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**Board of Directors Meeting
Thursday, March 16, 2023
7:00 P.M.**

Charles F. McGlashan Board Room, 1125 Tamalpais Avenue, San Rafael, CA 94901
Mt. Diablo Room, 2300 Clayton Road, Suite 1150, Concord, CA 94920

Members of the public who wish to observe the meeting and/or offer public comment may do so telephonically via the following teleconference call-in number and meeting ID:

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Webinar ID: 867 8499 2940
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1. Roll Call/Quorum
2. Board Announcements (Discussion)
3. Public Open Time (Discussion)
4. Report from Chief Executive Officer (Discussion)
5. Consent Calendar (Discussion/Action)
 - C.1 Approval of 2.16.23 Meeting Minutes
 - C.2 Approved Contracts for Energy Update
 - C.3 Proposed Second Amendment to Master Services Agreement with R Systems International Limited
6. Fiscal Year 2023/24 Proposed Budgets (Discussion/Action)

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7. Proposed Amendments to MCE Policy 014: Investment Policy (Discussion/Action)
8. Deep Green Resource Mix and New Service Offering (Discussion/Action)
9. Board Matters & Staff Matters (Discussion)
10. Adjourn

The Board may discuss and/or take action on any or all of the items listed on the agenda irrespective of how the items are described.

DISABLED ACCOMMODATION: If you are a person with a disability which requires an accommodation or an alternative format, please call MCE at 1 (888) 632-3674 at least 72 hours before the meeting start time to ensure arrangements for accommodation.

DRAFT

MCE BOARD MEETING MINUTES

Thursday, February 16, 2023

7:00 P.M.

This Meeting was conducted pursuant to the requirements of [Assembly Bill No. 361](#) (September 16, 2021) which allows a public agency to use teleconferencing during a Governor-proclaimed state of emergency without meeting usual [Ralph M. Brown Act](#) teleconference requirements. Committee Members, staff and members of the public were able to participate in the Committee Meeting via teleconference.

Present:

Kari Birdseye, City of Benicia
Edi Birsan, City of Concord
Eli Beckman, Town of Corte Madera
Barbara Coler, Town of Fairfax
Cindy Darling, City of Walnut Creek
Gina Dawson, City of Lafayette
David Fong, Town of Danville
Joelle Gallagher, Alternate, County of Napa and All Four Napa Cities
John Gioia, Contra Costa County
Maika Llorens Gulati, City of San Rafael
Kevin Haroff, City of Larkspur
Kerry Hillis, Town of Moraga
Janelle Kellman, City of Sausalito
C. Williams Kircher, Town of Ross
Tarrell Kullaway, Alternate, Town of San Anselmo
Eduardo Martinez, City of Richmond
Aaron Meadows, City of Oakley
Devin Murphy, City of Pinole
Beth Painter, City of Napa
Charles Palmares, City of Vallejo
Scott Perkins, City of San Ramon
Max Perrey, City of Mill Valley
Patricia Ponce, City of San Pablo
Gabriel Quinto, City of El Cerrito
Katie Rice, County of Marin
Shanelle Scales-Preston, City of Pittsburg
Holli Thier, Town of Tiburon
John Vasquez, County of Solano
Sally Wilkinson, City of Belvedere
K. Patrice Williams, City of Fairfield
Brianne Zorn, City of Martinez

Absent:

Mark Milberg, Alternate, City of Novato
Matt Rinn, City of Pleasant Hill

DRAFT

Staff

& Others:

Jesica Brooks, Board Clerk
Stephanie Chen, Director of Legislative Affairs
Sebastian Conn, Senior Community Development Manager
Darlene Jackson, Lead Board Clerk
Vicken Kasarjian, COO
Tanya Lomas, Internal Operations Assistant
Catalina Murphy, Associate General Counsel
Enyonam Senyo-Mensah, Office Manager
Sabrinna Soldavini, Policy Analyst II
Jamie Tuckey, Chief of Staff
Dawn Weisz, CEO

1. Roll Call

Chair Scales-Preston called the regular meeting to order at 7:02 p.m. with quorum established by roll call.

2. Board Announcements (Discussion)

There were no comments.

3. Public Open Time (Discussion)

Chair Scales-Preston opened the public comment period and there were no comments.

4. Board Introductions (Discussion)

Dawn Weisz, CEO, introduced this item and there were introductions from new Board members.

Chair Scales-Preston opened the public comment period and there were no comments.

5. Report from Chief Executive Officer (Discussion)

Dawn Weisz, CEO, introduced this item and addressed questions from Board members.

Chair Scales-Preston opened the public comment period and there were no comments.

6. Consent Calendar (Discussion/Action)

C.1 12.15.22 Meeting Minutes

C.2 Approved Contract for Energy Update

Chair Scales-Preston opened the public comment period and there were no comments.

DRAFT

Action: It was M/S/C (Perkins/Thier) to **approve Consent Calendar items C.1 and C.2**. Motion carried by unanimous roll call vote. (Absent: Directors Milberg, Rinn and Wilkinson).

7. 2022 Charles F. McGlashan Advocacy Award Presentation (Discussion)

Sebastian Conn, Senior Community Development Manager, introduced this item and addressed questions from Board members.

Chair Scales-Preston opened the public comment period and there were no comments.

Action: No action required.

8. 2022 MCE Climate Action Leadership Award Presentation (Discussion)

Stephanie Chen, Director of Legislative Affairs, introduced this item and addressed questions from Board members.

Chair Scales-Preston opened the public comment period and there were no comments.

Action: No action required.

9. Election of Vice Chair and Addition of Board Members to Committees (Discussion/Action)

Dawn Weisz, CEO, introduced this item and addressed questions from Board members.

Chair Scales-Preston opened the public comment period and there were no comments.

Action 1: **A vote was conducted for the two nominees for MCE Vice Chair and the tally was reported as: 15 for Director Coler and 19 for Director Quinto.** (Absent: Directors Milberg, Rinn, Vasquez).

Action 2: It was M/S/C (Coler/Gulati) to **approve addition of Board Members to Committees. Director Martinez to the Executive Committee, Directors Martinez and Palmares to the Technical Committee, Directors Martinez and Thier to Ad Hoc Virtual Power Plant Committee.** Motion carried by unanimous roll call vote. (Absent: Directors Kircher, Milberg, Rinn, Vasquez, and Wilkinson).

10. In-Person Meetings and Teleconferencing Options Under the Brown Act and AB 2449 (Discussion/Action)

Catalina Murphy, Associate General Counsel, introduced this item and addressed questions from Board members.

DRAFT

Chair Scales-Preston opened the public comment period and there were no comments.

Action: It was M/S/C (Perkins/Birsan) to **approve Board and Committee meetings to be held in person beginning March 1, 2023, subject to the Default Teleconferencing Rules of the Brown Act, when a state-proclaimed State of Emergency is not in place.** (Absent: Directors Kircher, Rinn, Vasquez, and Wilkinson).

11. Policy Update (Discussion)

Stephanie Chen, Director of Legislative Affairs, and Sabrinna Soldavini, Policy Analyst II, introduced this item and addressed questions from Board members.

Chair Scales-Preston opened the public comment period and there were no comments.

Action: No action required.

12. Form 700 – Statements of Economic Interest (Discussion)

Catalina Murphy, Associate General Counsel, introduced this item and addressed questions from Board members.

Chair Scales-Preston opened the public comment period and there were no comments.

Action: No action required.

11. Board Matters & Staff Matters (Discussion)

There were none.

12. Adjournment

Chair Scales-Preston adjourned the meeting at 9:58 p.m. to the next scheduled Board Meeting on March 16, 2023.

Shanelle Scales-Preston, Chair

Attest:

Dawn Weisz, Secretary



March 16, 2023

TO: MCE Board of Directors

FROM: Bill Pascoe, Senior Power Procurement Manager

RE: Approved Contracts for Energy Update (Agenda Item #06 C.2)

Dear Board Members:

SUMMARY:

This report summarizes contracts for energy procurement entered into by the Chief Executive Officer and, if applicable, the Chair of the Technical Committee, since the last regular Board meeting in February. This summary is provided to your Board for information purposes only, and no action is needed.

Review of Procurement Authorities

In March 2018, your Board adopted Resolution 2018-03 which included the following provisions:

The CEO and Technical Committee Chair, jointly, are hereby authorized, after consultation with the appropriate Committee of the Board of Directors, to approve and execute contracts for Energy Procurement for terms of less than or equal to five years. The CEO shall timely report to the Board of Directors all such executed contracts.

The CEO is authorized to approve and execute contracts for Energy Procurement for terms of less than or equal to 12 months, which the CEO shall timely report to the Board of Directors.

The CEO is required to report all such contracts and agreements to the MCE Board of Directors on a regular basis.

<i>Item Number</i>	<i>Month of Execution</i>	<i>Purpose</i>	<i>Average Annual Contract Amount</i>	<i>Contract Term</i>
1	January 2023	Sale of Resource Adequacy	\$425,000	Under 1 Year
2	February 2023	Sale of Renewable Energy	Up to \$3,200,000	Under 1 Year
3	February 2023	Purchase of Renewable Energy	\$1,881,818	1-5 Years
4	February 2023	Purchase of Resource Adequacy	\$6,204,000	1-5 Years
5	February 2023	Purchase of Renewable Energy	\$8,400,840	Over 5 Years
6	February 2023	Purchase of Renewable Energy	\$69,204,000	Over 5 Years

Contract Approval Process: Energy procurement is governed by MCE’s Energy Risk Management Policy as well as Board Resolutions 2018-03, 2018-04, and 2018-08. The Energy Risk Management Policy (Policy) has been developed to help ensure that MCE achieves its mission and adheres to its procurement policies established by the MCE Board of Directors (Board), power supply and related contract commitments, good utility practice, and all applicable laws and regulations. The Board Resolutions direct the CEO to sign energy contracts up to and including 12 months in length.

The evaluation of every new energy contract is based upon how to best fill MCE’s open position. Factors such as volume, notional value, type of product, price, term, collateral threshold and posting, and payment are all considered before execution of the agreement.

After evaluation and prior to finalizing any energy contract for execution, an approval matrix is implemented whereby the draft contract is routed to key support staff and consultants for review, input, and approval. Typically, contracts are routed for commercial, technical, legal, and financial approval, and are then typically routed through the Chief Operating Officer for approval prior to execution. The table below is an example of MCE staff and consultants who may be assigned to review and consider approval prior to the execution of a new energy contract or agreement.

<i>Review Owner</i>	<i>Review Category</i>
Lindsay Saxby (MCE, Director of Power Resources)	Procurement/Commercial
John Dalessi (Pacific Energy Advisors)	Technical Review
Steve Hall (Hall Energy Law)	Legal
Nathaniel Malcolm (MCE, Senior	Legal/CPUC Compliance

Policy Counsel)	
Garth Salisbury (MCE, Chief Financial Officer & Treasurer)	Credit/Financial
Vicken Kasarjian (MCE, Chief Operating Officer)	Executive

Fiscal Impacts: Expenses and revenue associated with these Contracts and Agreements that are expected to occur during FY 2022/23 are within the FY 2022/23 Operating Fund Budget. Expenses and revenue associated with future years will be incorporated into budget planning as appropriate.

Recommendation: Information only. No action required.



March 16, 2023

TO: MCE Board of Directors

FROM: Shuvo Chowdhury, Director of Technology and Analytics
Karamvir Singh, Manager of Analytics, Data Systems

RE: Proposed Second Amendment to Master Services Agreement
with R Systems International Limited (Agenda Item #05 C.3)

ATTACHMENTS: A. Proposed Second Amendment to Master Services
Agreement with R Systems International Limited
B. Schedule A.15 Statement of Work for Data Analytics
Platform; Schedule A.16 Statement of Work for Customer
Relationship Management
C. First Amendment to Master Services Agreement with R
Systems International Limited
D. Master Services Agreement with R Systems International
Limited; Schedule A.1 Statement of Work for Data Analytics
Platform; Schedule A.2 Statement of Work for Customer
Relationship Management

Dear MCE Board Members:

Summary:

Over the last two years, MCE has been working with R Systems International Limited (R Systems) via a Master Services Agreement (MSA) and adjoining scopes of work (Schedules A.1-A.14) to build MCE's own Data Analytics Platform (DAP) and Customer Relationship Management (CRM) system. MCE's new CRM is built upon the industry leading Salesforce platform but much of the interface, business logic, and operations have been custom-designed to support, streamline, and enhance MCE's unique business needs. MCE's CRM became the system of record for customer operations in December 2022 and replaced the formerly used CRM, which was owned by Calpine Energy Solutions.

MCE also operates and maintains a data lake, a centralized repository of data, on which the DAP is built. The DAP allows MCE staff to analyze and correlate data from a

wide range of sources, both external, such as Pacific Gas & Electric Company and the Department of Motor Vehicles, and internal, such as the Public Affairs and Customer Programs departments, in order to better target initiatives, identify trends, and increase efficiency of audits and reporting cycles.

The Amendment

MCE proposes to continue working with R Systems through a Second Amendment to the MSA (Amendment) which would increase the contract value by \$500,000, extend the term of the current agreement for a year, and include the next phase of development. MCE would like R Systems to maintain the DAP and CRM systems and continue development to enhance the abilities of each through two new statements of work (Schedules A.15 and A.16). If the proposed second amendment is approved, Schedules A.15 and A.16 would include the following services:

- CRM:
 - Increase stability of the CRM by adding features to minimize the effects of corrupted data;
 - Reduce the workload needed to eliminate duplicate contacts (these can be customers, vendors, partners, or any number of other entities in MCE's business ecosystem);
 - Standardize how programs are visualized, monitored, and reported for the Customer Programs department;
 - Build out a community portal for more efficient data transfer between external implementers of MCE programs and MCE;
 - Enhance and build out a more advanced version of MCE's customer portal which offers a range of self-service options including signing up for or opting out of MCE service and registering for MCE-administered programs.

- DAP:
 - Host and build the analytics solution for customer usage information using Share My Data (SMD) which is a PG&E tool that allows residential customers to share their energy data with designated third parties;
 - Facilitate backend processing of customer opt-ins, opt-outs, and product change requests;
 - Support the CRM with more timely data feeds from external sources to reduce delays;
 - Build out a customer trend dashboarding solution that visualizes the number of customers served, separated into relevant categories like customer type, and provides insight into customer behavior during particular events (like a rate increase or a PSPS alert);

- Support data needs for the Richmond Virtual Power Plant (VPP) pilot and any future VPP needs.

If approved, the functionality of the DAP and CRM would continue to be enhanced in the next phase of work. The proposed Amendment would allow for MCE's Chief Executive Officer or Chief Operating Officer to approve amendments to the proposed statements of work, or additional statements of work, if necessary, within the overall not-to-exceed amount so the data management platform project can continue without interruption.

Fiscal Impacts: Net increase in contract amount of \$500,000 to the existing not-to-exceed total of \$1,250,000 (as amended), bringing the total not-to-exceed contract value to \$1,750,000. Costs related to the proposed Amendment are included in the Proposed FY 2023/24 Operating Fund Budget.

Recommendation: Approve the proposed Second Amendment to the Master Services Agreement with R Systems International Limited.

SECOND AMENDMENT TO MASTER SERVICES AGREEMENT BY AND BETWEEN MARIN CLEAN ENERGY AND R SYSTEMS INTERNATIONAL LIMITED

This SECOND AMENDMENT is made and entered into on March 16, 2023, by and between MARIN CLEAN ENERGY (hereinafter referred to as "MCE") and R SYSTEMS INTERNATIONAL LIMITED (hereinafter referred to as "Contractor").

RECITALS

WHEREAS, MCE and Contractor entered into an agreement on April 9, 2021, and subsequently amended on March 7, 2022, to implement phases of the Data Analytics Platform and Customer Relationship Manager Platform ("Agreement"); and

WHEREAS, Section 3 and Exhibit B to the Agreement, as amended, provided for Contractor to be compensated in an amount not to exceed \$1,250,000 for the services described within the statements of work therein; and

WHEREAS, the parties desire to amend the Agreement to increase the contract amount by \$500,000 for total consideration not to exceed \$1,750,000; and

WHEREAS, Section 4 of the Agreement stated the Agreement shall terminate on March 31, 2023; and

WHEREAS, the parties desire to amend the Agreement to extend the time of the Agreement;

NOW, THEREFORE, the parties agree to modify Section 3, Section 4, and Exhibit B as set forth below.

AGREEMENT

1. Section 3 is hereby amended to read as follows:

MAXIMUM COST TO MCE:

In no event will the cost to MCE for the Services to be provided herein exceed the maximum sum of **\$1,750,000**.

2. Section 4 is hereby amended to read as follows:

TERM OF AGREEMENT:

This Agreement shall commence on **April 1, 2021** (Effective Date"), and shall terminate on **March 31, 2024**, unless earlier terminated pursuant the terms and conditions set forth in Section 12.

3. The last sentence of Exhibit B is hereby amended to read as follows:

In no event shall the total cost to MCE for the services provided herein exceed the **maximum sum of \$1,750,000** for the term of the Agreement.

4. Except as otherwise provided herein all terms and conditions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this SECOND AMENDMENT TO THE MASTER SERVICES AGREEMENT on the day first written above.

MARIN CLEAN ENERGY:

CONTRACTOR:

By:

By:

Date:

Date:

Chairperson:

By:

Date:

Statement of Work

Schedule A.15 Statement of Work for Data Analytics Platform ("DAP")

This Schedule A.15 is entered into as of **April 1, 2023 ("Schedule A.15")** pursuant to the Master Services Agreement between MARIN CLEAN ENERGY, hereinafter referred to as "MCE", and R Systems International Limited, hereinafter referred to as "Contractor", dated **April 9, 2021**, as amended **March 7, 2022**, and **March 16, 2023 ("MSA")**.

MCE and Contractor hereby agree that Schedule A.13 is terminated as of March 31, 2023.

Contractor will provide the following services as requested and directed by MCE Director of Technology and Analytics, up to the maximum time/fees allowed under this Statement of Work:

- Provide continuous support for MCE's DAP, as detailed in **Attachment K**

Attached as **Attachment K** is the technical scope of work for this request. In the event there is any conflict between the Terms of this MSA and Attachment K regarding the services and the relationship between the Parties, the Terms of this MSA shall govern and control the rights and obligations of MCE and Contractor.

Billing:

Contractor shall bill monthly on a time and materials basis and according to the rate schedule listed in Exhibit B of the MSA for hours performed. In no event shall the total cost to MCE for the services provided under this Statement of Work exceed the maximum sum of **\$200,000** for the term of this Statement of Work. In no event shall the total cost to MCE for the services provided under all statements of work between Contractor and MCE exceed the contract amount set forth in Section 3 of the MSA as amended.

Term of Statement of Work:

This Statement of Work shall commence on **April 1, 2023**, and shall terminate on **March 31, 2024**.

IN WITNESS WHEREOF, the parties have executed this Statement of Work – Schedule A.15 on the date first above written.

APPROVED BY
Marin Clean Energy:

Contractor:

By: _____

By: _____

Title: _____

Name: _____

Date: _____

Date: _____

Statement of Work

Schedule A.16 Statement of Work for Customer Relationship Management ("CRM")

This Schedule A.16 is entered into as of **April 1, 2023 ("Schedule A.16")** pursuant to the Master Services Agreement between MARIN CLEAN ENERGY, hereinafter referred to as "MCE" and R Systems, International Limited, hereinafter referred to as "Contractor," dated **April 9, 2021**, as amended **March 7, 2022**, and **March 16, 2023 ("MSA")**.

MCE and Contractor hereby agree that Schedule A.14 is terminated as of March 31, 2023.

- Implement the next phase of CRM for MCE, as detailed in **Attachment L**

Attached as **Attachment L** is the technical scope of work for this request. In the event there is any conflict between the Terms of this MSA and Attachment L regarding the services and the relationship between the Parties, the Terms of this MSA shall govern and control the rights and obligations of MCE and Contractor.

Billing:

Contractor shall bill monthly on a time and materials basis and according to the rate schedule listed in Exhibit B of the MSA for hours performed. In no event shall the total cost to MCE for the services provided under this Statement of Work exceed the maximum sum of **\$300,000** for the term of this Statement of Work. In no event shall the total cost to MCE for the services provided under all statements of work between Contractor and MCE exceed the contract amount set forth in Section 3 of the MSA as amended.

Term of Statement of Work:

This Statement of Work shall commence on **April 1, 2023**, and shall terminate on **March 31, 2024**.

IN WITNESS WHEREOF, the parties have executed this Statement of Work – Schedule A.16 on the date first above written.

APPROVED BY
Marin Clean Energy:

Contractor:

By: _____

By: _____

Title: _____

Name: _____

Date: _____

Date: _____

Attachment K

Technical Scope of Work for Next Phase of Data Analytics Platform

1.1 Major milestones

High level deliverables

1. Maintenance of existing Data Warehouse System.
2. Introduction of new datasets – Share My Data (SMD), Aging Report, MCE Generational Rates, etc.
3. Completion of Calpine to SMUD transition activities.
4. Platform administration.

Detailed deliverables

1. Data Ingestion

- a. Item 16 and Item 17 data
- b. Customer data (CRCR files)
- c. SMUD data
- d. Billing data (Invoice data)
- e. PG&E Blue Bills (Monthly Energy Statements)
- f. Gas data (ingestion and processing)
- g. Spatial dataset
- h. Ad-hoc data

2. ETL data pipeline

- a. Interval/Usage data transformation logic (3 days window for usage data)
- b. XML data modeling
- c. Create the ETL job using PySpark
- d. Test the ETL job end to end

3. Azure Databricks (provision on demand)

- a. Analyze cost effectiveness of Azure Databricks (provision on demand) .
- b. Produce and automate all data pipelines.

4. Data warehouse (Azure Synapse)

- a. Create tables and views for the following data:
 - i. Customer data
 - ii. SMD data
 - iii. Billing data
 - iv. PG&E Blue Bills
- b. Use Azure Synapse as serverless service to utilize pay-per-use.

5. Reporting

- a. BI Environment creation and report generation.

6. CRM support

- a. Data engineering team will support CRM team for data engineering work in Azure Synapse.

7. Job Monitoring

- a. Create robust metadata and auditing log tables.
- b. Create monitoring design for both Customer and Usage Job.
- c. Metrics and key performance indicators should include, but are not limited to,;
 - i. How many jobs ran in a time window.
 - ii. Job Status: Which jobs failed or succeeded.
 - iii. ETL job execution time and detail.

2.1 R Systems Resources

The primary responsibilities of the roles are described herein, but it is also understood that the individuals will not be limited to the stated responsibilities and will be required to take up other appropriate tasks and responsibilities as the project demands.

While not all team members will be working full-time, the Azure Synapse Engineers will be.

Role	Role Description	Responsibilities
Data Engineer	5-10 years of experience in working with ETL data pipelines on-prem and cloud. 2+ years of experience working with Azure data platform including ADLS and Azure Data warehouse.	Configure, install, develop, deploy, and schedule Data pipeline in-line with designed Azure architecture and infrastructure. Job design review sessions and performance recommendations. Perform ETL and do data validation.
BI Engineer	5-10 years of experience in data visualization	Design, develop, and maintain business intelligence reports.

2.2 Assumption

- Adding/removing personnel resources such as, but not limited to, the roles described in section 2.1 will require a 1 month notice period.
- For Customer 4013
 - Files will be copied from PG&E server only
 - There are approx. 15 Reference tables
 - Design will be provided by MCE
- SMUD
 - Design will be provided by MCE

3.1 Team Composition

Here is the proposed team composition:

Team Member	Number of Members
Data Engineer	2.5
BI Engineer	0.5

4.1 Duration

This is a time and materials-based project that will require 52 weeks of effort for DAP Development and Support.

5.1 Cost

Includes design and implementation.

Offshore **52 weeks** engagement

Name	Hours	Hourly Rate
Data Engineer 1	40 hours/week	\$35
Data Engineer 2	40 hours/week	\$35
Data Engineer 3	20 hours/week	\$35
BI Engineer 1	20 hours/week	\$35

Additional resources

If more resources are needed beyond the three data engineers and one BI engineer, they can be added according to the rate table below.

Resource	Hourly rate
Data Engineer	\$35
Visualization Developer	\$35

Payment Terms

R Systems will invoice MCE for all time expended at the agreed upon hourly rate plus actual travel and living expenses. Any travel needed by Contractor to perform the Services herein require MCE's approval prior to the expense being incurred. MCE will be billed monthly.

5.1 Change Request Form

CHANGE REQUEST FORM

Change Description		
Project Name:	Change Name:	Number:
Requested By:	Contact:	Date:
Description of Change:		
Reason for Change:		
Priority [Circle One]: 1. High 2. Medium 3. Low		
Impact on Deliverables:		
Impact of Not Responding to Change (and Reason Why):		
Date Needed:	Approval of Request:	Date:

Change Impact
Tasks/Scope Affected:
Cost Evaluation:
Risk Evaluation:
Additional Resources:
Duration:
Impact on Deadline:
Comments:

Sign Offs	
[Circle One]: 1. Accepted 2. Deferred 3. Rejected 4. More Info Requested	
Comments:	
Project Manager Signature:	Date:
Decision Maker Signature:	Date:

Attachment L

Technical Scope of Work for Next Phase of Customer Relationship Management

Contractor will hereinafter be referred to as “Implementer”, “R Systems”, “our” and/or “we” and MCE will hereinafter be referred to as “User”, “you” and/or “your”.

1.1 Project Lifecycle

This Project will be implemented in concurrence with Agile methodology framework.

1.1.1 Project Standard Operating Procedures

The following section will define roles and responsibilities of Implementer for the Project

- We will create user stories based on the requirements shared by MCE.
- We will follow Source Code versioning standards as defined by MCE.
- Our team will be responsible for Code reviews before deployments.
- We will be responsible for Solution Design, development activities, and unit testing.
- We will ensure adherence to Salesforce coding standards and subsequent coding best practices.
- Deployment to be undertaken by the Implementer along with publishing a consolidated list of deployment artefacts at end of each sprint.
- MCE to provide written user acceptance testing sign-off prior to Production deployment.
- We will provide following set of documents at the time of Project completion including but not limited to:
 - Technical Implementation details
 - Architectural Limitations details (if any)
 - Deployment Document
 - Change Log
- We will provide 2 weeks of Post Go Live warranty support.
- MCE to provide Project Completion Certificate Post Go Live.
- We will provide user training as required by MCE.

1.1.2 Quality Assurance Scope

The responsibility for Quality Assurance will be with MCE which should include, but is not limited to, the following:

- Validate and sign off acceptance criteria for each story.
- Smoke and Sanity checks at end of each deployment cycle.
- Regression testing at point of delivery of each sprint increment.
- Establish a bug tracking interface and turnaround cadence.
- Publish a fully detailed test case repository on any tool as chosen by MCE.

- Publish a passing percentage report for each sprint increment.

1.2 General Scope and Deliverable

CRM Setup & Security

The Salesforce setup will encompass the following artifacts:

d. User Profiles & Permission Sets

Profiles in Salesforce defines the tasks an authorized user can perform in the system. It also controls what data they can or cannot see. Permission Sets open additional access that is required by only a specific sub-set of users underneath common/different profiles.

e. User Roles

The Implementer will modify the user role hierarchy structure in Salesforce, as needed. Role Hierarchy can be used with Organization-Wide Security settings to determine the levels of access that users have to your CRM data. Roles within the hierarchy affect access on key components such as records and reports.

f. User Credentials

The Implementer will modify each user to have a unique username, password, and Profile, as needed. This deliverable will include creating Salesforce Users for identified MCE Resources.

g. Organization-Wide Security

The organization-wide sharing defaults will set the baseline access for records. This allows controlling visibility of record rows based on Record Ownership. It allows controlling access to an Object's records by setting them as Full control to Owner, Read Only for Everyone except Owner, Read Write for Everyone, etc. It also allows opening record access to Salesforce users above the Owner in the Role Hierarchy.

Document Deliverables & User Trainings

MCE will provide the following, with support from the implementer:

- Business Requirement Document - This will document the User Stories for each Major Deliverable.

The Implementer will provide the following:

1. Solution Design Document which will include Technical Implementation and Architectural Limitations.

2. Deployment Document which will include the pre and post deployment steps to take for successfully deploying the changes to the Production CRM Environment.

The Implementer will also conduct the following trainings for MCE Administrators:

- Managing the Salesforce Environment
- Onboarding and offboarding Salesforce users

The Implementer will conduct trainings for identified MCE users to help them understand and familiarize themselves with the system. MCE will be responsible for providing the list of users.

1.3 Specific Technical Deliverables

Implementer will provide the following high level CRM deliverables in Sprints, tracked using Asana.

- Development of new features.
- Maintenance of existing system.
- Support of existing features.
- Enhancement of existing and new functionality.

1.4 Deployment

The following environments will be provisioned:

Prod Environment

The development will start in a sandbox environment and once the user acceptance training ("UAT") is complete, all changes will be pushed into production.

Dev Environment

Each developer will have their own dev environment, if needed, and push changes daily to fullcopy sandbox.

1.4.1 Discovery Process

For each Discovery Phase, R Systems will engage with a stakeholder identified by MCE. This engagement will be conducted over daily scheduled calls between the MCE stakeholder and R Systems at a mutually acceptable time.

MCE stakeholders will be responsible for sharing the business processes and security considerations required. As part of the discussions, R Systems will document and prepare:

- a) A System Requirement Specification Document (SRS) capturing the requested business processes and security considerations for review and approval by MCE. This SRS will be considered as an Epic (collection of work supporting high-level strategic goals).
- b) Individual user stories under the Epic by breaking the SRS into small, manageable, and trackable development pieces. Each user story will be recorded as a project backlog, planned for each Sprint Milestone as part of the details outlined in Section 1.3, Project Charter. Stories include but not be limited to:
 - a. Schema Changes (Custom Objects & Fields)
 - b. Display Layout Changes (Page Layouts)
 - c. Security Changes (Field Level Security, Organization Wide Sharing Settings, Profile Access, Sharing Rules)
 - d. Business Processes (Validation Rules, Automations)
 - e. Acceptance Criteria which will define Definition of Done (DoD).
 - i. MCE will be responsible for signing off on the Acceptance Criteria for each story documented in the tool (Jira / Asana / Trello / Any other tool proposed by MCE) to freeze the requirement of each ticket.

R Systems will be documenting the above in a Tool provided and approved by MCE.

Quality Assurance Process

The Quality Assurance process will be MCE's Responsibility as detailed in section 1.1.2 (above).

The following process will be followed per sprint:

- a) R Systems will develop individual user stories defined in the Discovery Phase in Developer Sandboxes and perform unit testing to ensure that the stories meet the defined Acceptance Criteria.
- b) R Systems will then deploy changes for individual user stories to QA Sandbox thereby making these changes available for MCE's QA team to validate.
- c) MCE's QA team will test these deployed user stories as per the QA scope and ensure that all the parameters laid out under the Acceptance criteria are met.
- d) In case any deviation is identified, QA Team will raise appropriate Bug / Enhancement Tickets for the Development team to fix either as part of the current Sprint or as part of the upcoming sprint.
- e) Once all laid out parameters for the story are met, the QA Team will be responsible to mark the Story as QA Complete.
- f) Any Change Requests identified during QA Testing, will be logged as a separate User Story (Enhancement), and will be placed in the Project Backlog. R Systems will be responsible to perform Effort estimations to evaluate if it can be absorbed as part of this project's scope or taken up as a future project.

1.4.2 Project Planning & Coordination

At project kick-off, R Systems will engage all the stakeholders responsible for implementation of the project. The stakeholders, including MCE's designee, will be involved in the initial project planning and shall be kept in consultation while monitoring the progress and refining plans and documents across different phases. The R Systems Project Manager will be responsible for managing the activities identified during Discovery, supporting the execution of the project, and coordinating the response to the queries raised during the project.

1.4.3 Project Tracking & Reporting

The following communication mechanisms will be used for regular and effective tracking of project progress.

a) Daily Scrum Calls

R Systems will conduct a daily scrum call and involve respective MCE stakeholders to resolve impediments (if any) on as needed basis.

b) Weekly & Monthly Status Report

R Systems team will publish a weekly & monthly status report to all stakeholders from R Systems and MCE providing the following details:

- Dashboard of progress against planned activities with original schedule, overruns, reasons for overruns, and revised schedule (if required)
- Milestones achieved in previous week, with plan for the next week
- Problems encountered, corrective actions taken, and outstanding problems
- Change request tracking, risk identification, analysis, mitigation, and contingencies

1.4.4 User Acceptance Testing

The testing will be based on an acceptance test plan, prepared by the MCE Technology and Analytics team and other designated members. The prime objective of user acceptance testing is to allow the users to test the complete Request Tracking Systems (RTS) built on Salesforce to ensure it satisfies the business objectives and requirements that were originally described in the RFO and validated later during phase one with the users. The users are responsible for testing the application; the role of R Systems is to support testing. Before this test can begin, the following activities need to be completed:

- Conversion & migration of existing data to new system that serves two purposes, namely:
 - Validating data conversion
 - Testing with real data

- Creation of user acceptance test (UAT) case
- Use of bug tracking system to log and monitor identified bugs. Test cases would be repeated until the program successfully passes the test cases.
- Creation of Test Report and a joint review meet by R Systems, at the conclusion of UAT phase, to discuss the UAT Report.
- All bugs will be resolved prior to UAT completion. Successful completion of a UAT marks acceptance of the Request Tracking system, and any other new implementations.

1.4.5 Knowledge Transfer & Training

R Systems will perform a knowledge transfer to MCE. The knowledge transfer will involve:

- Delivering a written comprehensive plan that outlines all elements of the knowledge transfer.
- Providing MCE representatives access to all development, testing, staging, and other environments needed to support the Salesforce enhancements.
- Training MCE Technology and Analytics staff on Salesforce enhancements at the conclusion of each iteration cycle. No less than one training session a month.
- Providing execution and control status of knowledge transfer at the end of each development sprint cycle/iteration. As requested by MCE Director of Technology and Analytics, R Systems will provide execution and control status of knowledge transfer in weekly status reports.
- Delivering a written report along with a presentation to MCE on lessons learned on the knowledge transfer process.
- Ensuring a successful knowledge transfer to MCE at the end of each iteration. Successful completion of knowledge transfer requires a formal MCE acceptance in writing. A successful knowledge transfer includes delivery of desk procedures, user guides on software updates, maintenance, and operations.

1.5 High Level Project Schedule

There will be multiple two- week sprints and each will focus on delivering a predefined and agreed set of features. Sprints will include:

- | | |
|--------------------------------|--------------------------------|
| • Story Boarding/Task Planning | • Solution/Feature Development |
| • Test Deployment | • User Demo |

1.6 Assumptions

- MCE will assign appropriate contact(s) to participate on an as-needed basis. The contact(s) should be able to understand the project purpose, make decisions related to

requirements, provide & facilitate access to necessary individuals & information within MCE, and approve final deliverables.

- MCE will provide necessary and sufficient access to software applications and network for this effort.
- The Solution is based on the provided Requirement document.
- As part of the best practice recommended by Salesforce, Implementer will be leveraging Out of the Box (OOB) functionality.
- Any customization needs to be approved by both MCE's Director of Technology and Analytics and R Systems.
- The Solution Design consideration should be 90% OOB and only 10% customization. Any deviation should require proper discussion, impacts, and email approval from MCE.
- Test Coverage for customization should be minimum 90%.
- All User stories should be captured in JIRA.
- Implementation should be by using Agile Methodology.
- Complete implementation will happen by using Lightning Web Component (LWC).
- The following Sandboxes, will be provided for the project implementation
 - 1 (Partial Copy) Sandbox will be available for DEV
 - 1 (Partial Copy) Sandbox will be available for QA
 - 1 (Full Copy Sandbox) will be available for UAT.

1.7 Cost

Includes design and implementation.

Offshore and onsite engagement

Name	Hours	Hourly Rate
Offshore CRM developer 1	40 hours/week	\$35
Offshore CRM developer 2	40 hours/week	\$35
Offshore CRM lead	40 hours/week	\$35
Offshore Technical Architect	40 hours/week	\$55
Offshore QA	40 hours/week	\$35

2 Duration

The term of this SOW begins on April 1, 2023 and ends on March 31, 2024. Any change in project duration, resource requirement, and scope will be subject to change request to be mutually discussed, agreed, and approved in writing by MCE and Implementer.

FIRST AMENDMENT TO MASTER SERVICES AGREEMENT BY AND BETWEEN MARIN CLEAN ENERGY AND R SYSTEMS INTERNATIONAL LIMITED

This FIRST AMENDMENT TO MASTER SERVICES AGREEMENT is made and entered into on March 7, 2022, by and between MARIN CLEAN ENERGY (hereinafter referred to as "MCE") and R SYSTEMS INTERNATIONAL LIMITED (hereinafter referred to as "Contractor").

RECITALS

WHEREAS, MCE and Contractor entered into a Master Services Agreement on April 9, 2021 to implement phases of the Data Analytics Platform and Customer Relationship Manager Platform ("MSA"); and

WHEREAS, Section 3 and Exhibit B to the MSA provided for Contractor to be compensated in an amount not to exceed \$550,000 for the services described within the statements of work therein; and

WHEREAS, the parties desire to amend the MSA to increase the contract amount by \$700,000 for total consideration not to exceed \$1,250,000; and

WHEREAS, Section 4 of the MSA stated the MSA shall terminate on March 31, 2022; and

WHEREAS, the parties desire to amend the MSA to extend the time of the MSA;

NOW, THEREFORE, the parties agree to modify Section 3, Section 4, and Exhibit B as set forth below.

MSA

1. Section 3 is hereby amended to read as follows:

MAXIMUM COST TO MCE:

In no event will the cost to MCE for the Services to be provided herein exceed the maximum sum of **\$1,250,000**.

2. Section 4 is hereby amended to read as follows:

TERM OF AGREEMENT:

This Agreement shall commence on **April 1, 2021** ("Effective Date") and shall terminate on **March 31, 2023**, unless earlier terminated pursuant the terms and conditions set forth in Section 12.

3. The last sentence of Exhibit B is hereby amended to read as follows:

In no event shall the total cost to MCE for the services provided herein exceed the **maximum sum of \$1,250,000** for the term of the Agreement.

4. Except as otherwise provided herein all terms and conditions of the MSA shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this FIRST AMENDMENT TO MASTER SERVICES AGREEMENT on the day first written above.

MARIN CLEAN ENERGY:

CONTRACTOR:

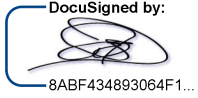
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Date: 3/9/2022

Date: 3/18/2022

CHAIRPERSON:

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Date: 3/7/2022

**MASTER SERVICES AGREEMENT
BY AND BETWEEN
MARIN CLEAN ENERGY AND R SYSTEMS INTERNATIONAL LIMITED**

THIS MASTER SERVICES AGREEMENT ("Agreement") is made and entered into on **April 9, 2021** by and between MARIN CLEAN ENERGY (hereinafter referred to as "MCE") with principal office at 1125 Tamalpais Avenue, San Rafael, CA 94901 and R Systems International Limited, an Indian corporation with principal office at C-40, Sector 59, Noida 201307 UP India and United States address at: 5000 Windplay Drive, El Dorado Hills, CA 95762 (hereinafter referred to as "Contractor") (each, a "Party," and, together, the "Parties").

RECITALS:

WHEREAS, MCE desires to retain Contractor to provide the services described in statements of work ("Statement of Work") to be agreed by the Parties, in form and substance as set forth on **Exhibit A** attached hereto, and which shall be considered Schedules hereto;

Each Statement of Work executed by and between the Parties are made a part hereof ("Services");

WHEREAS, Contractor desires to provide the Services to MCE;

NOW, THEREFORE, in consideration of the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. SCOPE OF SERVICES:

Contractor agrees to provide all of the Services in accordance with the terms and conditions of this Agreement. "Services" shall also include any other work performed by Contractor pursuant to this Agreement.

2. FEES AND PAYMENT SCHEDULE; INVOICING:

The fees and payment schedule for furnishing Services under this Agreement shall be based on a time and materials basis and as further set forth in **Exhibit B** and by this reference incorporated herein. The hourly rates in Exhibit B shall remain in effect for the entire term of the Agreement ("Term"). The hourly rates in Exhibit B are exclusive of any applicable sales tax or GST which shall be added on the invoices. MCE will pay the applicable fees after MCE reviews and accepts the itemized invoices provided by Contractor for a particular Statement of Work on a monthly basis for services rendered the month prior. Contractor will bill MCE based on the number of hours expended on a Statement of Work for that month, however MCE will not be obligated to pay the applicable fees unless and until MCE Manager of Technology and Analytics has accepted the weekly Deliverables (as set forth in each Statement of Work and attachments thereto) delivered during the invoiced month. Invoices submitted by Contractor shall be considered as accepted and final in case there is no objection by MCE, in writing, within twenty-one business (21) days from the date of submission of the invoice. Contractor shall provide MCE with Contractor's Federal Tax I.D. number prior to submitting the first invoice. Contractor is responsible for billing MCE in a timely and accurate manner. Contractor shall email invoices to MCE on a monthly basis for any Services rendered or expenses incurred hereunder. Fees and expenses invoiced beyond ninety (90) days will not be reimbursable. The final invoice must be submitted within thirty (30) days of completion of the stated scope of services or termination of this Agreement. MCE will process payment for undisputed invoiced amounts within thirty (30) days after acceptance of the applicable Deliverables.

3. MAXIMUM COST TO MCE:

In no event will the cost to MCE for the Services to be provided herein exceed the maximum sum of **\$550,000**.

4. TERM OF AGREEMENT:

This Agreement shall commence on **April 1, 2021** ("Effective Date") and shall terminate on **March 31, 2022**, unless earlier terminated pursuant to the terms and conditions set forth in Section 12.

5. REPRESENTATIONS; WARRANTIES; COVENANTS:

5.1. CONTRACTOR REPRESENTATIONS AND WARRANTIES. Contractor represents, warrants and covenants that (a) it is a **corporation** duly organized, validly existing and in good standing under the laws of India, (b) it has full power and authority and all regulatory authorizations required to execute, deliver and perform its obligations under this Agreement and all exhibits, schedules and addenda and to engage in the business it presently conducts and contemplates conducting, (c) it is and will be duly licensed or qualified to do business and in good standing under the laws of the State of California and each other jurisdiction wherein the nature of its business transacted by it makes such licensing or qualification necessary and where the failure to be licensed or qualified would have a material adverse effect on its ability to perform its obligations hereunder, (d) it is qualified

and competent to render the Services and possesses the requisite expertise to perform its obligations hereunder, (e) the execution, delivery and performance of this Agreement and all exhibits, schedules and addenda hereto are within its powers and do not violate the terms and conditions in its governing documents, any contracts to which it is a party or any law, rule, regulation, order or the like applicable to it, (f) this Agreement and each exhibit, schedule and addendum constitutes its legally valid and binding obligation enforceable against it in accordance with its terms, and (g) it is not bankrupt and there are no proceedings pending or being contemplated by it or, to its knowledge, threatened against it which would result in it being or becoming bankrupt.

- 5.2. RIGHTS AND AUTHORITY.** Contractor represents, warrants and covenants that the Services and Deliverables will not: (i) infringe any third-party patent, copyright, trademark, trade secret, or other proprietary right, (ii) contain viruses or other malicious code that will degrade or infect any Deliverables, products, services, software, or MCE's network or systems and (iii) the Deliverables are not governed, in whole or in part, by an Excluded License. "Excluded License" means any software license requiring, as a condition of use, modification, or distribution that the software or other software combined or distributed with it be (i) disclosed or distributed in source code form, (ii) licensed to make derivative works, or (iii) redistributable at no charge.
- 5.3. COMPLIANCE WITH APPLICABLE LAW:** At all times during the Term and the performance of the Services, Contractor shall comply with all applicable federal, state and local laws, regulations, ordinances and resolutions ("Applicable Law")
- 5.4. LICENSING.** At all times during the performance of the Services, Contractor represents, warrants and covenants that it has and shall obtain and maintain, at its sole cost and expense, all required permits, licenses, certificates and registrations required for the operation of its business and the performance of the Services. Contractor shall promptly provide copies of such licenses and registrations to MCE at the request of MCE.
- 5.5. NONDISCRIMINATORY EMPLOYMENT:** Contractor shall not unlawfully discriminate against any individual based on race, color, religion, nationality, sex, sexual orientation, gender identity, age or condition of disability. Contractor understands and agrees that Contractor is bound by and shall comply with the nondiscrimination mandates of all federal, state, and local statutes, regulations, and ordinances.
- 5.6. PERFORMANCE ASSURANCE:** Regardless of the specific Services provided, Contractor shall also maintain any performance assurances as may be reasonably requested by MCE during the performance of the Services.
- 5.7. SAFETY:** At all times during the performance of the Services, Contractor represents, warrants and covenants that it shall:
- (a) abide by all applicable federal and state Occupational Safety and Health Administration requirements and other applicable federal, state, and local rules, regulations, codes and ordinances to safeguard persons and property from injury or damage;
 - (b) abide by all applicable MCE security procedures, rules and regulations and cooperate with MCE security personnel whenever on MCE's property;
 - (c) abide by MCE's standard safety program contract requirements as may be provided by MCE to Contractor from time to time;
 - (d) provide all necessary training to its employees, and require Subcontractors to provide training to their employees, about the safety and health rules and standards required under this Agreement;
 - (e) have in place an effective Injury and Illness Prevention Program that meets the requirements all applicable laws and regulations, including but not limited to Section 6401.7 of the California Labor Code. Additional safety requirements (including MCE's standard safety program contract requirements) are set forth elsewhere in the Agreement, as applicable, and in MCE's safety handbooks as may be provided by MCE to Contractor from time to time;
 - (f) be responsible for initiating, maintaining, monitoring and supervising all safety precautions and programs in connection with the performance of the Agreement; and
 - (g) monitor the safety of the job site(s), if applicable, during the performance of all Services to comply with all applicable federal, state, and local laws and to follow safe work practices.
- 5.8. BACKGROUND CHECKS:**
- (a) Contractor hereby represents, warrants and covenants that any employees, members, officers, contractors, Subcontractors and agents of Contractor (each, a "Contractor Party," and, collectively, the "Contractor Parties") having or requiring access to MCE's assets, premises, customer property ("Covered Personnel") shall have successfully passed background screening on each such individual, prior to receiving access, which screening may include, among other things to the extent applicable to the Services, a screening of the individual's educational background, employment history, valid driver's license, and court record for the seven (7) year period immediately preceding the individual's date of assignment to perform the Services.

(b) Notwithstanding the foregoing and to the extent permitted by applicable law, in no event shall Contractor permit any Covered Personnel to have one or more convictions during the seven (7) year period immediately preceding the individual's date of assignment to perform the Services, or at any time after the individual's date of, assignment to perform the Services, for any of the following ("Serious Offense"): (i) a "serious felony," similar to those defined in California Penal Code Sections 1192.7(c) and 1192.8(a), or a successor statute, or (ii) any crime involving fraud (such as, but not limited to, crimes covered by California Penal Code Sections 476, 530.5, 550, and 2945, California Corporations Code 25540), embezzlement (such as, but not limited to, crimes covered by California Penal Code Sections 484 and 503 et seq.), or racketeering (such as, but not limited to, crimes covered by California Penal Code Section 186 or the Racketeer Influenced and Corrupt Organizations ("RICO") Statute (18 U.S.C. Sections 1961-1968)).

(c) To the maximum extent permitted by applicable law, Contractor shall maintain documentation related to such background and drug screening for all Covered Personnel and make it available to MCE for audit if required pursuant to the audit provisions of this Agreement.

(d) To the extent permitted by applicable law, Contractor shall notify MCE if any of its Covered Personnel is charged with or convicted of a Serious Offense during the term of this Agreement. Contractor shall also immediately prevent that employee, representative, or agent from performing any Services.

5.9. FITNESS FOR DUTY: Contractor shall ensure that all Covered Personnel report to work fit for their job. Covered Personnel may not consume alcohol while on duty and/or be under the influence of drugs or controlled substances that impair their ability to perform the Services properly and safely. Contractor shall, and shall cause its Subcontractors to, have policies in place that require their employees, contractors, subcontractors and agents to report to work in a condition that allows them to perform the work safely. For example, employees should not be operating equipment under medication that creates drowsiness.

5.10. QUALITY ASSURANCE PROCEDURES (REQUIRED IF CHECKED ☒). Contractor shall comply with the Quality Assurance Procedures and requirements as established in any Statement of Work.

Additionally, Quality Assurance Procedures must include, but are not limited to: (i) industry standard best practices; and (ii) procedures that ensure Measure functionality, customer satisfaction, and that the Minimum Qualifications are satisfied

5.11. ASSIGNMENT OF PERSONNEL. The Contractor shall not substitute any personnel for those specifically named in its proposal, if applicable, unless personnel with substantially equal or better qualifications and experience are provided, acceptable to MCE, as is evidenced in writing.

5.12. ACCESS TO CUSTOMER SITES (REQUIRED IF CHECKED ☐). Contractor shall be responsible for obtaining any and all access rights for Contractor Parties, from customers and other third parties to the extent necessary to perform the Services. Contractor shall also procure any and all access rights from Contractor Parties, customers and other third parties in order for MCE and CPUC employees, representatives, agents, designees and contractors to inspect the Services.

6. INSURANCE:

At all times during the Term and the performance of the Services, Contractor shall maintain the insurance coverages set forth below. All such insurance coverage shall be substantiated with a certificate of insurance and must be signed by the insurer or its representative evidencing such insurance to MCE. The general liability policy shall be endorsed naming Marin Clean Energy and its employees, directors, officers, and agents as additional insureds. The certificate(s) of insurance and required endorsement shall be furnished to MCE prior to commencement of Services. Certificate(s) of insurance must be current as of the Effective Date, and shall remain in full force and effect through the Term. If scheduled to lapse prior to termination date, certificate(s) of insurance must be automatically updated before final payment may be made to Contractor. Contractor shall provide thirty (30) days' advance written notice to MCE of any cancellation or reduction in coverage; failure to provide such notice will be a material breach of this Agreement and MCE may immediately terminate this Agreement or take other actions in its discretion. Insurance coverages shall be payable on a per occurrence basis only, except those required by Section 6.4 which may be provided on a claims-made basis consistent with the criteria noted therein.

Nothing in this Section 6 shall be construed as a limitation on Contractor's indemnification obligations in Section 17 of this Agreement.

Should Contractor fail to provide and maintain the insurance required by this Agreement, in addition to any other available remedies at law or in equity, MCE may suspend payment to the Contractor for any Services provided during any period of time that insurance was not in effect and until such time as the Contractor provides adequate evidence that Contractor has obtained the required insurance coverage.

6.1. GENERAL LIABILITY. The Contractor shall maintain a commercial general liability insurance policy in an amount of no less than **two million dollars (\$2,000,000) per incident with a four million dollar (\$4,000,000) aggregate limit.** "Marin Clean

Energy” shall be named as an additional insured on the commercial general liability policy and the certificate of insurance shall include an additional endorsement page (see sample form: ISO - CG 20 10 11 85).

- 6.2. AUTO LIABILITY (REQUIRED IF CHECKED ☒).** Where the Services to be provided under this Agreement involve or require the use of any type of vehicle by Contractor in order to perform said Services, Contractor shall also provide comprehensive business or commercial automobile liability coverage including non-owned and hired automobile liability in the amount of one million dollars combined single limit (\$1,000,000) and in aggregate. This liability will only be applicable when automobile use is required for performing Services under applicable Statement of Work.
- 6.3. WORKERS' COMPENSATION.** The Contractor acknowledges that the State of California requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the Labor Code. If Contractor has employees, it shall comply with this requirement and a copy of the certificate evidencing such insurance or a copy of the Certificate of Consent to Self-Insure shall be provided to MCE prior to commencement of Services in compliance with applicable law.
- 6.4. PROFESSIONAL LIABILITY INSURANCE (REQUIRED IF CHECKED ☒.** Contractor shall maintain professional liability insurance with a policy limit of not less than \$1,000,000 per incident and \$2,000,000 USD in aggregate. If the deductible or self-insured retention amount exceeds \$100,000, MCE may ask for evidence that Contractor has segregated amounts in a special insurance reserve fund, or that Contractor's general insurance reserves are adequate to provide the necessary coverage and MCE may conclusively rely thereon. Coverages required by this subsection may be provided on a claims-made basis with a "Retroactive Date" prior to the Effective Date. If the policy is on a claims-made basis, coverage must extend to a minimum of twelve (12) months beyond termination of this Agreement. If coverage is cancelled or non-renewed, and not replaced with another claims made policy form with a "retroactive date" prior to the Effective Date, Contractor must purchase "extended reporting" coverage for a minimum of twelve (12) months after termination of this Agreement.
- 6.5. PRIVACY AND CYBERSECURITY LIABILITY (REQUIRED IF CHECKED ☒.** Contractor shall maintain privacy and cybersecurity liability (including costs arising from data destruction, hacking or intentional breaches, crisis management activity related to data breaches, and legal claims for security breach, privacy violations, and notification costs) of at least \$1,000,000 US per occurrence and \$2,000,000 USD in aggregate.

7. OMITTED.

8. SUBCONTRACTING:

The Contractor shall not subcontract nor assign any portion of the work required by this Agreement without prior, written approval of MCE, except to R Systems, Inc. which is Contractor's subsidiary or for any subcontract work expressly identified in each Statement of Work and attachments thereto. If Contractor hires a subcontractor under this Agreement (a "Subcontractor"), Subcontractor shall be bound by all applicable terms and conditions of this Agreement, and Contractor shall ensure the following:

- 8.1.** Subcontractor shall comply with the following terms of this Agreement: Sections 9, 10, each Statement of Work and attachments thereto.
- 8.2.** Subcontractor shall provide, maintain and be bound by the representations, warranties and covenants of Contractor contained in Section 5 hereof (as may be modified to be applicable to Subcontractor with respect to Section 5.1(a) hereof) at all times during the Term of such subcontract and its provision of Services.
- 8.3.** Subcontractor shall comply with the terms of Section 6 above, including, but not limited to providing and maintaining insurance coverage(s) identical to what is required of Contractor under this Agreement, and shall name MCE as an additional insured under such policies. Contractor shall collect, maintain, and promptly forward to MCE current evidence of such insurance provided by its Subcontractor. Such evidence of insurance shall be included in the records and is therefore subject to audit as described in Section 9 hereof.
- 8.4.** Subcontractor shall be contractually obligated to indemnify the MCE Parties (as defined in Section 17 hereof) pursuant to the terms and conditions of Section 17 hereof.
- 8.5.** Subcontractors shall not be permitted to further subcontract any obligations under this Agreement.

Contractor shall be solely responsible for ensuring its Subcontractors' compliance with the terms and conditions of this Agreement made applicable above and to collect and maintain all documentation and current evidence of such compliance. Upon request by MCE, Contractor shall promptly forward to MCE evidence of same. Nothing contained in this Agreement or otherwise stated between the Parties

shall create any legal or contractual relationship between MCE and any Subcontractor, and no subcontract shall relieve Contractor of any of its duties or obligations under this Agreement. Contractor's obligation to pay its Subcontractors is an independent obligation from MCE's obligation to make payments to Contractor. As a result, MCE shall have no obligation to pay or to enforce the payment of any monies to any Subcontractor.

9. RETENTION OF RECORDS AND AUDIT PROVISION:

Contractor shall keep and maintain on a current basis full and complete records and documentation pertaining to this Agreement and the Services, whether stored electronically or otherwise, including, but not limited to, valuation records, accounting records, documents supporting all invoices, employees' time sheets, receipts and expenses, and all customer documentation and correspondence (the "Records"). MCE shall have the right, during regular business hours, to review and audit all Records during the Term and for at least five (5) years from the date of the completion or termination of this Agreement. Any review or audit may be conducted on Contractor's premises or, at MCE's option, Contractor shall provide all records within a maximum of fifteen (15) days upon receipt of written request from MCE. Contractor shall refund any monies erroneously charged. Contractor shall have an opportunity to review and respond to or refute any report or summary of audit findings, and shall promptly refund any overpayments made by MCE based on undisputed audit findings.

10. DATA, CONFIDENTIALITY AND INTELLECTUAL PROPERTY:

10.1. DEFINITION OF "MCE DATA". "MCE Data" shall mean all data or information provided by or on behalf of MCE, including but not limited to, customer Personal Information; energy usage data relating to, of, or concerning, provided by or on behalf of any customers; all data or information input, information systems and technology, software, methods, forms, manuals, and designs, transferred, uploaded, migrated, or otherwise sent by or on behalf of MCE to Contractor as MCE may approve of in advance and in writing (in each instance); account numbers, forecasts, and other similar information disclosed to or otherwise made available to Contractor. MCE Data shall also include all data and materials provided by or made available to Contractor by MCE's licensors, including but not limited to, any and all survey responses, feedback, and reports subject to any limitations or restrictions set forth in the agreements between MCE and their licensors.

"Confidential Information" under this Agreement shall have the same meaning as defined in the Marin Clean Energy Non-Disclosure Agreement between the Parties dated **July 13, 2020**.

10.2. DEFINITION OF "PERSONAL INFORMATION". "Personal Information" includes but is not limited to the following: personal and entity names, e-mail addresses, addresses, phone numbers, any other public or privately-issued identification numbers, IP addresses, MAC addresses, and any other digital identifiers associated with entities, geographic locations, users, persons, machines or networks. Contractor shall comply with all applicable federal, state and local laws, rules, and regulations related to the use, collection, storage, and transmission of Personal Information.

10.3. MCE DATA SECURITY MEASURES. Prior to Contractor receiving or having access to any MCE Data, Contractor shall comply, and at all times thereafter continue to comply, in compliance with MCE's Data security policies set forth in MCE Policy 009 (available upon request) and MCE's Advanced Metering Infrastructure (AMI) Data Security and Privacy Policy ("Security Measures") and pursuant to MCE's Confidentiality provisions in Section 5 of the Marin Clean Energy Non-Disclosure Agreement between the parties dated **July 13, 2020**, and as set forth in MCE Policy 001 - Confidentiality. MCE's Security Measures and Confidentiality provisions require Contractor to adhere to reasonable administrative, technical, and physical safeguard protocols to protect the MCE's Data from unauthorized handling, access, destruction, use, modification or disclosure.

10.4. CONTRACTOR DATA SECURITY MEASURES. Additionally, Contractor shall, at its own expense, adopt and continuously implement, maintain and enforce reasonable technical and organizational measures consistent with the sensitivity of Personal Information and Confidential Information including, but not limited to, measures designed to (1) prevent unauthorized access to, and otherwise physically and electronically protect, the Personal Information and Confidential Information, and (2) protect MCE content and MCE Data against unauthorized or unlawful access, disclosure, alteration, loss, or destruction.

10.5. RETURN OF MCE DATA. Promptly after this Agreement or a Statement of work terminates or expires, and for each Statement of work, (i) Contractor shall securely destroy all MCE Data in its possession and certify the secure destruction in writing to MCE, and (ii) each Party shall return (or if requested by the disclosing Party, destroy) all other Confidential Information and property of the other (if any), provided that Contractor's attorney shall be permitted to retain a copy of such records or materials solely for legal purposes.

10.6. OWNERSHIP AND USE RIGHTS.

- a) **MCE Data.** Unless otherwise expressly agreed to in writing by the Parties, MCE shall retain all of its rights, title and interest in MCE's Data.

- b) **Intellectual Property.** Unless otherwise expressly agreed to in writing by the Parties, any and all materials, information, or other intellectual property created, prepared, accumulated or developed by Contractor or any Contractor Party under this Agreement ("Intellectual Property"), including finished and unfinished inventions, processes, templates, documents, drawings, computer programs, designs, calculations, valuations, maps, plans, workplans, text, filings, estimates, manifests, certificates, books, specifications, sketches, notes, reports, summaries, analyses, manuals, visual materials, data models and samples, including summaries, extracts, analyses and preliminary or draft materials developed in connection therewith, shall be owned by MCE on behalf and for the benefit of MCE's respective customers. MCE shall have the exclusive right to use Intellectual Property in its sole discretion and without further compensation to Contractor or to any other party upon payment of all applicable undisputed invoices as per section 2 of this Agreement. Contractor shall, at MCE's expense, provide Intellectual Property to MCE or to any party MCE may designate upon written request. Contractor may keep one file reference copy of Intellectual Property prepared for MCE solely for legal purposes and if otherwise agreed to in writing by MCE. In addition, Contractor may keep one copy of Intellectual Property if otherwise agreed to in writing by MCE.
- c) **Intellectual Property shall be owned by MCE upon its creation.** Contractor agrees to execute any such other documents or take other actions as MCE may reasonably request to perfect MCE's ownership in the Intellectual Property.
- d) **Contractor's Pre-Existing Materials.** If, and to the extent Contractor retains any preexisting ownership rights ("Contractor's Pre-Existing Materials") in any of the materials furnished to be used to create, develop, and prepare the Intellectual Property, Contractor hereby grants MCE on behalf of its customers and the CPUC for governmental and regulatory purposes an irrevocable, assignable, non-exclusive, perpetual, fully paid up, worldwide, royalty-free, unrestricted license to use and sublicense others to use, reproduce, display, prepare and develop derivative works, perform, distribute copies of any intellectual or proprietary property right of Contractor or any Contractor Party for the sole purpose of using such Intellectual Property for the conduct of MCE's business and for disclosure to the CPUC for governmental and regulatory purposes related thereto. Unless otherwise expressly agreed to by the Parties, Contractor shall retain all of its rights, title and interest in Contractor's Pre-Existing Materials. Any and all claims to Contractor's Pre-Existing Materials to be furnished or used to prepare, create, develop or otherwise manifest the Intellectual Property must be expressly disclosed to MCE prior to performing any Services under this Agreement. Any such Pre-Existing Material that is modified by work under this Agreement is owned by MCE.

10.7. EQUITABLE RELIEF. Each Party acknowledges that a breach of this Section 10 would cause irreparable harm and significant damages to the other Party, the degree of which may be difficult to ascertain. Accordingly, each Party agrees that MCE shall have the right to obtain immediate equitable relief to enjoin any unauthorized use or disclosure of MCE Data or Personal Information, in addition to any other rights and remedies that it may have at law or otherwise; and Contractor shall have the right to obtain immediate equitable relief to enjoin any unauthorized use or disclosure of Contractor's Pre-Existing Materials, in addition to any other rights and remedies that it may have at law or otherwise.

11. FORCE MAJEURE:

Neither Party shall be responsible for delays or failures in performance resulting from unforeseen acts of God, strikes, lockouts, riots, acts of war, and government regulations (collectively, a "Force Majeure Event") where the Party seeking to excuse its performance has used commercially reasonable efforts to ensure its ability to perform despite a Force Majeure Event, including having and maintaining a commercially reasonable business continuity program. A Party that is unable to perform due to a Force Majeure Event must give the other Party prompt notice but no less than three (3) business days after it becomes aware of or reasonably believes it will be unable to perform due to a Force Majeure Event. If as a consequence of Force Majeure, performance by a Party under this Agreement is prevented for a period longer than one (1) month, then the other Party shall have the right to terminate this Agreement without penalties, provided however, MCE will be obligated to pay for any Services it has received and accepted prior to the date the Agreement is terminated.

12. TERMINATION:

12.1. Breach; Convenience. Either party may terminate this Agreement or any Statement of Work if the other party is in material breach of any of its obligations under this Agreement and has not cured the breach within thirty (30) days of written notice specifying the breach. MCE may terminate this Agreement or any Statement of work for any reason by giving Contractor thirty (30) calendar days' written notice. Further, MCE may terminate this Agreement including any Statement of Work immediately by providing notice if Contractor: (a) breaches its confidentiality obligations or (b) files for bankruptcy, becomes insolvent or makes an assignment for the benefit of its creditors.

12.2. Effect. In the event of termination not the fault of Contractor, Contractor shall be paid for Services performed to the date of termination and accepted in accordance with the terms of this Agreement so long as proof of required insurance is provided for the periods covered in the Agreement, amendment(s), or schedules. Notwithstanding anything contained in this Section 12, in no event shall MCE be liable for lost or anticipated profits or overhead on uncompleted portions of the Services. Contractor shall not enter into any agreement, commitments or subcontracts that would incur significant cancellation or termination costs without prior written approval of MCE, and such written approval shall be a condition precedent to the payment of any cancellation or termination charges by MCE under this Section 12. Also, as a condition precedent to the payment of any

cancellation or termination charges by MCE under this Section 12, Contractor shall have delivered to MCE any and all reports, drawings, documents and deliverables prepared for MCE before the effective date of such cancellation or termination.

12.3. Changes. This Agreement shall be subject to changes, modifications, or termination by order or directive of the California Public Utilities Commission ("CPUC"). The CPUC may from time to time issue an order or directive relating to or affecting any aspect of this Agreement, in which case MCE shall have the right to change, modify or terminate this Agreement in any manner to be consistent with such CPUC order or directive. MCE may also terminate this Agreement or any Statement of Work if funding for this Agreement or any Statement of Work is reduced or eliminated by a third-party funding source.

12.4. Transition. Upon MCE's termination of this Agreement or any Statement of Work for any reason, Contractor shall, and shall cause each Contractor Party to, bring the Services to an orderly conclusion as directed by MCE. Contractor and each Contractor Party shall vacate the worksite but shall not remove any material, plant or equipment thereon without the approval of MCE. MCE, at its option, may take possession of any portion of the Services paid for by MCE.

13. ASSIGNMENT:

The rights, responsibilities, and duties under this Agreement are personal to the Contractor and may not be transferred or assigned without the express prior written consent of MCE except to R Systems, Inc. which is Contractor's subsidiary.

14. AMENDMENT; NO WAIVER:

This Agreement may be amended or modified only by written agreement of the Parties. Failure of either Party to enforce any provision or provisions of this Agreement will not waive any enforcement of any continuing breach of the same provision or provisions or any breach of any provision or provisions of this Agreement.

15. DISPUTES:

Either Party may give the other Party written notice of any dispute which has not been resolved at a working level. Any dispute that cannot be resolved between Contractor's contract representative and MCE's contract representative by good faith negotiation efforts shall be referred to Legal Counsel of MCE and an officer of Contractor for resolution. Within 20 calendar days after delivery of such notice, such persons shall meet at a mutually acceptable time and place, and thereafter as often as they reasonably deem necessary to exchange information and to attempt to resolve the dispute. If MCE and Contractor cannot reach an agreement within a reasonable period of time (but in no event more than 30 calendar days), MCE and Contractor shall have the right to pursue all rights and remedies that may be available at law or in equity. All negotiations in the course of any mediation agreed to by the Parties are confidential and shall be treated as compromise and settlement negotiations, to which Section 1119 of the California Evidence Code shall apply, and Section 1119 is incorporated herein by reference.

16. JURISDICTION AND VENUE:

This Agreement shall be construed in accordance with the laws of the State of California and the Parties hereto agree that venue shall be in Marin County, California. Neither Party will claim lack of personal jurisdiction or forum non conveniens in these courts. Contractor agrees that MCE may serve process on its California subsidiary, R Systems Inc.

17. INDEMNIFICATION:

17.1 Indemnification. Contractor agrees to indemnify, defend, and hold MCE, its employees, officers, and agents, (collectively "MCE Indemnified Parties"), harmless from any and all liabilities including, but not limited to, litigation costs and attorney's fees arising from any and all Claims and losses to anyone who may be injured or damaged by reason of Contractor's negligence, recklessness or willful misconduct in the performance of this Agreement or any Statement of Work. Additionally, Contractor will defend, indemnify, and hold MCE Indemnified Parties harmless from and against all Claims to the extent such Claims arise out of or relate to:

- (A) Contractor's breach of Sections 5.1, 5.2, 5.3, 5.4, 5.5, 5.7, 5.8, 5.9 and Section 10,
- (B) Contractor's infringement, misuse, or misappropriation of third-party intellectual property or proprietary rights, or
- (C) Contractor's non-compliance with applicable laws, rules, or regulations.

"Claim(s)" means any and all (1) third-party claims, actions, demands, lawsuits, or proceedings and (2) damages, costs (including reasonable fees of attorneys and other professionals), or liabilities of any kind (including any fine, penalty, judgement or order issued by a governmental, regulatory or judicial body), in each case arising out of that third party claim, action, demand, lawsuit, or proceeding.

17.2 Additional Remedies. In addition to all other remedies available to MCE, if use of services or Deliverables under this Agreement or any Statement of Work is enjoined or injunction is threatened, Contractor, at its expense, will notify MCE and immediately (i) procure for MCE the right to continue using such services and Deliverables, or (ii) replace or modify such services and Deliverables so that they are noninfringing and useable to MCE's satisfaction. If Contractor does not comply with this Section 17.2, then in addition to any amounts reimbursed under this Section 17, Contractor will refund all amounts paid by MCE for infringing services and Deliverables and pay reasonable costs to transition Services to a new supplier.

18. NO RECOURSE AGAINST CONSTITUENT MEMBERS OF MCE:

MCE is organized as a Joint Powers Authority in accordance with the Joint Exercise of Powers Act of the State of California (Government Code Section 6500, et seq.). Pursuant to MCE's Joint Powers Agreement, MCE is a public entity separate from its constituent members. MCE shall solely be responsible for all debts, obligations, and liabilities accruing and arising out of this Agreement. No Contractor Party shall have rights and nor shall any Contractor Party make any claims, take any actions, or assert any remedies against any of MCE's constituent members in connection with this Agreement.

19. **INVOICES; NOTICES:**

This Agreement shall be managed and administered on MCE's behalf by the Contract Manager named below. All invoices shall be submitted by email to:

Email Address: invoices@mcecleanenergy.org

All other notices shall be given to MCE at the following location:

Contract Manager: Troy Nordquist

MCE Address: 1125 Tamalpais Avenue

San Rafael, CA 94901

Email Address: contracts@mcecleanenergy.org

Telephone No.: (925) 378-6767

Notices shall be given to Contractor at the following address:

Contractor: R Systems International Limited




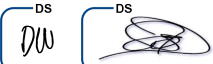



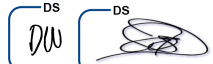
Address: C-40, Sector 59, Noida 201307 UP India

Email Address: mandeep@rsystems.com

Telephone No.: _____

20. **ENTIRE AGREEMENT; ACKNOWLEDGMENT OF EXHIBITS:**

This Agreement along with the attached Exhibits marked below constitutes the entire Agreement between the Parties. In the event of a conflict between the terms of this Agreement and the terms in any of the following Exhibits, the terms in this Agreement shall govern.

	<input checked="" type="checkbox"/>	<u>Check applicable Exhibits</u>	<u>CONTRACTOR'S INITIALS</u>	<u>MCE'S INITIALS</u>
<u>EXHIBIT A.</u>	<input checked="" type="checkbox"/>	Form of Statement of Work		
<u>EXHIBIT B.</u>	<input checked="" type="checkbox"/>	Fees and Payment		
<u>Schedule A.1</u>	<input checked="" type="checkbox"/>	Statement of Work for Data Analytics Platform ("DAP")		
<u>Schedule A.2</u>	<input checked="" type="checkbox"/>	Statement of Work for Customer Relationship Management ("CRM")		

21. SEVERABILITY:

Should any provision of this Agreement be held invalid or unenforceable by a court of competent jurisdiction, such invalidity will not invalidate the whole of this Agreement, but rather, the remainder of the Agreement which can be given effect without the invalid provision, will continue in full force and effect and will in no way be impaired or invalidated.

22. INDEPENDENT CONTRACTOR:

Contractor is an independent contractor to MCE hereunder. Nothing in this Agreement shall establish any relationship of partnership, joint venture, employment or franchise between MCE and any Contractor Party. Neither MCE nor any Contractor Party will have the power to bind the other or incur obligations on the other's behalf without the other's prior written consent, except as otherwise expressly provided for herein.

23. TIME:

Time is of the essence in this Agreement and each and all of its provisions.

24. THIRD PARTY BENEFICIARIES:

The Parties agree that there are no third-party beneficiaries to this Agreement either express or implied.

25. FURTHER ACTIONS:

The Parties agree to take all such further actions and to execute such additional documents as may be reasonably necessary to effectuate the purposes of this Agreement.

26. PREPARATION OF AGREEMENT:

This Agreement was prepared jointly by the Parties, each Party having had access to advice of its own counsel, and not by either Party to the exclusion of the other Party, and this Agreement shall not be construed against either Party as a result of the manner in which this Agreement was prepared, negotiated or executed.

27. COUNTERPARTS:

This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which shall be deemed one and the same Agreement.

28. CONSEQUENTIAL DAMAGES; LIMITATION OF LIABILITY:

28.1 IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR CONSEQUENTIAL, SPECIAL, OR OTHER DIRECT OR INDIRECT DAMAGES, INCLUDING LOST PROFITS OR LOST GOODWILL, WHETHER ARISING FROM CONTRACT OR NEGLIGENCE, EVEN IF THE OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

28.2 Notwithstanding anything contained under this Agreement, each Party's maximum aggregate liability for damages (including attorney's fees and any other costs and expenses related to the collection of such damages), shall be limited to the total fees paid by MCE to Contractor under this Agreement for each approved Statement of Work, for which damages are alleged within twelve (12) calendar months period prior to the action resulting in said damages.

28.3 The limitations in Sections 28.1 and 28.2 do not apply to Contractor's indemnification obligations; breach of confidentiality, privacy and security obligations; failure to comply with applicable laws as set forth in Section 5.3; or fraud, willful or intentional misconduct or gross negligence.

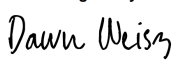
29. SOLICITATION OF EMPLOYEES:

During the term of this Agreement and continuing for two (2) years thereafter, both MCE and Contractor mutually agree not to hire, contract, or solicit the employment of any current or previous employee of either party who has been involved with this Agreement or performance hereunder, either indirectly or directly, unless a period of twelve (12) months has elapsed from the last date that such employee was employed by either MCE or Contractor as the case may be, without the prior written authorization of their respective companies, provided, however, that this Section 29 shall not restrict general advertisements of employment or the rights of any employee of one party, on that employee's own initiative, or in response to general advertisements, to seek employment from the other party and under such circumstances, for the other party to hire such employee.


IN WITNESS WHEREOF, the parties have executed this Agreement on the date first above written.

APPROVED BY

Marin Clean Energy:

DocuSigned by:

 By: _____
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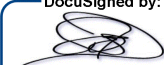
CONTRACTOR:

DocuSigned by:

 By: _____
 F50E6B593CD64FF...

Name: Dawn Weisz

Title: CEO

Date: 4/12/2021

By: 
Chairperson

Date: 4/13/2021

Name: mandeep sodhi

Title: COO

Date: 4/12/2021

MODIFICATIONS TO STANDARD SHORT FORM MASTER SERVICES AGREEMENT☒ **Standard Short Form Master Services Agreement Content Has Been Modified**

List sections affected: 2, 3, 5.1, 5.6, 5.10, 6, 7, 8, 10.3, 10.5, 10.6(b), 11, 12, 13, 15, 16 and 17; added section 5.2, 12.4, 17.2, 28, and 29

Approved by MCE Counsel: 
0CC3FD724F79482...

Date: 4/9/2021

Exhibit A
Form of Statement of Work

Schedule A.____
Statement of Work for [Describe Work]

This Schedule A.____ is entered into on **[Date]** pursuant to the Master Services Agreement between MARIN CLEAN ENERGY, hereinafter referred to as "MCE", and R SYSTEMS, INTERNATIONAL LIMITED, hereinafter referred to as "Contractor", dated **April 1, 2021** ("MSA").

Contractor will provide the following services as requested and directed by MCE Manager of Technology and Analytics, up to the maximum time/fees allowed under this Statement of Work:

- [Describe work]

Attached as **Attachment A** is the technical scope of work for this request.

Billing:

Contractor shall bill upon completion of each milestone after MCE has accepted the deliverables within that milestone. In no event shall the total cost to MCE for the services provided under this Statement of Work exceed the maximum sum of **\$[_____]** for the term of this Statement of Work. In no event shall the total cost to MCE for the services provided under all statements of work between Contractor and MCE exceed the contract amount set forth in Section 3 of the MSA.

Term of Statement of Work:

This Statement of Work shall commence on **April 1, 2021** and shall terminate on **March 31, 2022**.

IN WITNESS WHEREOF, the parties have executed this Statement of Work – Schedule A.____ on the date first above written.

APPROVED BY

Marin Clean Energy:

Contractor:

By: _____

By: _____

Title: _____

Name: _____

Date: _____

Date: _____

EXHIBIT B
FEES AND PAYMENT SCHEDULE

For Services provided under this Agreement, MCE shall pay Contractor in accordance with the amount(s) and the payment schedule as specified below:

Contractor will bill MCE on a time and materials basis based on the number of hours expended on the Project for the previous month according to the following rate schedule:

Salesforce Developer	\$34/hour
Senior Salesforce Developer	\$35/hour
BI Engineer	\$35/hour
Data Engineer	\$35/hour
Visualization Developer	\$35/hour
Onsite Salesforce Developer	\$110/hour
Solution Architect/PM	\$140/hour
Marketing Cloud Blended Support	\$75/hour

Contractor will provide monthly invoices with the following details:

- Approved Time Sheets
- Total Hours Spent by each member
- Project Deliverables achieved during each billing cycle.

Contractor will bill MCE based on the number of hours expended on the Project for the previous month, however MCE will not be obligated to pay the applicable fees unless and until MCE Manager of Technology and Analytics has reviewed and approved each detailed, monthly invoice.

In no event shall the total cost to MCE for the services provided herein exceed the **maximum sum of \$550,000** for the term of the Agreement.

Statement of Work**Schedule A.1****Statement of Work for Data Analytics Platform ("DAP")**

This Schedule A.1 is entered into on **April 1, 2021** pursuant to the Master Services Agreement between MARIN CLEAN ENERGY, hereinafter referred to as "MCE", and R SYSTEMS, INTERNATIONAL LIMITED, hereinafter referred to as "Contractor", dated **April 1, 2021** ("MSA").

The First Agreement between MCE and Contractor dated August 3, 2020 is terminated as of April 1, 2021.

Contractor will provide the following services as requested and directed by MCE Manager of Technology and Analytics, up to the maximum time/fees allowed under this Statement of Work:

- Implement phase 2 of Data Analytics Platform for MCE

Attached as **Attachment A** is the technical scope of work for this request. In the event there is any conflict between the Terms of this MSA and Attachment A regarding the services and the relationship between the Parties, the Terms of this MSA shall govern and control the rights and obligations of MCE and Contractor.

Billing:


Contractor shall bill monthly on a time and materials basis and according to the rate schedule listed in Exhibit B of the MSA for hours performed. In no event shall the total cost to MCE for the services provided under this Statement of Work exceed the maximum sum of **\$60,000** for the term of this Statement of Work. In no event shall the total cost to MCE for the services provided under all statements of work between Contractor and MCE exceed the contract amount set forth in Section 3 of the MSA.

Term of Statement of Work:


This Statement of Work shall commence on **April 1, 2021** and shall terminate on **March 31, 2022**.

IN WITNESS WHEREOF, the parties have executed this Statement of Work – Schedule A.1 on the date first above written.

APPROVED BY**Marin Clean Energy:**

DocuSigned by:

By: A59878416EBC4F8...
Title: CEO
Date: 4/12/2021

Contractor:

DocuSigned by:

By: F50E6B593CD64FF...
Name: COO
Date: 4/12/2021

Statement of Work**Schedule A.2****Statement of Work for Customer Relationship Management ("CRM")**

This Schedule A.2 is entered into on **April 1, 2021** pursuant to the Master Services Agreement between MARIN CLEAN ENERGY, hereinafter referred to as "MCE" and R Systems, International Limited, hereinafter referred to as "Contractor," dated **April 1, 2021** ("MSA").

The Second Agreement between MCE and Contractor dated November 30, 2020 is terminated as of April 1, 2021.

Contractor will provide the following services as requested and directed by MCE Manager of Technology and Analytics, up to the maximum time/fees allowed under this Statement of Work:

- Implement phase 2 of CRM System

Attached as **Attachment B** is the technical scope of work for this request. In the event there is any conflict between the Terms of this MSA and Attachment B regarding the services and the relationship between the Parties, the Terms of this MSA shall govern and control the rights and obligations of MCE and Contractor.

Billing:

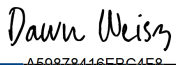
Contractor shall bill monthly on a time and materials basis and according to the rate schedule listed in Exhibit B of the MSA for hours performed. In no event shall the total cost to MCE for the services provided under this Statement of Work exceed the maximum sum of **\$150,000** for the term of this Statement of Work.

Term of Statement of Work:


This Statement of Work shall commence on **April 1, 2021** and shall terminate on **March 31, 2022**.


IN WITNESS WHEREOF, the parties have executed this Statement of Work – Schedule A.2 on the date first above written.

APPROVED BY**Marin Clean Energy:**

DocuSigned by:

By: A59878416EBG4F8...
Title: CEO
Date: 4/12/2021

Contractor:

DocuSigned by:

By: F58E6B5936D64FF...
Name: COO
Date: 4/12/2021

DocuSigned by:

8ABF434893064F1...

Chair Technical Committee

4/13/2021

Attachment A

Technical Scope of Work for Data Analytics Platform Phase 2

1.1 Major milestones for the Phase-2

1. Data Ingestion

- a. Customer data ingestion
- b. SMD Usage data ingestion (Share my data from PG&E)
- c. Billing data ingestion
- d. PG&E Blue bills (Monthly Energy Statements)
- e. Gas Data ingestion and processing
- f. Spatial dataset ingestion
- g. BI Environment creation and report generation
- h. Ad-hoc data ingestion

2. ETL data pipeline

- a. Interval/Usage data Transformation logic (3 days window for Usage data)
- b. XML Data modeling
- c. Create the ETL job using PySpark.
- d. Test the ETL job end to end.
- e. The ETL Data pipeline will

3. Azure Databricks (Provision on demand)

- a. Analyze Cost effectiveness of Azure Databricks (Provision on demand)
- b. Design the flow using ADF to launch Azure Data Bricks on demand and shut it down when pipeline finished running. This will save the compute cost.

4. Data warehouse (Synapse)

- a. Create tables and views for the following data:
 - i. Customer data
 - ii. SMD date
 - iii. Billing data
 - iv. PG&E Blue bills
- b. Utilize Azure Synapse as serverless service to utilize pay-per-use.

5. Job Monitoring

- a. Robust metadata and auditing log tables.
- b. Monitoring design for both Customer and Usage Job.
- c. The metrics could be but not limited to:
 - i. How many jobs ran in a time window?
 - ii. Job Status : Which Job failed or succeeded.
 - iii. ETL job execution time and detail.

Resource plan

Not all the team member will be working full time except the Azure Engineers.

File Type	Task Type	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20
Customer Master - 401	Development																				
	Unit and Integration Testing																				
	Name parsing																				
SMD	Development																				
	Unit and Integration Testing																				
Billing Data	Development																				
	Unit and Integration Testing																				
PG&E Blue bills	Development																				
UAT and Prod support	Support																				
	R-1																				
	R-2																				

2.1 R Systems Resources

The primary responsibilities of the roles are described herein, but it is also understood that the individuals will not be limited to the stated responsibilities but will be required to take up other appropriate tasks and responsibilities as the project demands.

Role	Role Description	Responsibilities
Data Engineer	Will have 5-10 years of experience in working with ETL data pipelines on-prem and cloud. 2+ years of experience working with Azure data platform including ADLS and Azure Data warehouse.	Configure, install, develop, deploy and schedule Data pipeline in-line with designed Azure architecture and infrastructure. Job design review sessions and performance recommendations. Also, Perform ETL and do data validation

Project Manager	10+ years of experience in project management for ETL and Data projects.	Manage and guide data to day activities of the project and give status to the Product owner.
------------------------	--	--

2.2 Assumption

- Adding/removing resource will require 2 weeks of notice period.
- For Customer 4013
 - Files will be copied from PG&E server only
 - There are approx. 15 Reference tables
 - Design will be provided by client
- SMD
 - Design will be provided by client

3.1 Team Composition

Here is the proposed team composition:

Team Member	Number of Members
Azure Data Engineer	2
Project Manager	1

4.1 Effort for Phase-2

It will be 20 weeks of effort for the phase. And, this is T&M based project.

5.1 Cost

Includes Phase-2 design and implementation.

Offshore **20 weeks** engagement

Name	Hours	Total
Data Engineer 1	40 hours/week	\$35
Data Engineer 2	20 hours/week	\$35
BI Engineer	20 hours/week	\$35

Rough estimate of total cost in 26 weeks would be:

80 hours x 40 hrs./week x 20 weeks

= \$56,000

Note: The total cost of the project will not exceed more than \$56,000, assuming there is no change request. Any change request will be approved by MCE and R Systems project manager.

Phase-2 will be T&M based project. As per estimation, this phase will be of 20 weeks.

Add-on resources

In case more resources are needed besides two data engineers and one project manager, those can be added as need basis as mentioned in the rate card below:

Resource	Hourly rate
Data Engineer	\$35
Visualization Developer	\$35

Payment Terms

R Systems will invoice MCE for all time expended at the agreed upon hourly rate and plus actual travel and living expenses. Any travel and/or living expenses needed by Contractor to perform the Services herein require MCE's approval prior to the expense being incurred. Client will be billed monthly.

5.1 Change Request Form

CHANGE REQUEST FORM		
Change Description		
Project Name: MCE DAP	Change Name:	Number:
Requested By:	Contact:	Date:
Description of Change:		
Reason for Change:		
Priority [Circle One]: 1. High 2. Medium 3. Low		
Impact on Deliverables:		
Impact of Not Responding to Change (and Reason Why):		
Date Needed:	Approval of Request:	Date:
Change Impact		
Tasks/Scope Affected:		
Cost Evaluation:		
Risk Evaluation:		
Additional Resources:		
Duration:		
Impact on Deadline:		
Comments:		
Sign Offs		
[Circle One]: 1. Accepted 2. Deferred 3. Rejected 4. More Info Requested		
Comments:		
Project Manager Signature:	Date:	
Decision Maker Signature:	Date:	

Attachment B

Technical Scope of Work for Customer Relationship Management Phase 2

1.1 Project Lifecycle

This Project will be implemented in concurrence with Agile methodology framework.

1.1.1 Project Standard Operating Procedures

The following section will define roles and responsibilities of Implementer for the Project

- We will create user stories based on the requirements shared by MCE
- We will follow Source Code versioning standards as defined by MCE
- Our team will be responsible for Code reviews before deployments
- We will be responsible for Solution Design, development activities, unit testing
- We will ensure adherence to Salesforce coding standards and subsequent coding best practices
- Deployment to be undertaken by the Implementer along with publishing a consolidated list of deployment artefacts at end of each sprint
- MCE Business Team to provide written user acceptance testing sign-off prior to Production deployment
- We will provide following set of documents at the time of Project completion including but not limited to:
 - Technical Implementation details
 - Architectural Limitations details (if any)
 - Deployment Document
 - Change Log
- We will provide 2 weeks of Post Go Live warranty support
- MCE to provide Project Completion Certificate Post Go Live
- We will provide user training as required by MCE

1.1.2 Quality Assurance Scope

The responsibility for Quality Assurance will be with MCE which should include but not limited to:

- Validate and sign off acceptance criteria for each story
- Smoke and Sanity checks at end of each deployment cycle
- Regression testing at point of delivery of each sprint increment
- Establish a bug tracking interface and turnaround cadence
- Publish a fully detailed test case repository on any tool as chosen by MCE
- Publish a passing percentage report for each sprint increment

1.2 General Scope and Deliverable

CRM Setup & Security

The Salesforce setup will encompass the following artifacts:

d. User Profiles & Permission Sets

Profiles in Salesforce defines the tasks an authorized user that can perform in the system. It also controls what data they can or cannot see. Permission Sets open additional access that is required by only a specific sub-set of users underneath a common / different profile(s).

The Implementer will build upon the basic structure created in Phase 1 to be more specific, as needed, per MCE's requirements.

e. User Roles

The Implementer will modify the user role hierarchy structure in Salesforce, as needed. Role Hierarchy can be used with Organization-Wide Security settings to determine the levels of access that users have to your CRM org's data. Roles within the hierarchy affect access on key components such as records and reports.

f. User Credentials

The Implementer will modify each user to unique username, password, and Profile, as needed. This deliverable will include creating Salesforce Users for identified MCE Resources.

g. Organization-Wide Security

The org-wide sharing defaults will set the baseline access for records. This allows controlling visibility of record rows based on Record Ownership. It allows controlling access to an Object's records by setting them as Full control to Owner, Read Only for Everyone except Owner, Read Write for Everyone, etc. It also allows opening record access to Salesforce users above the Owner in the Role Hierarchy.

The Implementer will build upon the basic structure created in Phase 1 to be more specific, as needed, per MCE's requirements.

Powerpath Instance Migration To CRM

- R Systems will continue the work started in Phase 1 to complete the integration of POWERPATH into the CRM, functionality and data migration.
- Review POWERPATH Architecture for future enhancements to work seamlessly with other changes. This involves analysis of how POWERPATH is setup and capturing / identifying the Data Points captured by Aiqueous. These will be documented for replication in CRM system
- Production Migration & Go-Live plan and documentation

SalesForce Marketing Cloud Integration

As part of this project, the Implementer will perform real time integration of Marketing Cloud with Salesforce to allow it to reference the data stored natively in Salesforce objects of Accounts, Leads, Contacts and other Custom objects for running the Campaigns. The integration will be done using third party integration tools that MCE will procure.

R Systems will implement the following Marketing Cloud functionality

- Campaigns & Metrics
- Custom Fields – *Birthdays/Anniversaries & Bounce Data/Reasons*
- Leads & Contacts
- Accounts & Person Accounts
- Custom Objects

The implementation will include the following Marketing Cloud components:

- Journey Builder
- Advertising Studio Professional
- Email Studio
- Mobile Studio
- Datorama Reports

Document Deliverables & User Trainings

The Implementer will provide the following documentation as part of this implementations:

- Business Requirement Document
This will document the User Stories for each Major Deliverable.
- Solution Design Document
This document will include:
 - Technical Implementation
 - Architectural Limitations
- Deployment Document
This document will include the Pre and Post Deployment steps to take for successfully deploy the changes to the Production CRM Environment.

The Implementer will also conduct the following Trainings for MCE Administrators:

- Managing the Salesforce Environment
- Onboarding and Offboarding Salesforce Users
- Setup Salesforce Surveys
- Setup Formstack forms

The Implementer will conduct the following Trainings for identified MCE Users to help them understand and familiarize themselves with the system. MCE will be responsible to provide the list of users

1.3 Specific Technical Deliverables

Implementer will provide the following deliverables in Sprints:

- Top 250 Customers: Modify current implementation to use actual energy usage as a criterion for this report
- Train users on all new features and provide documentation for those features as they are implemented during sprints
- Data Migration from Calpine CRM
 - Identify data that is currently managed and hosted by Calpine. At a minimum, at this time we know that this will include:
 - Data that is one-to-one with the Account and/or Service Agreement, such as MCE Product and Opt-In Date
 - Repeating related data, such as Activities, Tasks, Notes, Contacts
 - Implement MCE CRM architecture
 - Identify statuses and fields that needs to be changed
 - Extract Calpine data
 - Product Opt-in and Opt-Out dates
 - Contacts that are only in the Calpine CRM
- Migrate from 4013 Customer data in the MCE data warehouse as needed, to support new and modified functionality
- Migrate and integrate customer usage data
- Migrate or link to data specific to customer billing, including pdfs of customer bills
- When needed, restructure data structure in the CRM architecture to support new and modified functionality, to include remigration of data if needed
- Up to 10 Dashboards with Metrics (only based on available data in MCE CRM and within CRM limits)
- Up to 15 reports (only based on available data in MCE CRM and within CRM limits)
- Set up complex Roles and permissions to support different groups of users having different data access needs, including within departments, as needed
- Set up new Account Record types, with different data sets within objects, as needed
- PMP Migration to Production and Integration to other teams
- Migrate activity data for all Accounts
- Create Custom Component to show more than 8 columns for the historical data
- Field level history tracking for beyond 18 months of history for other objects
- Marketing Cloud integration to CRM (Service Cloud Setup to Marketing Cloud)
- Bidirectional updates between MCE's CRM and MCE's data warehouse (Leveraging middleware tool like Mulesoft/Boomi)
- Setup customer energy profiles
- R Systems will design a process by which new contacts that are communicated to the CRM through automated means (i.e. Formstack) do not directly create Contact records, but rather are set to be processed by MCE to determine if these are new or existing Contacts.
- Modify current DW to CRM integration to account for the correct interpretations of "Closed" accounts
- Analyze and implement a method to make visible to the end-user customers' changes for Opt-In, Opt-out, Opt-up, and Opt-down

1.4 Deployment

For Phase 2 the following environment will be provisioned:

PROD ENVIRONMENT

The development will start in a sandbox environment and once the user acceptance training ("UAT") is complete, all changes will be pushed into production.

DEV ENVIRONMENT

Each developer will have their own dev environment if needed and push changes daily to fullcopy sandbox.

1.4.1 Discovery Process

For each Discovery Phase R Systems will engage with a stakeholder identified by MCE. This engagement will be over daily scheduled calls between the MCE Stakeholder and R Systems at a mutually acceptable time.

MCE Stakeholders will be responsible for sharing the Business processes and Security considerations required. As part of the discussions, R Systems will document and prepare:

- a) A System Requirement Specification Document (SRS) capturing the requested Business processes and Security considerations for review and approval by MCE stakeholders. This SRS will be considered as an Epic.
- b) Individual user stories under the Epic by breaking the SRS into small, manageable, and trackable development pieces. Each User Story will include but not be limited to:
 - a. Schema Changes (Custom Objects & Fields)
 - b. Display Layout Changes (Page Layouts)
 - c. Security Changes (Field Level Security, Organization Wide Sharing Settings, Profile Access, Sharing Rules)
 - d. Business Processes (Validation Rules, Automations)
 - e. Acceptance Criteria which will define Definition of Done (DoD) which will be pre-signed off by the MCE Stakeholder to freeze the requirement of each ticket.
 - f. Each story will be recorded as a project backlog.
 - g. These stories will be planned for each Sprint Milestone as part of the details outlined in Section **Error! Reference source not found.**

R Systems will be documenting the above in a Tool provided and approved by MCE. MCE stakeholder will be responsible for signing off on the Acceptance Criteria for each story documented in the tool (Jira / Asana / Trello / Any other tool proposed by MCE).

1.4.2 Quality Assurance Process

The Quality Assurance process will be MCE's Responsibility. The scope of this process will include details laid out under Section 1.1.2 Quality Assurance Scope.

The following process will be followed per Sprint:

- a) R Systems will develop individual user stories defined in the Discovery Phase in Developer Sandboxes and perform unit testing to ensure that the stories meet the defined Acceptance Criteria.
- b) R Systems will then deploy changes for individual user stories to QA Sandbox thereby making these changes available for MCE's QA team to validate.
- c) MCE's QA team will test these deployed user stories as per the QA scope and ensure that all the parameters laid out under the Acceptance criteria are met.
- d) In case any deviation is identified, QA Team will raise appropriate Bug / Enhancement Tickets for the Development team to fix either as part of the current Sprint or as part of the upcoming Sprint.
- e) Once all laid out parameters for the story are met, the QA Team will be responsible to mark the Story as QA Complete
- f) Any Change Requests identified during QA Testing, will be logged as a separate User Story (Enhancement), and will be placed in the Project Backlog. R Systems will be responsible to perform Effort estimations to evaluate if it can be absorbed as part of this project's scope or taken up as a future project.

1.4.3 Project Planning & Coordination

At project kick-off, R Systems will engage all the stakeholders responsible for implementation of the project. The stakeholders including MCE's designee will be involved in the initial project planning and shall be kept in consultation and with information while monitoring the progress and refining the plans and documents across different phases in consultation. The R Systems Project Manager will be responsible for managing the activities identified during Discovery and support R Systems in the execution of the project and for coordinating the response to the queries raised by R Systems during the project.

1.4.4 Project Tracking & Reporting

Following communication mechanism will be used for regular and effective tracking of project progress.

- a) Daily Scrum Calls
R Systems team will conduct a daily scrum call and involve respective MCE business stakeholders to resolve impediments (if any) on as needed basis.
- b) Weekly & Monthly Status Report

R Systems team will publish a weekly & a monthly status report to all stakeholders from R Systems and MCE providing the following details:

- Dashboard of progress against planned activities with original schedule, overruns, reasons for overruns and revised schedule (if required)
- Milestones achieved in previous week, with plan for the next week
- Problems encountered, corrective actions taken, and outstanding problems
- Change request tracking, risk identification, analysis, mitigation and contingencies

1.4.5 User Acceptance Testing

The testing will be based on an acceptance test plan, prepared by the MCE Technology and Analytics team and other designated members. The prime objective of user acceptance testing is to allow the users to test the complete Request Tracking Systems (RTS) built on Salesforce ensure that it satisfies the business objectives and requirements that were originally mentioned in the RFO and validated later during phase one with the users. The users are responsible for testing the application; the role of R Systems' team is to support. Before this test can begin, the following activities would need to be completed beforehand:

- Conversion & migration of existing data to new system that serves two purposes, viz. validating data conversion and testing via real data
- Creation of user acceptance test (UAT) case
- Use of bug tracking system to log and monitor identified bugs. Test cases would be repeated till the program successfully passes the test cases
- Creation of Test Report and a joint review meet by R Systems, at the conclusion of UAT phase, to discuss the UAT Report
- All bugs will be resolved prior to UAT completion. Successful completion of a UAT marks acceptance of the Request Tracking system, and any other new implementations

1.4.6 Knowledge Transfer & Training

For all 14 weeks of the R Systems Project Manager along with the team will perform a knowledge transfer to MCE. The knowledge transfer will involve:

- Delivering a written comprehensive plan that outlines all elements of the knowledge transfer
- Providing MCE representatives access to all development, testing, staging, and other environments needed to support the Salesforce enhancements
- Providing MCE IT Staff training on Salesforce enhancements at the conclusion of each iteration cycle and no less than one training session a month.
- Providing execution and control status of knowledge transfer at the end of each development sprint cycle/iteration. As requested by MCE Manager of Technology and Analytics, R Systems will provide execution and control status of knowledge transfer in weekly status reports
- Delivering a written report along with a presentation to MCE on lessons learned on the knowledge transfer process
- Ensuring a successful knowledge transfer to MCE at the end of each iteration. Successful completion of knowledge transfer requires a formal MCE acceptance in writing. A successful knowledge transfer includes delivery of desk procedures, user guides on software updates, maintenance, and operations

1.5 High Level Project Schedule

The CRM implementation will be delivered in 14 Weeks, with five sprints where each sprint will focus on delivering a predefined and agreed set of features. Each sprint will be of Two weeks duration. The sprint will include:

- | | |
|--------------------------------|--------------------------------|
| • Story Boarding/Task Planning | • Solution/Feature Development |
| • Test Deployment | • User Demo |

1.6 Assumptions

- MCE will assign appropriate contact(s) to participate on-need basis. The contact(s) should be able to understand the project purpose, make decisions related to requirements, provide & facilitate access to necessary individuals & information within MCE, and to approve final deliverables
- MCE will provide necessary and sufficient access to software applications and network for this effort
- The Solution is based on the provided Requirement document
- As part of the best practice recommended by Salesforce, Implementer will be leveraging Out of the Box (OOB) functionality
- Any customization needs to be approved by both MCE's Manager of Technology and Analytics and R Systems.

- The Solution Design consideration should be 90% OOB and only 10% customization. Any deviation should require proper discussion, impacts, and email approval from MCE.
- Test Coverage for customization should be minimum 90%
- All User stories should be captured in JIRA
- Implementation should be by using Agile Methodology
- Complete implementation will happen by using Lightning Web Component (LWC)
- Following Sandbox, will be provided for implementation
 - 1 (Partial Copy) Sandbox will be available for DEV
 - 1 (Partial Copy) Sandbox will be available for QA
 - 1 (Full Copy Sandbox) will be available for UAT.



March 16, 2023

TO: MCE Board of Directors

FROM: Garth Salisbury, Chief Financial Officer & Treasurer
Maíra Strauss, Manager of Finance

RE: Fiscal Year 2023/24 Proposed Budgets (Agenda Item #06)

ATTACHMENTS: A. Proposed FY 2023/24 Operating Fund Budget
B. Proposed FY 2023/24 Program Development Fund Budget
C. Proposed FY 2023/24 Resiliency VPP Fund Budget
D. Proposed FY 2023/24 Energy Efficiency Program Fund Budget
E. MCE Policy 013: Reserve Policy

Dear Board Members:

Summary:

MCE's fiscal year (FY) runs from April 1 through March 31 of the following calendar year. Before the end of every fiscal year, MCE's staff present proposed Budgets to the Executive Committee and Board for consideration for MCE's Operating Fund, Energy Efficiency (EE) Program Fund, Program Development Fund (PDF)¹ and the Resiliency VPP Fund² for the upcoming fiscal year. These Budgets authorize staff to:

1. Spend funds within the limits set forth in each budget line item and apply budgeted contingency amounts if necessary;
2. Fund MCE's Program Development Fund, Electric Vehicle and other customer programs;
3. Fund MCE's Resiliency VPP Fund; and
4. Move closer to reaching MCE's reserve targets by further funding MCE's Operating Fund balances and reserves.

The attached Proposed Budgets reflect MCE's projected revenue, expenditures and

¹ Previously called the "Local Renewable Energy and Program Development Fund."

² Previously called the "Resiliency Fund." We are now adding "VPP" for MCE's investments in Virtual Power Plant technology.

contingencies for FY 2023/24, and are anticipated to allow MCE to continue providing a minimum of 60% renewable energy and move closer to our goal of 95% greenhouse gas (GHG)-free energy for our customers. The rate increases implemented on January 1 of this year are also anticipated to result in additional revenue to enable MCE to cover the costs for energy and resource adequacy (RA) and make progress on reaching the Board's Reserve Policy goals.

The proposed FY 2023/24 Operating Fund Budget is projected to result in an increase of \$99,257,000 to MCE's Net Position at the end of the fiscal year, assuming continuation of the current rate schedule and no further significant increases in market prices. Staff has incorporated contingencies into the proposed budget including a summer heat wave and continued grid congestion which can negatively impact the availability of MCE's solar resources. An addition to MCE's Net Position of \$99,257,000 would result in achieving 81% of the Board Reserve Policy Goals and 82% of the Board liquidity goal by the end of the fiscal year in 2024. At the conclusion of the 2023/24 fiscal year Staff may propose, and the Board could consider, deferring some of this projected revenue into the Operating Reserve Fund for use in future years. Any deferral into the Operating Reserve Fund would reduce the addition to Net Position by a like amount. Staff will update the Board on the progress and status of the budget throughout the fiscal year.

On March 3, the Executive Committee unanimously approved the proposed FY 2023/24 Budgets as presented and recommended approval to the full Board. Staff requests that the Board review and discuss the proposed Budgets and consider approval of the Budgets, with any requested amendments, at its March 16, 2023 meeting.

FY 2023/24 Operating Fund Budget Highlights:

Attached is the Proposed FY 2023/24 Operating Fund Budget (Attachment A). For comparison purposes, Proposed FY 2023/24 is shown alongside the current year's Approved Budget and actual results through November 2022 and projections through March 31, 2023 ("Projected Budget").

Revenue – Electricity (+\$170,000,000, 26.2% increase): Electricity revenue is projected to go up by \$170 million primarily due to the effects of a full fiscal year with the rate adjustment passed by your Board in December 2022. Sales volume (GWh) is projected to be up slightly (1.2%) due to load growth within the existing customer base. Projected Net Electricity Revenue is adjusted downward by an assumed delinquency rate of 2% of Electricity Revenues, which represents over \$16 million in projected uncollectible revenue.

Cost of energy (+\$171,000,000, 34.5% increase): Cost of energy is expected to go up by \$171 million over the current budget and about \$100 million over the projected actuals for the current fiscal year. Expenses associated with the purchase of energy include our power purchase agreements, charges by the California Independent Systems Operator (CAISO) for MCE load, services performed by the CAISO, RA costs and other regulatory energy requirements necessary to meet the energy needs of our customers.

Personnel (+\$3,002,000, 18.6% increase): This increase is reflective of cost-of-living adjustments to salaries, benefits, promotions, a budgeted assumption of merit increases for staff in 2023 and 2024 (a combined 13.6%), fully integrating the full year's costs of new FTEs added last year, and the anticipated addition of 7 new FTEs over the course of the fiscal year (a combined 5%). This would increase FTE headcount from 89 to 96.

Furthermore, MCE is continuing its successful workforce development program through hiring and training 9 interns, 3 fellows, and 2 temporary staff. The program allows members of MCE's service area, who may not have otherwise had the opportunity to work in the renewable energy industry, to get professional development and education in the industry.

Overall, the proposed personnel costs represent 2.4% of the total Operating Fund Budget, which is slightly less than the current fiscal year (2.6% in FY 2022/23). Personnel costs are net of a \$2.3 million allocation of MCE staff time to CPUC Funded Programs and other grant program administration.

Data Manager (-\$628,000, 10.9% decrease): This decrease captures the first full year of moving in-house some of the previously outsourced call center services plus the shift to a more cost-effective data management services provider.

Technical and Scheduling Consultants (+\$247,000, 24.0% increase): Current energy market price volatility in addition to unprecedented increases in energy and RA costs require staff to work with a number of technical consultants. These consultants allow us to develop new and more advanced strategies to better predict our daily and hourly customer load and to respond to new regulatory mandates. MCE is proactively educating staff and working with more specialized technical consultants to better manage these risks and to implement more sophisticated energy scheduling strategies.

Legal and Policy Services (+\$84,000, 6.0% increase): Legal counsel expenses support MCE's contracting, human resources, financial and regulatory activities including market restructuring issues. Certain legal counsel expenses are expected to be down slightly due to changing counsel to more cost-effective firms. Additionally, CalCCA continues to take on a number of the regulatory and policy issues on behalf of all CCAs in California thus reducing the expenses that were previously borne directly by MCE. These reductions in legal costs have been offset by additional costs to support/advise MCE's staff on employment law, storage technologies and financing matters such as MCE's potential bonding activities and electricity prepayment transactions.

Communications Services (+\$253,000, 11.8% increase): Communications costs are associated with print, online, social, and video advertising; printing and mailing customer notices including compliance notices, targeted program marketing and on-going engagement; maintaining the website; community outreach and sponsorships; and special events. MCE is also investing in customer engagement campaigns, increasing diverse customer outreach, and promoting our clean power supply and programs. Costs for Communication Services are expected to increase modestly in anticipation of additional vendor support for Customer Programs marketing, and communications to increase

participation, maintain and grow our customer base, as well as more in-person engagement and outreach with the pandemic winding down.

Other services (+\$101,000, 4.4% increase): Other services encompass certain expenses which are not captured in other budget categories, such as consulting related to the ongoing support of Customer Relationship Management (CRM) software and the Digital Analytics Platform (DAP) developed by the Technology and Analytics Department.

General and Administration (+\$167,000, 6.2% increase): General and administration costs include office supplies, data, travel, dues and subscriptions, support for California Community Choice Association (CalCCA), and other related expenses. Increased costs are associated with increased regulatory and legislative activities, CRM licenses for use by our Public Affairs Department, Customer Programs Department, and Legal and Policy Department, and load forecasting software for use by the Power Resources Department to allow for more sophisticated resource allocation and optimization of load scheduling.

Occupancy (-\$112,000, 10.9% decrease): Decreased costs are expected to impact the budget by the end of the fiscal year due to an anticipated renegotiation of existing office leases.

Finance and Contingency (no change): As the operating cost components of the Finance Department are allocated in all of the other budget line items, only the Contingency is represented here. This line represents \$1.5 million or 0.2% of the total Operating Fund Budget. Staff proposes once again that it be managed/allocated based upon actual outcomes and needs within the group budgets throughout the fiscal year.

Non-Operating Revenue and Expense, Fund Transfer and Other Updates:

Grant income (+ \$3,104,000, 136% increase): MCE receives grants from government and non-profit organizations to support certain activities connected to MCE's mission. Grant income varies year to year as grants can be "one time" or can be provided to MCE under multiple year agreements. Some grants expired in the current fiscal year and others are starting in the 2023/24 fiscal year. The following grants or portions thereof are included:

1. \$1,000,000 (2022-2027) to support MCE's Healthy Homes program in Richmond. Funded by the California Strategic Growth Council Transformative Climate Communities program.
2. \$ 750,000 (2023-2025) to support MCE's Healthy Homes program across our service area. Funded by congressionally directed community spending requests (federal earmarks).
3. \$750,000 (2020-2025) to support solar combined with storage installations for non-profits in Marin. Funded by the Marin Community Foundation.

4. \$500,000 (2023-2025) to support solar combined with storage installations for community resiliency centers. Funded by federal earmarks.
5. \$1,500,000 (2022-2024) to support EV charging installations in Contra Costa disadvantaged communities in partnership with the Contra Costa Transportation Authority. Funded by the California Energy Commission.
6. \$180,000 (2022-2023) to support EV charging installations at multifamily properties in Marin. Funded by the Marin Community Foundation.
7. \$86,000 (2023-2024) to support EV charging installations at multifamily properties. Funded by the California Energy Commission Reliable, Equitable, and Accessible Charging for multi-family Housing (REACH) program.
8. \$2,000,000 (2023-2025) to support EV charging installations. Funded by congressionally directed community spending requests (federal earmarks).
9. \$1,762,000 for Disadvantaged Communities Green Tariff and Community Solar Green Tariff Programs (DACG-GT). The program enables income-qualified, residential customers in disadvantaged communities who may be unable to install solar on their roof to benefit from utility scale clean energy and receive a 20% bill discount.

Interest Income (+\$3,500,000, +233% increase): Increased interest income is expected to result from a targeted investment strategy developed by MCE Staff and the retention of an outside investment management company to take advantage of the increase in interest rates and further additions to our reserves over the course of the fiscal year.

FY 2023/24 Program Development Fund (PDF)

The PDF is financed by a transfer from the Operating Fund equal to 50% of the 1¢/kWh premium for Deep Green service of \$1,970,000.

- **Transportation electrification.**
 - Rebates for newly purchased and leased EVs for income-qualified residents.
 - Rebates for charging ports installed at workplaces and multifamily properties.
 - MCE's EV smart charging app, MCE Sync, which automates home EV charging to use the least expensive and cleanest energy on the grid.
- **Fleet electrification.**
- **Building electrification.**
- **Rebates for electric, grid-enabled Heat Pump Water Heaters.**

Committed and Expended Funding: The Program Development Fund finances a number of programs that require long lead times from project application, approval, permitting, construction and final completion. This process in some cases can take many years.

Consequently, MCE commits funding for projects on an annual basis but actual expenditures of these funds are often delayed for a number of years or, occasionally, projects can be canceled entirely. Staff has recognized an accumulation of funding granted by the Board for these initiatives year-over-year and is focused on spending those appropriated funds before requesting additional funding. If actual expenditures in a given fiscal year are expected to exceed available funding, staff will come back to the Board to request additional appropriations from the General Fund.

FY 2023/24 Resiliency VPP Fund

On November 21, 2019, your Board approved the creation of a Resiliency VPP Fund with initial funding in the amount of \$3,000,000 plus an incremental funding of \$3,000,000 in FY 2020/21, \$1,000,000 in FY 2021/22, and \$2,000,000 in FY 2022/23. The creation of this fund was in large part a response to PG&E's Public Safety Power Shutoff (PSPS) events. Power outages significantly impact the safety, reliability, health and welfare of our customers, and disproportionately affect vulnerable populations. MCE is working to help strengthen our communities by piloting energy storage paired with solar to retain essential power supply during power outages while minimizing the use of carbon-emitting generators and fossil-fuel technologies.

Staff is recommending an additional \$500,000 of Federally earmarked funds and \$750,000 from Marin Community Foundation bringing the total funding to date to \$10,250,000.

Energy Efficiency Program Fund

(\$28,757,000, 40% increase): The Energy Efficiency Program Fund uses funding authorized by the California Public Utilities Commission (CPUC) to support multifamily, commercial, agricultural, industrial, single family and workforce development sub-programs. The Energy Efficiency Program Fund supports the activities of the Energy Efficiency (EE) Program and the Low-Income Families and Tenants (LIFT) Pilot Program, Peak FLEXmarket, and Residential Market Programs. The funds awarded from the CPUC have increased from \$20,183,000 in FY 2022/23 to \$28,757,000 in FY 2023/2024.

Fiscal Impacts:

The net impact of the Proposed Operating Fund Budget is a projected \$99,257,000 contribution to MCE's net position during FY 2023/24. The projections assume no change to MCE's current rates and are based on the best available information regarding market prices for any unhedged power supply.

Potential FY 2023/24 Budget Impacts: A number of anticipated and unanticipated events could have a measurable effect on MCE's portfolio and finances in the coming fiscal year. These include:

- 1) System energy, renewable energy and resource adequacy prices may end up being higher than anticipated due to market volatility, scarcity, availability and/or due to regulatory changes that can diminish the value of existing contracts, or drive-up costs;
- 2) Customer Energy Demand – As we continue to experience climate change through extreme weather events, including summer heat waves, severe cold temperatures, and drought, energy demand can outpace our hedged energy supply and negatively impact MCE’s finances. This is particularly true when day-ahead and/or real-time market prices are abnormally high.

Projected Impacts on MCE’s Reserve Policy Goals: If results are as anticipated with the proposed budget, MCE would make significant progress on meeting the Board approved reserve and liquidity targets:

Reserve & Liquidity Requirement Targets		FY 2022/23	FY 2023/24
Reserve Projections	Reserve Target (\$)	336,540,000	423,000,000
	Projected Actual Reserves (\$)	241,051,000	341,051,000
	% of Target	72%	81%
Liquidity Projections	Liquidity Target (\$)	368,811,000	463,562,000
	Total Projected Liquidity (\$)	265,832,424	380,832,424
	Projected Days Liquidity on Hand	173	197
	Target Days Liquidity on Hand	240	240

Recommendation:³ Approve the proposed FY 2023/24 Operating Fund, Energy Efficiency Fund, Program Development Fund, and Resiliency VPP Fund Budgets.

³ Pursuant to MCE’s Operating Rules and Regulations, the adoption of an annual budget requires a majority vote of the full membership. Therefore, with MCE’s current number of member communities, at least 19 votes in favor of the budget are needed for approval.



A. Proposed FY 2023/24 Operating Fund Budget

MCE Operating Fund
Proposed Budget Fiscal Year 2023/24
From April 1, 2023 through March 31, 2024

	Fiscal Year 2022/23 Approved Budget	Fiscal Year 2022/23 Projected Budget	Fiscal Year 2023/24 Proposed Budget	Approved vs Proposed \$ Variance (Under) Over	Approved vs Proposed % Variance (Under) Over	As % of Net Electricity Revenue
ENERGY REVENUE						
Operating Revenues	\$ 647,152,000	\$ 642,543,000	\$ 816,760,000	\$ 169,608,000	26.2%	
Uncollectible Accounts	(18,459,000)	(18,335,000)	(16,621,000)	(1,838,000)	-10.0%	
REVENUE - ELECTRICITY NET	628,693,000	624,208,000	800,139,000	171,446,000	27.3%	100.0%
ENERGY EXPENSES						
Cost of Energy	495,310,000	566,383,000	665,973,000	170,663,000	34.5%	83.2%
NET ENERGY REVENUE	133,383,000	57,825,000	134,166,000	783,000	0.6%	16.8%
OPERATING EXPENSES						
Personnel	16,167,000	15,636,000	19,169,000	3,002,000	18.6%	2.4%
Data Manager	5,762,000	5,917,000	5,134,000	(628,000)	-10.9%	0.6%
Technical and Scheduling Consultants	1,028,000	955,000	1,275,000	247,000	24.0%	0.2%
Service Fees - PG&E	2,465,000	2,250,000	2,527,000	62,000	2.5%	0.3%
Legal and Policy Services	1,403,000	908,000	1,487,000	84,000	6.0%	0.2%
Communication Services	2,152,000	1,429,000	2,405,000	253,000	11.8%	0.3%
Other Professional Services	2,318,000	1,790,000	2,419,000	101,000	4.4%	0.3%
General and Administrative	2,688,000	2,070,000	2,855,000	167,000	6.2%	0.4%
Occupancy	1,028,000	1,027,000	916,000	(112,000)	-10.9%	0.1%
Contingency	1,500,000	-	1,500,000	-	0.0%	0.2%
TOTAL OPERATING EXPENSES	36,511,000	31,982,000	39,687,000	3,176,000	8.7%	5.0%
OPERATING INCOME	96,872,000	25,843,000	94,479,000	(2,393,000)	-2.5%	11.8%
NONOPERATING REVENUES						
Grant Income	2,281,000	1,862,000	5,385,000	3,104,000	136.1%	0.7%
Other Income	-	7,887,000	-	-	-	-
Interest Income	1,500,000	2,697,000	5,000,000	3,500,000	233.3%	0.6%
TOTAL NONOPERATING REVENUES	3,781,000	12,446,000	10,385,000	6,604,000	174.7%	1.3%
NONOPERATING EXPENSES						
Banking Fees and Financing Costs	222,000	167,000	222,000	-	0.0%	0.0%
Grant Expenses	2,281,000	152,000	5,385,000	3,104,000	136.1%	0.7%
TOTAL NONOPERATING EXPENSES	2,503,000	319,000	5,607,000	3,104,000	124.0%	0.7%
CHANGE IN NET POSITION	98,150,000	37,970,000	99,257,000	1,107,000	1.1%	12.4%
Budgeted Net Position Beginning of Period	215,657,000	203,279,000	241,249,000	25,592,000	11.9%	-
Change in Net Position	98,150,000	37,970,000	99,257,000	1,107,000	1.1%	12.4%
BUDGETED NET POSITION END OF PERIOD	313,807,000	241,249,000	340,506,000	26,699,000	8.5%	-
CAPITAL EXPENDITURES, INTERFUND TRANSFERS & OTHER						
Capital Outlay	75,000	-	389,000	314,000	418.7%	0.0%
Transfer to Resiliency VPP Fund	2,000,000	2,000,000	-	(2,000,000)	-100.0%	-
Transfer to Program Development Fund	1,712,000	1,712,000	1,970,000	258,000	15.1%	0.2%
CARES	5,000,000	2,637,000	-	(5,000,000)	-100.0%	-
TOTAL CAPITAL EXPENDITURES, INTERFUND TRANSFERS & OTHER	8,787,000	6,349,000	2,359,000	(6,428,000)	-73.2%	0.3%
BUDGETED NET INCREASE IN OPERATING FUND BALANCE	89,363,000	31,621,000	96,898,000	7,535,000	8.4%	12.1%



B. Proposed FY 2023/24 Program Development Fund Budget

MCE
Program Development Fund
Proposed Budget Fiscal Year 2023/24
From April 1, 2023 through March 31, 2024

	Fiscal Year 2022/23 Approved Budget	Fiscal Year 2022/23 Projected Budget	Fiscal Year 2023/24 Proposed Budget
REVENUE AND OTHER SOURCES			
Transfer from Operating Fund	\$ 770,000	\$ 770,000	\$ -
Deep Green Transfer	942,000	942,000	1,970,000
TOTAL REVENUE AND OTHER SOURCES	1,712,000	1,712,000	1,970,000
EXPENDITURES AND OTHER USES			
Local Pilot Programs	3,436,000	1,087,000	4,850,000
Low Income Solar Programs	100,000	50,000	-
Regional Heat Pump Water Heater Program	200,000	200,000	360,000
TOTAL EXPENDITURES AND OTHER USES	3,736,000	1,337,000	5,210,000
Net Increase (Decrease) in Fund Balance	(2,024,000)	375,000	(3,240,000)
Fund Balance at Beginning of Period*	2,033,000	2,913,000	3,288,000
Fund Balance at End of Period	9,000	3,288,000	48,000

*Beginning balance for FY 2023/24 differs from budget FY 2022/23 ending balance due to delays in actual fund spending.



C. Proposed FY 2023/24 Resiliency VPP Fund Budget

MCE
Resiliency VPP Fund
Proposed Budget Fiscal Year 2023/24
From April 1, 2023 through March 31, 2024

	Fiscal Year 2022/23 Approved Budget	Fiscal Year 2022/23 Projected Budget	Fiscal Year 2023/24 Proposed Budget
REVENUE AND OTHER SOURCES			
Marin Community Foundation Grant	\$ -	\$ -	\$ 750,000
Federally Directed Funding	-	-	500,000
Transfer from Operating Fund	2,000,000	2,000,000	-
Total Revenue and Other Sources	2,000,000	2,000,000	1,250,000
EXPENDITURES AND OTHER USES			
Efforts Related to Marin Community Foundation Grant	485,000	-	750,000
VPP Solar Storage	-	-	2,000,000
VPP Efforts	3,379,000	1,350,000	500,000
TOTAL EXPENDITURES AND OTHER USES	3,864,000	1,350,000	3,250,000
Net Increase (Decrease) in Fund Balance	(1,864,000)	650,000	(2,000,000)
Fund Balance at Beginning of Period*	2,838,000	3,582,276	4,232,276
Fund Balance at End of Period	974,000	4,232,276	2,232,276

*Beginning balance for FY 2023/24 differs from budget FY 2022/23 ending balance due to delays in actual fund spending.



D. Proposed FY 2023/24 Energy Efficiency Program Fund Budget

MCE
Energy Efficiency Fund
Proposed Budget Fiscal Year 2023/24
From April 1, 2023 through March 31, 2024

	Fiscal Year 2022/23 Approved Budget	Fiscal Year 2022/23 Projected Budget	Fiscal Year 2023/24 Proposed Budget
REVENUE AND OTHER SOURCES			
Public Purpose Energy Efficiency Program	\$ 14,705,000	\$ 6,995,000	\$ 14,982,000
Public Purpose Low Income Families and Tenants Pilot Program	1,625,000	426,000	1,625,000
Peak FLEXmarket	3,854,000	117,000	8,250,000
ResMap	-	37,000	3,900,000
TOTAL REVENUE AND OTHER SOURCES	20,184,000	7,575,000	28,757,000
EXPENDITURE AND OTHER USES			
Public Purpose Energy Efficiency Program	14,705,000	\$ 6,995,000	14,982,000
Public Purpose Low Income Families and Tenants Pilot Program	1,625,000	426,000	1,625,000
Peak FLEXmarket	3,854,000	117,000	8,250,000
ResMap	-	37,000	3,900,000
TOTAL EXPENDITURES AND OTHER USES	20,184,000	7,575,000	28,757,000
BALANCE	-	-	-



POLICY 013: Reserve Policy

Policy Statement

MCE will adopt budgets and establish rates that provide for a growing Reserve until target funding levels are met.

The Reserve will grow to and be maintained at a funding level equal to or exceeding 60% of projected energy and operating expenses for the current fiscal year. The Reserve will be accounted for as the Net Position in MCE's financial statements.

The MCE Board will adopt budgets and establish rates for MCE with the goal of building and maintaining Reserves at or above the target level by March 2022, subject to MCE's ability to meet operational expenditures and maintain competitive rates.

Policy Purpose

MCE will prudently manage its operations in a manner that supports its long-term financial independence and stability while providing sufficient financial capacity to meet short term obligations. This Reserve Policy is important in meeting MCE's strategic objectives, securing favorable commercial terms from both third-party service providers and lenders and in the maintenance and potential improvement in MCE's stand-alone credit ratings.

Adequate Reserves will enable MCE to satisfy working capital requirements, procure energy at competitive rates, adhere to loan or bond covenants, cover unanticipated expenditures, and support rate stability.

Relationship to the Budget, Liquidity and Periodic Review

By setting rates and authorizing expenditures through approved Budgets, MCE determines targeted additions to Reserves. Staff will carefully monitor MCE's liquidity to ensure it meets the objectives of the organization with the goal of securing 240 days liquidity on hand¹. Staff will review the Reserve Policy annually to ensure it meets the needs of the agency. The future development of MCE may require the expansion of reserve requirements to support new activities such as major expansion of MCE activities or the acquisition of generating assets.

¹ Days liquidity on hand = (unrestricted cash and investments + unused bank lines of credit) x 365 / (operating expenses + cost of energy, each for the current fiscal year)



March 16, 2023

TO: MCE Board of Directors

FROM: Garth Salisbury, Chief Financial Officer & Treasurer

RE: Proposed Amendments to MCE Policy 014: Investment Policy (Agenda Item #07)

ATTACHMENT: Proposed Amended MCE Policy 014: Investment Policy in Strikeout/Underline Format

Dear Board Members:

Summary:

In April 2018, your Board approved MCE Policy 014: Investment Policy to guide the investment of MCE's cash and investments. The Investment Policy has been amended in 2019, 2020 and, most recently, in October 2022. The 2022 amendments reflected changes in the California Government Code, to expand the list of permitted investments and add other protections and reporting requirements of the MCE Treasurer.

With the implementation of AB 1489, staff is recommending two additional changes to incorporate into the Investment Policy:

- 1) Utilize the actual "settlement date" following the purchase of a security as the purchase date of the security. To calculate the maximum term allowed for a qualified investment, the legislation recognizes a settlement date of up to 45 days after the purchase of a new issue security as the start date, and
- 2) Extend the due date of the Quarterly Treasurer's Reports to be 45 days from the end of the fiscal quarter – an extension of 15 days.

These two proposed changes are ministerial in nature and will not fundamentally change the way staff reports securities purchases or the timing of our Quarterly Treasurer's Reports to the Board.

Finally, when the Board approved several changes to the permitted investments in the Investment Policy in October 2022, one such change was inadvertently omitted. This proposed change expands the definition of Asset Backed securities to include non-

governmental issuers of asset backed securities that meet the same credit criteria and further restricts the overall percentage of the portfolio that can be invested in such assets.

Fiscal Impacts: It is anticipated that the amendments to the Investment Policy will result in incremental interest earnings on those funds over time.

Recommendation: Approve the proposed amendments to MCE Policy 014: Investment Policy.



POLICY 014: Investment Policy

Introduction

This Investment Policy establishes guidelines for the management of cash, deposits and investments (together, “funds”) at MCE (or the “Agency”).

Scope

This policy covers all funds and investment activities under the direct authority of MCE, as set forth in the State Government Code, Sections 53600 et seq., with the following exceptions:

- Proceeds of debt issuance shall be invested in accordance with MCE’s general investment philosophy as set forth in this policy; however, such proceeds are to be invested pursuant to the permitted investment provisions of their specific bond indentures.
- Any other funds specifically exempted by the Governing Body.

Objectives

When managing funds, MCE’s primary objectives, in order of importance, shall be to safeguard the principal of the funds, meet the liquidity needs of MCE, and achieve a return on investment on funds in MCE’s control.

Safety: Safety of principal is the foremost objective of cash and investment management activities. The investment of funds shall be undertaken in a manner that seeks to ensure the preservation of principal.

Liquidity: The funds of the agency shall remain sufficiently liquid to meet all operating needs that may be reasonably anticipated. Since all possible cash demands cannot be anticipated, the investment of funds in deposits or instruments available on demand is recommended.

Return on Investment: The deposit and investment portfolio shall be designed with the objective of attaining a market rate of return throughout the economic cycle while considering risk and liquidity constraints. The return on deposits and investments is of secondary importance compared to the safety and liquidity objectives described above.

Standard of Care

MCE will manage funds in accordance with the Prudent Investor Standard pursuant to California Government Code Section 53600.3.1¹: “Governing bodies of local agencies or persons authorized to make investment decisions on behalf of those local agencies investing public funds are trustees and therefore fiduciaries subject to the prudent investor standard. When investing,

¹ All further statutory references are to the California Government Code unless otherwise stated.

reinvesting, purchasing, acquiring, exchanging, selling or managing public funds, a trustee shall act with care, skill, prudence and diligence under the circumstances then prevailing, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency. Within the limitations of this section and considering individual investments as part of an overall strategy, investments may be acquired as authorized by law.”

Delegation of Authority

Pursuant to Section 53607, the responsibility to manage funds is delegated to the Treasurer of MCE. The Treasurer may appoint Deputy Treasurers as the Treasurer deems necessary and convenient for the prompt and faithful discharge of its duties to invest and reinvest the funds of MCE, pursuant to Section 53607.

MCE may engage the services of one or more external investment advisers, who are registered under the Investment Advisers Act of 1940, to assist in the management of MCE’s investment portfolio in a manner consistent with the MCE’s objectives. External investment advisers may be granted discretion to purchase and sell investment securities in accordance with this Investment Policy.

Ethics and Conflicts of Interest

All participants in the investment process shall act as custodians of the public trust. Investment officials shall recognize that the investment portfolio is subject to public review and evaluation. Thus employees and officials involved in the investment process shall refrain from personal business activity that could create a conflict of interest or the appearance of a conflict with proper execution of the investment program, or which could impair their ability to make impartial investment decisions.

Employees and investment officials shall disclose to MCE’s General Counsel or designee any material interests in financial institutions with which they conduct business, and they shall further disclose any large personal financial/investment positions that could be related to the performance of the investment portfolio. Employees and officers shall refrain from undertaking any personal investment transactions with the same individual with whom business is conducted on behalf of MCE.

Authorized Investments

MCE’s investments are governed by California Government Code, Sections 53600 et seq. Within the investments permitted by the Code, MCE seeks to further restrict eligible investments to the guidelines listed below. In the event a discrepancy is found between this policy and the Code, the more restrictive parameters will take precedence. Percentage holding limits and minimum credit quality requirements listed in this section apply at the time the security is purchased.

Any investment currently held at the time the policy is adopted which does not meet the new policy guidelines can be held until maturity and shall be exempt from the current policy. At the time of the investment’s maturity or liquidation, such funds shall be reinvested only as provided in the current policy.

The following types of investments are permitted:

Deposits at Bank(s): Funds may be invested in non-interest bearing depository accounts to meet MCE’s operating and collateral needs and grant requirements. Funds not needed for these

purposes may be invested in interest bearing depository accounts or Federal Deposit Insurance Corporation (FDIC) insured certificates of deposit with maturities not to exceed five years.

Banks eligible to receive deposits will be federally or state chartered and will conform to Section 53635.2 which requires that banks "have received an overall rating of not less than "satisfactory" in its most recent evaluation by the appropriate federal financial supervisory agency of its record of meeting the credit needs of California's communities, including low- and moderate-income neighborhoods, pursuant to Section 2906 of Title 12 of the United States Code."

FDIC insurance coverage in the United States is \$250,000 per Tax ID Number. As per Section 53652, banks must collateralize the deposits of public agencies. The Treasurer, or a duly appointed Deputy Treasurer, will monitor the credit quality of eligible banks to ensure the safety of MCE deposits.

Local Agency Investment Fund (LAIF): Funds may be invested in the Local Agency Investment Fund. The LAIF was established by the California State Treasurer for the benefit of local agencies. Statutory requirements of the Local Agency Investment Fund include:

Section 16429.1

- a. There is in trust in the custody of the Treasurer the Local Agency Investment Fund, which fund is hereby created. The Controller shall maintain a separate account for each governmental unit having deposits in this fund.
- e. The local governmental unit, the nonprofit corporation, or the quasi-governmental agency has the exclusive determination of the length of time its money will be on deposit with the Treasurer.
- j. Money in the fund shall be invested to achieve the objective of the fund which is to realize the maximum return consistent with safe and prudent treasury management.
- i. Immediately at the conclusion of each calendar quarter, all interest earned and other increment derived from investments shall be distributed by the Controller to the contributing governmental units or trustees. An amount equal to the reasonable costs incurred in carrying out the provisions of this section, not to exceed a maximum of 5 percent of the earnings of this fund and not to exceed the amount appropriated in the annual Budget Act for this function, shall be deducted from the earnings prior to distribution.

Section 16429.4

The right of a city, county, city and county, special district, nonprofit corporation, or qualified quasi-governmental agency to withdraw its deposited moneys from the Local Agency Investment Fund, upon demand, may not be altered, impaired, or denied, in any way, by any state official or state agency based upon the state's failure to adopt a State Budget by July 1 of each new fiscal year.

US Treasury Obligations: Funds may be invested in United States Treasury obligations and other government obligations for which the full faith and credit of the United States are pledged for the payment of principal and interest with a term to maturity not exceeding 5 years. There are no limits on the dollar amount or percentage that MCE may invest in U.S. Treasuries.

Federal Agency Securities: Funds may be invested in Federal Agency Securities or United States Government-Sponsored Enterprise obligations, participations, or other instruments, including those issued by or fully guaranteed as to principal and interest by federal agencies or United States government-sponsored enterprises. There are no limits on the dollar amount or percentage

that MCE may invest in Federal Agency or Government-Sponsored Enterprises (GSEs) with a term to maturity not exceeding 5 years. No more than 30% of the portfolio may be invested in any single Agency/GSE issuer. Federal Agency and GSE obligations must be rated in a rating category of AA or equivalent or better. The maximum percent of agency callable securities in the portfolio will be 20%.

Commercial Paper: Funds may be invested in commercial paper in accordance with the requirements of Section 53601 and subject to the following limitations:

- i. No more than 25% of the total portfolio shall be invested in commercial paper;
- ii. The term to maturity shall not exceed 270 days; and
- iii. No more than 10% of outstanding commercial paper shall be from any single issuer.

The issuer of commercial paper must have the following:

- i. Assets in excess of \$500 million;
- ii. A credit rating of A-1 or better by a Nationally Recognized Statistical Rating Organization (NRSRO); and
- iii. A senior debt rated at A or better.

Additionally, under a provision sunseting on January 1, 2026, no more than 40% of the portfolio may be invested in Commercial Paper if the Agency's investment assets under management are greater than \$100,000,000. No more than 5% of the portfolio may be invested in any single issuer.

Negotiable Certificates of Deposit: Funds may be invested in negotiable certificates of deposit issued by a nationally or state-chartered bank, a savings association or a federal association, a state or federal credit union, or by a federally licensed or state-licensed branch of a foreign bank, and subject to the following limitations:

- i. Issued by an entity as defined in Section 53601(i); and
- ii. No more than 30% of funds invested pursuant to this Investment Policy may be invested in certificates of deposit.
- iii. The amount of the NCD insured up to the FDIC limit does not require any credit ratings.
- iv. Any amount above the FDIC insured limit must be issued by institutions which have short-term debt obligations rated "A-1" or its equivalent or better by at least one NRSRO; or long-term obligations rated in a rating category of "A" or its equivalent or better by at least one NRSRO.
- v. No more than 5% of the portfolio may be invested in any single issuer.
- vi. The maximum maturity does not exceed five (5) years.

Collateralized Time Deposits (Non-Negotiable Certificates of Deposit): Funds may be invested in state or federally chartered banks, savings and loans, or credit unions in excess of insured amounts which are fully collateralized with securities in accordance with California law, provided that:

- No more than 50% of the portfolio will be invested in a combination of federally insured and collateralized time deposits, including CDARS.
- The maximum maturity does not exceed five (5) years.

Placement Service Deposits: Funds may be invested in deposits placed with a private sector entity that assists in the placement of deposits with eligible financial institutions located in the United States (Section 53601.8). The full amount of principal and the interest that may be accrued during the maximum term of each deposit shall at all times be insured by federal deposit insurance. The combined maximum portfolio exposure to the deposits placed pursuant to this section, Insured Cash Sweep (ICS) and Certificate of Deposit Account Registry Service (CDARS)

is limited to 50 percent and the maximum investment maturity will be restricted to five years, unless otherwise prescribed by law.

Money Market Funds: Funds may be invested in money market funds pursuant to Section 53601(l)(2) and subject to Section 53601(l)(4).

Municipal Securities: Funds may be invested in municipal securities including obligations of MCE, the State of California and any local agency within the State of California, provided that:

- The securities are rated in a minimum rating category of “A+” or its equivalent or better by at least one nationally recognized statistical rating organization (“NRSRO”).
- No more than 5% of the portfolio may be invested in any single issuer.
- No more than 30% of the portfolio may be in Municipal Securities.
- The maximum maturity does not exceed five (5) years.

Repurchase Agreements: Funds may be invested in repurchase agreements collateralized with securities authorized under California Government Code, maintained at a level of at least 102% of the market value of the Repurchase Agreement. There are no limits on the dollar amount or percentage that MCE may invest, provided that:

- Securities used as collateral for Repurchase Agreements will be delivered to an acceptable third party custodian.
- Repurchase Agreements are subject to a Master Repurchase Agreement between the Agency and the provider of the repurchase agreement. The Master Repurchase Agreement will be substantially in the form developed by the Securities Industry and Financial Markets Association (SIFMA).
- The maximum maturity does not exceed one (1) year.

Corporate Medium-Term Notes (MTNs): Funds may be invested in MTMs provided that:

- The issuer is a corporation organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States.
- The securities are rated in a rating category of “A+” or its equivalent or better by at least one NRSRO.
- No more than 30% of the total portfolio may be invested in MTNs.
- No more than 5% of the portfolio may be invested in any single issuer.
- The maximum maturity does not exceed five (5) years.

Asset-Backed, Mortgage-Backed, Mortgage Passthrough Securities, and Collateralized Mortgage Obligations from issuers ~~not defined as issuers~~ of U.S. Treasuries, Federal Agencies, and Government Sponsored Enterprises in the preceding paragraphs of the Authorized Investments section of this policy: Funds may be invested in these securities provided that:

- The securities are rated in a rating category of “AA” or its equivalent or better by a NRSRO.
- No more than 20% of the total portfolio may be invested in these securities.
- No more than 5% of the portfolio may be invested in any single Asset-Backed or Commercial Mortgage security issuer.
- The maximum legal final maturity does not exceed five (5) years.

Supranationals: Funds may be invested in supranationals provided that:

- Issues are US dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, or Inter-American Development Bank.
- The securities are rated in a rating category of “AA” or its equivalent or better by a NRSRO.
- No more than 30% of the total portfolio may be invested in these securities.
- No more than 10% of the portfolio may be invested in any single issuer.
- The maximum maturity does not exceed five (5) years.

Prohibited Investments

Pursuant to Section 53601.6, MCE shall not invest funds in any security that could result in a zero interest accrual, or less, if held to maturity. These prohibited investments include inverse floaters, range notes, or mortgage-derived interest-only strips, futures options. The purchase of foreign currency denominated securities is prohibited. Trading securities for the sole purpose of speculating on the future direction of interest rates is prohibited. Purchasing or selling securities on margin is prohibited. The use of reverse repurchase agreements, securities lending or any other form of borrowing or leverage is prohibited.

Investment Portfolio Management

The term to maturity of any funds invested as measured from settlement date to maturity date shall not exceed 5 years pursuant to Section 53601. The Treasurer, or a duly appointed Deputy Treasurer, will allocate funds among authorized investments consistent with the objectives and standards of care outlined in this Policy.

Bids and Purchase of Securities

Prior to the purchase of an investment pursuant to this Policy the persons authorized to make investments shall assess the market and market prices using information obtained from available sources including investment services, broker/dealers, and the media. A competitive bid process, when practical, will be used to place all investment purchases and sales transactions.

Brokers

To the extent practicable, the Treasurer shall endeavor to complete investment transactions using a competitive bid process whenever possible. In accordance with Section 53601.5, institutions eligible to transact investment business with MCE include:

- Institutions licensed by the state as a broker-dealer.
- Institutions that are members of a federally regulated securities exchange.
- Primary government dealers as designated by the Federal Reserve Bank and non-primary government dealers.
- Nationally or state-chartered banks.
- The Federal Reserve Bank.
- Direct issuers of securities eligible for purchase.

Selection of financial institutions and broker/dealers authorized to engage in transactions will be at the sole discretion of MCE, except where MCE utilizes an external investment adviser in which case MCE may rely on the adviser for selection.

Selection of broker/dealers used by an external investment adviser retained by MCE will be at the sole discretion of the adviser. Where possible, transactions with broker/dealers shall be selected on a competitive basis and their bid or offering prices shall be recorded. If there is no other readily

available competitive offering, best efforts will be made to document quotations for comparable or alternative securities. When purchasing original issue instrumentality securities, no competitive offerings will be required as all dealers in the selling group offer those securities at the same original issue price.

The Treasurer shall be prohibited from selecting any broker, brokerage firm, dealer, or securities firm that has, within any 48-consecutive month period following January 1, 1996, made a political contribution in an amount exceeding the limitations contained in Rule G-37 of the Municipal Securities Rulemaking Board to any member of the MCE Board, or any candidate for those offices. The broker/dealers shall be provided with and acknowledge receipt of the Investment Policy.

Losses

Losses are acceptable on a sale before maturity and may be taken if required to meet the liquidity needs of the agency or if the reinvestment proceeds will earn an income flow with a present value higher than the present value of the income flow that would have been generated by the original investment, considering any investment loss or foregoing interest on the original investment.

Delivery and Safekeeping

The delivery and safekeeping of all securities shall be made through a third party custodian when practical and cost effective as determined by the Treasurer, or a duly appointed Deputy Treasurer, and in accordance with Section 53608. The Director of Finance or their designee shall review all transaction confirmations for conformity with the original transaction.

Risk Management and Diversification—Mitigating Credit Risk in the Portfolio

Credit risk is the risk that a security or a portfolio will lose some or all its value due to a real or perceived change in the ability of the issuer to repay its debt. MCE will mitigate credit risk by adopting the following strategies:

- The diversification requirements included in the “Authorized Investments” section of this policy are designed to mitigate credit risk in the portfolio.
- No more than 5% of the total portfolio may be deposited with or invested in securities issued by any single issuer unless otherwise specified in this policy.
- MCE may elect to sell a security prior to its maturity and record a capital gain or loss in order to manage the quality, liquidity or yield of the portfolio in response to market conditions or MCE’s risk preferences.
- If a security owned by MCE is downgraded to a level below the requirements of this policy, making the security ineligible for additional purchases, the following steps will be taken:
 - Any actions taken related to the downgrade by the investment manager will be communicated to the Treasurer in a timely manner.
 - If a decision is made to retain the security, the credit situation will be monitored and reported to the Governing Body.

Risk Management and Diversification—Mitigating Market Risk in the Portfolio

Market risk is the risk that the portfolio value will fluctuate due to changes in the general level of interest rates. MCE recognizes that, over time, longer-term portfolios have the potential to achieve higher returns. On the other hand, longer-term portfolios have higher volatility of return. MCE will mitigate market risk by providing adequate liquidity for short-term cash needs, and by making longer-term investments only with funds that are not needed for current cash flow purposes.

MCE further recognizes that certain types of securities, including variable rate securities, securities with principal paydowns prior to maturity, and securities with embedded options, will affect the market risk profile of the portfolio differently in different interest rate environments. MCE, therefore, adopts the following strategies to control and mitigate its exposure to market risk:

- MCE will maintain a minimum of \$40 million in cash and overnight investments at all times to provide sufficient liquidity for expected disbursements.
- The maximum stated final maturity of individual securities in the portfolio will be five (5) years, except as otherwise stated in this policy.
- The duration of the portfolio will generally be approximately equal to the duration (typically, plus or minus 20%) of a Market Benchmark, an index selected by MCE based on MCE's investment objectives, constraints and risk tolerances.

Conflict of Interest

In accordance with state law, staff shall not accept honoraria, gifts, and gratuities from advisors, brokers, dealers, bankers, or other person with whom MCE conducts business.

Audits

MCE's funds shall be subject to a process of independent review by its external auditors. MCE's external auditors shall review the investment portfolio in connection with the annual audit for compliance with the Investment Policy pursuant to Section 27134. The results of the audit shall be reported to the Director of Finance and the Ad Hoc Audit Committee.

Reports

Monthly: So long as the Board of Directors' annual delegation of investment authority pursuant to Section 53607 to the Treasurer is effective, the Treasurer or a duly appointed Deputy Treasurer will perform a monthly review of the investment function and shall submit a monthly report of all investment transactions to the Board of Directors. Investment transactions are defined as the purchase, sale or exchange of securities.

Annually: The Treasurer, or a duly appointed Deputy Treasurer, will submit an annual report to the Board of Directors and Chief Executive Officer within ~~30~~45 days of the end of a fiscal year providing the following:

- i. A list identifying the type of investment, issuer, date of maturity, par and dollar amount invested on all securities, the market value and source of the market value information;

- ii. A statement that the portfolio is in compliance with the Investment Policy and in accordance with Section 53646 or the manner in which the portfolio is not in compliance; and
- iii. A statement of MCE's ability to meet expenditure requirements for the upcoming 12 months.

Annual Review

The Investment Policy will be reviewed annually by the Treasurer, or a duly appointed Deputy Treasurer. Any changes to the Investment Policy will be submitted to the Board for approval.

Glossary of Investment Terms

AGENCIES. Shorthand market terminology for any obligation issued by a *government-sponsored entity (GSE)*, or a *federally related institution*. Most obligations of GSEs are not guaranteed by the full faith and credit of the US government. Examples are:

FFCB. The Federal Farm Credit Bank System provides credit and liquidity in the agricultural industry. FFCB issues discount notes and bonds.

FHLB. The Federal Home Loan Bank provides credit and liquidity in the housing market. FHLB issues discount notes and bonds.

FHLMC. Like FHLB, the Federal Home Loan Mortgage Corporation provides credit and liquidity in the housing market. FHLMC, also called “FreddieMac” issues discount notes, bonds and mortgage pass-through securities.

FNMA. Like FHLB and FreddieMac, the Federal National Mortgage Association was established to provide credit and liquidity in the housing market. FNMA, also known as “FannieMae,” issues discount notes, bonds and mortgage pass-through securities.

GNMA. The Government National Mortgage Association, known as “GinnieMae,” issues mortgage pass-through securities, which are guaranteed by the full faith and credit of the US Government.

PEFCO. The Private Export Funding Corporation assists exporters. Obligations of PEFCO are not guaranteed by the full faith and credit of the US government.

TVA. The Tennessee Valley Authority provides flood control and power and promotes development in portions of the Tennessee, Ohio, and Mississippi River valleys. TVA currently issues discount notes and bonds.

ASKED. The price at which a seller offers to sell a security.

ASSET BACKED SECURITIES. Securities supported by pools of installment loans or leases or by pools of revolving lines of credit.

AVERAGE LIFE. In mortgage-related investments, including CMOs, the average time to expected receipt of principal payments, weighted by the amount of principal expected.

BANKER’S ACCEPTANCE. A money market instrument created to facilitate international trade transactions. It is highly liquid and safe because the risk of the trade transaction is transferred to the bank which “accepts” the obligation to pay the investor.

BENCHMARK. A comparison security or portfolio. A performance benchmark is a partial market index, which reflects the mix of securities allowed under a specific investment policy.

BID. The price at which a buyer offers to buy a security.

BROKER. A broker brings buyers and sellers together for a transaction for which the broker receives a commission. A broker does not sell securities from his own position.

CALLABLE. A callable security gives the issuer the option to call it from the investor prior to its maturity. The main cause of a call is a decline in interest rates. If interest rates decline since an issuer issues securities, it will likely call its current securities and reissue them at a lower rate of interest. Callable securities have reinvestment risk as the investor may receive its principal back when interest rates are lower than when the investment was initially made.

CERTIFICATE OF DEPOSIT (CD). A time deposit with a specific maturity evidenced by a certificate. Large denomination CDs may be marketable.

CERTIFICATE OF DEPOSIT ACCOUNT REGISTRY SYSTEM (CDARS). A private placement service that allows local agencies to purchase more than \$250,000 in CDs from a single financial institution (must be a participating institution of CDARS) while still maintaining FDIC insurance coverage. CDARS is currently the only entity providing this service. CDARS facilitates the trading of deposits between the California institution and other participating institutions in amounts that are less than \$250,000 each, so that FDIC coverage is maintained.

- COLLATERAL.** Securities or cash pledged by a borrower to secure repayment of a loan or repurchase agreement. Also, securities pledged by a financial institution to secure deposits of public monies.
- COLLATERALIZED MORTGAGE OBLIGATIONS (CMO).** Classes of bonds that redistribute the cash flows of mortgage securities (and whole loans) to create securities that have different levels of prepayment risk, as compared to the underlying mortgage securities.
- COMMERCIAL PAPER.** The short-term unsecured debt of corporations.
- COST YIELD.** The annual income from an investment divided by the purchase cost. Because it does not give effect to premiums and discounts which may have been included in the purchase cost, it is an incomplete measure of return.
- COUPON.** The rate of return at which interest is paid on a bond.
- CREDIT RISK.** The risk that principal and/or interest on an investment will not be paid in a timely manner due to changes in the condition of the issuer.
- CURRENT YIELD.** The annual income from an investment divided by the current market value. Since the mathematical calculation relies on the current market value rather than the investor's cost, current yield is unrelated to the actual return the investor will earn if the security is held to maturity.
- DEALER.** A dealer acts as a principal in security transactions, selling securities from and buying securities for his own position.
- DEBENTURE.** A bond secured only by the general credit of the issuer.
- DELIVERY VS. PAYMENT (DVP).** A securities industry procedure whereby payment for a security must be made at the time the security is delivered to the purchaser's agent.
- DERIVATIVE.** Any security that has principal and/or interest payments which are subject to uncertainty (but not for reasons of default or credit risk) as to timing and/or amount, or any security which represents a component of another security which has been separated from other components ("Stripped" coupons and principal). A derivative is also defined as a financial instrument the value of which is totally or partially derived from the value of another instrument, interest rate, or index.
- DISCOUNT.** The difference between the par value of a bond and the cost of the bond, when the cost is below par. Some short-term securities, such as T-bills and banker's acceptances, are known as discount securities. They sell at a discount from par, and return the par value to the investor at maturity without additional interest. Other securities, which have fixed coupons, trade at a discount when the coupon rate is lower than the current market rate for securities of that maturity and/or quality.
- DIVERSIFICATION.** Dividing investment funds among a variety of investments to avoid excessive exposure to any one source of risk.
- DURATION.** The weighted average time to maturity of a bond where the weights are the present values of the future cash flows. Duration measures the price sensitivity of a bond to changes in interest rates. (See modified duration).
- FEDERAL FUNDS RATE.** The rate of interest charged by banks for short-term loans to other banks. The Federal Reserve Bank through open-market operations establishes it.
- FEDERAL OPEN MARKET COMMITTEE.** A committee of the Federal Reserve Board that establishes monetary policy and executes it through temporary and permanent changes to the supply of bank reserves.
- LEVERAGE.** Borrowing funds in order to invest in securities that have the potential to pay earnings at a rate higher than the cost of borrowing.
- LIQUIDITY.** The speed and ease with which an asset can be converted to cash.
- LOCAL AGENCY INVESTMENT FUND (LAIF).** A voluntary investment fund open to government entities and certain non-profit organizations in California that is managed by the State Treasurer's Office.
- LOCAL GOVERNMENT INVESTMENT POOL.** Investment pools that range from the State Treasurer's Office Local Agency Investment Fund (LAIF) to county pools, to Joint Powers Authorities (JPAs). These funds are not subject to the same SEC rules applicable to money market mutual funds.

MAKE WHOLE CALL. A type of call provision on a bond that allows the issuer to pay off the remaining debt early. Unlike a call option, with a make whole call provision, the issuer makes a lump sum payment that equals the net present value (NPV) of future coupon payments that will not be paid because of the call. With this type of call, an investor is compensated, or "made whole."

MARGIN. The difference between the market value of a security and the loan a broker makes using that security as collateral.

MARKET RISK. The risk that the value of securities will fluctuate with changes in overall market conditions or interest rates.

MARKET VALUE. The price at which a security can be traded.

MARKING TO MARKET. The process of posting current market values for securities in a portfolio.

MATURITY. The final date upon which the principal of a security becomes due and payable.

MEDIUM TERM NOTES. Unsecured, investment-grade senior debt securities of major corporations which are sold in relatively small amounts on either a continuous or an intermittent basis. MTNs are highly flexible debt instruments that can be structured to respond to market opportunities or to investor preferences.

MODIFIED DURATION. The percent change in price for a 100 basis point change in yields. Modified duration is the best single measure of a portfolio's or security's exposure to market risk.

MONEY MARKET. The market in which short-term debt instruments (T-bills, discount notes, commercial paper, and banker's acceptances) are issued and traded.

MORTGAGE PASS-THROUGH SECURITIES. A securitized participation in the interest and principal cash flows from a specified pool of mortgages. Principal and interest payments made on the mortgages are passed through to the holder of the security.

MUNICIPAL SECURITIES. Securities issued by state and local agencies to finance capital and operating expenses.

MUTUAL FUND. An entity which pools the funds of investors and invests those funds in a set of securities which is specifically defined in the fund's prospectus. Mutual funds can be invested in various types of domestic and/or international stocks, bonds, and money market instruments, as set forth in the individual fund's prospectus. For most large, institutional investors, the costs associated with investing in mutual funds are higher than the investor can obtain through an individually managed portfolio.

NATIONALLY RECOGNIZED STATISTICAL RATING ORGANIZATION (NRSRO).

A credit rating agency that the Securities and Exchange Commission in the United States uses for regulatory purposes. Credit rating agencies provide assessments of an investment's risk. The issuers of investments, especially debt securities, pay credit rating agencies to provide them with ratings. The three most prominent NRSROs are Fitch, S&P, and Moody's.

NEGOTIABLE CD. A short-term debt instrument that pays interest and is issued by a bank, savings or federal association, state or federal credit union, or state-licensed branch of a foreign bank. Negotiable CDs are traded in a secondary market and are payable upon order to the bearer or initial depositor (investor).

PREMIUM. The difference between the par value of a bond and the cost of the bond, when the cost is above par.

PREPAYMENT SPEED. A measure of how quickly principal is repaid to investors in mortgage securities.

PREPAYMENT WINDOW. The time period over which principal repayments will be received on mortgage securities at a specified prepayment speed.

PRIMARY DEALER. A financial institution (1) that is a trading counterparty with the Federal Reserve in its execution of market operations to carry out U.S. monetary policy, and (2) that participates for statistical reporting purposes in compiling data on activity in the U.S. Government securities market.

PRUDENT PERSON (PRUDENT INVESTOR) RULE. A standard of responsibility which applies to fiduciaries. In California, the rule is stated as "Investments shall be managed with the care, skill, prudence and diligence, under the circumstances then prevailing, that a prudent

person, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of like character and with like aims to accomplish similar purposes.”

REALIZED YIELD. The change in value of the portfolio due to interest received and interest earned and realized gains and losses. It does not give effect to changes in market value on securities, which have not been sold from the portfolio.

REGIONAL DEALER. A financial intermediary that buys and sells securities for the benefit of its customers without maintaining substantial inventories of securities and that is not a primary dealer.

REPURCHASE AGREEMENT. Short-term purchases of securities with a simultaneous agreement to sell the securities back at a higher price. From the seller’s point of view, the same transaction is a reverse repurchase agreement.

SAFEKEEPING. A service to bank customers whereby securities are held by the bank in the customer’s name.

STRUCTURED NOTE. A complex, fixed income instrument, which pays interest, based on a formula tied to other interest rates, commodities or indices. Examples include inverse floating rate notes which have coupons that increase when other interest rates are falling, and which fall when other interest rates are rising, and "dual index floaters," which pay interest based on the relationship between two other interest rates - for example, the yield on the ten-year Treasury note minus the Libor rate. Issuers of such notes lock in a reduced cost of borrowing by purchasing interest rate swap agreements.

SUPRANATIONAL. A Supranational is a multi-national organization whereby member states transcend national boundaries or interests to share in the decision making to promote economic development in the member countries.

TOTAL RATE OF RETURN. A measure of a portfolio’s performance over time. It is the internal rate of return, which equates the beginning value of the portfolio with the ending value; it includes interest earnings, realized and unrealized gains, and losses in the portfolio.

U.S. TREASURY OBLIGATIONS. Securities issued by the U.S. Treasury and backed by the full faith and credit of the United States. Treasuries are considered to have no credit risk, and are the benchmark for interest rates on all other securities in the US and overseas. The Treasury issues both discounted securities and fixed coupon notes and bonds.

TREASURY BILLS. All securities issued with initial maturities of one year or less are issued as discounted instruments, and are called Treasury bills. The Treasury currently issues three- and six-month T-bills at regular weekly auctions. It also issues “cash management” bills as needed to smooth out cash flows.

TREASURY NOTES. All securities issued with initial maturities of two to ten years are called Treasury notes, and pay interest semi-annually.

TREASURY BONDS. All securities issued with initial maturities greater than ten years are called Treasury bonds. Like Treasury notes, they pay interest semi-annually.

VOLATILITY. The rate at which security prices change with changes in general economic conditions or the general level of interest rates.

YIELD TO MATURITY. The annualized internal rate of return on an investment which equates the expected cash flows from the investment to its cost.

Deep Green Resource Mix and New Service Offering

Board of Directors | March 16, 2023



Agenda

- History of MCE's procurement strategy
- How have markets changed over time?
- Regulatory changes and MCE's strategic goals
- Procurement challenges and future needs
- Portfolio and product options
- History and challenges with Deep Green
- Conclusion
- Recommendation for next steps

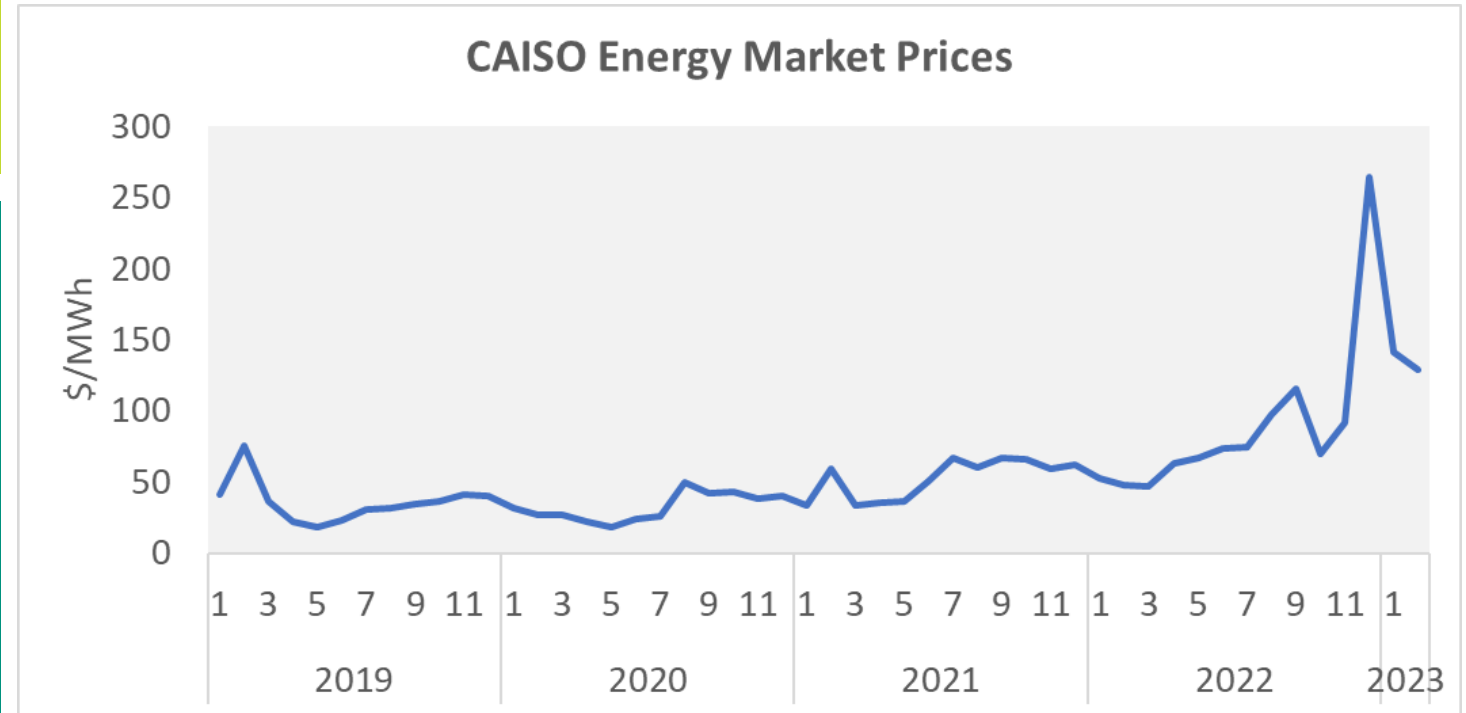
History of MCE's Procurement Strategy

- MCE has taken major steps towards assembling its portfolio of resources since inception
 - MCE has focused on contracting for a mix of low-cost renewable and local resources
- There is a growing need to add resources to the portfolio that match MCE's load shape

CAISO Market Price Changes

- Prices have increased significantly, especially in past 2 years
- MCE expects that prices will continue to be high in the coming years
 - California continues to experience extreme weather patterns
 - Natural Gas prices continue to rise
 - Scarcity of supply on the grid continues to push prices up

Monthly average energy prices for CAISO (all hours)

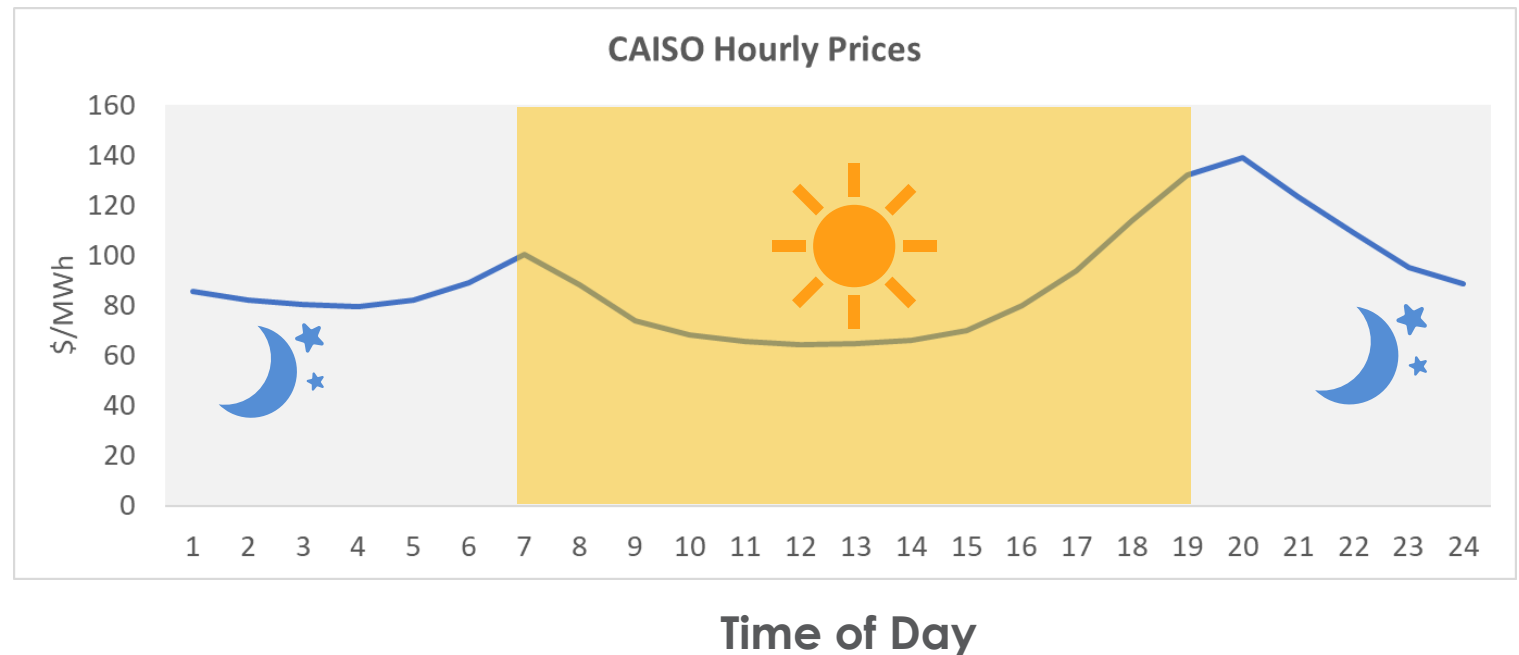


CAISO Market Price Shapes

- Prices peak in the late evening hours
- Price shapes follow net load
 - Net load¹ peaks after solar production drops in the evening

1. Net load is the total electric demand minus wind and solar generation that CAISO must meet with other, dispatchable sources such as natural gas, hydropower, and imported electricity.

Hourly average energy prices (July - September)



CAISO hourly price shape for 2022

2023 Resource Adequacy (RA) Supply & Demand

	Jun	Jul	Aug	Sep
Owned by Calpine	5,874	5,864	5,861	5,867
Owned by AES	3,657	3,657	3,655	3,655
Owned by NRG	2,321	2,317	2,315	2,322
Owned by Other	35,956	36,402	35,690	34,973
Removed from NQC list by D.21-12-015	(478)	(478)	(478)	(478)
Thermal Plant Derate	(726)	(726)	(726)	(726)
Imports	4,413	5,477	5,704	6,409
Event-Based Demand Response	995	1,045	1,077	1,090
Total RA Supply	52,012	53,557	53,098	53,112
CAISO 1-in-2 Load	42,056	45,397	45,922	46,819
Reserve Margin (16%)	6,729	7,264	7,347	7,491
Retention for Substitution	619	619	619	619
Total RA Demand	49,405	53,280	53,888	54,929
Surplus Supply (Deficit)	2,607	277	(791)	(1,817)
Expected New Resources*	-	-	1,695	1,695
Surplus Supply (Deficit) with New	2,607	277	904	(122)

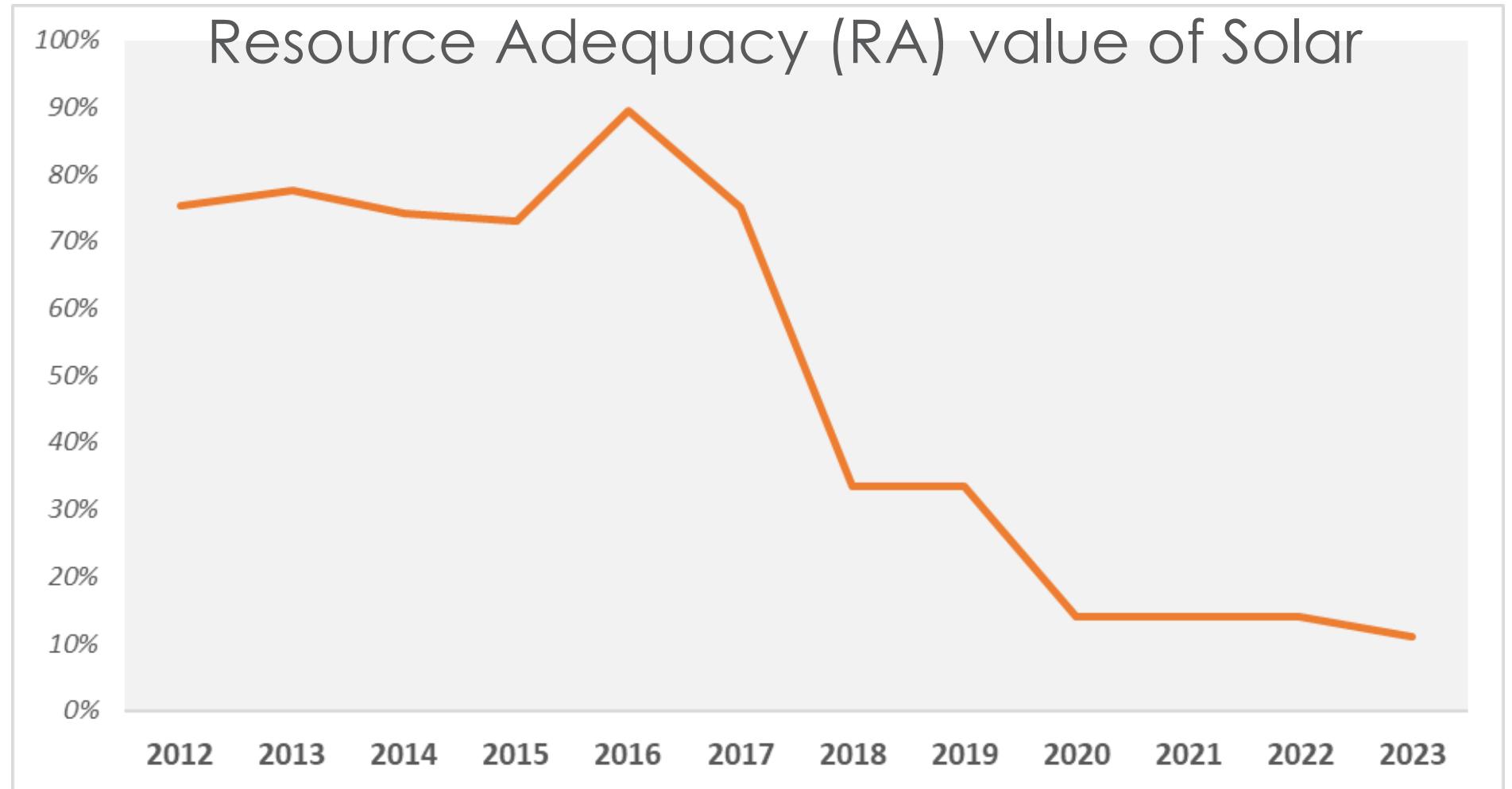
*PG&E recommended value = 60% of 2023 CPUC mandated procurement

- Limited available RA is driving high prices
- RA prices have increased by as much as 400% for summer months
- Tight conditions to persist in the coming years

*Imports for RA are defined as resources from outside of CAISO balancing authority that are made available for reliability in CAISO

Resource Adequacy for Solar

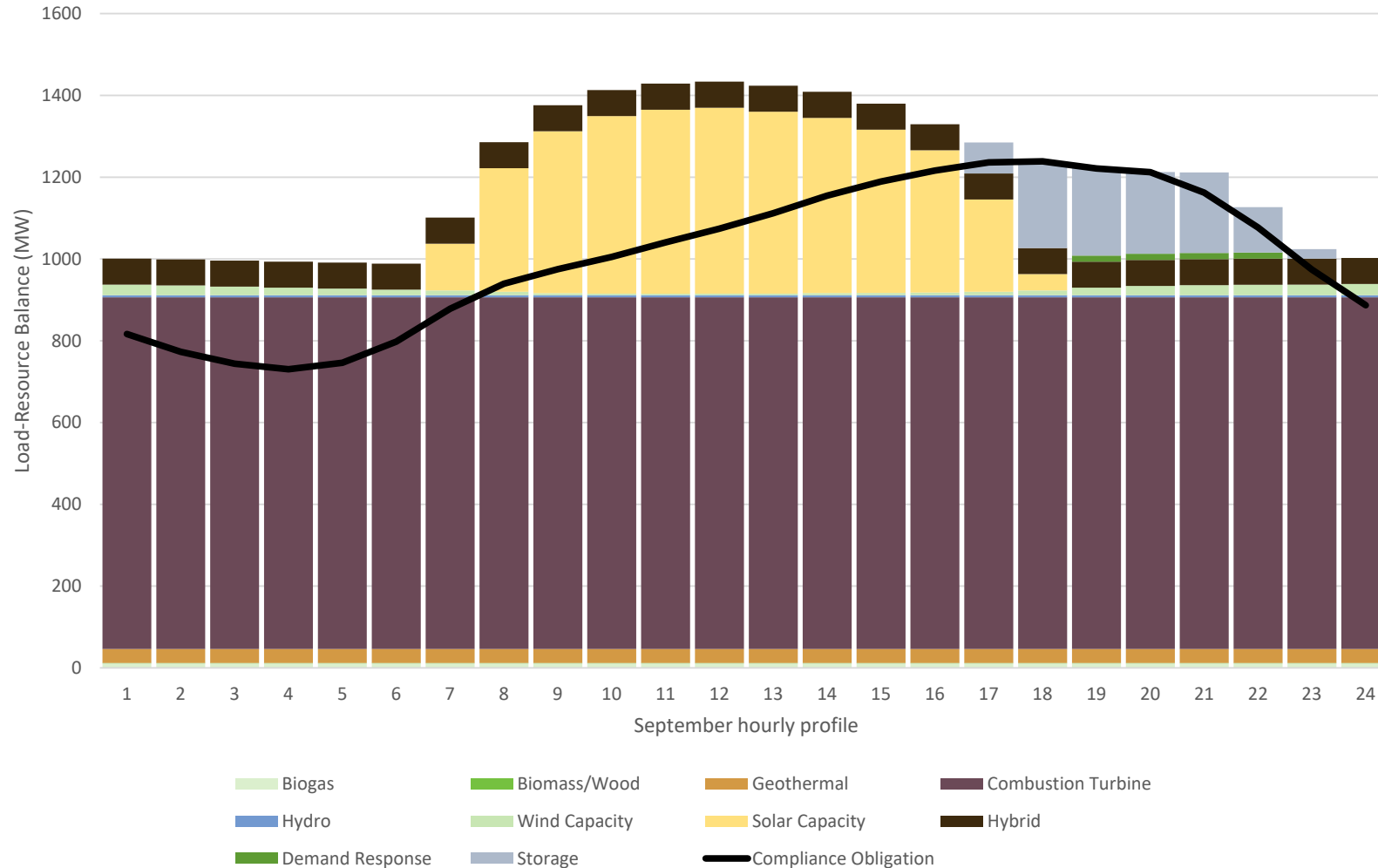
Solar provides much less resource adequacy today than it provided ten years ago.



MCE's Strategic Goals & Regulatory Changes

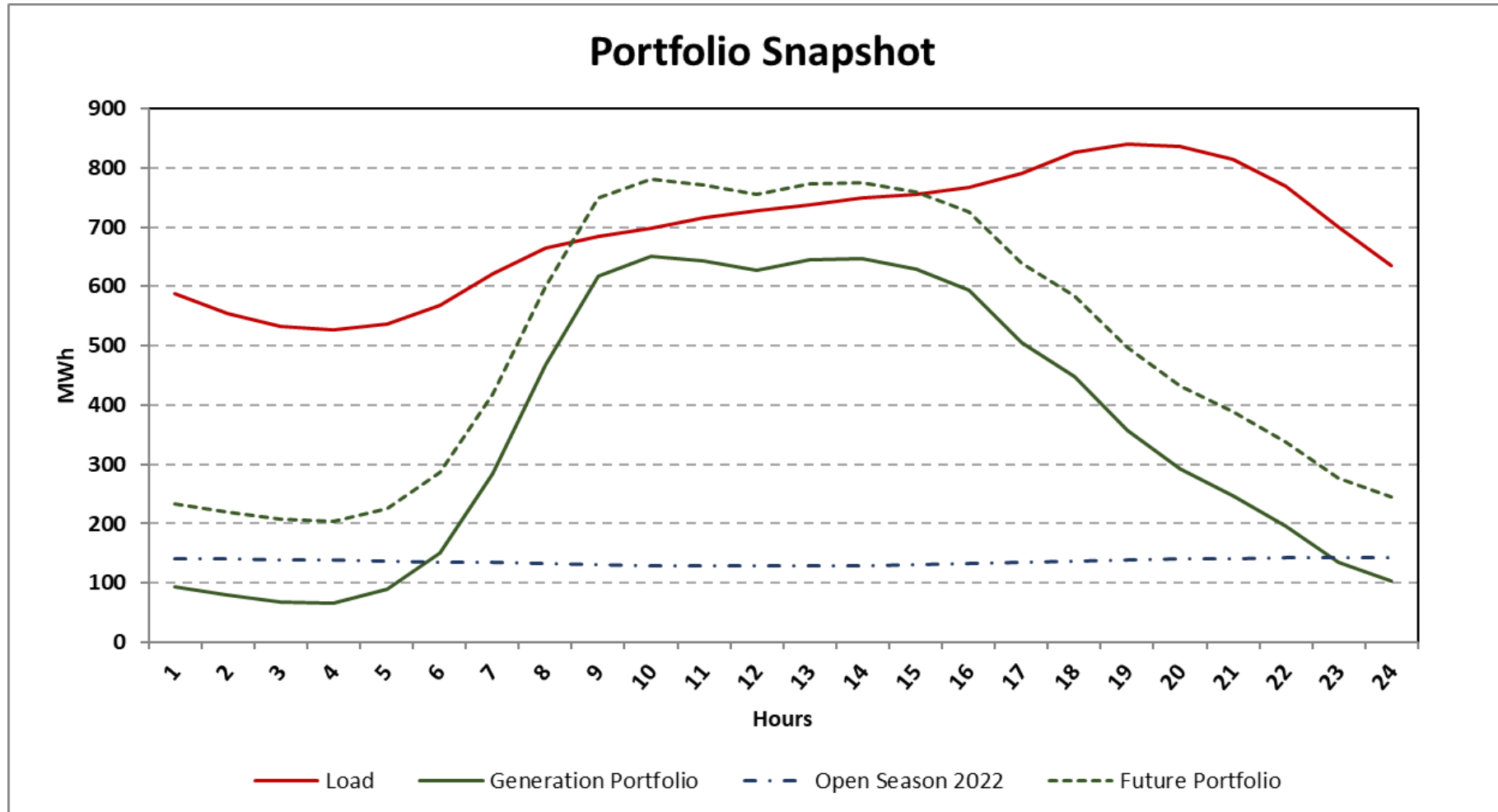
- MCE will continue to reduce the carbon intensity of the supply portfolio
 - Increase non-fossil fuel resources in the RA portfolio
- Regulatory changes may require hourly GHG accounting in future

24-Hour RA Requirement & Impacts on MCE's Portfolio



- Supply portfolio should closely follow load shapes
- There is a need to add dispatchable resources to meet the late evening peak needs

MCE's Load and Supply Balance



- There is a need to add 24x7 clean resources to the portfolio
- MCE needs to hedge energy market price exposure in late evening peak hours

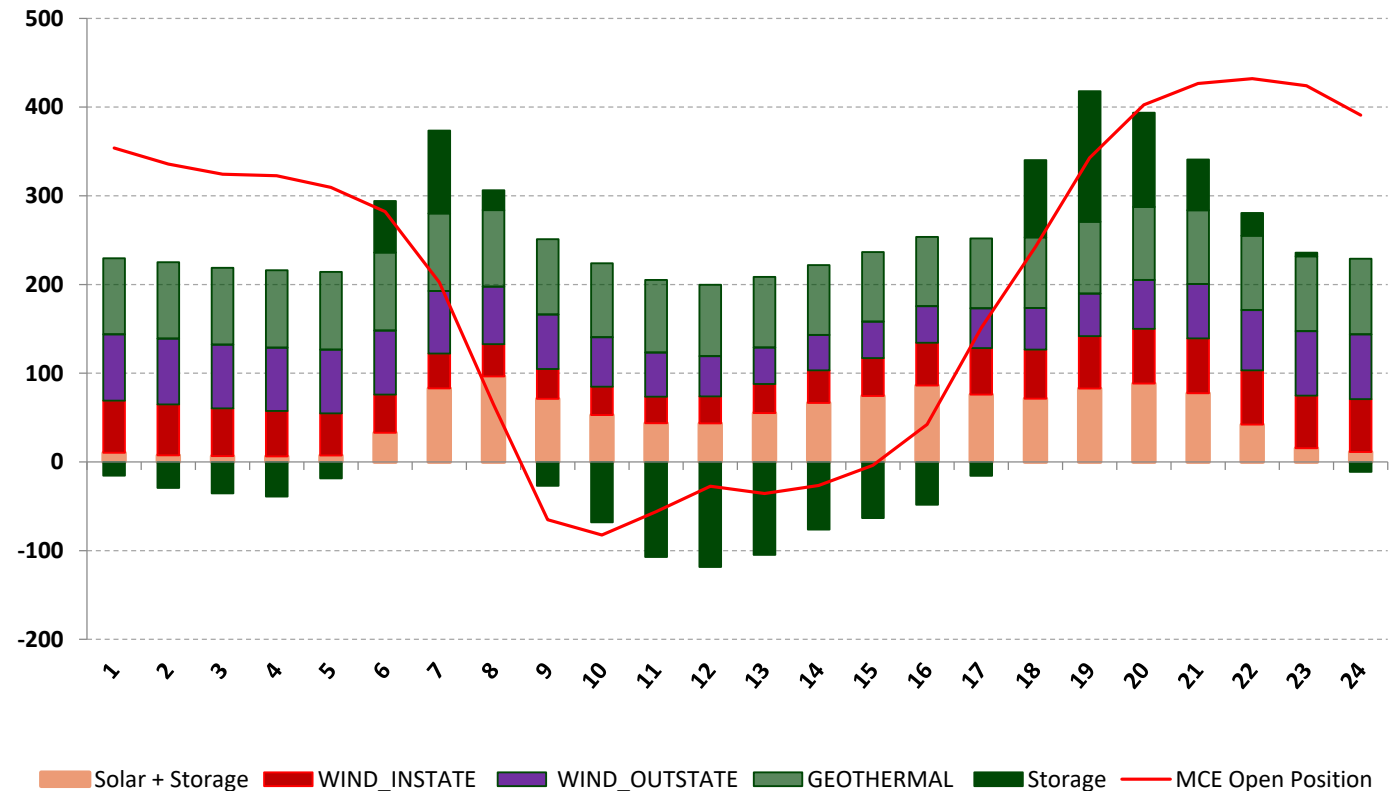
Why Not Just Wind and Solar?

- Difficult to site projects for specific technologies
- Wind and solar projects must be overbuilt
 - Overbuild would be 3 to 5 times the size of a non-variable 24x7 resource in order to provide the same level of reliability
- May not provide energy in evening peak hours when emissions and market prices are highest

Portfolio Recommendation

- Technology diversity provides more options to site projects
- 24x7 and dispatchable resources needed for reliability
- May displace fossil power in the market during evening peak hours

Resource Portfolio Mix to Balance Cost, Reliability and Reduce GHG Emissions



Deep Green as Default Service

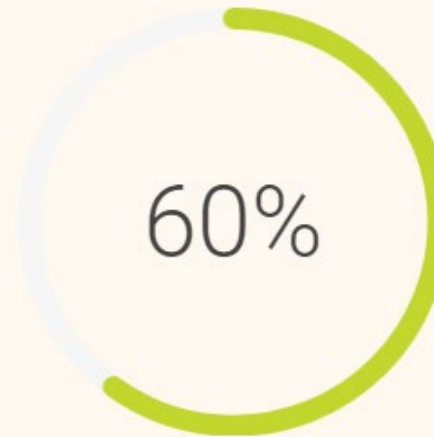
100% RENEWABLE ENERGY

OPT UP
TO DEEP GREEN

- In August 2022, MCE's Board approved Deep Green as MCE's default service for new enrollment
- Implementation started January 1, 2023, and it is estimated to increase procurement of green energy by 25%
- The number of accounts served by Deep Green has already increased by 55%

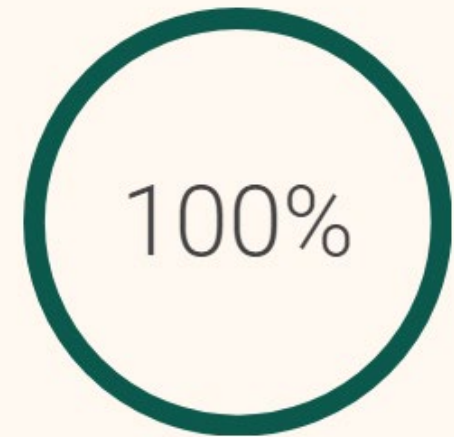
Compare Your Options

MCE Light Green



Renewable

MCE Deep Green



Renewable

Deep Green History and Challenges

- Deep Green offers customers 100% renewable energy, half from wind resources and half from solar resources.
- Recent market activity and procurement challenges require MCE to make changes to its procurement strategy.
- In August 2022, MCE's Board directed staff to bring flexible procurement options for Deep Green if needed.

Resource Options: 24x7 Resources

- Recent procurement orders have focused on need for clean, firm resources for reliability
- 24x7 resources provide round the clock energy for MCE's load
- 24x7 resources are needed to meet the 24-hour Resource Adequacy requirements
- Some 24x7 renewable technologies have small amounts of GHG emissions, and may be located out of state
- MCE included offers for “firm block” 24x7 renewable and carbon-free energy in Open Season
- 24x7 products could be sourced from various technologies working together

MCE's Generation Project Request for Information



Local Electricity Provider Seeking to Become First Community Choice Agency
to Own Energy Generation Resources

FOR IMMEDIATE RELEASE: January 25, 2023

MCE Press Contact:

Jenna Tenney, Marketing & Communications Manager

(925) 378-6747 | communications@mceCleanEnergy.org

Conclusion

Staff plans to:

- add 24x7 clean resources to its supply portfolio
- add dispatchable resources to help with Resource Adequacy and high market prices
- use long term PPAs and project ownership for cost certainty and better GHG accounting
- add renewable resources beyond wind and solar to Deep Green service

Recommendation

Staff requests the Board of Directors to direct MCE staff to explore new GHG-free service offerings for customers.



March 16, 2023

TO: MCE Board of Directors

FROM: Justin Kudo, Senior Strategic Analysis and Rates Manager

RE: Rates Update

Dear Board Members:

Below is a summary of the implementation of MCE's January rate adjustments, as well as the impacts of PG&E's final January rate change.

I. MCE January Rate Adjustment

a. Implementation

Updated MCE generation rates were implemented successfully on January 1, 2023.

b. Cost Competitiveness Disposition

MCE service remains overall less expensive than PG&E service, however the margin of savings is closer than expected in initial forecasts due to the Power Charge Indifference Adjustment (PCIA) changes described herein.

- Light Green still provides, on average, a 1% savings as compared to PG&E service.
- Deep Green is more expensive by about 1-2%.

c. Correction to AG-F-A Summer Peak Rate

The AG-F-A summer peak generation rate was initially set incorrectly due to a modelling error. Consistent with the targeted rate increase, this rate has been corrected downward from \$0.352/kWh to \$0.226/kWh.

II. PG&E Annual Electric True-Up

a. December Energy Costs Not Trued-Up

PG&E was allowed by the CPUC to use forecasts for December energy costs instead of truing-up to actual costs. The actuals will be trued-up at the end of 2023 and, because December market energy costs were exceptionally high, may increase PG&E's generation rates and/or decrease MCE customers' PCIA¹ rates for 2024.

b. PCIA Variance from Forecasts

Changes to how the PCIA was calculated from the initial forecast reduced the PCIA paid by PG&E customers by about \$0.001/kWh and increased the PCIA paid by MCE customers by about \$0.002/kWh.

Recommendation: Information only. No action required.

¹ The Power Charge Indifference Adjustment (PCIA) is a fee which represents the ongoing above-market portions of PG&E energy supply costs. For CCA customers, PG&E remains entitled to collect the above-market portion of PG&E energy supply costs which were under contract when the community left for CCA service, as well as the above-market costs of legacy utility-owned generation. As the current market value of electricity is high, the PCIA is currently near zero.



March 16, 2023

TO: MCE Board of Directors

FROM: Michael Callahan, Associate General Counsel

RE: Policy Update of Regulatory and Legislative Items

ATTACHMENT: Regulatory Packet with February Filings

Dear Board Members:

Summary: Below is a summary of the key activities at the state legislature, the California Public Utilities Commission (CPUC), and the California Energy Commission impacting Community Choice Aggregation (CCA) and MCE.

I. State Legislative Advocacy

a. Multiple Bills on Service Extension Delays

This year, the California legislature broke records by introducing more than 2,600 bills, a historic high signaling a very active session to come. Staff are analyzing and monitoring more than 100 bills and will continue to provide updates on priority items throughout the session. Of note, six bills have been introduced by legislators across the state, from Humboldt to Riverside, to address the problem of utilities delaying grid interconnections to newly constructed buildings and to distributed energy resources like electric vehicle charging stations and battery storage projects.

There are 236 GW of new renewable generation and storage projects waiting to be interconnected to the grid. These delays in getting plugged into the grid not only impact the state's - and MCE's - decarbonization efforts, they also impact housing development, public safety, community resiliency, and more. MCE will be following these bills closely and will ensure the interests of MCE member communities are represented in this important debate. MCE staff distributed a survey to gather information about similar delays with PG&E within the communities it serves.

b. Administration Proposal on Reliability and Procurement

The Governor's office has put forth a proposal on several key issues impacting procurement and reliability. As currently drafted, the proposal would:

- Codify the CPUC's authority to order procurement by all load-serving entities (LSEs), including CCAs, if the CPUC determines that additional procurement is needed through its Integrated Resources Planning process (IRP).
- Establish a system for LSEs to pay into the state's Strategic Reliability Reserve Fund if they fall short on their Resource Adequacy (RA) requirements during times when electric demand is particularly high.
- Give the CPUC authority to direct either a utility or the state's Department of Water Resources to act as a "central procurement entity" (CPE). The CPE would be responsible for procuring certain resources the CPUC deems necessary above and beyond procurement being done under the IRP process.

Staff are working with California Community Choice Association (CalCCA) to shape the proposal to minimize its impact on MCE's ability to meet the needs and preferences of our member communities.

II. California Public Utilities Commission

a. Resource Adequacy

On February 24, 2023, stakeholders submitted comments in the RA proceeding advancing and responding to party proposals for near-term reform of the CPUC's RA program. Comments addressed a spectrum of reform issues ranging from: penalty structures for RA deficiencies; supply shortages affecting LSEs' ability to procure RA; whether the RA procurement target should stay at 116%; and revisions to the rules governing the use of out-of-state resources to support the RA program.

MCE submitted comments advocating for regulatory action to address the near-term RA supply shortage and the effect this shortage is having on RA pricing and affordability. This advocacy included support for a waiver of RA penalties to help address rapidly increasing prices resulting from a tight market and the increasing market power held by entities with RA to sell. MCE also argued for enhancements to the import RA rules to better incentivize out-of-state suppliers to sell RA to California LSEs.

Additionally, MCE provided longer-term reform proposals meant to spur more wholesale reform of the RA program. These proposals included the need for a more robust coordination between the CPUC and the California Independent System Operator (CAISO) to ensure new resources are brought online efficiently and increase transparency of prices. MCE also recommended establishing a centralized market for RA to increase transparency and stabilize prices.

Staff expects the CPUC to address these near-term RA issues via a Proposed and Final Decision in the coming months.

b. Integrated Resource Planning

On February 23, 2023, the CPUC issued a Final Decision ordering a supplemental 4,000 megawatts (MW) of new-build to come online by 2027. This ordered procurement is in addition to the 11,500 MW previously ordered for mid-term reliability. The Final Decision splits the 4,000 MW into two tranches. It requires LSEs to procure 2,000 MW by June 1, 2026, and an additional 2,000 MW by June 1, 2027. The bulk of this procurement mandate is expected to be met primarily with renewables and energy storage. Of this new requirement, the Final Decision assigns MCE a total of 122 MW.

The Final Decision also adopted enhancements to offer additional flexibility for how LSEs may apply procured resources to meet compliance requirements.

c. Diablo Canyon

On January 20, 2023, the CPUC issued an Order Instituting Rulemaking to Consider Potential Extension of Diablo Canyon Power Plant Operations in Accordance with Senate Bill 846 (OIR). Senate Bill 846 requires the CPUC to consider extending the life of the Diablo Canyon Power Plant to protect California from the risk of near-term shortfalls in new resource procurement as California addresses greenhouse gas reduction and electrification goals.

The costs to extend the operational life of Diablo Canyon will likely be recovered through electricity rates (including PG&E rates paid by MCE customers). As such, on February 21, 2023, CalCCA filed comments on the OIR recommending that the CPUC not authorize any cost recovery mechanism for operational costs associated with the extension of Diablo Canyon without also allocating the benefits to all customers. CalCCA also recommended that the CPUC establish the process by which it will review extended operations cost recovery by 2024.

CalCCA's comments are focused on ensuring that if CCA customers will be paying for the costs to extend operations at the Diablo Canyon Power Plant, they should also receive commensurate credit for any benefits of the extension. For example, benefits of extending operations of the power plant could include a reduction in MCE's RA obligations if the RA value of Diablo Canyon was allocated to all LSEs that are paying for the costs of operation.

III. California Energy Commission

a. Reliability Reserve Incentive Programs

The Demand Side Grid Support (DSGS) and Distributed Electricity Backup Assets (DEBA) programs are part of the CEC's new Reliability Reserve Incentive Program and incentivize customer load reduction and emergency supply during times of peak demand (e.g. extreme weather events such as heat waves). DSGS and DEBA complement existing demand response (DR) and technology programs offered by the investor-owned utilities (IOUs) under the oversight of the CPUC such as the Emergency Load Reduction Program (ELRP) and the Self-Generation Incentive Program (SGIP).

On January 27, the CEC hosted a workshop on the DSGS and DEBA programs to discuss program rules and regulations for the upcoming summer season. On February 17, CalCCA submitted comments on the workshop focusing on allowing CCAs to become administrators of the DSGS program (so called "DSGS Providers"). CalCCA also advocated for various modifications to the existing DSGS program. First, CalCCA recommended establishing a system to prevent dual participation in load-modifying DR programs between CCAs and IOUs. Second, CalCCA highlighted that LSEs must have visibility into DR programs implemented in their service area to improve load forecasting during extreme events. Third, CalCCA suggested that exports of electricity from behind-the-meter (customer-sited) energy storage resources should be allowed during emergency events. Regarding the to be developed DEBA program, CalCCA recommended that incentives should cover both front-of-the-meter and behind-the-meter resources.

Fiscal Impacts: It is not yet possible to quantify precise fiscal impacts for the items covered in this report. The grid interconnection delays reduce potential MCE revenue from customers not being able to access the grid. The administration's proposal on reliability and procurement will effectively increase penalty prices for RA shortfalls by an undetermined amount; and may drive up costs for MCE customers through increased centralized or ordered procurement. The RA reform proposals may have a positive or negative fiscal impact depending on what the CPUC decides. The IRP procurement order will require MCE to procure additional generation resources and will therefore have fiscal impacts in future fiscal years. If adopted, the CalCCA proposal for Diablo Canyon would have a positive fiscal impact on MCE. The remaining policy issues will result in uncertain or no direct fiscal impacts.

Recommendation: There are no recommended actions at this time.