes 4pm-9pm peak rates on non-holiday weekdays only; and
- EV - Time-of-Use for Solar Customers with Electric Vehicles: Utilizes lower rates from 11pm-2pm.

MCE also offers a wide range of options for time-dependent pricing for non-residential customers as depicted in Table 3 below. Except in rare circumstances like street lighting, non-residential service is entirely billed according to time-dependent pricing. All of MCE’s non-residential rates have 4pm-9pm daily peak and seasonal rates, except where noted otherwise.

⁷ A complete list of MCE Residential rates can be found at <https://www.mcecleanenergy.org/rates/>.

Table 3: Current MCE Non-Residential Rate Offerings⁸

MCE Non-Residential Rates	Description of Rate Periods
B-1 - Small General Service	Utilizes six TOU periods (three in the Summer and three in the Winter)
B-1ST - Small General Service Plus Storage	Utilizes seven TOU periods (three in the Summer and four in the Winter)
B-6 - Small General Service	Utilizes five TOU periods (two in the Summer and three in the Winter) and stronger pricing signals relative to rate schedule B-1
B-10 - Medium General Service	Utilizes six TOU periods (three in the Summer and three in the Winter) and three voltage levels with discrete rates
B-19 - Medium General Service	Utilizes six TOU periods (three in the Summer and three in the Winter), TOU and seasonal based demand charges, and three voltage levels with discrete rates
B-19 Option R - Medium General Service for Solar	Utilizes six TOU periods (three in the Summer and three in the Winter), no demand charges, and three voltage levels with discrete rates
B-20 Option R - Large General Service for Solar	Utilizes six TOU periods (three in the Summer and three in the Winter), no demand charges, and three voltage levels with discrete rates
BEV - Commercial EV Charging	Utilizes three TOU periods, no seasonality, and three voltage levels with discrete rates
AG-A - Small Agriculture	Utilizes four TOU periods (two in the Summer and two in the Winter), and uses a 5pm-8pm peak pricing period
AG-B - Medium Agriculture	Utilizes four TOU periods (two in the Summer and two in the Winter), 5pm-8pm peak pricing period

⁸ A complete list of MCE Non-Residential rates can be found at <https://www.mcecleanenergy.org/commercial-rates/>.

MCE Non-Residential Rates	Description of Rate Periods
AG-C - Large Agriculture	Utilizes four TOU periods (two in the Summer and two in the Winter), 5p-8p peak, summer peak demand
AG-F - Flexible TOU Agriculture	Utilizes AG-A/AG-B/AG-C variations as above, with two designated 24-hour off-peak days
SB - Standby Service	Utilizes six TOU periods (three in the Summer and three in the Winter), a reservation charge per kW, and three voltage levels with discrete rates
SL-1 - Street, Highway, and Outdoor Lighting	This rate is not time dependent
TC-1 - Traffic Control Service	This rate is not time dependent

MCE also continues to offer limited service to legacy non-residential rate schedules without a 4pm-9pm peak. Eligibility is determined by PG&E according to tariffs approved by the CPUC. These rates have a 12pm-6pm peak and seasonal rates, except where otherwise noted, and have weak pricing signals and are of limited significance to MCE’s portfolio. Only 6.5 percent of MCE customers – almost entirely small commercial accounts – are served by these rates.

Table 4: MCE Legacy Rates

MCE Legacy Rates	Description of Rate Periods
A-1 - Small General Service	This is a non-TOU rate
A-1X - Small General Service	Utilizes five TOU periods (three in the Summer and two in the Winter)
A-6 - Small General Service	Utilizes five TOU periods (three in the Summer and two in the Winter)
A-10 - Medium General Service	This is a non-TOU rate but includes three voltage levels with discrete rates
A-10X - Medium General Service	Utilizes five TOU periods (three in the Summer and two in the Winter) and three voltage levels with discrete rates

MCE Legacy Rates	Description of Rate Periods
E-19 - Medium General Service	Utilizes five TOU periods (three in the Summer and two in the Winter), demand charges, and three voltage levels with discrete rates
E-20 - Large General Service	Utilizes five TOU periods (three in the Summer and two in the Winter), and three voltage levels with discrete rates
E-20 Option R - Large General Service for Solar Customers	Utilizes five TOU periods (three in the Summer and two in the Winter), and three voltage levels with discrete rates
AG-1 - Small Agricultural Service	This is a non-TOU rate
AG-4-A - Time-of-Use Agricultural Service	Time-of-Use Agricultural Service: Includes four TOU periods (two in the Summer and two in the Winter) and a connected load charge
AG-4-B - Time-of-Use Agricultural Service	Utilizes four TOU periods (two in the Summer and two in the Winter) and a maximum demand charge
AG-4-C - Time-of-Use Agricultural Service	Utilizes five TOU periods (three in the Summer and two in the Winter) and a peak demand charge
AG-5-A - Time-of-Use Agricultural Service	Utilizes four TOU periods (two in the Summer and two in the Winter) and a connected load charge
AG-5-B - Time-of-Use Agricultural Service	Utilizes four TOU periods (two in the Summer and two in the Winter) and a maximum demand charge
AG-5-C - Time-of-Use Agricultural Service	Utilizes five TOU periods (three in the Summer and two in the Winter) and a peak demand charge
AG-R - Time-of-Use Agricultural Service with Off Peak Days	Utilizes four TOU periods (two in the Summer and two in the Winter), two day-of-week options, two service levels, and connected load or demand charges

MCE Legacy Rates	Description of Rate Periods
AG-R - Time-of-Use Agricultural Service with Variable Peak	Utilizes four TOU periods (three in the Summer and two in the Winter), three peak hour options, two service levels, and connected load or demand charges
S - Standby Service	Utilizes five TOU periods (three in the Summer and two in the Winter), reservation charge per kW, and three voltage levels with discrete rates

MCE also offers two energy supply programs that are charged or credited to the customer’s energy bill but separate from each customer’s electric rate schedule:

- Deep Green Service: This program allows customers to choose 100 percent renewable energy content and includes a \$0.01/kWh flat adder to all rates.
- Disadvantaged Communities Green Tariff (“DAC-GT”): This program allows eligible customers in disadvantaged communities to choose 100 percent renewable energy content and receive a 20 percent total bill discount.

4.2 Dynamic Rates Evaluation

MCE strongly appreciates and supports the LMS’ goals to help encourage customers to shift energy consumption away from peak periods to minimize costs, improve reliability, and better align renewable energy supply and demand. MCE also agrees that two tools that can be utilized to encourage such a shift are flexible rate designs and automation technology.

Consistent with the adopted LMS, in this section MCE outlines its plan to evaluate future dynamic marginal cost-based rate offerings for its customers and provides an initial evaluation of the cost-effectiveness, equity, technological feasibility, and benefits of dynamic rates.

As a CCA, MCE’s Board has sole authority over its customers’ generation rate component and no other entity, including the CEC or CPUC, has the authority to set generation rates for MCE customers. Similarly, this means that MCE does not have authority to determine the distribution or transmission rate components of its customers. Any distribution and transmission rate components charged to MCE customers are determined and charged by PG&E, as approved by the CPUC and/or Federal Energy Regulatory Commission. As such, any dynamic or hourly rates adopted by MCE’s Board will be generation-only. MCE and its Board cannot take responsibility for, or be required to calculate, rates for components that it has no control over such as distribution and transmission rate components.

While MCE has not yet offered any dynamic rates or dynamic rate pilots, MCE understands that there may be value in such rates and is currently evaluating whether it may offer one of the

dynamic rate pilots approved by the CPUC for PG&E's service area⁹ or whether it may propose its own, distinct dynamic rate pilot(s) to its customers, which would allow MCE to collect the data necessary to evaluate the cost-effectiveness, equity, feasibility, and customer and grid benefits of such rates to inform MCE's future rate designs and offerings. Generally, MCE notes that it has a preference to create and offer MCE specific rates, pilots, and programs that can be uniquely tailored and administered by MCE to meet the needs of its customers, which may be distinct from other regions of PG&E's service area and rely on MCE's significantly clean and GHG-free portfolio in the California Independent System Operator markets.

In evaluating whether to offer future dynamic rates and/or pilots, MCE plans to evaluate portfolio-based cost-effectiveness, technical feasibility, equity, and benefits to MCE and its customers and the environment. MCE will consider what pricing options, if any, offer cost-effective and material, incremental, benefits over current rate and load flexibility offerings. Potential dynamic rate pilots should provide necessary and useful data to evaluate and determine the appropriateness (and potential design) of future dynamic rate offerings in MCE's service area.

As discussed below MCE does not at this time have sufficient evidence to conclude that developing and implementing dynamic rates in MCE's service area on the timeline outlined in the LMS would be cost effective or provide material incremental reductions to peak load beyond those of its current rate and programs portfolio for any customer class. As such MCE cannot currently commit to creating such a rate for Board approval by July 1, 2025. However, MCE is interested in collecting the data necessary to make such determinations and is exploring options to offer dynamic rate pilots in its service territory. MCE therefore recommends the Board find it necessary to modify Section 1623.1(b)(2)'s request for MCE to apply for approval of a dynamic rate by July 1, 2025. MCE recommends the Board conclude that the timeline must be modified to ensure cost-effective implementation and determine that MCE Staff may, but is not required to, propose such a rate to the Board by the target date of July 1, 2025. MCE will provide updates to its Board in its next plan iteration and any annual reports.

a. Cost-Effectiveness

In determining whether to offer dynamic rates that vary at least hourly as outlined in the LMS, one evaluation factor that MCE will consider is cost-effectiveness.

MCE notes that the CEC's adopted LMS state there shall be no reimbursement to local government agencies for the costs of carrying out the Standards as the Commission has found them to be cost effective, noting that savings realized will outweigh the costs associated with implementing the programs.¹⁰ While MCE appreciates the plain language of the LMS, MCE disagrees that the cost-effectiveness of any rates or programs could be determined before those rates or programs actually exist. At this point there exists no evidence to conclude that MCE will

⁹ For example, California Public Utilities Commission Decision (D) 24-01-032 approved the expansion of two demand flexibility pilots in PG&E's service area that would allow CCA participation. MCE is currently evaluating whether it may participate beginning in the Summer of 2025.

¹⁰ CEC Load Management Standards Section 1623.1(e).

realize any net savings from implementing the LMS. MCE has not yet offered any hourly or dynamic rates or pilot programs to allow for sufficient analysis of the effectiveness (cost or otherwise) of dynamic rates in its service area. MCE has so far incurred only costs associated with the LMS and any benefits remain to be realized.

Nonetheless, MCE shares many of the CEC's stated goals in developing the LMS and is committed to encouraging customers to shift energy consumption to off-peak periods. MCE appreciates and understands that there may be significant value in dynamic rates and is interested in collecting the necessary information and data to determine if, and under what conditions, dynamic rates would be cost effective for MCE and its customers.

At present, MCE is exploring the possibility of creating an hourly rate pilot for its electric vehicle ("EV") customers, as well as monitoring and evaluating the status of CPUC approved PG&E rate pilots and considering participation for Summer 2025. However, without such primary data, MCE cannot at this time determine that such a rate or program will provide material incremental reductions to peak load or be cost effective for any customer class.

Significant uncertainties remain in both the cost to develop and the value MCE can reliably realize from implementing hourly rates. MCE anticipates that developing dynamic rates may result in significant costs and MCE's ability to realize the value of such rates will be determined by unknown factors like customer adoption and incremental response levels. Without robust pilot results in MCE's and PG&E's service area to perform a comprehensive analysis, MCE cannot accurately estimate development costs, the estimated total benefits, or whether those benefits would be likely to offset the costs for any customer class. Accordingly, MCE recommends the Board not require MCE to propose dynamic rate to its Board by the target date of July 1, 2025. MCE recommends the Board find that MCE may, but is not required to, propose such a rate by the target date.

MCE will continue to evaluate whether to offer dynamic rate pilots and rates to its customers and will evaluate the results of any pilots in PG&E's service area. To the extent MCE does participate in or offer dynamic rate pilots, MCE will use the pilot(s) as an opportunity to collect the data necessary to conduct its own cost-effectiveness analysis with MCE specific data, which would be used to inform future rate and program offerings as well as future iterations of MCE's LMS Plan.

In conducting such a future cost-effectiveness analysis, MCE expects to compare the benefits of the rate offering with costs of implementation. Estimated costs include but are not limited to rate development, rate and program administration, and technology costs. Estimated benefits include, but are not limited to, lower energy costs, increased load reduction, avoided energy and capacity costs, and reliability benefits. To demonstrate cost-effectiveness, the expected benefits for each rate must exceed the costs of implementation. MCE looks forward to providing updates to its Board, the CEC, and other interested parties as it moves forward.

b. Equity

Similarly to cost-effectiveness, MCE currently has no primary data sources to quantitatively speak to the equity component of offering hourly rates to its customers. MCE is committed to increasing equitable and affordable access to clean energy for its customers. While reductions

in peak demand provide grid benefits to all customers and those benefits could theoretically lower power procurement costs to all customers, currently there is not clear evidence that all MCE customers will benefit from lower rates. As MCE begins to evaluate whether to offer hourly rates to all customers, several equity components will be considered including:

Equitable Access to Automation and Benefits

Customers' ability to benefit from highly differentiated rates is directly linked to their ability to respond to those rates. Customers that can automate portions of their load will be best equipped to respond to pricing signals and benefit through lower energy bills or performance-based payments. Therefore, equitable access to automation devices and technology will be critical in ensuring that all customers can benefit from these rates. As such, MCE Staff believes it is appropriate to explore ways to ensure that customers on dynamic rates can access automation technology in an equitable manner. MCE may therefore explore offering additional incentives to provide automation technology for low-income customers and/or those who live in disadvantaged communities or multi-family properties who may otherwise not be able to benefit from automated load shifting programs or dynamic rates.

Cost Shifting

Assuming any change in rate design is designed to collect the same total level of revenue from all customers (i.e. revenue requirement), any change to rate design or structure means that some customers will pay less and some customers will pay more – without any changes to their behavior.¹¹ This mathematical reality is often referred to as a cost shift, as costs are shifted from one group of ratepayers to another. When rate offerings are voluntary, or opt-in, there is a greater risk that customers will simply choose the rate which allows them to pay less without making any changes to their behavior. These customers who can elect to participate in a rate that will lower their costs (and shift costs to other customers within their class) without any changes in behavior can be referred to as structural benefactors.

In developing dynamic rates with the goal of encouraging customers to *change* their behavior and shift their energy consumption away from peak hours, one of MCE's goals will be to minimize the amount of cost shifting that occurs between customers, particularly due to structural benefactors. To do so, MCE will aim to ensure that customers on hourly rates are sufficiently able to respond to price signals, whether through automation and/or price signals that are strong enough to incent behavioral change.

Customer Location

With few exceptions, customers do not choose where they are located on the electrical grid. It is partly because of this fact that grid infrastructure and energy costs have historically been spread, or averaged, across all customers. For example, rural customers have not been charged different prices for energy than city dwelling customers and MCE customers in Concord have not paid more than MCE customers in San Rafael, despite the potential differences in costs to serve those customers at any point in time (for example, due to local grid constraints). With a move to dynamic rates and advances in technology, it may be possible to charge customers in the same

¹¹ This is at least true in the short-term. However, in the long-term material reductions/changes in behavior may lower the total revenue requirement and those cost savings could be passed through to all customers.

rate class and on the same tariff at different rates at any point in time given their location on the grid.

In both the CEC's LMS Rulemaking and the CPUC's Demand Flexibility Proceeding, there has been discussion on the level of locational granularity that should be applied to hourly or sub-hourly rates. While MCE and others are likely to first utilize hourly rates that do not vary at a level more granular than the Default Load Aggregation Point, there has been discussion of rates that vary at more granular levels, such the circuit or transformer level. Essentially, this means that the level of local grid constraint can affect the rates a customer in that area pays for electricity. MCE believes this is an important equity concern that cannot be overlooked.

Local grid constraints vary based on grid infrastructure, design, and capacity constraints that are generally outside of any individual customer's control. The more locational granularity in rates, the more potential there is for equity issues to arise. To address this issue, evaluation should be done to ensure that dynamic pricing based on localized grid constraints does not particularly burden low-income residents or those in disadvantaged communities. MCE does not currently have data on how more granular locational variation in rates may impact equity but urges all California LSEs as well as the CEC and CPUC to work to ensure that certain customers are not unfairly harmed by future rate design simply due to their location on the grid.

c. Technological Feasibility

MCE expects that it is technically feasible to offer a dynamic hourly generation rate option by July 1, 2027, as outlined in the LMS, contingent upon PG&E providing revenue quality billing data to MCE on an hourly level or developing a reliable workaround. Current PG&E billing transactions do not include the hourly interval data which would be matched against hourly dynamic prices. MCE hopes that as PG&E develops CPUC approved hourly pricing pilots, this data will become available.

MCE notes that even if dynamic rates are technically feasible, daily rate uploads to MIDAS will need to be supported by the development of new systems, which may delay or otherwise impede offering dynamic rates in the near term. The limitations of the current MIDAS system and the lack of funding for LSEs to develop systems for interacting with MIDAS may mean that it will not be cost effective or feasible to maintain dynamic rates in MIDAS at this time.

d. Benefits to the Grid and Customers

MCE will also consider benefits to the grid and benefits to customers in its evaluation of dynamic rates. Assuming material changes in energy consumption behavior by customers, potential grid benefits resulting from hourly rates include but are not limited to reliability benefits, deferred, and reduced grid infrastructure investments, and environmental benefits.

Potential direct customer benefits include, but are not limited to, lower energy expenditures, reliability benefits, and theoretically lower rates – assuming material reductions to peak load that result in lower overall energy costs and reduced capacity and compliance costs. MCE does not currently have the data to quantify benefits to the grid and customers resulting from offering

hourly rates in its service territory. MCE plans to continue to gather data on this topic and will update this section in future iterations of its plan and annual reports.

4.3 Dynamic Rate Development and Application Plan

Adopted LMS Amendments Section 1623.1(b)(2) of the LMS requests MCE and other Large CCAs apply to its rate-approving body for approval of at least one dynamic rate by July 1, 2025. The LMS state MCE should apply for approval of a dynamic rate only for those customer classes for which the Board determines such a rate will materially reduce peak load. This section outlines how MCE plans to work toward this goal.

MCE has been, and plans to remain, actively engaged in dynamic rates discussions and proceedings at the CPUC and CEC. To date, MCE has committed considerable staff time, which amounts to significant and material cost to MCE, to these efforts, including making staff available to attend all noticed CEC LMS working group meetings and engaging in the CPUC's Demand Flexibility proceeding. Additionally, MCE is conducting research internally and in collaboration with external partners on how it might best design and offer dynamic rates in the future.

MCE is committed to exploring options for offering dynamic rate offerings to customers, but at this time cannot determine that such rates would provide material incremental reductions to peak load, provide other material benefits to MCE or its customers, or be cost effective for any customer class. In evaluating future potential dynamic rates MCE will consider whether or how any dynamic rate is expected to: 1) drive behavioral change; 2) be cost effective; 3) impact equity outcomes; and 4) provide reliable incremental benefits relative to MCE's current rate offerings.

At present, MCE is exploring the possibility of offering a dynamic rate pilot for its electric vehicle ("EV") customers, as well as monitoring and evaluating the status of CPUC approved PG&E rate pilots and considering participation for Summer 2025. However, without such primary data, MCE cannot at this time determine that such a rate or program will provide material incremental reductions to peak load or be cost effective for any customer class.

Significant uncertainties remain in both the cost to develop and the value MCE can reliably realize from implementing hourly rates. MCE anticipates that developing dynamic rates may result in significant costs and MCE's ability to realize the value of such rates will be determined by unknown factors like customer adoption and incremental load shifting response levels. Without robust pilot results in MCE's and PG&E's service area to perform a comprehensive analysis, MCE cannot accurately estimate development costs, the estimated total benefits, or whether those benefits would be likely to offset the costs. Accordingly, MCE recommends the Board not require MCE to propose a dynamic, hourly marginal cost-based rate, to its Board by the target date of July 1, 2025. MCE recommends the Board modify the request in LMS Section 1623.1(b)(2) that MCE propose dynamic rates by July 1, 2025, and declare that MCE may, but is not required to, propose such a rate to the Board for approval by July 1, 2025.

MCE will continue to evaluate if and how it may offer dynamic rates to its customers and will provide updates to its Board in its next plan iteration and any annual reports, and looks forward to continuing conversation and collaboration with stakeholders on possible pilot design, including how best to collect data that will effectively illustrate the costs and benefits of different dynamic rate structures and incorporate rates into MIDAS.

Additionally, LMS Section 1623.1(b)(4) requests MCE offer customers voluntary participation in either a dynamic rate, if approved by the Board, or a cost-effective load flexibility program by July 1, 2027. MCE notes that its offerings as of July 1, 2027, cannot be known at present, and the future timeline for deployment of future rate and program offerings will be dependent on future Board guidance and approval.

MCE plans to continue to provide updates to its Board as well as the CEC, as outlined in the LMS, and will further address the details of rate design and infrastructure needs as they become available.

5 Load Flexibility Programs

Adopted LMS Amendments Section 1623.1(b)(3) of the LMS requests MCE submit a list of cost-effective load flexibility programs to the CEC Executive Director by October 1, 2024. The portfolio of load flexibility programs is to provide at least one option to automate response to MIDAS signals for every customer class where such a program is determined by the Board to materially reduce peak load. If MCE's Board does not approve of and offer dynamic rates by July 1, 2027, the Standards state that MCE can meet the goals of the LMS by offering voluntary participation in a cost-effective MIDAS-integrated load flexibility program.

This section of MCE's Plan provides an overview of MCE's current load flexibility programs and addresses how MCE will evaluate and propose specified programs on the timeframes set forth in the LMS.

5.1 Overview of MCE Load Flexibility Programs

Residential Programs

MCE Sync

MCE Sync is an MCE-funded Automated Load Management program that utilizes a smart charging app to reduce EV owner's charging load during peak times, while also seeking to align EV charging load with high-solar daytime hours.¹² MCE began offering MCE Sync to eligible customers in 2021 and the program offers customers a flat monthly credit for participating in events.

Through 2023, MCE Sync had approximately 2,200 enrolled MCE customers who charge their EVs at home via a software platform which delivers direct load control of EV charging using vehicle telematics and networked electric vehicle supply equipment. To date, the program has shifted 90 percent of EV charging events out of the 4 pm – 9 pm window. An analysis of program data through May 2022 showed that customers saved an average of \$10 shifting charging to off-peak hours.

MCE Sync does not currently have rates associated with events. MCE Staff are currently exploring the possibility of expanding the program in MCE's service area, including integrating dynamic pricing elements into future program offerings.

¹² See <https://www.mcecleanenergy.org/mce-sync/>.

Peak FLEXmarket

MCE's Peak FLEXmarket program is a market-driven demand flexibility program that assigns an hourly value to measured, behind-the-meter ("BTM") impacts.¹³ Peak FLEXmarket is aimed at shifting load away from peak periods and provides customers with direct payments for measured load shedding or shifting during events, based on deviations from their individual baseline.

Peak FLEXmarket has successfully engaged new aggregators who have not participated in demand response, as well as program partners who have traditionally been confined to energy efficiency project development by presenting a value proposition for load flexibility. This program is a framework with the tools to measure and value hourly reductions in energy use and is technology agnostic.

Richmond Virtual Power Plant (VPP) Pilot

MCE is working to launch an innovative VPP pilot in Richmond, California, which will provide bill savings and increase local grid reliability, safety, and efficiency for low-income residents as part of Richmond's Advanced Energy Community project.¹⁴ The VPP pilot includes \$8 million in funding from the CEC and will provide a suite of clean distributed energy resources ("DERs") targeting low-income households in Richmond for dispatchability, flexibility, and resiliency purposes.

MCE's Richmond VPP Pilot is expected to provide significant bill savings for customers and significant local and grid benefits. MCE currently expects the pilot to launch in 2025.

Residential Efficiency Market

MCE's Residential Efficiency Market program is focused on incentivizing customers to install measures that can help reduce peak load.¹⁵ Customers can receive a 20 percent upfront cash payment for the forecasted value of their energy efficiency projects and additional payments for metered savings of those energy efficiency projects.

Solar Storage Credit

MCE's Solar Storage Credit program is aimed at encouraging customers to discharge their energy storage systems from 4-9pm daily.¹⁶ To be eligible for the credit, customers must be enrolled in a time-of-use rate, automate their battery to discharge from 4-9 p.m. daily and set their battery reserve to no more than 20 percent, except when preparing for or during a power outage. Customers are eligible to receive up to \$20/month for participation based on their solar system's size.

¹³ See <https://www.mcecleanenergy.org/peak-flexmarket/>.

¹⁴ See <http://mcecleanenergy.org/vpp>.

¹⁵ See <https://www.mcecleanenergy.org/flexmarket/>.

¹⁶ See <https://www.mcecleanenergy.org/solar-storage-credit/>.

Nonresidential Programs

Peak FLEXmarket

MCE's Peak FLEXmarket program is a market-driven demand flexibility program that assigns an hourly value to measured BTM impacts. Peak FLEXmarket is aimed at shifting load away from peak periods and provides customers with direct payments for measured load shedding or shifting during events, based on deviations from their individual baseline.

Peak FLEXmarket has successfully engaged new aggregators who have not participated in demand response, as well as program partners who have traditionally been confined to energy efficiency project development by presenting a value proposition for load flexibility. This program is a framework with the tools to measure and value hourly reductions in energy use and is technology agnostic.

Commercial Efficiency Market

MCE's Commercial Efficiency Market program is focused on incentivizing non-residential customers to install measures that can help reduce peak load.¹⁷ Customers can receive a 20 percent upfront cash payment for the forecasted value of their energy efficiency projects and additional payments for metered savings of those energy efficiency projects.

5.2 Evaluation of Programs

This section evaluates the cost-effectiveness, equity, technological feasibility, and benefits to the grid and customers of implementing programs that enable automated response to MIDAS signals. As discussed below, MCE cannot currently conclude that creating a new, or modifying an existing, load-modifying program to allow automated responses to MIDAS signals would be cost effective or offer material incremental benefit, such as material incremental peak load reduction, for any customer class.

Accordingly, MCE will continue to offer voluntary participation in its existing and future load flexibility programs. MCE will continue to consider the cost-effectiveness and peak load reduction potential of programs that enable automated response to MIDAS signals. To the extent that MCE's Board does not approve a dynamic rate offering by 2027, and MCE is at that time able to determine that modifying an existing program or creating a new program that enables automated response to MIDAS signals is cost effective and provides material incremental reductions to peak load for at least one customer class, MCE may at that time integrate a load-modifying program into MIDAS.

MCE will therefore submit to the CEC a list of load-modifying programs deemed cost-effective by October 1, 2024, but recommends the Board find that MCE is not required to include a program that allows automated response to MIDAS signals as it cannot determine such a program would be cost effective or produce material reductions to peak load for any customer class.

¹⁷ See <https://www.mcecleanenergy.org/flexmarket/>.

5.2.1 Cost Effectiveness

As outlined by section 1623.1(b)(3) of the LMS, MCE will provide a list of load-modifying programs deemed cost effective to the CEC by October 1, 2024. At present, MCE expects that the list of cost-effective programs will include the following MCE load-modifying programs:

1. Peak FLEXmarket;
2. Commercial Efficiency Market; and
3. Residential Efficiency Market.

These programs are funded by ratepayers through MCE's Energy Efficiency Portfolio as authorized by the CPUC. To receive ratepayer funding, the CPUC requires MCE to demonstrate its energy efficiency portfolio is cost effective using CPUC-approved cost-effectiveness criteria.

As it relates to the cost-effectiveness of MCE's current and future self-funded and/or grant-funded load-modifying programs (MCE Sync, Solar Storage Credit, Richmond VPP Pilot, etc.) MCE has not yet evaluated these programs for cost-effectiveness in the same manner as its ratepayer funded energy efficiency programs. Generally, MCE notes that cost-effectiveness is just one measure used to determine whether to offer a program and is not necessarily a determining factor. For example, programs that are focused on providing equity benefits may not be cost-effective utilizing traditional cost-effectiveness evaluation criteria, but still provide significant benefit to certain customer segments and society at large. MCE may robustly evaluate these programs for cost-effectiveness in the future when evaluating the effectiveness of the programs, and as it makes future determinations on program offerings.

MCE does not currently expect to utilize program offerings with automated responses to MIDAS signals; however, if MCE's Board does not adopt an hourly rate by July 1, 2027, MCE may then evaluate whether there is an opportunity to create a new program or modify an existing program to allow responses to MIDAS signals. In doing so, MCE would look at the incremental value of each option, and if modifying an existing, or creating a new, program is deemed cost-effective and found to provide material reductions to peak load may elect to do so at that time.

MCE cannot currently conclude that the modification of current or development of new programs that allow for automated responses to dynamic price signals would be cost effective for any customer class. Developing new programs or modifying existing programs would require MCE to incur costs associated with design and implementation, along with new technology costs. While these costs could potentially be offset with capacity or energy cost savings, the magnitude of those benefits is uncertain.

In conducting future cost-effectiveness analyses, MCE would compare expected program benefits to expected costs of program design and implementation. Assuming incremental load shift that can be attributed to the program, expected benefits of a new load flexibility program that allows for automated response to MIDAS signals may include, but are not limited to, avoided energy and capacity costs, improved reliability, and environmental benefits. Expected costs may include, but are not limited to, program development costs, program administration costs, and technology and implementation costs.

5.2.2 Equity

MCE is committed to creating more equitable communities and providing equitable access to clean energy benefits throughout its service area. In choosing to modify or offer any program, MCE carefully considers equity impacts and has demonstrated its commitment to equitable program offerings since its inception. MCE aims to offer a suite of programs that provide customers with access to clean energy technology and services while lowering bills and greenhouse gas emissions. Some examples of MCE's commitment to equity include MCE's:

1. Income-qualified customer programs such as the Low-Income Families and Tenants Program, the MCE Cares Credit Program, DAC-GT program, and EV Rebate Program;
2. Commercial Equity Program;
3. Commitment to advancing supplier diversity and workforce development; and
4. MCE's Community Power Coalition.¹⁸

In evaluating any future load-modifying program offerings, MCE will plan to evaluate how that offering may impact customer equity. Potential evaluation criteria include, but are not limited to, equitable access to technology, direct customer benefits and bill impacts, and cost-shifting between and within rate classes. For example, most customers' ability to benefit from highly differentiated rates will be directly linked to their ability to respond to those rates. Customers that can automate portions of their load will be best equipped to respond and benefit. Therefore, equitable access to automation devices and technology will be critical in ensuring that all customers can benefit from load-modifying programs. To promote equitable access to automation technology MCE may explore providing additional incentives for low-income customers and/or those who located in disadvantaged communities or multi-family properties who may otherwise not be able to benefit from automated load shifting programs or dynamic rates.

5.2.3 Technological Feasibility

MCE is committed to offering load-modifying programs that encourage customers to shift their load away from periods of grid constraint and high greenhouse gas emissions. MCE strongly supports the LMS' goals to provide customers and their devices access to signals that may help automate their response to marginal signals such as prices and greenhouse gas signals to provide the greatest level of benefit for both the customer and the grid. MCE has demonstrated this support through the development of its MCE Sync EV charging mobile application and the MCE Peak FLEXmarket platform, both of which are technology platforms that help customers adjust their energy consumption through greater visibility. And while MCE believes it is technically feasible to offer customers programs that allow customers to respond to MIDAS signals, currently, both of these load-modifying programs are incompatible with the MIDAS

¹⁸ More information on MCE's energy equity efforts can be found on its website at <https://www.mcecleanenergy.org/energy-equity/#energyequity>.

database, and MCE cannot conclude that modifying them to be compatible would be cost effective or result in material incremental load reduction:¹⁹

- MCE Sync - This program provides a flat monthly credit to customers for participating in events, and does not have rates associated with events, and thus would not support inclusion in MIDAS.
- PeakFLEX Market - There is currently no way for MIDAS to show customers their current real-time rate for this program, as it is based on separate prices (baseline and above-baseline) that depend on a customers' individual usage history, which is not a component of MIDAS.

As MCE's existing load-modifying programs are not currently technologically compatible with MIDAS, if MCE at a later date elects to work towards the goals of the LMS via a MIDAS enabled program offering MCE would need to determine how it could either integrate its existing programs with MIDAS or explore the creation of a new program that would be compatible with the current or future design of MIDAS. Such determinations will need to be made by the Board at a future date.

5.2.4 Benefits to the Grid and Customers

In considering whether to modify existing or offer new load-modifying programs, including those that allow automated response to MIDAS signals, MCE may consider benefits to the grid and customers.

Assuming incremental load shift or reduction that can be attributed to the program, potential grid benefits include reduced capacity costs (for example through lower Resource Adequacy costs), reduced or deferred transmission and distribution system upgrades, lower energy costs, increased reliability benefits, and environmental benefits.

Assuming incremental load shift or reduction that can be attributed to the program, potential customer benefits include pass-through energy cost savings from grid benefits as well as pass-through cost savings from potential reduced compliance costs for MCE, improved reliability, improved environmental benefits, and direct cost savings from participation in load-modifying programs.

All of these potential grid and customer benefits depend on the reliability and magnitude of load shift and reduction that load-modifying programs are able to achieve. MCE is at this time unable to conclude that future programs or modifications to existing programs to allow automated responses to MIDAS signals would result in material grid benefits relative to MCE's existing offerings or result in pass through savings to customers for any customer class. If MCE creates a load-modifying program that allows automated response to MIDAS signals in the future it will

¹⁹ While not a load-modifying program, MCE also notes that its Disadvantaged Community Green Tariff program is also not included in MIDAS currently as it is not compatible with the current design of MIDAS. The 20 percent bill discount for the DAC-GT program is calculated from a customer's total billed charges, inclusive of non-volumetric and variable IOU charges, by reading the total charges from the previous bill. As such, MCE cannot generate a volumetric price inclusive of this discount.

aim to design the program in such a way to generate material benefits to the grid and MCE customers.

6 Public Information Program

Adopted LMS Amendments Section 1623.1(b)(5) of the LMS requests MCE and other Large CCAs to conduct a public information program to inform and educate affected customers on why dynamic rates or load flexibility programs and automation are needed, how they will be used, and how these rates and programs can save customers money.

MCE appreciates the LMS' intent to ensure that any load-modifying rates or programs developed are effectively marketed to customers with the aim of encouraging enrollment and maximizing customer success and grid benefits. As a local, community-based organization, MCE values and is deeply committed to providing quality customer and community communication, education, collaboration, and customer service.

As a general matter, all MCE rates and programs can be found on MCE's website. Any future dynamic rates or load-modifying programs will also be listed and described on its webpage.²⁰ MCE utilizes best practices to provide consistent and accurate communications and response support with its customers and communities. This includes utilizing various communication mediums including joint rate mailers, emails, direct mail, e-newsletters, press releases, webinars, social media posts, public presentations and event attendance and sponsorship throughout MCE's member communities. In 2023 alone, MCE attended more than 250 events in our service area and presented to 69 local community organizations and city councils. MCE plans to continue communication best practices to maintain its outreach, education, and marketing of rates, programs, and pilots that support load flexibility and recognize the benefits of reducing peak load and using energy during periods of higher renewables supply. In addition, MCE has developed an in-house service center to support and effectively respond to customer inquiries and further the education and benefits of load-modifying programs.

Historically, MCE has voluntarily utilized various types of marketing campaigns to drive enrollment and successful participation in rate and program offerings including those created for load-modifying purposes. For example, to encourage customers to shift load on Time-of-Use rates, MCE conducted a public information campaign that included direct mail, website updates, digital advertising, streaming, and radio placement encouraging customers to use less energy during the 4pm - 9pm peak period targeted to customers throughout MCE's service area.²¹

MCE notes that the LMS do not include a timeline for the public information campaign. As there is no timeline expressed in the Standards and MCE has not created or recommended Board approval of any new hourly marginal cost-based rates or programs that allow automated response to MIDAS signals, MCE does not have details on what future public information programs may entail. MCE expects that if dynamic rates or new load flexibility programs are

²⁰ MCE Residential rates can be viewed at <https://www.mcecleanenergy.org/rates/>. MCE Commercial rates can be viewed at <https://www.mcecleanenergy.org/commercial-rates/>. MCE program offerings can be found at <https://www.mcecleanenergy.org/customer-programs/>.

²¹ See <https://www.mcecleanenergy.org/4-9/>.

adopted MCE would utilize a public information program to drive customer adoption, understanding, and success in said rates or programs.

At a minimum, MCE would expect the public information program to highlight how individual customers may be impacted (i.e. bill impacts) and how changes to their behavior can create grid and/or environmental benefits for all customers. This type of public information program would utilize some or all the following communication mediums: direct mail, email correspondence, website updates, social media posts, webinars, television/streaming commercials, press releases or news articles, and public presentations. MCE may also work with its community partners and/or program and technology partners to develop and deliver any public information programs.

MCE expects that any public information campaign would require incremental costs that are not currently accounted for, and MCE would need to factor these public information and response program costs and their recovery into any cost-effectiveness analysis and recommendation to its Board.

7 Appendix

Appendix A – MCE MIDAS Rate Identification Numbers

The below table displays the RINs associated with each of MCE's residential and non-residential rates and rate permutations that have been uploaded to MIDAS.

RIN	Rate Schedule	Energy Supply Product
USCA-XXMC-PBZD-0000	ETOUB	Deep Green
USCA-XXMC-PCZD-0000	ETOUC	Deep Green
USCA-XXMC-PDZD-0000	ETOUD	Deep Green
USCA-XXMC-OZDZ-0000	ELEC	Deep Green
USCA-XXMC-QAZD-0000	EVA	Deep Green
USCA-XXMC-QUZD-0000	EV2	Deep Green
USCA-XXMC-AXZD-0000	A1X	Deep Green
USCA-XXMC-EZDZ-0000	B1	Deep Green
USCA-XXMC-ETZD-0000	B1ST	Deep Green
USCA-XXMC-CZDZ-0000	A6	Deep Green
USCA-XXMC-IZZD-0000	B6	Deep Green
USCA-XXMC-BXCD-0000	A10SX	Deep Green
USCA-XXMC-FZCD-0000	B10S	Deep Green
USCA-XXMC-BXBD-0000	A10PX	Deep Green
USCA-XXMC-FZBD-0000	B10P	Deep Green
USCA-XXMC-BXDD-0000	A10TX	Deep Green
USCA-XXMC-FZDD-0000	B10T	Deep Green
USCA-XXMC-LZCD-0000	E19S	Deep Green
USCA-XXMC-GZCD-0000	B19S	Deep Green
USCA-XXMC-LZBD-0000	E19P	Deep Green
USCA-XXMC-GZBD-0000	B19P	Deep Green
USCA-XXMC-LZDD-0000	E19T	Deep Green
USCA-XXMC-GZDD-0000	B19T	Deep Green
USCA-XXMC-LRCD-0000	E19SR	Deep Green
USCA-XXMC-GRCD-0000	B19SR	Deep Green
USCA-XXMC-LRBD-0000	E19PR	Deep Green
USCA-XXMC-GRBD-0000	B19PR	Deep Green
USCA-XXMC-LRDD-0000	E19TR	Deep Green
USCA-XXMC-GRDD-0000	B19TR	Deep Green
USCA-XXMC-MZCD-0000	E20S	Deep Green
USCA-XXMC-HZCD-0000	B20S	Deep Green
USCA-XXMC-MZBD-0000	E20P	Deep Green
USCA-XXMC-HZBD-0000	B20P	Deep Green

RIN	Rate Schedule	Energy Supply Product
USCA-XXMC-MZDD-0000	E20T	Deep Green
USCA-XXMC-HZDD-0000	B20T	Deep Green
USCA-XXMC-MRCD-0000	E20SR	Deep Green
USCA-XXMC-HRCD-0000	B20SR	Deep Green
USCA-XXMC-MRBD-0000	E20PR	Deep Green
USCA-XXMC-HRBD-0000	B20PR	Deep Green
USCA-XXMC-MRDD-0000	E20TR	Deep Green
USCA-XXMC-HRDD-0000	B20TR	Deep Green
USCA-XXMC-DAED-0000	AGA1	Deep Green
USCA-XXMC-DAFD-0000	AGA2	Deep Green
USCA-XXMC-DBZD-0000	AGB	Deep Green
USCA-XXMC-DCZD-0000	AGC	Deep Green
USCA-XXMC-DGED-0000	AGFA1	Deep Green
USCA-XXMC-DGFD-0000	AGFA2	Deep Green
USCA-XXMC-DGGD-0000	AGFA3	Deep Green
USCA-XXMC-DHED-0000	AGFB1	Deep Green
USCA-XXMC-DHFD-0000	AGFB2	Deep Green
USCA-XXMC-DHGD-0000	AGFB3	Deep Green
USCA-XXMC-DIED-0000	AGFC1	Deep Green
USCA-XXMC-DIFD-0000	AGFC2	Deep Green
USCA-XXMC-DIGD-0000	AGFC3	Deep Green
USCA-XXMC-DJZD-0000	AG4A	Deep Green
USCA-XXMC-DKZD-0000	AG4B	Deep Green
USCA-XXMC-DLZD-0000	AG4C	Deep Green
USCA-XXMC-DMZD-0000	AG5A	Deep Green
USCA-XXMC-DNZD-0000	AG5B	Deep Green
USCA-XXMC-DOZD-0000	AG5C	Deep Green
USCA-XXMC-TZCD-0000	STOUS	Deep Green
USCA-XXMC-TZBD-0000	STOUP	Deep Green
USCA-XXMC-TZDD-0000	STOUT	Deep Green
USCA-XXMC-SZCD-0000	SBS	Deep Green
USCA-XXMC-SZBD-0000	SBP	Deep Green
USCA-XXMC-SZDD-0000	SBT	Deep Green
USCA-XXMC-JZED-0000	BEV1	Deep Green
USCA-XXMC-JUCD-0000	BEV2S	Deep Green
USCA-XXMC-JUBD-0000	BEV2P	Deep Green
USCA-XXMC-NZZD-0000	E6	Deep Green
USCA-XXMC-PBZL-0000	ETOUB	Light Green
USCA-XXMC-PCZL-0000	ETOUC	Light Green
USCA-XXMC-PDZL-0000	ETOUD	Light Green
USCA-XXMC-OZZL-0000	ELEC	Light Green

RIN	Rate Schedule	Energy Supply Product
USCA-XXMC-QAZL-0000	EVA	Light Green
USCA-XXMC-QUZL-0000	EV2	Light Green
USCA-XXMC-AXZL-0000	A1X	Light Green
USCA-XXMC-EZZL-0000	B1	Light Green
USCA-XXMC-ETZL-0000	B1ST	Light Green
USCA-XXMC-CZZL-0000	A6	Light Green
USCA-XXMC-IZZL-0000	B6	Light Green
USCA-XXMC-BXCL-0000	A10SX	Light Green
USCA-XXMC-FZCL-0000	B10S	Light Green
USCA-XXMC-BXBL-0000	A10PX	Light Green
USCA-XXMC-FZBL-0000	B10P	Light Green
USCA-XXMC-BXDL-0000	A10TX	Light Green
USCA-XXMC-FZDL-0000	B10T	Light Green
USCA-XXMC-LZCL-0000	E19S	Light Green
USCA-XXMC-GZCL-0000	B19S	Light Green
USCA-XXMC-LZBL-0000	E19P	Light Green
USCA-XXMC-GZBL-0000	B19P	Light Green
USCA-XXMC-LZDL-0000	E19T	Light Green
USCA-XXMC-GZDL-0000	B19T	Light Green
USCA-XXMC-LRCL-0000	E19SR	Light Green
USCA-XXMC-GRCL-0000	B19SR	Light Green
USCA-XXMC-LRBL-0000	E19PR	Light Green
USCA-XXMC-GRBL-0000	B19PR	Light Green
USCA-XXMC-LRDL-0000	E19TR	Light Green
USCA-XXMC-GRDL-0000	B19TR	Light Green
USCA-XXMC-MZCL-0000	E20S	Light Green
USCA-XXMC-HZCL-0000	B20S	Light Green
USCA-XXMC-MZBL-0000	E20P	Light Green
USCA-XXMC-HZBL-0000	B20P	Light Green
USCA-XXMC-MZDL-0000	E20T	Light Green
USCA-XXMC-HZDL-0000	B20T	Light Green
USCA-XXMC-MRCL-0000	E20SR	Light Green
USCA-XXMC-HRCL-0000	B20SR	Light Green
USCA-XXMC-MRBL-0000	E20PR	Light Green
USCA-XXMC-HRBL-0000	B20PR	Light Green
USCA-XXMC-MRDL-0000	E20TR	Light Green
USCA-XXMC-HRDL-0000	B20TR	Light Green
USCA-XXMC-DAEL-0000	AGA1	Light Green
USCA-XXMC-DAFL-0000	AGA2	Light Green
USCA-XXMC-DBZL-0000	AGB	Light Green
USCA-XXMC-DCZL-0000	AGC	Light Green

RIN	Rate Schedule	Energy Supply Product
USCA-XXMC-DGEL-0000	AGFA1	Light Green
USCA-XXMC-DGFL-0000	AGFA2	Light Green
USCA-XXMC-DGGL-0000	AGFA3	Light Green
USCA-XXMC-DHEL-0000	AGFB1	Light Green
USCA-XXMC-DHFL-0000	AGFB2	Light Green
USCA-XXMC-DHGL-0000	AGFB3	Light Green
USCA-XXMC-DIEL-0000	AGFC1	Light Green
USCA-XXMC-DIFL-0000	AGFC2	Light Green
USCA-XXMC-DIGL-0000	AGFC3	Light Green
USCA-XXMC-DJZL-0000	AG4A	Light Green
USCA-XXMC-DKZL-0000	AG4B	Light Green
USCA-XXMC-DLZL-0000	AG4C	Light Green
USCA-XXMC-DMZL-0000	AG5A	Light Green
USCA-XXMC-DNZL-0000	AG5B	Light Green
USCA-XXMC-DOZL-0000	AG5C	Light Green
USCA-XXMC-TZCL-0000	STOUS	Light Green
USCA-XXMC-TZBL-0000	STOUP	Light Green
USCA-XXMC-TZDL-0000	STOUT	Light Green
USCA-XXMC-SZCL-0000	SBS	Light Green
USCA-XXMC-SZBL-0000	SBP	Light Green
USCA-XXMC-SZDL-0000	SBT	Light Green
USCA-XXMC-JZEL-0000	BEV1	Light Green
USCA-XXMC-JUCL-0000	BEV2S	Light Green
USCA-XXMC-JUBL-0000	BEV2P	Light Green
USCA-XXMC-NZZL-0000	E6	Light Green