



**Marin Clean Energy  
Board of Directors Meeting  
Thursday, June 18, 2015  
7:00 P.M.**

Kathrin Sears, **Chair**  
County of Marin

Tom Butt, **Vice Chair**  
City of Richmond

Bob McCaskill  
City of Belvedere

Alan Schwartzman  
City of Benicia

Sloan C. Bailey  
Town of Corte Madera

Greg Lyman  
City of El Cerrito

Barbara Coler  
Town of Fairfax

Kevin Haroff  
City of Larkspur

Garry Lion  
City of Mill Valley

Brad Wagenknecht  
County of Napa

Denise Athas  
City of Novato

Carla Small  
Town of Ross

Ford Greene  
Town of San Anselmo

Genoveva Calloway  
City of San Pablo

Andrew McCullough  
City of San Rafael

Ray Withy  
City of Sausalito

Emmett O'Donnell  
Town of Tiburon

1125 Tamalpais Avenue  
San Rafael, CA 94901

1 (888) 632-3674  
[mceCleanEnergy.org](http://mceCleanEnergy.org)

**Charles F. McGlashan Board Room  
1125 Tamalpais Avenue, San Rafael**

**Agenda Page 1 of 2**

1. Approved Board Announcements (Discussion)
2. Public Open Time (Discussion)
3. Report from Executive Officer (Discussion)
4. Consent Calendar (Discussion/Action)
  - C.1 5.21.15 Meeting Minutes
  - C.2 Approved Contracts Update
  - C.3 Policy 012: Dogs in the Workplace
5. Budget Reports (Discussion)
  - a. Preliminary Year End Budget for Fiscal Year FY 14/15
  - b. Monthly Budget Report for April 2015
6. Master Agreement and Confirmation Letter with East Bay Municipal Utility District (Discussion/Action)



Agenda material can be inspected at 1125 Tamalpais Avenue, Rafael, CA 94901 on the Mission Avenue side of the building. The meeting facilities are in accessible locations. If you are a person with a disability and require this document in an alternate format (example: Braille, Large Print, Audiotape, CD-ROM), you may request it by using the contact information below. If you require accommodation (example: ASL Interpreter, reader, note taker) to participate in any MCE program, service or activity, you may request an accommodation by calling (415) 464-6032 (voice) or 711 for the California Relay Service or by e-mail at [djackson@mceCleanEnergy.org](mailto:djackson@mceCleanEnergy.org) not less than four work days in advance of the event.



**Marin Clean Energy  
Board of Directors Meeting  
Thursday, June 18, 2015  
7:00 P.M.**

Kathrin Sears, **Chair**  
County of Marin

Tom Butt, **Vice Chair**  
City of Richmond

Bob McCaskill  
City of Belvedere

Alan Schwartzman  
City of Benicia

Sloan C. Bailey  
Town of Corte Madera

Greg Lyman  
City of El Cerrito

Barbara Coler  
Town of Fairfax

Kevin Haroff  
City of Larkspur

Garry Lion  
City of Mill Valley

Brad Wagenknecht  
County of Napa

Denise Athas  
City of Novato

Carla Small  
Town of Ross

Ford Greene  
Town of San Anselmo

Genoveva Calloway  
City of San Pablo

Andrew McCullough  
City of San Rafael

Ray Withy  
City of Sausalito

Emmett O'Donnell  
Town of Tiburon

1125 Tamalpais Avenue  
San Rafael, CA 94901

1 (888) 632-3674  
[mceCleanEnergy.org](http://mceCleanEnergy.org)

**Charles F. McGlashan Board Room  
1125 Tamalpais Avenue, San Rafael**

**Agenda Page 2 of 2**

7. MCE Pilot Residential Battery Storage Program and Electric Schedule PBST: Pilot Battery Storage Tariff (Discussion/Action)
8. New MCE Staff Position: MCE Community Power Organizer (Discussion/Action)
9. Adjustment to MCE Retirement Plans (Discussion/Action)
10. Energy Efficiency Update and Approval of Energy Efficiency Business Plan (Discussion/Action)
11. Board Member & Staff Matters (Discussion)
12. Adjourn



Agenda material can be inspected at 1125 Tamalpais Avenue, Rafael, CA 94901 on the Mission Avenue side of the building. The meeting facilities are in accessible locations. If you are a person with a disability and require this document in an alternate format (example: Braille, Large Print, Audiotape, CD-ROM), you may request it by using the contact information below. If you require accommodation (example: ASL Interpreter, reader, note taker) to participate in any MCE program, service or activity, you may request an accommodation by calling (415) 464-6032 (voice) or 711 for the California Relay Service or by e-mail at [djackson@mceCleanEnergy.org](mailto:djackson@mceCleanEnergy.org) not less than four work days in advance of the event.

## MARIN CLEAN ENERGY

### BOARD MEETING MINUTES

Thursday, May 21, 2015

7:00 P.M.

THE CHARLES F. MCGLASHAN BOARD ROOM  
1125 TAMALPAIS AVENUE, SAN RAFAEL, CA 94901

---

**Roll Call:** Chair Sears called the regular Board meeting to order at 7:04 p.m. An established quorum was met.

**Present:** Denise Athas, City of Novato  
Sloan Bailey, Town of Corte Madera  
Tom Butt, Vice Chair, City of Richmond  
Genoveva Calloway, City of San Pablo  
Peter Lacques (Alternate to Barbara Coler), Town of Fairfax  
Andrew McCullough, City of San Rafael  
Ford Greene, Town of San Anselmo  
Kevin Haroff, City of Larkspur  
Gary Lion, City of Mill Valley  
Greg Lyman, City of El Cerrito  
Bob McCaskill, City of Belvedere  
Brad Wagenknecht, County of Napa  
Ray Withy, City of Sausalito  
Alan Schwartzman, City of Benicia  
Kate Sears, Chair, County of Marin

**Absent:** Emmett O'Donnell, Town of Tiburon  
Carla Small, Town of Ross

**Staff:** Dawn Weisz, Executive Officer  
Elizabeth Kelly, Legal Director  
Shalini Swaroop, Regulatory & Legislative Counsel  
Beckie Menten, Director of Energy Efficiency  
Greg Brehm, Director of Power Resources  
Jennifer Dowdell, Consultant  
Jose Perez, Administrative Assistant  
Darlene Jackson, Clerk

#### **1. Board Announcements (Discussion)**

Chairperson Sears announced that sea level visualization devices have been set up and are located on the multi-use pathway in Mill Valley at Miller Avenue and El Monte Boulevard.

She thanked MCE for their support and tabling and described the interactive device wherein viewers can look and see current conditions, king tides, and alternative adaptation strategies. They will be in place for 12 weeks and she invited people to try it, noting that AutoDesk Wizardry created the visualizations.

## **2. Public Open Time (Discussion):**

There were no public comments.

## **3. Report from Executive Officer (Discussion)**

Dawn Weisz, Executive Officer, gave the following report:

- She gave an Office Space Update:
  - She welcomed the Board and staff to the MCE's new Board Room, described protocols of using microphones and identifying themselves, and said the Energy Efficiency Room will be used for printed materials and snacks.
  - Committee meetings will be held in the Barbara George Conference Room and parking is available in the regular lot, as well as in the dance studio lot on Mission Avenue across from MCE;
  - Phase I of the building at the 1125 Tamalpais Avenue location is complete. Phase II is expected to be completed sometime this summer and will include the addition of the elevator which will be a three-stop elevator with an access card;
  - Staff is working with the City of San Rafael and developing plans for a solar carport structure and EV charging stations;
  - Security cameras are in place throughout the building with live monitoring, a motion sensor alarm system and fire alarm system; and
  - She highlighted the following green features of the building: Recycled glass countertops in the restrooms, carpet tiles, low VOC paints, recycled materials, increased natural light to reduce the need for lights, installation of LED lighting with motion sensors and light sensors, contract with a worker-owned cleaning company who uses green building supplies, use of a local landscape company, and composting.
- She provided the following Enrollment Update:
  - Enrollment in all four new communities is going smoothly with a strong participation rate in all communities. There is a lot of interest in the Deep Green Program, in El Cerrito;
  - MCE received the Acterra 2015 Business Environmental Award in the category of Environmental Innovation for their Community Choice Aggregation Program. MCE will be honored at an evening reception in Silicon Valley on May 28<sup>th</sup> in Mountain View.



Board Member Schwartzman questioned and confirmed with Ms. Weisz that Benicia's participation rate is at 82%.

Board Member Haroff asked Ms. Weisz to comment on her participation at the Power Association of Northern California Conference this week.

Ms. Weisz described the annual PANC (Power Association of Northern California) seminar as an energy industry-heavy group that puts on monthly educational events. She sat on a panel that focused on how choice can drive innovation and how MCE is helping move the State towards the Governor's goals for more renewable and flexible use of energy and local control.

**4. Consent Calendar (Discussion/Action):**

C.1 4.16.15 Meeting Minutes

C.2 Approved Contracts Update

C.3 MCE Staff Position Adjustments

C.4 First Addendum to First Agreement with Low Voltage Security, Inc.

C.5 First Addendum to Second Agreement with The PFM Group

ACTION: It was M/S/C (Bailey/Haroff) to approve the Consent Calendar consisting of Items C.1 through C.4. Motion carried by unanimous roll call vote: 8-0-2-5 (Absent: O'Donnell and Small; Abstain-Item C.1: Lacques, McCullough, Lion, Withy, Schwartzman).

**5. Resolution 2015-03 of the Board of Directors of MCE to Serve as Regional Liaison for Property Assessed Clean Energy Programs in Marin County (Discussion/Action)**

Director of Energy Efficiency Beckie Menten stated PACE (Property Assessed Clean Energy) financing is a form of financing which public jurisdictions can allow in their areas where property owners can voluntarily opt into tax assessments. This allows a form of financing for such things as energy efficiency and renewable energy improvement projects, water conservation improvements and earthquake retrofits.

Since 2008 PACE has expanded and MCE supported CaliforniaFIRST in 2012, along with many cities. Since that time PACE has become more popular with new providers entering the marketplace. Currently, CaliforniaFIRST is the only PACE administrator that has the ability to administer their program in the County of Marin and in many jurisdictions in the area, but there are 4 other administrators who have approached the County of Marin seeking authorization to administer their programs locally.

Staff looked at Sonoma County which has been a leader in the PACE program for many years. The County of Sonoma started an open market PACE program where they allow any provider to operate a program in their jurisdiction as long as the provider signs an agreement which requires them to abide by best practices. This approach allows competition in the marketplace, and would remove MCE from having to make a determination about whether one

administrator is better than another, and it allows the County to set a baseline set of best practices for these administrators so they can operate within the region.

MCE staff has worked closely with the Marin County's sustainability team and Ms. Menten noted it is the County and its cities that must take action to authorize administrators to offer their programs. In 2012, MCE offered to act as a regional liaison for the PACE program, has operated as a storefront and has offered lead generation services for administrators connecting people who are interested in participating in the program with the providers. Ms. Menten developed the open market agreement in conjunction with the County; she is seeking authorization for the Executive Officer to execute the agreement. This agreement establishes baseline practices and she outlined those baseline terms of the agreement as described in the staff report.

Ms. Menten said the agreement is not yet finalized, as they are negotiating final terms with providers; the only outstanding piece relates to the privacy language because of MCE and the County's request for data sharing. Staff requests the Board approve Resolution 2015-03 to establish MCE as the regional liaison for PACE programs in Marin County and authorize the CEO of Marin Clean Energy to finalize and execute the agreement for collaborative services for the PACE financing marketplace.

Chairperson Sears asked and confirmed that MCE does not expect any changes in the agreement other than the privacy provision, although the privacy language will have to be sent back to providers for final review.

Board Member Lion said it is expected that cities will follow-up with allowing providers and he asked if staff will be providing a template of a resolution or staff report. Ms. Menten said yes; she is working with the County to prepare a set of documents for cities/towns that can choose to adopt if they wish which would incorporate the agreement by reference and would apply to each of the providers.

Board Member Bailey said the report asks not only that the Board approve the resolution but also to authorize the CEO to execute the agreement. He asked if the second authority is in writing or by motion itself. Ms. Menten said the resolution and recommendation should be entirely by motion of the Board.

Board Member Greene said in talking about how 68% of the mortgages in Marin are non-conforming mortgages, if what makes them non-conforming is that they are not financed by Freddie Mac or Fanny Mae. Ms. Menten said yes and that they are not under the jurisdiction of FHFA. She further explained that 68% of the mortgages in Marin County are non-conforming which is high and makes them an attractive market for PACE. The FHFA has had a stand-offish approach towards PACE assessments and has indicated they are uncomfortable with the position of the security because mortgages are subordinated to a PACE loan. As a result, some mortgages have provisions where if they are subordinated the lender can pull the mortgage and require it be paid in full. However, they have not seen this in any PACE program to date.

Ms. Menten noted there are over \$400 million in residential PACE assessments in California. What has happened on a very small percentage is that when a home comes up for sale, the buyer cannot get a mortgage until the PACE assessment is resolved at the time of sale. They do not want to inflate the risk but want to be sure that people are aware of the risk.

Board Member Schwartzman said he is in the mortgage business and he assumes that on the non-conforming lenders it will be lender-specific as to whether or not they agree. He asked if Ms. Menten has any statistics as to how many non-conforming properties have PACE now and what this translates to percentage-wise of lenders who allow this subordination.

Ms. Menten said she does not have these statistics but said what has been happening across the state is that there is a significant amount of PACE activity occurring. There has not been a mortgage that has been pulled due to subordination, but in some instances there have been reports of homeowners not being able to sell without the PACE assessment being dealt with. Her understanding is that these are with conforming mortgages, but she could not verify. She agreed to check with the County of Sonoma to determine if they have more specific data.

Board Member Schwartzman said this is his understanding as well; that it is the conforming mortgages that have been the issues, and he also was not sure how many non-conforming mortgages have PACE.

Board Member Lacques stated that the marketplace member is an entity that would actually administer the PACE program. He asked if there were provisions of how they get compensated or asked if this will be taken up by the Board under another item. Ms. Menten said this agreement does not speak at all to flow of funds between the marketplace member and the County. Generally, the way those marketplace members cover their costs of operation is through the spread of interest rate on the financing so there is no cost to the County or individual cities for participating.

Chairperson Sears commented that it is interesting how the marketplace has changed, noting that the County has been interested in expanding the ability for people to participate in the PACE program. She thinks it is great that they are able to move forward and she thanked Ms. Menten for her work.

Ms. Menten recognized the collaborative efforts of Dana Armanino, Marin EMT Coordinator.

Chairperson Sears opened and closed the public comment period, seeing no speakers.

**ACTION:** It was M/S/C (Bailey/Greene) to approve Resolution 2015-03 to establish MCE as the regional liaison for PACE programs in Marin County and authorize the CEO of Marin Clean Energy to finalize and execute the agreement for collaborative services for the PACE financing marketplace. Motion carried by unanimous roll call vote: 15-0-2 (Absent: O'Donnell and Small).

## **6. Adjustment to MCE Retirement Plans (Discussion/Action)**

Consultant Jennifer Dowdell briefly summarized the item, stating the request is to delegate to the Executive Committee the ability to review and select some potential providers for the retirement plan and asking that the Board delegate that approval for plan upgrades to the Executive Committee and direct staff to research options and bring them to the Executive Committee for discussion, review and approval.

To provide context, MCE's retirement plans include a 401(A) plan which is an employer contribution plan and a 457(B) plan which is an employee contribution, and the total is coming close to \$1 million. In order to get a standard plan provider like Fidelity or Schwab, they must have \$1 million in each plan. MCE's plans are growing quickly and they have some different options from the time they launched which include a better deal from their current provider and other options.

Currently, employee accounts pay all administrative costs of the accounting and this is something employees may not prefer to incur. MCE also does not have an independent financial advisor in review of selection or changes to funds, which would reduce MCE's risk. They are trying to look at providers that will allow them to better customize the funds and directly engage investment advisors. Based on indicative bids, the cost of making these changes would be diminimous to the plan overall, and changes would increase MCE's cost above those amounts because MCE would take on the plan administration. There are a variety of providers and basically it is a menu in terms of the extensiveness of plan support, things like dividing up plans and accounting for accounts separately on the platform.

Ms. Weisz noted the item was discussed by the Executive Committee and she invited those members to comment further.

Board Member Lion said he understands this requires Board approval but suggested staff research opportunities, propose them to the Executive Committee and have the Board make the final decision. Ms. Weisz noted there is no time sensitivity for this and the reason the recommendation is framed in this way is because of the direction of the Executive Committee's conversation. She said the Committee could make a decision or recommendation at its next meeting.

Board Member McCullough supported delegating the authority to the Executive Committee, thinks the staff report is well done and points are persuasive with one minor exception. With experience as the plan fiduciary for his company's plan, his understanding in the private sector is that typically plan administer expenses are borne by the participants so it is spread equally among them or pro rata, and the company does not typically absorb those expenses. Therefore, this is something to consider and he suggested making sure this is standard within whatever sector or industry MCE finds itself in because it is not in the mid to small market private company sector.

Ms. Dowdell said this is an excellent suggestion and they can conduct further research and return. She explained that one of the issues around the administrative cost is that MCE is so new and a lot of employers are fairly early on in their career, so the accounts are small. The combination of the load in the fund line-up and the administrative expenses being borne by fairly small accounts was of concern, but she acknowledged Board Member McCullough's comments and can research this and bring it back.

Board Member Lyman echoed Board Member Lion's comments that it should be researched at the Executive Committee level and brought back to the full Board for consideration and final action.

Board Member Schwartzman concurred with this direction as well, and he asked if research has been done with other entities that provide no load funds. Ms. Dowdell said yes, and they have had a discussion with a no-load mutual fund group but they do not provide plan administration and have administrators they work with and two administrators have been contacted. Board Member Schwartzman asked if they have information back to present as a comparison to the current provider or others.

Ms. Dowdell said yes, the most expensive option is to go with a full service fiduciary and to go with a full-service administrator. By doing this, they get individual employee accounts accounted for separately as well as the two plans accounted for separately, which would be an improvement to what is in place now. Additionally, they provide a portal shell and MCE employees can fill that shell with their preferred funds. The more complete and more customized the administration is, the more flexibility they have as to how to fill that platform.

Board Member Schwartzman said it would be interesting to see some alternatives and different cost variances to see what they have now, what is most expensive and least expensive. Ms. Dowdell concurred and said they inquired with two separate plan administrators and she discussed costs to administer both plans as well as fiduciary services.

Chairperson Sears said the question is whether the Executive Committee should make a recommendation which will be brought back to the Board.

Board Members Greene and Haroff concurred with comments, particularly noting that the issue is sensitive and to be sure there is adequate governmental review.

Chairperson Sears opened and closed the public comment period, seeing no speakers.

**ACTION:** It was M/S/C (Lion/Haroff) to direct staff to further research options to be brought to the Executive Committee, which will then make a recommendation to the Board of Directors for final approval. Motion carried by unanimous roll call vote: 15-0-2 (Absent: O'Donnell and Small).

## **7. Grant from San Francisco Foundation (Discussion/Action)**

Ms. Weisz recognized Regulatory Counsel Shalini Swaroop who did much of the work on the item, stating MCE has been very interested in engaging with the community on CCA in general, expansion in new communities and have developed a grassroots group called MCE Community Power. They applied to the San Francisco Foundation to extend and deepen the work of that group. The Foundation expressed an interest in the concept and a group of staff completed an application, discussed it with representatives of the foundation, and received notification a couple of weeks ago that they were awarded a grant.

The primary use of grant funds based on the application would be to hire a Community Organizer to help coordinate efforts of this group and engage in added analysis on how they can strengthen the work and ties of the group.

Ms. Swaroop referred to page 108 of the packet showing the mission statement of MCE Community Power, which focuses on marginalized constituencies and communities within MCE's service territory. There are 5 specific tasks they hope the Community Organizer can take on, which are listed in the award letter on page 113. She said she was available for questions.

Chairperson Sears asked if the organizer would be able to work in all communities that are part of the service territory. Ms. Swaroop said the San Francisco Foundation has unfortunately limited their grant activities to Marin and Contra Costa County and do not consider Napa and Solano counties as their grant focus. The hope is that the Community Organizer could receive some supplemental funding from MCE to address needs from those communities.

Chairperson Sears opened and closed the public comment period, seeing no speakers.

ACTION: It was M/S/C (Butt/Lyman) to accept the grant award in the amount of \$35,000 from the San Francisco Foundation. Motion carried by unanimous roll call vote: 15-0-2 (Absent: O'Donnell and Small).

**8. Amended and Restated Power Purchase Agreements with Stion MCE Solar One, LLC**  
**(Discussion/Action)**

Director of Power Resources Greg Brehm stated this Power Purchase Agreement (PPA) authorized by the MCE Board in March, because the project is being built in multiple phases, the finance partner of Stion requested the PPA be split into two separate contracts so as they can come online individually, and each phase could qualify for tax credits. Because of that, staff adjusted the PPA, splitting the transactions into two separate draft agreements for consideration.

Mr. Brehm said there is nothing of significance that changed in the terms except for minor clarifications and splitting the contract into two. Also requested is that the Executive Director be authorized to sign the agreements, as staff is awaiting some action items from Stion to bring

the project schedule up to date and to secure Chevron's approval of the development plan, and Stion as the developer.

Chairperson Sears asked if there is any concern they may fall behind schedule. Mr. Brehm said they are about two months behind their original project schedule. They held a meeting with the developer today and gave them strict guidelines to have the project move forward with the first phase completed within the year. Once this occurs and Chevron moves forward with approving Stion as the developer, they should be in good shape.

Board Member Lacques asked if the contract price will be determined at some other date. Mr. Brehm said the price has been determined but while in negotiations, this is confidential and not included in the packet. The PPA was approved at the last Board meeting and Mr. Brehm could provide the price after the meeting.

Mr. Brehm then provided a brief update on both the 2 MW and 8.5 MW projects and described pertinent information about project site boundaries, lease, environmental review, and said the expected dedication is scheduled in late fall of 2016.

Board Member Haroff asked and confirmed that as part of the CEQA process there will be at least two public hearings in the process which will occur in Richmond and staff will work from a public list to provide public notice.

Ms. Weisz suggested amendment to the motion because of the timing issues that have surfaced. She suggested that the Board authorize approval by the CEO of the two agreements, as staff would like to wait until Stion meets a couple of milestones before moving forward with signatures.

Chairperson Sears opened and closed the public comment period, seeing no speakers.

ACTION: It was M/S/C (Bailey/Athos) to authorize the CEO to approve Power Purchase & Sale Agreement with Stion MCE Solar One, LLC for 2 MW local renewable energy supply; and authorize the CEO to approve Power Purchase & Sale Agreement with Stion MCE Solar One, LLC for 8.5 MW local renewable energy supply. Motion carried by unanimous roll call vote: 15-0-2 (Absent: O'Donnell and Small).

## **9. Energy Efficiency Update (Discussion)**

Ms. Menten provided the following energy efficiency update, focusing first on the multi-family program. She noted that in each monthly Board packet is a snapshot of savings since launching their Energy Efficiency programs

- .

Board Member Bailey asked why there was such an increase between January and February 2015. Ms. Menten pointed to a graph of a project in Richmond and said multi-family projects often take a long time to implement and then all savings hit at once. She explained that these projects have considerable lead time and often require a unique approach. Affordable housing projects tend to have trigger points where they are re-capitalized and they will save major capital improvements for that point in time and then do a significant building upgrade when they have access to those resources.

She also said that often in market rate properties the property owner or manager will be reluctant to disrupt their tenants and they are more willing to consider phased approaches where they upgrade a unit at turnover. MCE has tried to accommodate these different applicants and have a solution for every property. She noted that the small commercial program is the single largest contributor to their savings portfolio and they have had a lot of upgrades throughout Richmond and Marin, and this is the largest number contribution overall. The single family program has a significant contribution and in addition, tends to be their most cost-effective program to implement.

Ms. Menten provided an additional multi-family overview including:

- Since beginning the program, they have audited about 52 properties throughout MCE's service territory and distributed \$180,000 worth of rebates.
- At the leadership of their Executive Officer, they have started to institute quarterly goal tracking among each of the programs to ensure they are directing resources in the right areas. They have found in the multi-family program they have exceeded goals which has a lot to do with collaboration with the Marin Municipal Water District (MMWD). Often MMWD will have grant funds for faucet aerators and shower heads which can reduce water, but they do not have rebate dollars to install the equipment, so MCE works with them to take the equipment and will install that equipment and achieve both the energy and water savings.
- MMWD has also referred properties that want to reduce water to MCE which has been very positive and savings projections for the multi-family program are very successful. Their goal is 145,000 KW hours and they have 260,000 KW in the pipeline or 76%. Their therm savings goal is 29,000 KW with 26,000 KW in the pipeline. In addition, they have achieved 18,000 KW already so they are looking at 114% of their therm goals. Important to note is that these are projects in the pipeline so the emphasis will be converting those projects and getting commitment to sign rebates and getting projects done by the end of the year.
- They found that over the past several years that they were having a bit of attrition in the program, in that homeowners would receive the report and they did not follow-up. They now require a good faith deposit from properties before moving forward with the audit process and they are reimbursed the cost of the deposit at the time of the rebate.

Ms. Menten then provided an update on the commercial program:



- The commercial program has continued to show a steady increase and a steady rate of savings.
- They have found that capturing therm savings has been very difficult because often the natural gas burning equipment tends to be owned by the landlord and MCE operates primarily in tenant owned spaces. MCE has made contact with building owners to get HVAC-related projects implemented, but savings sometimes diminish completely because they must be above code, which has been the other challenge.
- This program has negative therms. Incandescent lighting is 75% less efficient than CFL's and even more so than LED's. Through implementing lighting programs in California, they learn that when replacing an incandescent bulb with a CFL bulb, it can sometimes have an increase in heat use in the property and people turn up their HVAC systems. Therefore, they continue to find strategies to address this hard-to-reach sector.
- From inception they have audited over 2,400 businesses throughout the Richmond and Marin area and have distributed \$180,000 worth of rebates over 169 projects.

Ms. Menten then provided an update on the single family program:

- She reiterated that the savings for this program primarily come through something called a home utility report. MCE mails to customers a one or two page flyer that shows them how much energy their home uses as compared to a comparable neighbor. Providing customers with this information results in a 2% reduction in energy usage.
- This is also tied to their web tool program or [myenergytool@mcecleanenergy.org](mailto:myenergytool@mcecleanenergy.org) and they are trying to have people open an account on that tool where they can claim their account which connects their energy usage with home profile information. This allows owners to conduct an on-line energy assessment, get connected to recommendations to reduce energy and connect them to a contractor and rebate database.
- Over the last six months, they have launched a finance marketplace which shows what financing tools are available to owners that can support their specific project.
- They have distributed 186,000 home utility reports which go to about 17,000 customers in their service territory.
- Soon they will roll out a mobile app to access [myenergytool.mcecleanenergy.org](http://myenergytool.mcecleanenergy.org) and prior to rolling it out they want each Board Member to be part of their peer review group. She asked Board Members to go onto the tool and start an account and provide feedback on how it works or does not work. Board Members will also be receiving an email from staff requesting feedback.

Ms. Menten said in terms of tracking goals, they are at about 30% of their electric goals and at 42% of their KW goals. Their progress toward annual goals is 14% and 20% in KW hours and therms and they are finding positive traction, but they hope to get projects to convert and get them on the books.

Lastly regarding the 2016 update, Ms. Menten reported the following:

- The CPUC is moving towards a 10-year rolling portfolio cycle. Staff believes this will open the door for exciting opportunities with program design and are trying to get in their proposal to administrators.
- They have worked with Potrero Group, consultants to help prepare the business plan, and they anticipate bringing the final draft for the June Board meeting. They will also be providing some background information on the technical updates.
- Over the past few months they submitted a low income pilot proposal to the CPUC. They want to be able to offer more services to the income-qualified individuals in their service territory and access low income funds which are administered through a separate portfolio at the CPUC which would include the following:
  - Leverage their multi-family program to provide a deeper incentive for income-qualified properties.
  - They are looking at a fuel switching proposal from natural gas to electricity-based forms of heating and cooling which enable renewable integration. This is supported by the Governor's goals of cleaner fuels and they are trying to pilot switching to heat pumps or other electricity-based forms of heating and cooling.
  - They want to also pilot whether or not switching the fuel source can result in health and safety considerations.
  - They are also considering alternative enrollment criteria, as some of the existing low income programs require fairly invasive enrollment processes. They are going to try and use proxy enrollment criteria, which could include if a foreign language is spoken at home as a primary language or cases where there are subsidized school lunches.
  - On the single family side, they are moving to the web tool to encourage low cost or no cost improvements in low income settings where people may not have as much capital to invest in their homes.
  - They are hoping to pilot the Match Energy Savings Account. For every dollar a person saves on their utility bills, MCE will put \$2 in a match energy savings account to increase the wealth and allow the ability to use them for further energy savings improvements, like an appliance replacement.

Chairperson Sears asked Ms. Menten to show a similar chart that was done for multi-family and property locations for commercial and single family, as it would be interesting to know what their geographic distribution is.

Board Member Withy commented that from his vantage point there has been a tremendous change in how MCE staff has tracked statistics which he believes is impressive. Ms. Menten said with projections increasing, staff has been brought on board make this possible and she recognized her team.

Board Member Lacques said he is grateful to see so much emphasis on energy efficiency versus megawatts and said it is exciting to see the vision being implemented in a very substantive way. Ms. Menten commented it makes it easier for them to achieve 100% renewable for all customers when they have to buy less electricity to get there.

Board Member Wagenknecht asked Ms. Menten to forward the link: [myenegytool@mcecleanenergy.org](mailto:myenegytool@mcecleanenergy.org) to him.

Board Member Lyman confirmed that a home address can be inserted which will pull up information from Google Maps and assessor information. This streamlines the amount of data the user must input about their property such as the age of equipment, level of insulation, and permitted work to achieve an accurate on-line assessment.

Board Member Lyman then asked if he could use his current Deep Green account or could he use a parallel account. Ms. Menten said years ago they actually connected the two, but because he is in El Cerrito she is not sure they “refreshed” the connection since new communities have come on board and agreed to follow-up on this.

Chairperson Sears opened and closed the public comment period, seeing no speakers and concluded the item.

#### **10. Regulatory and Legislative Updates (Discussion)**

Legal Director Elizabeth Kelly stated the regulatory and legislative arenas have been busy and Ms. Swaroop has been manning most of the legislative work in Sacramento. She referred to her staff report and felt it helpful to identify and explain the CPUC process. She said when a proceeding launches, the Board will typically have an application or rule making, then a policy discussion on the proceeding, go into facts and testimony, then a briefing of the law, the Commission issues a proposed decision which goes out for comment, then a final decision and implementation.

Ms. Kelly said they have been actively watching the residential rate proceeding at the CPUC which will be a major overhaul to residential rates for all customers into the future. This has been a long proceeding and they are nearing the end.

One of the biggest changes relates to time of use rates. People who have solar are on time of use rates and they have generally reflected peak times of use of electricity. In the past this has been in the middle of the day, which is co-incident with solar production. This is financially beneficial to customers; however, this is changing with how loads are changing in California. Now the co-incident peak of usage is in the late afternoon/early evening, or from 4:00 to 9:00 p.m. This will have a significant impact for those who have solar on their rooftops, and the legislation will most likely be adopted by the Commission.

Also proposed is a reduction to the CARE discount or the low income subsidy for energy. A key difference is the number of tiers, which will be reduced from 4 tiers, or low cost for the first tier and higher cost in higher tiers. If people are high users of electricity, costs will be lower, and this does not send a strong conservation signal.

Another proposed inclusion is a change to the minimum bill charges, which also has an impact on those who use solar. The one area MCE has been involved with is the prohibition on zero minimum bill provisions, which is technical.

Ms. Kelly noted this is a 4-year plan to transition to these different rate structures. Another proposal is to have a fixed charge for distribution cost instead of variable cost.

Chairperson Sears said she understands that MCE was not involved in the different components of proposed changes, but she asked why the CARE discount was reduced. Ms. Kelly said there was a sense that the subsidies were out of alignment with what was originally envisioned by statute, but MCE was not involved with this. She said MCE generally steps back when it comes to areas it does not get involved with and in this proceeding there are many ratepayer advocates and solar entities involved.

Board Member Schwartzman asked if it would be fair to say the CARE customers will get a double hit, given reduced discounts and tier impacts. Ms. Kelly said yes. If someone is a low usage CARE customer there would be three hits. The first would be that the CARE discount will be reduced. The second hit is that with changing of the tiers, if one conserves a lot of energy, they will see a higher bill. The third hit is by transitioning to a minimum bill charge or a set cost for distribution. She noted there are a lot of fixed costs that relate to transmission and distribution so from a pure rate design perspective, it makes sense to transition to this, but it is a very big policy change.

Board Member McCaskill said the proposed changes to the tier level and time of use will have a negative impact on solar uses. He asked how strongly the solar industry, Sierra Club or other organization will try and fight the proposed changes. Ms. Kelly said there has been vehement opposition. Solar customers are receiving a subsidy insofar as the time of use rates are not aligned with the new peak.

Ms. Swaroop added that the CPUC implemented this rule-making per AB 327 which passed last year. There was strong opposition from the solar industry, Sierra Club, the Natural Resources Defense Council and many ratepayer advocates and this is why the CPUC is making many of these changes as well.

Board Member Greene referred to the response that the rationale for reducing the CARE discount and increasing the minimum bill charges, and asked who this was envisioned by. Ms. Kelly said during the energy crisis some protections were put in so CARE customers would incur only so much of a percentage, but electricity costs outpaced that and the percentage between the two grew so it is catching up.

Board Member Greene referred to the flow charts and said the information is great, but he asked that in the future, information be made more bold and larger, with lots of contrast. He also asked to include the charts in the Board packet and Ms. Kelly agreed to the requested changes moving forward.

Board Member Lacques asked when rates will be implemented and as someone with solar panels, he asked which time of use rate is most advantageous. Ms. Kelly displayed a table showing that E-7 and E-8 are closed to new customers. Res 6 which is equivalent to MCE's E-6 rate are still open to new customers. With the decision, E-6 would be closed and over a 5 year period, those customers would be transitioned to the E-TOU rate, and other rates will be on a 5-year transition plan to the new E-TOU rate. Ms. Weisz said if someone installed solar several years ago, they may be on E-7 or E-8 and if so, they are lucky and she suggested sticking with this. However, if on E-6, customers do not have the option of going to anything else.

Ms. Kelly stated there is a surprising number of net energy metering customers who are on the E-1 rate, which under the current tariffs is not at all a cost-conscious way of making the most of one's solar.

Board Member Lion said he just got solar on his roof and is on E-7. When talking about a 5-year transition, he asked if this meant somewhere during the 5 years or at the end of 5 years. Ms. Kelly said the question is a bit more complicated, but she believes there will be revisions to E-7 to make it closer to the E-TOU rates.

Board Member Lion referred to the Tesla in-wall battery and asked if there is a way to use the Tesla battery to feedback off of it and power the house. Ms. Kelly said feeding back onto the grid by an electric vehicle is currently being piloted, but it has not yet deployed. Ms. Weisz commented that MCE is scheduled to have a presentation at the next Technical Committee with the one company testing this technology. Hopefully they will determine the expected trajectory for roll out to the public and she expected it is years away.

Ms. Kelly presented the graphics which will be in the Board packet going forward and she will try to make them larger and easier to read.

Ms. Kelly then discussed the Green Tariff Shared Renewables, stating this is the tariff option that PG&E is going to be launching which is similar to MCE's local product. It comes from a source or various sources of products and is a 100% green option for PG&E bundled customers. The CPUC breaks proceedings into phases and in one phase they will be launching this new opportunity for customers and separately they are working on outstanding policy issues.

From an implementation standpoint, PG&E is proposing a streamlined bill presentment and proposing that customers will have to pay the PCIA (Power Charge Indifference Adjustment) just like MCE customers. They are planning to bury it into a single varied rate. When customers come to MCE and ask what the charge is on their bill, these are questions PG&E does not have to answer. There are also a couple of issues related to time of use values and how the rate is calculated. There is also a cost related to the PG&E green tariff rate as a subsidized product. Customers only have to pay for the electrons and no overhead cost and therefore, MCE will not be able to compete with a subsidized product. She said in MCE's view, the subsidy should not be there to begin with and a question is, how does the CARE discount apply to people who are

on the GTSR rate. Another issue that will be very interesting is that currently, there is no set methodology for calculating GHG emissions of retail sellers of electricity. Here, they want to set a specific methodology for retail electricity products and this would be applicable to all CCAs, direct access providers and investor-owned utilities and MCE will be working on those proceedings.

Another key proceeding MCE is involved with now is the low income proceedings, which is in the testimony phase now. Their two core issues are seeking funding for low income tenants and families program and secondly, a new issue is the question of whether CARE customers should be paying the PCIA, which is the exit fee PG&E charges to customers leaving their service and beginning CCA service. She displayed a chart showing average costs on a bill for a CARE customer, normal customer and low income customer. PG&E is currently the only investor-owned utility that charges the PCIA to CARE and medical baseline customers. MCE is arguing that this is not an appropriate means of collecting ratepayer revenues and exit fees should not be charged to the most vulnerable customers.

Board Member Haroff asked what is the justification offered by the utilities. Ms. Kelly said it relates to what the discount means and in MCE's view it needs to be brought up in the proceeding. The CPUC has agreed and has moved it over to the low income proceeding for analysis. Ms. Swaroop added that the justification for the PCIA in general is to make the utility whole for purchases they made on behalf of the customer before they departed. Therefore, it is unclear whether they would bundle that same number and increase the charges to remaining non-CARE customers. There is not a uniform approach and MCE is concerned about the impact on low income customers.

Board Member Haroff said the reason he asked the question was because of the current difference between PG&E and other investor-owned utilities. Ms. Kelly said in this case, the PCIA was something initially charged to large and industrial customers that received service under Direct Access which is a different way of getting generation supply. Frankly, there are not CARE commercial and industrial customers. So when they had initially established the rules, the rate design was entirely different and there were still CARE customers that could receive service under a Direct Access program, but after the energy crisis, Direct Access is no longer allowed to serve residential customers. Now, when utilities are looking at their tariffs and saying they did not think about that 6 years ago and want to fix it, they propose it in advice letter or address it in a proceeding.

Board Member Bailey asked if MCE is slightly concerned that if it is successful in eliminating the PCIA charge for CARE customers, that charge may be re-distributed to the rest of the customers. Ms. Kelly said they are already doing exemptions for baseline medical customers and they just do not collect the revenues, which gets put into an overall slush of funds that is not specifically re-distributed to anybody else. It gets re-charged across all ratepayers.

Board Member Bailey said likewise, the fact that other investor-owned utilities are not charging that or for the medical baseline customers is because those charges are otherwise being

shuffled to all customers and not just to CCA customers. Ms. Kelly said she does not know about the rate design for SCE and SDG&E and it is possible they have not thought about it because they have not had the subset of these customers.

Board Member Bailey asked if there is a proceeding underway now to revisit the PCIA generally. Ms. Kelly said they do not but it is an excellent question and something she wished the Commission would bring up. A couple of years ago, MCE led a consortium of 50+ parties to request that exit fees be re-visited generally. The then-President of the CPUC said this was the proper method, but denied their petition for rule-making. So there is no home for it and they hope to create a home for it, but until then they are dealing proactively with issues on an ad-hoc basis and there are various proceedings they are involved in, such as the long-term procurement proceeding, the resource adequacy proceeding, the PCIA vintaging issue, and the low-income proceeding.

Ms. Swaroop said what has been interesting about the CARE and PCIA issue is that it has actually elevated the profile of the PCIA issues amongst a larger group of ratepayer advocates. Today, they have seen protests filed by Lancaster Choice Energy, the County of Los Angeles, the Local Energy Aggregation Network, the Greenlining Institute and Center for Accessible Technologies all addressing the PCIA. Therefore, they hope to continue to make strides in a larger way in the future.

Board Member Haroff asked to address opportunities from changes in a straight forward way instead of addressing it piece-meal and to exploit those opportunities everywhere they can. Ms. Kelly agreed and said there is a larger strategy of how they raise those which she will return to the Board with.

Ms. Kelly then referred to electric vehicles, stating they have three separate EV proceedings each with different procedural postures. The three investor-owned utilities have each put forward a proposal to install EV charging infrastructure in their service territories. In general, MCE is supportive of installation of it, but the big issue especially in the case of SDG&E and PG&E who are also proposing to own everything through the charging station itself. For MCE this is a significant competitive overreach. They are also planning on taking over a significant amount of market share. So one in four of every single EV charging stations would be owned by PG&E and in total, the three utilities are asking for over \$1 billion in order to implement these strategies. What MCE has recommended is that they did a motion to consolidate and they said: 1) the three proceedings should be combined into one proceeding and dealt with on a consistent basis on a policy matter, and 2) to deal with competitive issues, and 3) ensure that all customers are benefitting and also making sure there is enough inclusivity for low income communities. The Office of Ratepayer Advocates which is a part of the CPUC did a separate motion to consolidate.

Part of MCE's motion was jointly filed with several consumer advocacy groups and their motion was opposed by other environmental parties and by the Automobile Manufacturer's Association, the utilities and the unions of the utilities. MCE does not have information on

whether those will be consolidated or not, and while they want more EV infrastructure, they want it to be done in a thoughtful way and \$1 billion is not spent from ratepayer funds.

Ms. Kelly then reported on the 2015 legislative session, said Ms. Swaroop is deeply emerged in the work. MCE is active participants in the following legislation:

- SB 350: The 50-50-50 benchmarks bill or the Governor's plan to increase renewables to 50%, to reduce petroleum use by 50% and to increase energy efficiency in buildings by 50%. A concerning provision would increase the use of the cost allocation mechanism, or utilities buying power plants and charging costs to customers which is in the bill, and they are working to have this provision struck.
- AB 802: Support--Expanding EE implementation measures. Currently cost savings are measured by taking Title 24 and whatever is saved above it so very few energy efficient projects are cost-effective. They would like energy efficient projects reflect their actual savings to the grid and not just above code savings.
- EV Infrastructure and Competitive Markets: Support—MCE supports deployment of EV infrastructure and protecting competitive markets and this goes in tandem with their participation in the EV proceedings at the CPUC.
- AB 1330: Support: The bill sets higher standards for meeting energy efficiency goals and all load-serving entities of portfolios.
- Direct Access Bill: MCE is monitoring this bill which is how people choose to receive their generation services. Direct access is controversial in Sacramento.
- SB 180: A bill relates to emissions performance standards that raise some challenges for MCE and they are hoping to achieve some revisions.
- AB 674: A bill that would exempt certain customers from paying the PCIA and other charges and MCE is following this closely.
- There are a host of CPUC reform bills based on ex parte violations that have occurred.

Board Member Lacques asked if the \$1 billion of EV infrastructure would be passed onto ratepayers, and Ms. Kelly said yes.

Board Member Lacques asked what was the environmental appeal is for supporting the \$1 billion rate increase from groups that have aligned themselves with investor-owned utilities. Ms. Kelly said the idea is how quickly they can get EV charging stations deployed and at the financial cost and market cost. There are some environmental parties that say they need to think about how \$1 billion will be spent prior to it being spent. Until this year, the IOUs were prohibited from entering into the charging station line of business, so there is a lot of uncertainty right now and environmental groups that think that if proceedings are combined, it will slow down outcomes. There are other groups that say they need to think about how to deploy these.

Chairperson Sears and Board Members thanked Ms. Kelly and Swaroop for their presentation, as well as the summary memos which very clearly presented the information.



**11. Board Member & Staff Matters ( Discussion)**

Ms. Weisz alerted the Board to upcoming Board meeting dates:

- Regular Board meeting on June 18, 2015;
- No Board meeting on July 16, 2015;
- Regular Board meeting on August 20, 2015; and
- Board Meeting and Retreat on September 17, 2015 from 9:30 a.m. to 4:00 p.m. at the Marin Art and Garden Center

**12. Adjournment:**

The Board of Directors adjourned the meeting at 9:17 p.m. to the next regular Board meeting on June 18, 2015.

---

Kate Sears, Chair

Attest:

---

Dawn Weisz, Secretary



June 18, 2015

TO: Marin Clean Energy Board

FROM: Sarah Estes-Smith, Internal Operations Coordinator

RE: Report on Approved Contracts (Agenda Item #04 – C.2)

Dear Board Members:

---

**SUMMARY:**

In March 2013 your Board adopted Resolution 2013-04 which authorized the Chief Executive Officer to enter into and execute agreements for an amount not to exceed \$25,000 within a fiscal year consistent with the Board approved budget, the Joint Powers Agreement, and the Operating Rules and Regulations.

In November 2012 your Board approved the MCE Integrated Resource Plan authorizing the Chief Executive Officer to enter into and execute short term power purchase agreements for energy, capacity and renewable energy for less than or equal to 12 months, as well as medium-term contracts for energy, capacity and renewable energy for terms of greater than 12 months and less than or equal to 5 years in conjunction with the MCE Board Chair. Short and medium term power purchase agreements must be pursuant to a MCE Board approved Integrated Resource Plan. A committee of the MCE Board is consulted prior to execution of any medium-term contract by the Chief Executive Officer and MCE Board Chair.

The following chart summarizes agreements of this nature which have been entered into during the previous month:

Month	Purpose	Contractor	Maximum Annual Contract Amount	Term of Contract
May	RPS-eligible Renewable Energy January-December 2015	Cedar Creek, LLC / Summit Power Group, LLC	\$68,750	12 months
May	Survey and engineering services for MCE Solar 1 Project in Richmond	Wood Rodgers, Inc.	\$10,000	10 months
June	Addendum for photography services	Kathleen Harrison Photography	\$17,000	11 months

**Recommendation:** Information only. No action required.



June 18, 2015

TO: Marin Clean Energy Board of Directors

FROM: Katie Gaier, Human Resources Coordinator

RE: Policy 012: Dogs in the Workplace (Agenda Item #04 – C.3)

ATTACHMENT: Draft Policy 012: Dogs in the Workplace

**SUMMARY:**

In keeping with its work-life balance philosophy, MCE staff has researched the impact of employees occasionally bringing their dogs to the workplace. It has been found that dogs in the office environment reduce stress and boost employee morale. Several MCE employees have expressed an interest in bringing their dog to work with them, one to two days per week. In order to provide a structure for such a program, staff developed a draft policy (attached), which, if approved by your Board, will become MCE Policy 012: Dogs in the Workplace. At its June 3, 2015 meeting, the Executive Committee recommended that your Board approve the policy with some minor changes that have been incorporated into the draft policy. If approved, MCE management will develop procedural guidelines for employees to follow in order for the dog-friendly program to operate in a safe and equitable manner for all staff.

**RECOMMENDATION:**

It is recommended that your Board approve MCE Policy 012: Dogs in the Workplace and authorize staff to develop guidelines consistent with the policy and to modify the guidelines when needed.



## **POLICY 012: DOGS IN THE WORKPLACE**

It is the policy of Marin Clean Energy to support the presence of well-trained dogs at the office. Dogs in the office environment have been shown to reduce stress and boost employee morale. This policy is crafted to support these benefits while mitigating possible impacts to the work environment.

Full-time and part-time MCE employees given approval by their Department Director may be eligible to bring their dog to work. Any employee choosing to take advantage of this policy must ensure the following conditions are met:

- It is the responsibility of the pet owner to ensure vaccination records are current. All dog owners must submit proof of the following vaccinations:
  - DHHP (distemper/parvo)
  - Rabies
  - Bordetella
- All dogs must be treated with heartworm and flea preventative. Any dog exhibiting symptoms of a pest infestation will be barred from returning to the workplace until the issue has been resolved.
- Dogs must be spayed or neutered and a certificate of such must be provided.
- Dogs must remain on a leash (6' or less) while in any common space.
- Employees are responsible for self-scheduling on the provided shared electronic calendar. MCE management staff may limit the number of dogs in the workplace on any one day.
- Dogs must remain in the office or at the desk of their owner or caretaker. Dogs are not allowed in the staff lounge or in the kitchen or bathroom. Employees must designate a colleague as a "Pet Buddy" to watch their pet while the dog owner employee is in meetings or off site. The employee understands it is their responsibility to ensure the pet has supervision.
- A dog may only be in a shared office if both office occupants have affirmatively agreed to the dog's presence. Due to allergies or other factors, an officemate may choose to not share their space with a canine companion.

**DRAFT**

- After receiving permission from the employee's Department Director, all dogs will be on a one month trial period to ensure the dog has the appropriate temperament to stay at MCE.
- Any dog exhibiting behavior perceived as violent (e.g. growling or biting) will lose office privileges and will not be allowed to come to work.
- Dogs exhibiting destructive behavior will lose office privileges and not be allowed to return to work. Mitigation or repair for any damage caused to the building or property within the building will be the responsibility of the owner.
- The following behaviors will result in a "strike" against the dog. Once three strikes have been marked, the dog will lose office privileges:
  - Distractions. Dogs exhibiting noisy or distracting behavior.
  - Liquid/solid Accidents. Dog owners are responsible for cleaning up any accidents in the workplace, and any accident will serve as a strike against the dog.
  - Improper hygiene. Smelly dogs will receive a strike and the owner will be responsible for amending the situation.
- Employees are responsible for maintaining a clean and vibrant atmosphere at MCE. Employees must pick up after their pets, are required to pick up their dog's waste and are encouraged to pick up any pet waste that litters the MCE grounds even if it does not belong to their pet. The presence of dog waste on MCE grounds may cause the approval to bring a dog to be revoked for all participants.
- Issues related to dogs in the workplace that are not able to be resolved by the pet owner will be reviewed by a committee made up of a participant in the program, one other employee (preferably a dog owner not participating in the program) and the HR Coordinator. If the committee is unable to resolve the issue, the Chief Executive Officer will have the final decision making authority.
- Bringing a pet dog to work should be an occasional practice, not an everyday occurrence. Employees are responsible for using the shared electronic calendar to schedule office time and limit dog presence to one or two days per week.
- Any participating employees must acknowledge that:
  - Having a pet at work is a privilege, not a right, and the employee's behavior and decisions as a pet owner will reflect on the employee.
  - Implementation of this policy is at the sole discretion of MCE.
  - If an employee or dog violates any of the terms of this policy, the

**DRAFT**

employee may lose the privileges outlined above.

- The employee must exercise good judgement to determine if their dog is a good fit for the work environment.

DRAFT



June 18, 2015

TO: Marin Clean Energy Board

FROM: Mike Maher, MCE Accountant

RE: Preliminary Annual FY 14/15 Budget Report (Agenda Item #05)

ATTACHMENT: MCE Budget Reports 2015-03 (Unaudited)

Dear Board Members:

---

**SUMMARY:**

The attached budget update compares the FY 2014/15 budget to the unaudited revenue and expenses of MCE for the year and month ending March 2015, the final month in the fiscal year. The related figures are preliminary, as the financial audit of 2014/15 will continue into July 2015. However, we do not anticipate any significant changes to the accompanying report.

**OPERATING BUDGET:**

Year-to-date revenues and cost of energy reached levels very close to expectations, with variances not exceeding 0.5% of the budgeted amount. Cost of energy slightly exceeded its budget. We anticipate that this expense may be updated as we receive adjusting invoices for the period. We do not recommend a retroactive budget adjustment for this because a) this item is a factor of customer volume and is not discretionary, and b) management does not consider this variance significant on the budget as a whole.

Operating expenditures came under budget for the fiscal year, with the exception of Other Services. The direct cause for this was greater than anticipated costs associated with the office move and setup. We do not recommend a retroactive budget adjustment for this because management does not consider this variance significant on the budget as a whole.

**ENERGY EFFICIENCY PROGRAM BUDGET:**

The Energy Efficiency Program is entirely funded by the California Public Utilities Commission. For financial reporting purposes, MCE treats funds received from this program as a reimbursable grant. The result is that program expenses are mostly offset by revenue. Certain planning and grant writing activities are not reimbursable under this grant. A deferred asset is recorded for funds received by the CPUC that have yet to be expended by MCE.

#### LOCAL DEVELOPMENT RENEWABLE ENERGY BUDGET:

This program is funded through a portion of the Deep Green service provided to customers. To date, expenses primarily relate to legal costs associated with establishing a local renewable energy project.

**Recommendation:** Discussion only.



**MARIN CLEAN ENERGY  
OPERATING FUND  
BUDGETARY COMPARISON SCHEDULE  
April 1, 2014 through March 31, 2015**

	<b>2013/14 YTD Actual</b>	<b>2014/15 YTD Amended Budget</b>	<b>2014/15 YTD Actual</b>	<b>2014/15 YTD Budget Variance (Under) Over</b>	<b>2014/15 YTD Actual/Budget %</b>	<b>2014/15 Annual Amended Budget</b>	<b>2014/15 Budget Remaining</b>
<b>REVENUE AND OTHER SOURCES:</b>							
Revenue - Electricity (net of allowance)	\$ 84,605,751	99,126,394	\$ 98,840,861	\$ (285,532.92)	99.71%	\$ 99,126,394	\$ 285,533
Revenue - Consideration from lease termination	-	400,000	400,000	-	(400,000)	400,000	-
Revenue - Other	47,026	-	292,208	292,208	-	-	(292,208)
Total sources	<u>84,652,777</u>	<u>99,526,394</u>	<u>99,533,069</u>	<u>6,675</u>	<u>100.01%</u>	<u>99,526,394</u>	<u>(6,675)</u>
<b>EXPENDITURES AND OTHER USES:</b>							
<b>CURRENT EXPENDITURES</b>							
Cost of energy	76,088,268	87,900,551	87,996,399	95,848	100.11%	87,900,551	(95,848)
Staffing	1,527,169	2,140,000	2,060,396	(79,604)	96.28%	2,140,000	79,604
Technical consultants	547,618	545,000	520,602	(24,398)	95.52%	545,000	24,398
Legal counsel	231,292	405,000	298,104	(106,896)	73.61%	405,000	106,896
Communications consultants and related expenses	687,580	750,000	647,133	(102,867)	86.28%	750,000	102,867
Data manager	2,504,021	2,550,000	2,543,894	(6,106)	99.76%	2,550,000	6,106
Service fees- PG&E	589,223	705,000	680,548	(24,452)	96.53%	705,000	24,452
Other services	265,261	354,000	361,793	7,793	102.20%	354,000	(7,793)
General and administration	344,531	370,000	354,084	(15,916)	95.70%	370,000	15,916
Marin County green business program	15,000	15,000	15,000	-	0.00%	15,000	-
Solar rebates	10,000	25,000	3,500	(21,500)	0.00%	25,000	21,500
Total current expenditures	<u>82,809,963</u>	<u>95,759,551</u>	<u>95,481,453</u>	<u>(278,098)</u>	<u>99.71%</u>	<u>95,759,551</u>	<u>278,098</u>
CAPITAL OUTLAY	11,013	420,000	370,117	(49,883)	88.12%	420,000	49,883
DEBT SERVICE	1,239,106	1,195,000	1,193,880	(1,120)	99.91%	1,195,000	1,120
<b>INTERFUND TRANSFER TO:</b>							
Local Renewable Energy Development Fund	51,536	109,994	109,994	-	100.00%	109,994	-
Total expenditures	<u>84,111,618</u>	<u>97,484,545</u>	<u>97,155,444</u>	<u>\$ (329,101)</u>	<u>99.66%</u>	<u>97,484,545</u>	<u>\$ 329,101</u>
Net increase (decrease) in available fund balance	<u>\$ 541,159</u>	<u>\$ 2,041,849</u>	<u>\$ 2,377,625</u>	<u>\$ 335,776</u>		<u>\$ 2,041,849</u>	<u>\$ (335,776)</u>

**MARIN CLEAN ENERGY  
ENERGY EFFICIENCY PROGRAM FUND  
BUDGETARY COMPARISON SCHEDULE  
April 1, 2014 through March 31, 2015**

	<u>Budget</u>	<u>Actual</u>	<u>Budget Remaining</u>	<u>Actual/ Budget</u>
<b>REVENUE AND OTHER SOURCES:</b>				
Public purpose energy efficiency program	\$ 1,505,702	\$ 1,125,344	\$ 380,358	74.74%
<b>EXPENDITURES AND OTHER USES:</b>				
<b>CURRENT EXPENDITURES</b>				
Public purpose energy efficiency program	<u>1,505,702</u>	<u>1,178,128</u>	<u>327,574</u>	<u>78.24%</u>
Net increase (decrease) in fund balance	<u>\$ -</u>	<u>\$ (52,784)</u>		

\* Transfer of \$547,500 for security of On Bill Repayment program not recognized as expenditure.

**LOCAL RENEWABLE ENERGY DEVELOPMENT FUND  
BUDGETARY COMPARISON SCHEDULE  
April 1, 2014 through March 31, 2015**

	<u>Budget</u>	<u>Actual</u>	<u>Budget Remaining</u>	<u>Actual/ Budget</u>
<b>REVENUE AND OTHER SOURCES:</b>				
Transfer from Operating Fund	\$ 109,994	\$ 109,994	\$ -	100.00%
<b>EXPENDITURES AND OTHER USES:</b>				
Capital Outlay	<u>109,994</u>	<u>100,505</u>	<u>9,489</u>	<u>91.37%</u>
Net increase (decrease) in fund balance	<u>\$ -</u>	<u>\$ 9,489</u>		

**MARIN CLEAN ENERGY  
BUDGETARY SUPPLEMENTAL SCHEDULE  
April 1, 2014 through March 31, 2015**

	<u>Actual</u>
<b>Other services</b>	
Audit	\$ 34,500
Accounting	121,800
IT Consulting	39,250
Human resources & payroll fees	6,206
Legislative consulting	90,260
Miscellaneous professional fees	69,778
	<hr/>
<b>Other services</b>	<b>\$ 361,794</b>
	<hr/>
<b>General and administration</b>	
Cell phones	\$ 872
Data and telephone service	30,745
Insurance	7,171
Office and meeting rentals	192,735
Office equipment lease	5,099
Dues and subscriptions	113,555
Conferences and professional education	7,178
Travel	19,250
Business meals	7,553
Interest and late fees	15,836
Miscellaneous administration	57
Office supplies and postage	45,784
	<hr/>
<b>General and administration</b>	<b>\$ 445,835</b>
	<hr/>



June 18, 2015

TO: Marin Clean Energy Board  
FROM: Mike Maher, MCE Accountant  
RE: Monthly FY 15/16 Budget Report (Agenda Item #05)  
ATTACHMENT: MCE Budget Reports 2015-04 (Unaudited)

Dear Board Members:

---

**SUMMARY:**

The attached budget update compares the FY 2015/16 budget to the unaudited revenue and expenses of MCE for the month ending April 2015. This is the first month of FY 2015/16.

**OPERATING BUDGET:**

Year-to-date revenues and cost of energy are at levels slightly under budget, with the driving factor being lower volume than expected. Operating expenditures are generally below anticipated year-to-date levels, but much of this will be smoothed as the year continues.

In April, MCE paid off all of its existing debt ahead of scheduled maturity.

Overall, MCE continues to spend near projections, as reflected in year-to-date figures.

**ENERGY EFFICIENCY PROGRAM BUDGET:**

The Energy Efficiency Program is entirely funded by the California Public Utilities Commission. For financial reporting purposes, MCE treats funds received from this program as a reimbursable grant. The result is that program expenses are mostly offset by revenue. Certain planning and grant writing activities are not reimbursable under this grant. A deferred asset is recorded for funds received by the CPUC that have yet to be expended by MCE.

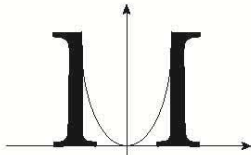
**LOCAL DEVELOPMENT RENEWABLE ENERGY BUDGET:**

This program is funded through a portion of the Deep Green service provided to customers. To date, expenses primarily relate to legal costs associated with establishing a local renewable energy project.

#### RENEWABLE ENERGY RESERVE BUDGET:

This fund is intended for the procurement or development of renewable energy not planned for in the operating funds. Resources may accumulate from year to year and be expended as management determines.

**Recommendation:** No action needed. Informational only.



**MAHER ACCOUNTANCY**

1101 FIFTH AVENUE • SUITE 200 • SAN RAFAEL, CA 94901

*Financial Plumline*

## ACCOUNTANTS' COMPILATION REPORT

Board of Directors  
Marin Clean Energy

We have compiled the accompanying budgetary comparison schedules of Marin Clean Energy (a California Joint Powers Authority) for the period ended April 30, 2015. We have not audited or reviewed the accompanying financial statement and, accordingly, do not express an opinion or provide any assurance about whether the financial statement is in accordance with accounting principles generally accepted in the United States of America.

Management is responsible for the preparation and fair presentation of the financial statement in accordance with accounting principles generally accepted in the United States of America and for designing, implementing, and maintaining internal control relevant to the preparation and fair presentation of the financial statements.

Our responsibility is to conduct the compilation in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants. The objective of a compilation is to assist management in presenting financial information in the form of financial statements with undertaking to obtain or provide any assurance that there are no material modifications that should be made to the financial statement.

Certain accounting functions provided by Maher Accountancy are considered management functions by the American Institute of Certified Public Accountants. Accordingly, we are not independent with respect to Marin Clean Energy.

*Maher Accountancy*

May 19, 2015



**MARIN CLEAN ENERGY**  
**OPERATING FUND**  
**BUDGETARY COMPARISON SCHEDULE**  
**April 1, 2015 through April 30, 2015**

	<b>2014/15 YTD Actual</b>	<b>2015/16 YTD Budget</b>	<b>2015/16 YTD Actual</b>	<b>2015/16 YTD Budget Variance (Under) Over</b>	<b>2015/16 YTD Actual/Budget %</b>	<b>2015/16 Annual Budget</b>	<b>2015/16 Budget Remaining</b>
<b>REVENUE AND OTHER SOURCES:</b>							
Revenue - Electricity (net of allowance)	\$ 6,847,267	8,711,518	\$ 8,558,162	\$ (153,356)	98.24%	\$ 145,933,098	\$ 137,374,936
Other revenues	305	-	187,806	187,806	-	-	-
Total sources	<u>6,847,572</u>	<u>8,711,518</u>	<u>8,745,968</u>	<u>34,450</u>	<u>5.99%</u>	<u>145,933,098</u>	<u>137,374,936</u>
<b>EXPENDITURES AND OTHER USES:</b>							
<b>CURRENT EXPENDITURES</b>							
Cost of energy	6,486,196	8,874,170	8,234,375	(639,795)	92.79%	129,522,715	121,288,340
Staffing	153,002	234,650	204,235	(30,415)	87.04%	2,964,000	2,759,765
Technical consultants	40,325	37,548	45,000	7,452	119.85%	629,000	584,000
Legal counsel	2,412	30,000	5,106	(24,894)	17.02%	360,000	354,894
Communications consultants and related expenses	19,469	62,583	72,054	9,471	115.13%	751,000	678,946
Data manager	217,436	238,500	205,056	(33,444)	85.98%	2,862,000	2,656,944
Service fees- PG&E	55,788	76,750	62,071	(14,679)	80.87%	921,000	858,929
Other services	18,471	34,833	19,626	(15,207)	56.34%	418,000	398,374
General and administration	32,747	27,417	24,542	(2,875)	89.51%	329,000	304,458
Occupancy	-	21,667	2,916	(18,751)	0.00%	260,000	257,084
Integrated Demand side pilot programs	-	4,167	-	(4,167)	0.00%	50,000	50,000
Marin County green business program	-	-	-	-	0.00%	10,000	10,000
Solar rebates	-	-	-	-	0.00%	35,000	35,000
Total current expenditures	<u>7,025,846</u>	<u>9,642,285</u>	<u>8,874,981</u>	<u>(767,304)</u>	<u>92.04%</u>	<u>139,066,715</u>	<u>130,191,734</u>
CAPITAL OUTLAY	5,027	80,000	41,107	(38,893)	51.38%	150,000	108,893
DEBT SERVICE	99,490	2,080,000	2,054,975	(25,025)	98.80%	2,080,000	25,025
<b>INTERFUND TRANSFER TO:</b>							
Renewable Energy Reserve Fund	-	1,000,000	1,000,000	-	100.00%	1,000,000	-
Local Renewable Energy Development Fund	109,994	151,383	151,383	-	100.00%	151,383	-
Total expenditures	<u>7,240,357</u>	<u>12,953,668</u>	<u>12,122,446</u>	<u>\$ (831,222)</u>	<u>93.58%</u>	<u>142,493,098</u>	<u>\$ 130,370,652</u>
Net increase (decrease) in available fund balance	<u>\$ (392,785)</u>	<u>\$ (4,242,150)</u>	<u>\$ (3,376,478)</u>	<u>\$ 865,672</u>		<u>\$ 3,440,000</u>	<u>\$ 7,004,284</u>

**MARIN CLEAN ENERGY  
ENERGY EFFICIENCY PROGRAM FUND  
BUDGETARY COMPARISON SCHEDULE  
April 1, 2015 through April 30, 2015**

	<u>Budget</u>	<u>Actual</u>	<u>Budget Remaining</u>	<u>Actual/ Budget</u>
<b>REVENUE AND OTHER SOURCES:</b>				
Public purpose energy efficiency program	\$ 1,505,702	\$ 86,128	\$ 1,419,574	5.72%
<b>EXPENDITURES AND OTHER USES:</b>				
<b>CURRENT EXPENDITURES</b>				
Public purpose energy efficiency program	<u>1,505,702</u>	<u>98,069</u>	<u>1,407,633</u>	<u>6.51%</u>
Net increase (decrease) in fund balance	<u>\$ -</u>	<u>\$ (11,941)</u>		

**LOCAL RENEWABLE ENERGY DEVELOPMENT FUND  
BUDGETARY COMPARISON SCHEDULE  
April 1, 2015 through April 30, 2015**

	<u>Budget</u>	<u>Actual</u>	<u>Budget Remaining</u>	<u>Actual/ Budget</u>
<b>REVENUE AND OTHER SOURCES:</b>				
Transfer from Operating Fund	\$ 151,383	\$ 151,383	\$ -	100.00%
<b>EXPENDITURES AND OTHER USES:</b>				
Capital Outlay	<u>151,383</u>	<u>59,000</u>	<u>92,383</u>	<u>38.97%</u>
Net increase (decrease) in fund balance	<u>\$ -</u>	<u>\$ 92,383</u>		

**RENEWABLE ENERGY RESERVE FUND  
BUDGETARY COMPARISON SCHEDULE  
April 1, 2015 through April 30, 2015**

	<u>Budget</u>	<u>Actual</u>	<u>Budget Remaining</u>	<u>Actual/ Budget</u>
<b>REVENUE AND OTHER SOURCES:</b>				
Transfer from Operating Fund	\$ 1,000,000	\$ 1,000,000	\$ -	100.00%
<b>EXPENDITURES AND OTHER USES:</b>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Net increase (decrease) in fund balance	<u>\$ 1,000,000</u>	<u>\$ 1,000,000</u>		



**MARIN CLEAN ENERGY**  
**BUDGETARY SUPPLEMENTAL SCHEDULE**  
**April 1, 2014 through April 30, 2015**

	<u>Actual</u>
<b>Other services</b>	
Audit	\$ -
Accounting	12,000
IT Consulting	4,594
Human resources & payroll fees	1,419
Legislative consulting	-
Miscellaneous professional fees	1,613
	<u>          </u>
<b>Other services</b>	<u>\$ 19,626</u>
<b>General and administration</b>	
Cell phones	\$ 68
Data and telephone service	2,804
Insurance	3,317
Office and meeting rentals	639
Office equipment lease	425
Dues and subscriptions	8,307
Conferences and professional education	275
Travel	1,965
Business meals	470
Interest and late fees	-
Miscellaneous administration	-
Office supplies and postage	6,272
	<u>          </u>
<b>General and administration</b>	<u>\$ 24,542</u>



June 18, 2015

TO: Marin Clean Energy Board

FROM: Nick Shah, Power Supply Contracts Manager

RE: Master Agreement and Confirmation Letter with East Bay Municipal Utility District (Agenda Item #06)

ATTACHMENTS: A. EEI Master Purchase and Sale Agreement Cover Sheet with EBMUD  
B. Renewable Energy Confirmation Letter with EBMUD  
C. EEI Master Purchase and Sale Agreement

---

Dear Board Members:

**Overview:**

In January 2015, MCE received a Request for Expression of Interest (ROI) from East Bay Municipal Utility District ("EBMUD") for the purchase of renewable energy from two California RPS qualified small hydroelectric facilities; Pardee Power Plant and Camanche Power Plant ("Project"). MCE staff provided a response which was subsequently shortlisted by EBMUD. The timing of this process aligned with MCE's 2015 Open Season and staff presented the opportunity to MCE's Ad Hoc Contracts Committee in April within the context of the evaluation of other Open Season offers. MCE staff subsequently negotiated the terms and conditions in the attached Edison Electric Institute (EEI) Master Purchase and Sale Agreement ("Agreement") and Renewable Energy Confirmation Letter ("Confirmation Letter") for the purchase of renewable energy and renewable attributes.<sup>1</sup>

Staff presented the draft Agreement and Confirmation Letter to the Ad Hoc Contracts committee on May 1, 2015 and the Committee recommended the contract for submission to the MCE Board for approval.

Renewable energy volumes produced by the facility would complement MCE's existing renewable energy supply with output from a local renewable energy generation project. The timing of deliveries would help replace the planned reduction in renewable energy deliveries under the Shell Energy North America ("SENA") agreement. Because of the 10 year term of the agreement, renewable energy attributes could be banked to meet future RPS compliance obligations.

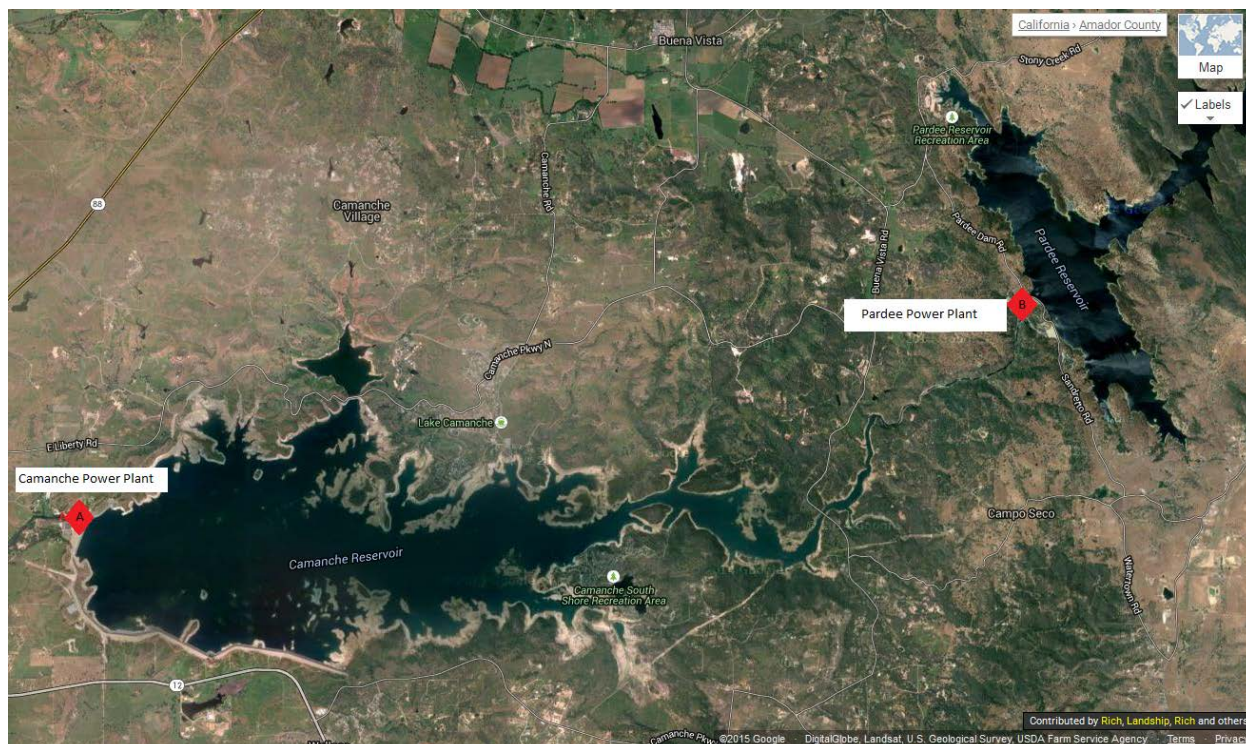
**Location & Project Viability:**

The Project is located in both San Joaquin and Calaveras County, on the Mokelumne River. Both power plants are owned and managed by EBMUD. The two hydroelectric facilities are interconnected to the CAISO grid and are fully operational.

---

<sup>1</sup> If this transaction is authorized by the Board, only the Cover Sheet for the Agreement and the Confirmation Letter would require execution (the Agreement does not require separate signature).

The Project consists of two facilities, the Pardee Power Plant and the Camanche Power Plant. The Pardee Power Plant, the larger of the two, has a maximum generating capacity of 30 MW, a minimum generating capacity of 5.2 MW and also provides operational flexibility. The Camanche Power Plant has a maximum generating capacity of 9.9 MW, a minimum generating capacity of 0.8 MW and has a run of river operating profile. It is important to note that output from both powerhouses is highly dependent on rainfall and snow melt runoff conditions. The Confirmation Letter specifies variable payment rates based on a range of potential Project deliveries. In a dry year, the Project is expected to deliver 30,000 MWh and in a wet year, 180,000 MWh or more. This equates to serving between 5,000 and 30,000 average MCE residential customers.



### Portfolio Fit:

Addition of this Project to MCE's portfolio would benefit the public by allowing MCE to provide electricity from local renewable resources. The Pardee Power Plant will provide operational flexibility and the Camanche Power Plant may potentially be available to help satisfy MCE's Local Resource Adequacy requirements under a future confirmation letter to be negotiated separately.

### Counterparty Strength:

East Bay Municipal Utility District operates recreation areas on watershed lands in Amador County and provides water and wastewater services to visitors. EBMUD was formed in 1923. The District has a seven-member Board of Directors publicly elected from wards within the District's service area. The District has an excellent credit rating demonstrated by the following credit rating agencies: S&P: AAA, Moody's Aa1 and Fitch AA+.

**Contract Overview:**

- Project size: 39.9MW maximum generating capacity; capable of supplying the annual electric needs of approximately 5,000 to 30,000 MCE residential customers
- Project location: near Amador-Calaveras county line- within 100 miles of MCE's service territory
- Project will utilize proven technology
- Project is interconnected to CAISO and fully operational
- Contract deliveries would begin July 1, 2015
- Contract term: 10 years with two 3 year options to extend (maximum term is 16 years)
- Delivery profile: Pardee generation may be operated up or down within a 20 MW range as determined by EB MUD operators; Camanche operates as "run of river" which means it's generation is entirely determined by available water flows
- Expected annual energy production: between 30,000 and 180,000 MWhs
- Energy price: Index plus a renewable energy premium based upon energy deliveries
- Minimal credit/collateral obligations for MCE
- Inter-SC trade to ensure MCE receives physical deliveries bundled with renewable attributes

**Summary:**

The MCE and EBMUD PPA for deliveries from Pardee and Camanche Power Plants is a good fit for MCE's resource portfolio based on the following considerations:

- The Project size supports MCE's expansion and future renewable energy requirements
- Timing of initial energy deliveries under the Agreement is aligned with planned reduction in renewable energy deliveries under SENA agreement
- The Project is already interconnected and fully operational
- The Project is located within California and meets the highest value renewable portfolio standards category (bundled, PCC1)
- The Project is highly viable, provides resource mix diversity (hydroelectric technology)
- Energy from the Project is competitively priced

**Recommendation:** Authorize execution of EEI Master Agreement Cover Sheet and Conformation Letter for Renewable Energy with East Bay Municipal Utility District for competitively priced, local renewable energy supply.

## MASTER POWER PURCHASE AND SALE AGREEMENT COVER SHEET

This *Master Power Purchase and Sale Agreement* (“*Master Agreement*”) is made as of the following date: \_\_\_\_\_ (“Effective Date”). The *Master Agreement*, together with the exhibits, schedules and any written supplements hereto, the Party A Tariff, if any, the Party B Tariff, if any, any designated collateral, credit support or margin agreement or similar arrangement between the Parties and all Transactions (including any confirmations accepted in accordance with Section 2.3 hereto) shall be referred to as the “Agreement.” The Parties to this *Master Agreement* are the following:

East Bay Municipal Utility District (“EBMUD” or “Party A”)

**All Notices:**

P.O. Box 24055 M/S # 205

Oakland, CA 94623-1055

Attn: Energy Contract Administration

Phone: (510) 287-1144

[dbeyer@ebmud.com](mailto:dbeyer@ebmud.com)

Duns: 05-190-4423

Federal Tax ID Number: 94-6000590

**Invoices:**

Attn: Dave Beyer

Phone: (510) 287-1144

Attn: Charmin Baaqee

Phone: (510) 287-7026

**Confirmations:**

Attn: Ramona Gonzalez

Phone: (510) 287-1619

Alt phone: (510) 287-1144

[Ramonag@ebmud.com](mailto:Ramonag@ebmud.com)

[dbeyer@ebmud.com](mailto:dbeyer@ebmud.com)

**Scheduling:**

Attn: Ramona Gonzalez

Phone:(510) 986-7559

[ramonag@ebmud.com](mailto:ramonag@ebmud.com)

**Payments:**

Attn: Charmin Baaqee

Phone: (510) 287-7026

Marin Clean Energy (“MCE” or “Party B”)

**All Notices:**

1125 Tamalpais Avenue

City: San Rafael Zip: 94901

Attn: Contract Administration

Phone: (415) 464-6037

Facsimile: (415) 459-8095

[invoices@mcecleanenergy.org](mailto:invoices@mcecleanenergy.org)

Duns: 829602338

Federal Tax ID Number: 26-4300997

**Invoices:**

Attn: Administrative Associate

Phone: (415) 464-6028

Facsimile: (415) 459-8095

[invoices@mcecleanenergy.org](mailto:invoices@mcecleanenergy.org)

**Confirmations:**

Attn: Greg Brehm, Director of Power Resources

Phone: (415) 464-6037

Facsimile: (415) 459-8095

[gbrehm@mcecleanenergy.org](mailto:gbrehm@mcecleanenergy.org)

**Scheduling:**

Attn: Greg Brehm, Director of Power Resources

Phone: (415) 464-6037

Facsimile: (415) 459-8095

[gbrehm@mcecleanenergy.org](mailto:gbrehm@mcecleanenergy.org)

**Payments:**

Attn: Administrative Associate

Phone: (415) 464-6028

Facsimile: (415) 459-8095

[invoices@mcecleanenergy.org](mailto:invoices@mcecleanenergy.org)

**ACH Transfer:**

BNK: Wells Fargo  
ABA: 121000248  
ACCT:4121064679

**Wire Transfer:**

BNK: River City Bank  
ABA:  
ACCT:

Confirmation of Payment to: [vwong@ebmud.com](mailto:vwong@ebmud.com),  
[Ramonag@ebmud.com](mailto:Ramonag@ebmud.com)

**Credit and Collections:**

Attn: Director of Finance MS 801  
Phone: (510) 287-0231

**Credit and Collections:**

Attn: Internal Operations  
Phone: (415) 464-6035  
Facsimile: (415) 459-8095

With additional Notices of an Event of Default or  
Potential Event of Default to:

Attn: Office of General Counsel MS 904  
Phone: (510) 287-2013

With additional Notices of an Event of Default or  
Potential Event of Default to:

Attn: Stephen Hall, Troutman Sanders LLP  
Phone: (503) 290-2336  
Facsimile: (503) 290-2445

The Parties hereby agree that the General Terms and Conditions are incorporated herein, and to the following provisions as provided for in the General Terms and Conditions:

Party A Tariff      Tariff:                      Dated:                      Docket Number:  
 Party B Tariff      Tariff: \_\_\_\_\_ Dated: \_\_\_\_\_ Docket Number: \_\_\_\_\_

**Article Two**

Transaction Terms and Conditions      ☒ Optional provision in Section 2.4. If not checked, inapplicable.

**Article Four**

Remedies for Failure to Deliver or Receive      ☒ Accelerated Payment of Damages. If not checked, inapplicable.

**Article Five**

Events of Default; Remedies      ☒ Cross Default for Party A:  
    ☒ Party A:                      Cross Default Amount: \$10,000,000.00  
    ☐ Other Entity:                      Cross Default Amount:  
    ☒ Cross Default for Party B:  
    ☒ Party B:                      Cross Default Amount: \$500,000.00  
    ☐ Other Entity:                      Cross Default Amount:

5.6 Closeout Setoff

- ☒ Option A (Applicable if no other selection is made.)  
☐ Option B - Affiliates shall have the meaning set forth in the Agreement unless otherwise specified as follows: \_\_\_\_\_  
☐ Option C (No Setoff)

**Article 8**

Credit and Collateral Requirements

8.1 Party A Credit Protection:

(a) Financial Information:

- ☒ Option A  
☐ Option B Specify:  
☐ Option C Specify: \_\_\_\_\_

(b) Credit Assurances:

- ☐ Not Applicable  
☒ Applicable

(c) Collateral Threshold:

- ☒ Not Applicable  
☐ Applicable

If applicable, the provisions of Section 8.1 (c) of the Agreement shall be replaced by the provisions of the Collateral Annex attached hereto.

(d) Downgrade Event:

- ☒ Not Applicable  
☐ Applicable

If applicable, complete the following:

- ☐ It shall be a Downgrade Event for Party B if Party B's Guarantor's Credit Rating falls below \_\_\_\_\_ from S&P and \_\_\_\_\_ from Moody's or if Party B's Guarantor is not rated by either S&P or Moody's
- ☐ Other:  
Specify:

(e) Guarantor for Party B:

Guarantee Amount:   N/A  

8.2 Party B Credit Protection:

(a) Financial Information:

- ☐ Option A  
☒ Option B Specify: EBMUD  
☐ Option C Specify: as available

(b) Credit Assurances:

- ☐ Not Applicable  
☒ Applicable

(c) Collateral Threshold:

- ☒ Not Applicable  
☐ Applicable

If applicable, the provisions of Section 8.2 (c) of the Agreement shall be replaced by the provisions of the Collateral Annex attached hereto.

(d) Downgrade Event:

- ☒ Not Applicable  
☐ Applicable

If applicable, complete the following:

- ☐ It shall be a Downgrade Event for Party A if Party A's Guarantor's Credit Rating falls below \_\_\_\_ from S&P and \_\_\_\_ from Moody's or if Party A's Guarantor is not rated by either S&P or Moody's



☐ Other:  
Specify:

(e) Guarantor for Party A: Not Applicable.

Guarantee Amount: N/A

---

**Article 10**

Confidentiality

☒ Confidentiality Applicable

If not checked, inapplicable.

**Schedule M**

☒ ☐ Party A is a Governmental Entity or Public Power System

☒ Party B is a Governmental Entity or Public Power System

☐ Add Section 3.6. If not checked, inapplicable

☐ Add Section 8.6. If not checked, inapplicable

**Other Changes:** Specify, if Any: See "Other Changes" Attached Hereto

**“OTHER CHANGES” TO EEI STANDARDIZED  
MASTER POWER PURCHASE AND SALE AGREEMENT**

**ARTICLE ONE: GENERAL DEFINITIONS**

Section 1.1 is amended by adding the following sentence at the end of the definition of “Affiliate”: “The Parties hereby agree and acknowledge that the members of Party B shall not constitute or otherwise be deemed an “Affiliate” for the purposes of this Master Agreement or any Confirmation executed in connection therewith.”.

Section 1.12 is amended by deleting the word “issues” and replacing it with the word “issuer”.

Section 1.23(ii) in the second sentence is amended by adding the following after the word “hereunder”: “or to obtain the Product at a more advantageous price or advantageous terms and conditions from a third party supplier.”

Section 1.27 is amended by adding at the end of the first sentence “; provided that a Party may only transfer the Letter of Credit to any person or entity succeeding to all or substantially all of the assets of such Party.”

Section 1.45 is amended by changing “Requesting Party” to “requesting Party”.

Section 1.50 (Recording) is hereby deleted in its entirety.

Section 1.51 is amended by (i) adding the phrase “for delivery” immediately before the phrase “at the Delivery Point” in the second line and (ii) deleting the phrase “at Buyer's option” from the fifth line and replacing it with the phrase “absent a purchase”.

Section 1.53 is amended by (i) deleting the phrase “at the Delivery Point” from the second line, and (ii) deleting the phrase “at Seller’s option” from the fifth line and replacing it with the phrase “absent a sale”.

Section 1.60 is amended by inserting the words “in writing” immediately following the words “agreed to”.

**ARTICLE TWO: TRANSACTIONS TERMS AND CONDITIONS**

Section 2.1 is deleted in its entirety and replaced with the following:

“2.1 Transactions. A Transaction, or an amendment, modification or supplement thereto, shall be entered into only upon a writing signed by both Parties.”

Section 2.4 is amended by deleting “pursuant to Section 2.3” and “either orally or”.

Section 2.5 is hereby deleted and replaced with the following:

**Index Transactions**. If the Contract Price for a Transaction is determined by reference to a Price Source, then:

- (a) Market Disruption. If a Market Disruption Event occurs on any one or more days during a Determination Period (each day, a “Disrupted Day”), then:

The fallback Floating Price, if any, specified by the Parties in the relevant Confirmation shall be the Floating Price for each Disrupted Day.

If the Parties have not specified a fallback Floating Price, then the Parties will endeavor, in good faith and using commercially reasonable efforts, to agree on a substitute Floating Price, taking into consideration, without limitation, guidance, protocols or other recommendations or conventions issued or employed by trade organizations or industry groups in response to the Market Disruption Event and other prices

published by the Price Source or alternative price sources with respect to the Delivery Point or comparable Delivery Points that may permit the Parties to derive the Floating Price based on historical differentials.

If the Price Source retrospectively issues a Floating Price in respect of a Disrupted Day (a "Delayed Floating Price") before the parties agree on a substitute Floating Price for such day, then the Delayed Floating Price shall be the Floating Price for such Disrupted Day. If a Delayed Price is issued by the Price Source in respect of a Disrupted Day after the Parties agree on a substitute Floating Price for such day, the substitute Floating Price agreed upon by the Parties will remain the Floating Price without adjustment unless the Parties expressly agree otherwise.

If the Parties cannot agree on a substitute Floating Price and the Price Source does not retrospectively publish or announce a Floating Price, in each case, on or before the fifth Business Day following the first Trading Day on which the Market Disruption Event first occurred or existed, then the Floating Price for each Disrupted Day shall be determined by taking the arithmetic mean of quotations requested from four leading dealers in the relevant market that are unaffiliated with either Party and mutually agreed upon by the Parties ("Specified Dealers"), without regard to the quotations with the highest and lowest values, subject to the following qualifications:

- 1) If exactly three quotations are obtained, the Floating Price for each such Disrupted Day will be the quotation that remains after disregarding the quotations having the highest and lowest values.
- 2) If fewer than three quotations are obtained, the Floating Price for each such Disrupted Day will be the average of the quotations obtained.
- 3) If the Parties cannot agree upon four Specified Dealers, then each of the Parties will, acting in good faith and in a commercially reasonable manner, select up to two Specified Dealers separately, and those selected dealers shall be the Specified Dealers.

Unless otherwise agreed, if at any time the Parties agree on a substitute Floating Price for any Disrupted Day, then such substitute Floating Price shall be the Floating Price for such Disrupted Day, notwithstanding the subsequent publication or announcement of a Delayed Floating Price by the relevant Price Source or any quotations obtained from Specified Dealers.

"Determination Period" means each calendar month a part or all of which is within the Delivery Period of a Transaction.

"Exchange" means, in respect of a Transaction, the exchange or principal trading market specified as applicable to the relevant Transaction.

"Floating Price" means a Contract Price specified in a Transaction that is based upon a Price Source.

"Market Disruption Event" means, with respect to any Price Source, any of the following events:

(a) the failure of the Price Source to announce, publish or make available the specified Floating Price or information necessary for determining the Floating Price for a particular day; (b) the failure of trading to commence on a particular day or the permanent discontinuation or material suspension of trading in the relevant options contract or commodity on the Exchange, RTO or in the market specified for determining a Floating Price; (c) the temporary or permanent discontinuance or unavailability of the Price Source; (d) the temporary or permanent closing of any Exchange or RTO specified for determining a Floating Price; or (e) a material change in the formula for or the method of determining the Floating Price by the Price Source or a material change in the composition of the Product.

"Price Source" means, in respect of a Transaction, a publication or such other origin of reference, including an Exchange or RTO, containing or reporting or making generally available to market participants (including by electronic means) a price, or prices or information from which a price is determined, as specified in the relevant Transaction.

“RTO” means any regional transmission operator or independent system operator.

“RTO Transaction” means a Transaction in which the Price Source is an RTO.

“Trading Day” means a day in respect of which the relevant Price Source ordinarily would announce, publish or make available the Floating Price.

- (b) Corrections to Published Prices. If the Floating Price published, announced or made available on a given day and used or to be used to determine a relevant price is subsequently corrected by the relevant Price Source (i) within 30 days of the original publication, announcement or availability, or (ii) in the case of RTO Transactions only, within such longer time period as is consistent with the RTO’s procedures and guidelines, then either Party may notify the other Party of that correction and the amount (if any) that is payable as a result of that correction. If, not later than thirty (30) days after publication or announcement of that correction, a Party gives notice that an amount is so payable, the Party that originally either received or retained such amount will, not later than three (3) Business Days after such notice is effective, pay, subject to any applicable conditions precedent, to the other Party that amount, together with interest at the Interest Rate for the period from and including the day on which payment originally was (or was not) made to but excluding the day of payment of the refund or payment resulting from that correction. Notwithstanding the foregoing, corrections shall not be made to any Floating Prices agreed upon by the Parties or determined based on quotations from Specified Dealers pursuant to paragraph (a) above unless the Parties expressly agree otherwise.
- (c) Rounding. When calculating a Floating Price, all numbers shall be rounded to four (4) decimal places. If the fifth (5th) decimal number is five (5) or greater, then the fourth (4th) decimal number shall be increased by one (1), and if the fifth (5th) decimal number is less than five (5), then the fourth (4th) decimal number shall remain unchanged.

#### **ARTICLE FOUR: REMEDIES FOR FAILURE TO DELIVER/RECEIVE**

Insert the words “or Transaction” after the word “Product” in the third line of Section 4.1.

Insert the words “or Transaction” after the word “Product” in the third line of Section 4.2.

Insert the following as new Section 4.3: “Mitigation. Each Party has a duty to mitigate damages under this Agreement and will use commercially reasonable efforts to minimize any damages it may incur resulting from the other Party’s performance or nonperformance hereunder.”

Insert the following as new Section 4.4: “Exclusivity. So long as any failure of Seller to schedule or deliver, or any failure of Buyer to schedule or receive, a Product hereunder does not constitute or result in an Event of Default as defined in Article V hereof, the remedies specified in this Article IV shall be the exclusive remedies available to Buyer for any failure of Seller to Schedule or deliver any Product hereunder, and to Seller for any failure of Buyer to schedule or receive a Product hereunder, and no other liability under any theory of law or equity shall attach in connection with such failure.”

#### **ARTICLE FIVE: EVENTS OF DEFAULT; REMEDIES**

Section 5.1(a) is amended by changing “three (3) Business Days” to “five (5) Business Days”.

Section 5.1(d) is amended by adding the following after “Bankrupt”: “, provided, however, if the presentation of an involuntary petition for the winding-up or liquidation of a party (an “Involuntary Proceeding”) is commenced, such Involuntary Proceeding shall not be a Default in respect of that party unless the Involuntary Proceeding has not been withdrawn, dismissed, discharged, stayed or restrained within 60 days of its commencement and in such event the other party shall be entitled to exercise its rights and remedies under this Agreement in respect thereof;”.

Section 5.1(g) is amended by (i) adding “after the Effective Date of this Agreement” after the words “occurrence and continuation” and (ii) deleting the phrase “, or becoming capable at such time of being declared,” after the word “becoming” and before the word “immediately” in the eighth and ninth lines.

Section 5.2 is amended to reverse the placement of “(i)” and “to” in the first sentence.

Section 5.2 is amended to delete the following phrase from the last two lines: “under applicable law on the Early Termination Date, as soon thereafter as is reasonably practicable).” The following shall be added to the end of Section 5.2: “under applicable law on the Early Termination Date, then each such Transaction (individually, an “Excluded Transaction” and collectively, the “Excluded Transactions”) shall be terminated as soon thereafter as reasonably practicable), and upon termination shall be deemed to be a Terminated Transaction and the Termination Payment payable in connection with all such Transactions shall be calculated in accordance with Section 5.3 below. The Gains and Losses for each Terminated Transaction shall be determined by calculating the amount that would be incurred or realized to replace or to provide the economic equivalent of the remaining payments or deliveries in respect of that Terminated Transaction. The Non- Defaulting Party (or its agent) may determine its Gains and Losses by reference to information either available to it internally or supplied by one or more third parties including, without limitation, quotations (either firm or indicative) of relevant rates, prices, yields, yield curves, volatilities, spreads or other relevant market data in the relevant markets. Third parties supplying such information may include, without limitation, dealers in the relevant markets, end-users of the relevant product, information vendors and other sources of market information.”

In Section 5.7, delete “(a)” and the phrase “or (b) a Potential Event of Default” in the second line.

#### **ARTICLE SEVEN: LIMITATIONS**

Section 7.1 shall be amended by: (a) deleting “Except as set forth herein” from the first sentence and “Unless expressly herein provided” from the fifth sentence and (b) adding “Notwithstanding anything in this Agreement to the contrary” to the beginning of the fifth sentence, and “set forth in this Agreement” after “indemnity provision” and before “or otherwise”, also in the fifth sentence.

#### **ARTICLE EIGHT: CREDIT AND COLLATERAL REQUIREMENTS**

Section 8.1(a) is amended by adding the phrase “, provided however, for the purposes of this (i) and (ii), if Party B’s financial statements are publicly available electronically, then Party B shall be deemed to have met this requirement” after the phrase “a copy of Party B’s quarterly report containing unaudited consolidated financial statements for such fiscal quarter”.

Section 8.2(a) is amended by adding the phrase “, provided however, for the purposes of this (i) and (ii), if Party A’s financial statements are publicly available electronically, then Party A shall be deemed to have met this requirement” after the phrase “a copy of Party A’s quarterly report containing unaudited consolidated financial statements for such fiscal quarter”.

#### **ARTICLE TEN: MISCELLANEOUS**

Section 10.4 is amended to add the phrase “unless a Claim is due to such Party’s gross negligence, willful misconduct or bad faith” at the end of the first sentence of Section 10.4.

In Section 10.5, in clause (ii) thereof replace the words “affiliate” and “affiliate's” with, respectively, “Affiliate” and “Affiliate's”, and in clause (iii) thereof immediately after the words “substantially all of the assets” insert the words “of such Party and”.

In Section 10.5, delete the phrase “which consent may be withheld in the exercise of its sole discretion” in the first line and replace it with “which consent shall not be unreasonably withheld.”

In Section 10.6 change “State of New York” to “State of California” and add the following after the last line: “FOR ANY ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY

TRANSACTION, EACH PARTY SUBMITS TO THE JURISDICTION OF THE STATE COURTS OF THE STATE OF CALIFORNIA LOCATED IN ALAMEDA COUNTY, CALIFORNIA, AND EACH PARTY EXPRESSLY WAIVES ANY OBJECTION IT MAY HAVE TO SUCH JURISDICTION OR THE CONVENIENCE OF SUCH FORUM.”

Section 10.7 is amended by removing all reference to notice by facsimile. The Parties agree that there will be no Notice by facsimile.

Section 10.8 is amended by adding the following to the last sentence: “and the rights of either Party pursuant to (i) Article 5, (ii) Section 7.1, (iii) Section 10.11, (iv) Waiver of Jury Trial provisions, if applicable, (v) Arbitration provisions, if applicable, (vi) the obligation of either Party to make payments hereunder, (vii) Section 10.6, and (viii) Section 10.13 shall also survive the termination of the Agreement or any Transaction.”.

Section 10.11 Confidentiality is amended to read in its entirety as follows:

“If the Parties have elected on the Cover Sheet to make this Section 10.11 applicable to this Master Agreement, the contents of the Transactions and all other documents relating to this Agreement, if any, and any information made available by a Party and/or any guarantor of a Party ("Disclosing Party") to the other Party ("Non-Disclosing Party") with respect to this Agreement or any Transaction, if any, are confidential and shall not be disclosed to any third party, except for such information (i) as may become generally available to the public, (ii) as may be required or appropriate in response to any summons, subpoena, request from a regulatory body, or otherwise in connection with any litigation or to comply with any applicable law, order, regulation, ruling, regulatory request, accounting disclosure rule or standard or any exchange, control area or independent system operator rule, (iii) as may be obtained from a non-confidential source that disclosed such information in a manner that did not violate its obligations to the Disclosing Party, if any, in making such disclosure, or (iv) as may be furnished to the Non-Disclosing Party's Affiliates, and to each of such person's auditors, attorneys, advisors or lenders which are required to keep the information that is disclosed in confidence. Notwithstanding the foregoing, a Party may disclose any one or more of the commercial terms of a Transaction (other than the name of the other Party unless otherwise agreed to in writing by the Parties) to any industry price source for the purpose of aggregating and reporting such information in the form of a published energy price index. The Parties shall be entitled to all remedies available at law or in equity to enforce, or seek relief in connection with, this confidentiality obligation. Party A and Party B acknowledge and agree that the Master Agreement and any Confirmations executed in connection therewith are subject to the California Public Records Act (Government Code Section 6250 et seq.). Nothing herein shall be deemed or construed to affect the rights or obligations of Party A or Party B to withhold or disclose any such Confidential Information in accordance with the California Public Records Act. The Parties will notify each other in writing promptly upon receipt of any request for information regarding the Master Agreement and/or any Confirmations executed in connection therewith pursuant to the California Public Records Act.”

The following shall be added as Section 10.12:

(a) Absent the agreement of all Parties to the proposed change, the standard of review for changes to any rate, charge, classification, term or condition of this Agreement, whether proposed by a Party (to the extent that any waiver in subsection (b) below is unenforceable or ineffective as to such Party), a non-party or FERC acting *sua sponte*, shall be the "public interest" standard of review set forth in United Gas Pipe Line Co. v. Mobile Gas Service Corp., 350 U.S. 332 (1956) and Federal Power Commission v. Sierra Pacific Power Co., 350 U.S. 348 (1956) and clarified by NRG Power Marketing LLC v. Maine Pub. Util. Comm'n, 558 U.S. (2010) (commonly known as the "Mobile-Sierra" doctrine).

(b) In addition, and notwithstanding the foregoing subsection (a), to the fullest extent permitted by applicable law, each Party, for itself and its successors and assigns, hereby expressly and irrevocably waives any rights it can or may have, now or in the future, whether under §§ 205 and/or 206 of the Federal Power Act or otherwise, to seek to obtain from FERC by any means, directly or indirectly (through complaint, investigation or otherwise), and each hereby covenants and agrees not at any time to seek to so obtain, an

order from FERC changing any section of this Agreement specifying the rate, charge, classification, or other term or condition agreed to by the Parties, it being the express intent of the Parties that, to the fullest extent permitted by applicable law, neither Party shall unilaterally seek to obtain from FERC any relief changing the rate, charge, classification, or other term or condition of this Agreement, notwithstanding any subsequent changes in applicable law or market conditions that may occur. In the event it were to be determined that applicable law precludes the Parties from waiving their rights to seek changes from FERC to their market-based power sales contracts (including entering into covenants not to do so) then this subsection (b) shall not apply, provided that, consistent with the foregoing subsection (a), neither Party shall seek any such changes except solely under the "public interest" application of the "just and reasonable" standard of review and otherwise as set forth in the foregoing section (a).

The following new Section shall be added as Section 10.13: Party A hereby acknowledges and agrees that Party B is organized as a Joint Powers Authority in accordance with the Joint Powers Act of the State of California (Government Code Section 6500 et seq.) pursuant to a Joint Powers Agreement dated December 19, 2008 (the "Joint Power Agreement") and is a public entity separate from its members. Party B shall solely be responsible for all debts, obligations and liabilities accruing and arising out of this Agreement and Seller agrees that it shall have no rights and shall not make any claim, take any actions or assert any remedies against any of Party B's members in connection with this Agreement or any of the Transactions.

The following shall be added as new Section 10.13:

#### **Dispute Resolution**

- (a) Informal Dispute Resolution. Any dispute arising under this Agreement between Seller and Buyer shall, at the request of either Party, be referred to a senior representative of each of the Parties for resolution on an informal basis as promptly as practicable. In the event the senior representatives are unable to resolve the dispute, the matter may be submitted to non-binding arbitration or mediation on such terms and conditions as the Parties may agree;
- (b) Litigation. In the event the Parties are unable to satisfactorily resolve a dispute within thirty (30) days of referral to senior representatives or within such other time as may be otherwise determined by agreement, either Party may initiate litigation in a court of law with jurisdiction located in Alameda County, California.
- (c) Remedies. Nothing in this Section 10.13 shall be construed to delay the exercise of any remedies provided in this Agreement pending the resolution of any dispute.

#### **SCHEDULE M:**

In section D, the language of Section 3.4 will be amended to read as follows:

Section 3.4 Authorizations. On or before the Effective Date and as a condition to the obligations of the other Party under this Agreement, Governmental Entity or Public Power System shall provide the other Party hereto a copy of the Board resolution or other document evidencing the necessary authorization of that Party's governing authority with respect to the execution, delivery and performance by Governmental Entity or Public Power System of this Master Agreement and the Confirmation.

**SCHEDULE P: PRODUCTS AND RELATED DEFINITIONS**

The following definition is hereby added to Schedule P:

“CAISO Firm” means with respect to a Transaction, a Product under which the Seller shall sell and the Buyer shall purchase a quantity of energy equal to the hourly quantity without Ancillary Services (as defined in the California Independent System Operator (“CAISO”) Tariff) that is or will be scheduled as a schedule coordinator to schedule coordinator transaction pursuant to the applicable tariff and protocol provisions of the CAISO tariff as amended from time to time, for which the only excuse for failure to deliver or receive is “an Uncontrollable Force” as defined in the CAISO Tariff.

IN WITNESS WHEREOF, the Parties have caused this Master Agreement to be duly executed as of the date first above written.

East Bay Municipal Utility District

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date : \_\_\_\_\_

Marin Clean Energy

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date : \_\_\_\_\_

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**DISCLAIMER:** This Master Power Purchase and Sale Agreement was prepared by a committee of representatives of Edison Electric Institute (“EEI”) and National Energy Marketers Association (“NEM”) member companies to facilitate orderly trading in and development of wholesale power markets. Neither EEI nor NEM nor any member company nor any of their agents, representatives or attorneys shall be responsible for its use, or any damages resulting therefrom. By providing this Agreement EEI and NEM do not offer legal advice and all users are urged to consult their own legal counsel to ensure that their commercial objectives will be achieved and their legal interests are adequately protected.

APPROVED AS TO FORM

878 6/8/15  
Office of General Counsel



## RENEWABLE ENERGY CONFIRMATION LETTER

**"CONFIDENTIALITY NOTICE: The information is intended only for the use of the individual or entity named below. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or taking of any action in reliance on the contents of this information is strictly prohibited. If you have received this transmission in error, please immediately notify us by telephone to arrange for return of the documents."**

Date: \_\_\_\_\_, 2015  
To: MARIN CLEAN ENERGY  
Attention: Power Procurement  
Fax No.: (415) 459-8095

From: East Bay Municipal Utility District  
Re: Deal Number:  
Agreement Number:  
Fax No.:

The purpose of this Confirmation is to confirm the terms and conditions of the transaction (the "Transaction") agreed upon by Buyer and Seller (each a "Party" and collectively the "Parties") as of the Trade Date specified below. This Confirmation supplements, forms a part of, and is subject to that certain Master Power Purchase and Sale Agreement dated \_\_\_\_\_, 2015 between Buyer and Seller (the "Master Agreement"). All provisions contained in or incorporated by reference in the Master Agreement will govern this Confirmation except as expressly modified herein. The Master Agreement shall be governed by the laws of the state governing the Master Agreement as therein set forth regardless of the law governing this Confirmation as set forth below. Subject to any contrary provisions in the Master Agreement, in the event of any inconsistency between the provisions of the Master Agreement and this Confirmation, this Confirmation will prevail for the purpose of this Transaction.

### **We confirm the following terms of our Transaction:**

**Buyer:** MARIN CLEAN ENERGY  
1125 Tamalpais Avenue  
San Rafael, CA 94901  
Attn: Internal Operations, Tel (415) 464-6035  
[gbrehm@mcecleanenergy.org](mailto:gbrehm@mcecleanenergy.org)

**Seller:** East Bay Municipal Utility District  
375 11<sup>th</sup> Street  
Oakland, CA 94607  
Attn: Energy Contract Administration M/S #205, Tel: (510) 287-1144  
[dbeyer@ebmud.com](mailto:dbeyer@ebmud.com)

**Trade Date:** \_\_\_\_\_, 2015

**Delivery Term:**

The initial Delivery Term shall be ten years from and including the first date upon which the Product is delivered by Seller to Buyer ("Date of First Delivery"). The Date of First Delivery shall be the later of Trade Date or as soon as reasonably practicable for both Parties following the date upon which the Agreement has been approved and executed by both Parties.

The Parties may agree to an Additional Delivery Term of three (3) years, provided that: (i) the Parties approve and execute in writing an agreement to extend the Transaction for three (3) years; (ii) such agreement is executed at least one (1) year prior to the last day of the initial Delivery Term; and (iii) the extension is subject to all applicable terms and conditions of the Transaction, as described herein and in the Master Agreement.

The Parties may agree to a second Additional Delivery Term of three (3) years, subject to the conditions described in the paragraph above.

**Price:**

For each MWh of Product delivered up to 90,000 MWh annually: Buyer shall pay to Seller an Energy price of the applicable CAISO nodal Day-Ahead LMP/MWh plus \$[REDACTED]/MWh renewable energy premium.

For each MWh of Product delivered between 90,001 and up to 120,000 MWh annually: Buyer shall pay to Seller an Energy price of the applicable CAISO nodal Day-Ahead LMP/MWh plus \$[REDACTED]/MWh renewable energy premium.

For each MWh of Product delivered above 120,001 MWh annually: Buyer shall pay to Seller an Energy price of the applicable CAISO nodal Day-Ahead LMP/MWh plus \$[REDACTED]/MWh renewable energy premium.

**Product:**

Renewable energy which meets the criteria for section 399.16(b)(1) of the California Public Utilities Code, comprised of: (1) Energy from the Project provided on an as available and use limited basis, subject to the Operating Constraints and (2) Renewable Energy Credits generated by the Project and transferred by Seller through a WREGIS Certificate to Buyer under this Confirmation. Seller provides a weekly pre-schedule to Buyer. Such pre-schedule is subject to Seller's Operating Constraints, and the Energy component of the Product shall be CAISO Firm once scheduled and accepted into the CAISO Day-Ahead market.

**Project:**

"Project" means either or both of the Pardee or the Camanche small hydroelectric projects.

**Contract Quantity:**

All Energy from the Project (not to exceed 40 MW during any hour) up to a total annual amount of 120,000 MWh per calendar year, subject to Seller's rights as provided in this Confirmation.

In addition, if Seller has not provided notice to Buyer by October 1 of the preceding calendar year that it intends to use all generation in excess of 120,000

MWhs to serve its load, Buyer may opt, by providing written notice to Seller no later than March 1 of each year, to designate an additional quantity of Energy to buy for that calendar year at the prices set forth above and subject to the other terms and conditions of this Confirmation. If no additional quantity is designated by the Buyer by March 1, Seller retains the right to use the remaining quantity of renewable Energy available from the Project for the calendar year at its discretion.

**Delivery Point:**

Generators PNode: CAMCHE\_1\_PL1X3 & PARDEB\_6\_UNITS

**Renewable Energy Credits:**

To provide evidence of Green Attributes, Seller shall transfer to Buyer the Renewable Energy Credits to Buyer's WREGIS account(s) within fifteen (15) Business Days after WREGIS creates certificates from each month's meter data (approximately four months after flow under current WREGIS operating conditions). REC deliveries will be made by transfer of WREGIS Certificates to Buyer's WREGIS account pursuant to WREGIS Operating Rules. Seller shall, at its option, transfer the WREGIS Certificate using forward certificated transfer or any other transfer permitted under the WREGIS Operating Rules. With respect to REC deliveries, Product flow shall be considered the month in which the WREGIS Certificates are created by WREGIS under current operating conditions. Each annual delivery period will coincide with the RPS calendar year, which is currently Jan 1<sup>st</sup> through December 31<sup>st</sup>.

**Payment:**

Settlements are monthly at CAISO T+12 availability. An illustrative standard invoice is set forth in Attachment A to this Confirmation. Invoicing will occur on or after the 25<sup>th</sup> of the month following generation, based upon the CAISO T+12 statement. Buyer's payment to Seller will be made via ACH transfer within 15 calendar days of receipt of invoice or the next Business Day after the 15<sup>th</sup> day if the 15<sup>th</sup> day is not a Business Day.

**Scheduling:**

Pursuant to WECC and CAISO requirements to the Delivery Point. Seller will typically provide a weekly pre-schedule each Thursday, and if not on Thursday, on Friday, during the Delivery Term. Seller may, according to its sole judgment and discretion, pre-schedule generation to maximize CAISO nodal LMP value, to comply with its Operational Constraints, or for any other purpose that is consistent with the performance of its obligations under this Agreement. Schedules will be communicated via IST, following procedures outlined below.

Seller Scheduling Contact: (510) 986-7559

Buyer Scheduling Contact: (415) 464-6037.

**ADDITIONAL TERMS:**

- a) Seller, and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement that: (i) the Project qualifies and is certified by the CEC as an Eligible Renewable Energy Resource ("ERR") as such term is defined in Public Utilities Code Section 399.12 or Section 399.16; and (ii) the Project's output delivered to Buyer qualifies under the requirements of the California Renewables Portfolio Standard. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law.
- b) Seller shall agree to reasonably assist Buyer with Buyer's California Renewables Portfolio Standard Program compliance filings as requested by Buyer. In connection with the foregoing, neither Seller nor its affiliates shall be required to (i) expend or incur any legal costs (either internal or external) in providing such assistance or (ii) prepare or defend a filing or otherwise advocate on behalf of Buyer.
- c) Governing Law. This agreement and the rights and duties of the Parties hereunder shall be governed by and construed, enforced and performed in accordance with the laws of the state of California, without regard to principles of conflicts of law. TO THE EXTENT ENFORCEABLE AT SUCH TIME, EACH PARTY WAIVES ITS RESPECTIVE RIGHT TO ANY JURY TRIAL WITH RESPECT TO ANY LITIGATION ARISING UNDER OR IN CONNECTION WITH THIS AGREEMENT.
- d) No-Fault Termination. If (1) Seller is not able to generate and deliver Energy from the Pardee Project due to a Forced Outage or Force Majeure or economic outage extending longer than ninety consecutive days or one hundred eighty non-consecutive days in any 12-month period, or (2) Seller is not able to generate and deliver Energy from the Camanche Project due to a Forced Outage or Force Majeure or economic outage extending longer than twelve consecutive months, or (3) Seller's representations and warranties set forth in Section (a) above and/or in the definition of Green Attributes of this Confirmation are no longer true due to a change in law or otherwise and cannot be cured by Seller's commercially reasonable efforts, then either Party shall have the right to terminate this Confirmation upon delivery of notice to the other Party and neither Party shall owe or be liable to the other Party for any payment for damages or for a termination payment nor shall any such termination constitute an Event of Default.
- e) Seller shall, at its sole cost and expense, take all actions and execute all documents or instruments necessary to ensure that the RECs sold hereunder can be transferred to Buyer utilizing WREGIS. Seller shall comply with all laws, including, without limitation, the WREGIS Operating Rules effective as of the date of this Confirmation regarding the certification and transfer of RECs sold hereunder to Buyer. During the Delivery Term, Seller shall have in-place, or shall submit documentation to establish, an account with WREGIS. Seller shall transfer RECs to Buyer in accordance with WREGIS reporting protocols and WREGIS Operating Rules. Seller shall be responsible for all customary expenses associated with WREGIS Certificate issuance fees and utilizing WREGIS to transfer the RECs to Buyer, or its designee, except for any costs incurred by Buyer with respect to Buyer's registration with WREGIS and Buyer's WREGIS account. Buyer shall cooperate and do all things necessary on its part in order to enable Seller to fulfill its

responsibilities related to the creation and transfer of WREGIS Certificates and compliance with WREGIS requirements relevant to this Agreement.

- f) Seller hereby provides and conveys all Green Attributes associated with all electricity generation from the Project to Buyer as part of the Product being delivered. Seller represents and warrants that Seller holds the rights to all Green Attributes from the Project, and Seller agrees to convey and hereby conveys all such Green Attributes to Buyer as included in the delivery of the Product from the Project.
- g) Because WREGIS Certificates will only be created for whole MWh amounts of output generated, any fractional MWh amounts will be carried forward during the Delivery Term until sufficient generation is accumulated for the creation of a WREGIS Certificate.
- h) Seller shall be responsible, at its sole expense, for validating, adjusting, and disputing data with WREGIS so that the data from the Project's meter(s) corresponds with the quantity of RECs conveyed hereunder. Upon request Seller shall provide Buyer with copies of all correspondence or documentation to or from WREGIS with respect to any such validation, adjustment, or dispute.
- i) Without limiting Seller's obligations, if a WREGIS Certificate deficit is caused solely by an error or omission of WREGIS or the California Independent System Operator, the Parties shall cooperate in good faith to cause WREGIS to correct its error or omission. If WREGIS changes the WREGIS Operating Rules after the Confirmation Trade Date or applies the WREGIS Operating Rules in a manner inconsistent with this Confirmation, the Parties promptly shall modify this Agreement as reasonably required to preserve the intended economic benefits of this Transaction for both Parties, and so cause and enable Seller to transfer to Buyer's WREGIS Account the RECs sold to Buyer hereunder.
- j) Transfer of RECs: Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the Renewable Energy Credits transferred to Buyer conform to the definition and attributes required for compliance with the California Renewables Portfolio Standard. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law.
- k) Tracking of RECs in WREGIS: Seller warrants that all necessary steps to allow the Renewable Energy Credits transferred to Buyer to be tracked in the Western Renewable Energy Generation Information System will be taken prior to the first delivery under the contract.
- l) Buyer acknowledges that each Project is subject to Operating Constraints and that Seller's delivery of the Product is expressly subject to Seller's operation of the Projects in order to meet such Operating Constraints.
- m) Scheduling Procedures and arrangements for Inter-SC Trades.

The Parties agree that Seller will self-schedule the Project Energy allocated to Buyer into the Integrated Forward Market. Buyer will receive payment from the CAISO for the Project Energy scheduled to Buyer via Physical Inter-SC Trades submitted to the CAISO by Seller. Seller shall invoice Buyer for Energy and Renewable Attributes under the provisions in the Agreement and

Attachment A. Payment shall be provided by Buyer to Seller consistent with price, payment, and invoice provisions in the agreement and Attachment A. Seller's delivery obligation to Buyer for Project Energy shall be satisfied by the following scheduling procedures. The Parties agree to communicate and cooperate as necessary in order to address any scheduling issues as they may arise, and to work together in good faith to resolve them informally, consistent with the terms of the Agreement.

**Physical Inter-SC Trades.** Before the deadline for submission of ISTs in the Day-Ahead Market, Seller and Buyer shall submit, or cause their SCs to submit, a Physical Inter-SC Trade "from" Seller's SC "to" Buyer's SC at the IST Delivery Point. Such Inter-SC Trade shall specify the MW amounts for the time periods as set forth in the preschedule submitted by Seller to the CAISO in the Day-Ahead Market. Such Inter-SC Trades shall be entered in the Day-Ahead Market. With regard to such Inter-SC Trades, Buyer shall perform (or cause to be performed) such actions as necessary to submit an Inter-SC trade by the "to" SC, and Seller shall perform (or cause to be performed) such actions as necessary by the "from" SC in an Inter-SC Trade.

**Converted Physical Trades.** Whether the Parties' respective Scheduling Coordinators are notified through SIBR or otherwise, Buyer shall reimburse Seller for the value of the Converted Physical Trade. Payment shall be computed hourly by multiplying the hourly EZ Gen Hub Price published for the Day-Ahead Market times the Converted Quantity for the corresponding hour. If the result of this calculation is negative, then a credit shall be made to Buyer rather than a payment to Seller.

**Settlement if IST is not used or available.** If the Parties do not use an IST to complete a Physical Inter-SC Trade as described above, whether due to action or inaction of either Party, or by agreement, or in the event that the IST process is unavailable due to a Force Majeure event, change to or suspension of the CAISO Tariff, or otherwise, or if the CAISO IST process otherwise does not function in a manner that enables a Physical Inter-SC Trade, the following procedure will apply: Seller shall credit to Buyer outside the CAISO market settlement process an amount computed hourly by multiplying the DA-LMP at the Delivery Point times the corresponding MW quantity of the required (but unimplemented) IST for that hour. If the result of the above calculation is negative, then a payment shall be made to Seller rather than a credit to Buyer. If, after payment is made as provided herein, the transaction does become subject to the IST process, any payment made pursuant to this Section shall be refunded as appropriate to accomplish the purposes of these Scheduling Procedures.

**Settlement if IST is refused by CAISO.** If the CAISO does not accept an IST under circumstances in which it should under the terms of the CAISO Tariff, both Parties will settle in accordance with the procedure described in the paragraph above.

- n) Except to the extent permitted under this Confirmation, Seller shall not assign, transfer, convey, encumber, sell or otherwise dispose of all or any part of the Contract Quantity of the Product to any person other than Buyer; provided that under the CAISO Tariff Seller may make delivery-day changes to the preschedule to reflect Operating Constraints, and in such case, any transaction related to such delivery-day change would not be a violation by Seller of its obligations under this Confirmation.
- o) Seller's Sale of Ancillary Services and Associated Energy. For any hour Seller has the right to

offer Ancillary Services to the CAISO and sell associated Energy produced by the Project to the extent that such bids are accepted. A minimum of 3,000 MWhs per year are reserved for Ancillary Energy dispatched by the CAISO.

- p) Seller's Sale of Imbalance Energy. For any hour during the Term, Seller may sell to a third party or third parties Imbalance Energy. Seller shall use reasonable efforts to minimize positive Imbalance Energy, subject to Operating Constraints.
- q) Transmission Losses and Project Use. Except as specifically stated otherwise, all Energy amounts specified in this Confirmation are amounts as provided at the Delivery Point, net of any Transmission Losses incurred by Seller transmitting such Energy to the Delivery Point and net of any Project use of Energy. All Schedules shall be for amounts to be delivered to Buyer or to be provided on Buyer's behalf at the Delivery Point. As of the Effective Date, the Parties estimate Transmission Losses be less than one (1) percent of the Energy that is delivered under this Confirmation at the Delivery Point. To the extent that the CAISO deems deliveries at the Delivery Point to be in the full amount of Energy that is produced or that exists at the location of the Project, or otherwise recognizes that deliveries from Seller to Buyer at the Delivery Point are not net of Transmission Losses, then amounts so deemed by the CAISO shall also be deemed delivered or provided to Buyer for purposes of this Confirmation.

#### **ADDITIONAL DEFINITIONS:**

"Agreement" or "agreement" means this Confirmation.

"Ancillary Services" shall have the same definition as in the CAISO Tariff.

"CAISO" means the California Independent System Operator.

"CAISO Tariff" means the duly authorized tariff, rules, protocols and other requirements of the CAISO, as amended from time to time.

"commercially reasonable efforts" shall be limited and capped to Seller incurring an aggregate total incremental capital expenditure and expenses of \$10,000 per calendar year of the Delivery Term.

"California Renewables Portfolio Standard" means the renewable energy program and policies established by Senate Bills 1038 and 1078 and 2 (1X) codified in California Public Utilities Code Sections 399.11 et seq. and California Public Resources Code Sections 25740 through 25751, as such provisions are amended or supplemented from time to time.

"CEC" means the California Energy Commission, or any successor entity.

"Converted Physical Trade" or "CPT" means a Physical Inter-SC Trade that is reduced by the CAISO and settled at the EZ Gen Hub Price.

"Converted Quantity" means the MWh difference between the Project's CAISO Schedule from the CAISO's Integrated Forward Market, as applicable, and the associated Physical Inter-SC Trade amount, all as determined by the CAISO.

“CPUC” means the California Public Utilities Commission, or any successor entity.

“DA-LMP” means the Day-Ahead Market LMP.

“Day-Ahead Market” means the CAISO Day-Ahead Market as defined in the CAISO Tariff.

“Delivery Term” shall be defined as set forth above in this Confirmation, and as to the recordation of the RECs, shall include the continued period during which WREGIS creates the applicable WREGIS Certificates as described herein under Renewable Energy Credit.

“EZ Gen Hub Price” means the LMP at TH\_NP15\_GEN-APND, which is the Existing Zone Generation Trading Hub for NP15. This trading hub represents the average price paid to generator resources within NP15.

“Final Schedule” means the Day-Ahead Market Schedule awarded by the CAISO.

“Forced Outage” shall have the same definition as in the CAISO Tariff.

The definition of “Force Majeure” set forth in the Master Agreement with respect to RECs to be transferred hereunder shall include events of Force Majeure that temporarily disrupt or suspend the operation or functioning of WREGIS preventing the transfer of RECs between accounts.

“Green Attributes” means any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to the generation from the Project, and its avoided emission of pollutants. Green Attributes include but are not limited to Renewable Energy Credits, as well as: (1) any avoided emission of pollutants to the air, soil or water such as sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO) and other pollutants; (2) any avoided emissions of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change, or otherwise by law, to contribute to the actual or potential threat of altering the Earth’s climate by trapping heat in the atmosphere;<sup>1</sup> (3) the reporting rights to these avoided emissions, such as Green Tag Reporting Rights. Green Tag Reporting Rights are the right of a Green Tag Purchaser to report the ownership of accumulated Green Tags in compliance with federal or state law, if applicable, and to a federal or state agency or any other party at the Green Tag Purchaser’s discretion, and include without limitation those Green Tag Reporting Rights accruing under Section 1605(b) of the Energy Policy Act of 1992 and any present or future federal, state, or local law, regulation or bill, and international or foreign emissions trading program. Green Tags are accumulated on a MWh basis and one Green Tag represents the Green Attributes associated with one (1) MWh of Energy. Green Attributes do not include (i) any energy, capacity, reliability or other power attributes from the Project, (ii) production tax credits associated with the construction or operation of the Project and other financial incentives in the form of credits, reductions, or allowances associated with the project that are applicable to a state or federal income taxation obligation, (iii) fuel-related subsidies or “tipping fees” that may be paid to Seller to

---

<sup>1</sup> Avoided emissions may or may not have any value for GHG compliance purposes. Although avoided emissions are included in the list of Green Attributes, this inclusion does not create any right to use those avoided emissions to comply with any GHG regulatory program.



accept certain fuels, or local subsidies received by the generator for the destruction of particular preexisting pollutants or the promotion of local environmental benefits, or (iv) emission reduction credits encumbered or used by the Project for compliance with local, state, or federal operating and/or air quality permits. If the Project is a biomass or biogas facility and Seller receives any tradable Green Attributes based on the greenhouse gas reduction benefits or other emission offsets attributed to its fuel usage, it shall provide Buyer with sufficient Green Attributes to ensure that there are zero net emissions associated with the production of electricity from the Project.

“Green Tag Purchaser” means Buyer.

“Imbalance Energy” shall have the same definition as in the CAISO Tariff.

“IFM” means Integrated Forward Market as defined in the CAISO Tariff.

“IST” means Inter-SC Trade as defined in the CAISO Tariff.

“LMP” means Locational Marginal Pricing as defined in the CAISO Tariff.

“NERC” means the North American Electric Reliability Corporation.

**Operating Constraints :** This term shall mean factors that affect the amount of water available for release through the hydroelectric facilities at the Project reservoirs.

Such factors include, without limitation, water release requirements and obligations, water rights, water needs, water supply obligations, fisheries requirements, flood control requirements, storage constraints, environmental restrictions, water quality constraints, safe operation of Seller’s facilities, good utility practice, forecast uncertainty, and any other constraints, limitations or restrictions all as determined in Seller’s sole discretion, and subject to Seller’s compliance with applicable existing settlement agreements and contracts, all relevant existing and future federal, state and local legislation, rules, regulations, and administrative orders, and Seller’s policies and procedures for complying with the above constraints.

“Physical Inter-SC Trade” means an Inter-SC Trade for Energy submitted to the CAISO for settlement, and subject to physical validation at the Delivery Point in accordance with the CAISO Tariff, used for the purpose of offsetting the CAISO payment to Seller for Energy.

“Project” means either the Pardee or the Camanche small hydroelectric projects owned or controlled by Seller and located in Calaveras and San Joaquin Counties, California.

“Renewable Energy Credit” or “REC” has the meaning set forth in the California Public Utilities Code Section 399.12 and CPUC Decision 08-08-028, as may be amended or supplemented from time to time or as further supplemented by applicable law, is evidenced by a WREGIS Certificate, and is equivalent to one (1) MWh of Energy from the Project which shall be qualified and certified as an ERR.

“SC” means Scheduling Coordinator as defined in the CAISO Tariff.

“SIBR” means the CAISO Scheduling Infrastructure and Business Rules system.

Deal Number:

“WECC” means the Western Electricity Coordinating Council or its successor.

“WREGIS” means Western Renewable Energy Generating Information System.

“WREGIS Certificate” has the same meaning as “Certificate” as defined by WREGIS in the WREGIS Operating Rules and are designated by applicable law as eligible for complying with the California Renewables Portfolio Standard.

“WREGIS Operating Rules” means the operating rules and requirements adopted by WREGIS, as amended from time to time.

Notwithstanding anything in the Master Agreement to the contrary, this Confirmation will become effective only upon its execution by both Parties. Please confirm that the foregoing correctly sets forth the terms of our agreement by executing the copy of this Confirmation and returning it to us via mail or email.

**EAST BAY MUNICIPAL UTILITY  
DISTRICT**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**MARIN CLEAN ENERGY**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

APPROVED AS TO FORM

STP 6/8/15  
Office of General Counsel

Deal Number:

**ATTACHMENT A**  
**Form of Invoice**

MONTHLY INVOICE - May 2015

Please Remit To:  
East Bay Municipal Utility District  
Mail Remittance MS 101  
PO Box 24055  
Oakland CA 94623  
United States

Page: 1  
Invoice No:  
Invoice Date: 6/3/2015  
Customer #:

Bill To:  
Marin Clean Energy  
Attn: Administrative Assistant  
(415) 464-6028  
[invoices@MCECleanenergy.org](mailto:invoices@MCECleanenergy.org)

AMOUNT DUE: \$ ██████ USD

AMOUNT REMITTED

For billing questions, please call:  
Dave Beyer at (510) 287-1144 MS 205 or  
Ramona Gonzalez at (510) 287-1619, MS 205 Charmin Baaqee at (510) 287-7026, MS 205

Line	Description	Quantity	Unit Amount	Net Amount
ACH transfer is due on the last day of the calendar month, or the 15th day after receipt of the invoice (or next business day after this tenth day), whichever is later.				
1	Monthly Energy Charge for Month XX			
	Pardee Powerhouse Monthly Energy Charge	3983.1 MWWhs	See G-2	\$141,690.16
	Camanche Powerhouse Monthly Energy Charge	0 MWWhs	See G-2	\$0.00
	Total Monthly Energy Charge	3983.1 MWWhs		\$141,690.16
2	Monthly Environmental Attribute Charge for Deliveries below 90,000 MWWh month XXX	3000	MWWhs delivered multiplied by	\$ ██████
3	Monthly Environmental Attribute Charge for Deliveries above 90,000 MWWh Month XX	973	MWWhs Delivered multiplied by	\$ ██████
	Calendar REC Sales to Date	90,973 MWWhs		
Note: Environmental Attribute quantity should not exceed Energy Sales, except as required for rounding-up or rounding-down to whole MWWh (round-down when decimal less than 0.5, round-up otherwise)				
4	Reserved for other transactions			
5	Converted Physical Trade Credit	23	Total from Page G-3	\$1,287.04
6	Credit for January REC's not available in WREGIS	5	\$ ██████	-\$ ██████
7	Other Credits / Charges	0		\$0.00
SUBTOTAL:				\$ ██████
TOTAL AMOUNT DUE:				\$ ██████

Please transfer payment to:  
Wells Fargo Bank  
Wells Fargo Bank Government Banking  
  
ABA: 121000248  
Credit EBMUD Account # 4121064679  
Confirmation: [vwong@ebmud.com](mailto:vwong@ebmud.com) [RamonaG@ebmud.com](mailto:RamonaG@ebmud.com)

This invoice example is to illustrate WREGIS REC's falling short of energy for the month, the crediting of REC's previously billed but not available in WREGIS, and a Converted Physical Trade (CPT) transaction.

Exhibit G  
Converted Physical Trade Credit

			MW Quantity of Converted Physical Trade																								
Date	Market Type	Generator (P or C)	HE 1	HE 2	HE 3	HE 4	HE 5	HE 6	HE 7	HE 8	HE 9	HE 10	HE 11	HE 12	HE 13	HE 14	HE 15	HE 16	HE 17	HE 18	HE 19	HE 20	HE 21	HE 22	HE 23	HE 24	
14-May-15		C	2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3																								
			CAISO Day Ahead EZ Gen Hub Price (TH_NP15_GEN_APND)																								
Date		Generator (P or C)	HE 1	HE 2	HE 3	HE 4	HE 5	HE 6	HE 7	HE 8	HE 9	HE 10	HE 11	HE 12	HE 13	HE 14	HE 15	HE 16	HE 17	HE 18	HE 19	HE 20	HE 21	HE 22	HE 23	HE 24	
14-May-15		C	45.37814 47.47522 47.76766 50.10969 52.62442 56.63034 63.11831 69.26185 62.8103 64.40477																								
			CPT CREDIT																								
Date		Generator (P or C)	HE 1	HE 2	HE 3	HE 4	HE 5	HE 6	HE 7	HE 8	HE 9	HE 10	HE 11	HE 12	HE 13	HE 14	HE 15	HE 16	HE 17	HE 18	HE 19	HE 20	HE 21	HE 22	HE 23	HE 24	
14-May-15		90973	104.37 109.19 109.87 115.25 121.04 130.25 145.17 159.30 144.46 148.13																								
TOTAL CREDIT			0.00	0.00	0.00	0.00	0.00	0.00	0.00	104.37	109.19	109.87	115.25	121.04	130.25	145.17	159.30	144.46	148.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,287.04

---

# Master Power Purchase & Sale Agreement

---



Version 2.1 (modified 4/25/00)  
©COPYRIGHT 2000 by the Edison Electric Institute and National Energy Marketers Association

ALL RIGHTS RESERVED UNDER U.S. AND FOREIGN LAW, TREATIES AND CONVENTIONS  
AUTOMATIC LICENSE – PERMISSION OF THE COPYRIGHT OWNERS IS GRANTED FOR REPRODUCTION BY DOWNLOADING  
FROM A COMPUTER AND PRINTING ELECTRONIC COPIES OF THE WORK. NO AUTHORIZED COPY MAY BE SOLD. THE  
INDUSTRY IS ENCOURAGED TO USE THIS MASTER POWER PURCHASE AND SALE AGREEMENT IN ITS TRANSACTIONS.  
ATTRIBUTION TO THE COPYRIGHT OWNERS IS REQUESTED.

# MASTER POWER PURCHASE AND SALES AGREEMENT

## TABLE OF CONTENTS

COVER SHEET.....	1
GENERAL TERMS AND CONDITIONS .....	6
ARTICLE ONE: GENERAL DEFINITIONS .....	6
ARTICLE TWO: TRANSACTION TERMS AND CONDITIONS.....	11
2.1 Transactions .....	11
2.2 Governing Terms.....	11
2.3 Confirmation.....	11
2.4 Additional Confirmation Terms.....	12
2.5 Recording .....	12
ARTICLE THREE: OBLIGATIONS AND DELIVERIES .....	12
3.1 Seller's and Buyer's Obligations.....	12
3.2 Transmission and Scheduling.....	12
3.3 Force Majeure .....	13
ARTICLE FOUR: REMEDIES FOR FAILURE TO DELIVER/RECEIVE.....	13
4.1 Seller Failure.....	13
4.2 Buyer Failure.....	13
ARTICLE FIVE: EVENTS OF DEFAULT; REMEDIES .....	13
5.1 Events of Default.....	13
5.2 Declaration of an Early Termination Date and Calculation of Settlement Amounts.....	15
5.3 Net Out of Settlement Amounts.....	15
5.4 Notice of Payment of Termination Payment.....	15
5.5 Disputes With Respect to Termination Payment .....	15
5.6 Closeout Setoffs .....	16
5.7 Suspension of Performance.....	16
ARTICLE SIX: PAYMENT AND NETTING.....	16
6.1 Billing Period .....	16
6.2 Timeliness of Payment.....	17
6.3 Disputes and Adjustments of Invoices.....	17
6.4 Netting of Payments.....	17
6.5 Payment Obligation Absent Netting.....	17
6.6 Security.....	18
6.7 Payment for Options.....	18
6.8 Transaction Netting.....	18

ARTICLE SEVEN: LIMITATIONS.....	18
7.1 Limitation of Remedies, Liability and Damages .....	18
ARTICLE EIGHT: CREDIT AND COLLATERAL REQUIREMENTS.....	19
8.1 Party A Credit Protection.....	19
8.2 Party B Credit Protection.....	21
8.3 Grant of Security Interest/Remedies .....	22
ARTICLE NINE: GOVERNMENTAL CHARGES .....	23
9.1 Cooperation.....	23
9.2 Governmental Charges.....	23
ARTICLE TEN: MISCELLANEOUS.....	23
10.1 Term of Master Agreement.....	23
10.2 Representations and Warranties.....	23
10.3 Title and Risk of Loss .....	25
10.4 Indemnity.....	25
10.5 Assignment .....	25
10.6 Governing Law.....	25
10.7 Notices.....	26
10.8 General.....	26
10.9 Audit.....	26
10.10 Forward Contract.....	27
10.11 Confidentiality.....	27
SCHEDULE M: GOVERNMENTAL ENTITY OR PUBLIC POWER SYSTEMS.....	28
SCHEDULE P: PRODUCTS AND RELATED DEFINITIONS.....	32
EXHIBIT A: CONFIRMATION LETTER .....	39



# MASTER POWER PURCHASE AND SALE AGREEMENT

## COVER SHEET

This *Master Power Purchase and Sale Agreement* ("Master Agreement" ) is made as of the following date: \_\_\_\_\_ ("Effective Date"). The *Master Agreement*, together with the exhibits, schedules and any written supplements hereto, the Party A Tariff, if any, the Party B Tariff, if any, any designated collateral, credit support or margin agreement or similar arrangement between the Parties and all Transactions (including any confirmations accepted in accordance with Section 2.3 hereto) shall be referred to as the "Agreement." The Parties to this *Master Agreement* are the following:

Name ("\_\_\_\_\_ " or "Party A")

All Notices:

Street: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

Attn: Contract Administration

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

Duns: \_\_\_\_\_

Federal Tax ID Number: \_\_\_\_\_

### **Invoices:**

Attn: \_\_\_\_\_

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

### **Scheduling:**

Attn: \_\_\_\_\_

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

### **Payments:**

Attn: \_\_\_\_\_

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

### **Wire Transfer:**

BNK: \_\_\_\_\_

ABA: \_\_\_\_\_

ACCT: \_\_\_\_\_

### **Credit and Collections:**

Attn: \_\_\_\_\_

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

With additional Notices of an Event of Default or Potential Event of Default to:

Attn: \_\_\_\_\_

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

Name ("Counterparty" or "Party B")

All Notices:

Street: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

Attn: Contract Administration

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

Duns: \_\_\_\_\_

Federal Tax ID Number: \_\_\_\_\_

### **Invoices:**

Attn: \_\_\_\_\_

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

### **Scheduling:**

Attn: \_\_\_\_\_

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

### **Payments:**

Attn: \_\_\_\_\_

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

### **Wire Transfer:**

BNK: \_\_\_\_\_

ABA: \_\_\_\_\_

ACCT: \_\_\_\_\_

### **Credit and Collections:**

Attn: \_\_\_\_\_

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

With additional Notices of an Event of Default or Potential Event of Default to:

Attn: \_\_\_\_\_

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

The Parties hereby agree that the General Terms and Conditions are incorporated herein, and to the following provisions as provided for in the General Terms and Conditions:

Party A Tariff      Tariff \_\_\_\_\_ Dated \_\_\_\_\_ Docket Number \_\_\_\_\_

Party B Tariff      Tariff \_\_\_\_\_ Dated \_\_\_\_\_ Docket Number \_\_\_\_\_

## **Article Two**

Transaction Terms and Conditions      ☐ Optional provision in Section 2.4. If not checked, inapplicable.

## **Article Four**

Remedies for Failure to Deliver or Receive      ☐ Accelerated Payment of Damages. If not checked, inapplicable.

## **Article Five**

Events of Default; Remedies      ☐ Cross Default for Party A:  
☐ Party A: \_\_\_\_\_ Cross Default Amount \$ \_\_\_\_\_  
☐ Other Entity: \_\_\_\_\_ Cross Default Amount \$ \_\_\_\_\_  
☐ Cross Default for Party B:  
☐ Party B: \_\_\_\_\_ Cross Default Amount \$ \_\_\_\_\_  
☐ Other Entity: \_\_\_\_\_ Cross Default Amount \$ \_\_\_\_\_

### 5.6 Closeout Setoff

- ☐ Option A (Applicable if no other selection is made.)  
☐ Option B - Affiliates shall have the meaning set forth in the Agreement unless otherwise specified as follows: \_\_\_\_\_  
☐ Option C (No Setoff)

## **Article 8**

Credit and Collateral Requirements

### 8.1 Party A Credit Protection:

(a) Financial Information:

- ☐ Option A  
☐ Option B Specify: \_\_\_\_\_  
☐ Option C Specify: \_\_\_\_\_

(b) Credit Assurances:

- ☐ Not Applicable  
☐ Applicable

(c) Collateral Threshold:

- ☐ Not Applicable  
☐ Applicable

If applicable, complete the following:

Party B Collateral Threshold: \$ \_\_\_\_\_; provided, however, that Party B's Collateral Threshold shall be zero if an Event of Default or Potential Event of Default with respect to Party B has occurred and is continuing.

Party B Independent Amount: \$ \_\_\_\_\_

Party B Rounding Amount: \$ \_\_\_\_\_

(d) Downgrade Event:

- ☐ Not Applicable
- ☐ Applicable

If applicable, complete the following:

- ☐ It shall be a Downgrade Event for Party B if Party B's Credit Rating falls below \_\_\_\_\_ from S&P or \_\_\_\_\_ from Moody's or if Party B is not rated by either S&P or Moody's

- ☐ Other:  
Specify: \_\_\_\_\_

(e) Guarantor for Party B: \_\_\_\_\_

Guarantee Amount: \_\_\_\_\_

**8.2 Party B Credit Protection:**

(a) Financial Information:

- ☐ Option A
- ☐ Option B Specify: \_\_\_\_\_
- ☐ Option C Specify: \_\_\_\_\_

(b) Credit Assurances:

- ☐ Not Applicable
- ☐ Applicable

(c) Collateral Threshold:

- ☐ Not Applicable
- ☐ Applicable

If applicable, complete the following:

Party A Collateral Threshold: \$ \_\_\_\_\_; provided, however, that Party A's Collateral Threshold shall be zero if an Event of Default or Potential Event of Default with respect to Party A has occurred and is continuing.

Party A Independent Amount: \$ \_\_\_\_\_

Party A Rounding Amount: \$ \_\_\_\_\_

(d) Downgrade Event:

- ☐ Not Applicable
- ☐ Applicable

If applicable, complete the following:

- ☐ It shall be a Downgrade Event for Party A if Party A's Credit Rating falls below \_\_\_\_\_ from S&P or \_\_\_\_\_ from Moody's or if Party A is not rated by either S&P or Moody's

- ☐ Other:  
Specify: \_\_\_\_\_

(e) Guarantor for Party A: \_\_\_\_\_

Guarantee Amount: \_\_\_\_\_

---

**Article 10**

Confidentiality

☐ Confidentiality Applicable

If not checked, inapplicable.

---

**Schedule M**

- ☐ Party A is a Governmental Entity or Public Power System
- ☐ Party B is a Governmental Entity or Public Power System
- ☐ Add Section 3.6. If not checked, inapplicable
- ☐ Add Section 8.6. If not checked, inapplicable

**Other Changes**

Specify, if any: \_\_\_\_\_

IN WITNESS WHEREOF, the Parties have caused this Master Agreement to be duly executed as of the date first above written.

Party A Name

Party B Name

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

**DISCLAIMER:** This Master Power Purchase and Sale Agreement was prepared by a committee of representatives of Edison Electric Institute (“EEI”) and National Energy Marketers Association (“NEM”) member companies to facilitate orderly trading in and development of wholesale power markets. Neither EEI nor NEM nor any member company nor any of their agents, representatives or attorneys shall be responsible for its use, or any damages resulting therefrom. By providing this Agreement EEI and NEM do not offer legal advice and all users are urged to consult their own legal counsel to ensure that their commercial objectives will be achieved and their legal interests are adequately protected.

## **GENERAL TERMS AND CONDITIONS**

### **ARTICLE ONE: GENERAL DEFINITIONS**

1.1 “Affiliate” means, with respect to any person, any other person (other than an individual) that, directly or indirectly, through one or more intermediaries, controls, or is controlled by, or is under common control with, such person. For this purpose, “control” means the direct or indirect ownership of fifty percent (50%) or more of the outstanding capital stock or other equity interests having ordinary voting power.

1.2 “Agreement” has the meaning set forth in the Cover Sheet.

1.3 “Bankrupt” means with respect to any entity, such entity (i) files a petition or otherwise commences, authorizes or acquiesces in the commencement of a proceeding or cause of action under any bankruptcy, insolvency, reorganization or similar law, or has any such petition filed or commenced against it, (ii) makes an assignment or any general arrangement for the benefit of creditors, (iii) otherwise becomes bankrupt or insolvent (however evidenced), (iv) has a liquidator, administrator, receiver, trustee, conservator or similar official appointed with respect to it or any substantial portion of its property or assets, or (v) is generally unable to pay its debts as they fall due.

1.4 “Business Day” means any day except a Saturday, Sunday, or a Federal Reserve Bank holiday. A Business Day shall open at 8:00 a.m. and close at 5:00 p.m. local time for the relevant Party’s principal place of business. The relevant Party, in each instance unless otherwise specified, shall be the Party from whom the notice, payment or delivery is being sent and by whom the notice or payment or delivery is to be received.

1.5 “Buyer” means the Party to a Transaction that is obligated to purchase and receive, or cause to be received, the Product, as specified in the Transaction.

1.6 “Call Option” means an Option entitling, but not obligating, the Option Buyer to purchase and receive the Product from the Option Seller at a price equal to the Strike Price for the Delivery Period for which the Option may be exercised, all as specified in the Transaction. Upon proper exercise of the Option by the Option Buyer, the Option Seller will be obligated to sell and deliver the Product for the Delivery Period for which the Option has been exercised.

1.7 “Claiming Party” has the meaning set forth in Section 3.3.

1.8 “Claims” means all third party claims or actions, threatened or filed and, whether groundless, false, fraudulent or otherwise, that directly or indirectly relate to the subject matter of an indemnity, and the resulting losses, damages, expenses, attorneys’ fees and court costs, whether incurred by settlement or otherwise, and whether such claims or actions are threatened or filed prior to or after the termination of this Agreement.

1.9 “Confirmation” has the meaning set forth in Section 2.3.

1.10 “Contract Price” means the price in \$U.S. (unless otherwise provided for) to be paid by Buyer to Seller for the purchase of the Product, as specified in the Transaction.

1.11 “Costs” means, with respect to the Non-Defaulting Party, brokerage fees, commissions and other similar third party transaction costs and expenses reasonably incurred by such Party either in terminating any arrangement pursuant to which it has hedged its obligations or entering into new arrangements which replace a Terminated Transaction; and all reasonable attorneys’ fees and expenses incurred by the Non-Defaulting Party in connection with the termination of a Transaction.

1.12 “Credit Rating” means, with respect to any entity, the rating then assigned to such entity’s unsecured, senior long-term debt obligations (not supported by third party credit enhancements) or if such entity does not have a rating for its senior unsecured long-term debt, then the rating then assigned to such entity as an issues rating by S&P, Moody’s or any other rating agency agreed by the Parties as set forth in the Cover Sheet.

1.13 “Cross Default Amount” means the cross default amount, if any, set forth in the Cover Sheet for a Party.

1.14 “Defaulting Party” has the meaning set forth in Section 5.1.

1.15 “Delivery Period” means the period of delivery for a Transaction, as specified in the Transaction.

1.16 “Delivery Point” means the point at which the Product will be delivered and received, as specified in the Transaction.

1.17 “Downgrade Event” has the meaning set forth on the Cover Sheet.

1.18 “Early Termination Date” has the meaning set forth in Section 5.2.

1.19 “Effective Date” has the meaning set forth on the Cover Sheet.

1.20 “Equitable Defenses” means any bankruptcy, insolvency, reorganization and other laws affecting creditors’ rights generally, and with regard to equitable remedies, the discretion of the court before which proceedings to obtain same may be pending.

1.21 “Event of Default” has the meaning set forth in Section 5.1.

1.22 “FERC” means the Federal Energy Regulatory Commission or any successor government agency.

1.23 “Force Majeure” means an event or circumstance which prevents one Party from performing its obligations under one or more Transactions, which event or circumstance was not anticipated as of the date the Transaction was agreed to, which is not within the reasonable control of, or the result of the negligence of, the Claiming Party, and which, by the exercise of due diligence, the Claiming Party is unable to overcome or avoid or cause to be avoided. Force Majeure shall not be based on (i) the loss of Buyer’s markets; (ii) Buyer’s inability economically

to use or resell the Product purchased hereunder; (iii) the loss or failure of Seller's supply; or (iv) Seller's ability to sell the Product at a price greater than the Contract Price. Neither Party may raise a claim of Force Majeure based in whole or in part on curtailment by a Transmission Provider unless (i) such Party has contracted for firm transmission with a Transmission Provider for the Product to be delivered to or received at the Delivery Point and (ii) such curtailment is due to "force majeure" or "uncontrollable force" or a similar term as defined under the Transmission Provider's tariff; provided, however, that existence of the foregoing factors shall not be sufficient to conclusively or presumptively prove the existence of a Force Majeure absent a showing of other facts and circumstances which in the aggregate with such factors establish that a Force Majeure as defined in the first sentence hereof has occurred. The applicability of Force Majeure to the Transaction is governed by the terms of the Products and Related Definitions contained in Schedule P.

1.24 "Gains" means, with respect to any Party, an amount equal to the present value of the economic benefit to it, if any (exclusive of Costs), resulting from the termination of a Terminated Transaction, determined in a commercially reasonable manner.

1.25 "Guarantor" means, with respect to a Party, the guarantor, if any, specified for such Party on the Cover Sheet.

1.26 "Interest Rate" means, for any date, the lesser of (a) the per annum rate of interest equal to the prime lending rate as may from time to time be published in *The Wall Street Journal* under "Money Rates" on such day (or if not published on such day on the most recent preceding day on which published), plus two percent (2%) and (b) the maximum rate permitted by applicable law.

1.27 "Letter(s) of Credit" means one or more irrevocable, transferable standby letters of credit issued by a U.S. commercial bank or a foreign bank with a U.S. branch with such bank having a credit rating of at least A- from S&P or A3 from Moody's, in a form acceptable to the Party in whose favor the letter of credit is issued. Costs of a Letter of Credit shall be borne by the applicant for such Letter of Credit.

1.28 "Losses" means, with respect to any Party, an amount equal to the present value of the economic loss to it, if any (exclusive of Costs), resulting from termination of a Terminated Transaction, determined in a commercially reasonable manner.

1.29 "Master Agreement" has the meaning set forth on the Cover Sheet.

1.30 "Moody's" means Moody's Investor Services, Inc. or its successor.

1.31 "NERC Business Day" means any day except a Saturday, Sunday or a holiday as defined by the North American Electric Reliability Council or any successor organization thereto. A NERC Business Day shall open at 8:00 a.m. and close at 5:00 p.m. local time for the relevant Party's principal place of business. The relevant Party, in each instance unless otherwise specified, shall be the Party from whom the notice, payment or delivery is being sent and by whom the notice or payment or delivery is to be received.



1.32 “Non-Defaulting Party” has the meaning set forth in Section 5.2.

1.33 “Offsetting Transactions” mean any two or more outstanding Transactions, having the same or overlapping Delivery Period(s), Delivery Point and payment date, where under one or more of such Transactions, one Party is the Seller, and under the other such Transaction(s), the same Party is the Buyer.

1.34 “Option” means the right but not the obligation to purchase or sell a Product as specified in a Transaction.

1.35 “Option Buyer” means the Party specified in a Transaction as the purchaser of an option, as defined in Schedule P.

1.36 “Option Seller” means the Party specified in a Transaction as the seller of an option, as defined in Schedule P.

1.37 “Party A Collateral Threshold” means the collateral threshold, if any, set forth in the Cover Sheet for Party A.

1.38 “Party B Collateral Threshold” means the collateral threshold, if any, set forth in the Cover Sheet for Party B.

1.39 “Party A Independent Amount” means the amount, if any, set forth in the Cover Sheet for Party A.

1.40 “Party B Independent Amount” means the amount, if any, set forth in the Cover Sheet for Party B.

1.41 “Party A Rounding Amount” means the amount, if any, set forth in the Cover Sheet for Party A.

1.42 “Party B Rounding Amount” means the amount, if any, set forth in the Cover Sheet for Party B.

1.43 “Party A Tariff” means the tariff, if any, specified in the Cover Sheet for Party A.

1.44 “Party B Tariff” means the tariff, if any, specified in the Cover Sheet for Party B.

1.45 “Performance Assurance” means collateral in the form of either cash, Letter(s) of Credit, or other security acceptable to the Requesting Party.

1.46 “Potential Event of Default” means an event which, with notice or passage of time or both, would constitute an Event of Default.

1.47 “Product” means electric capacity, energy or other product(s) related thereto as specified in a Transaction by reference to a Product listed in Schedule P hereto or as otherwise specified by the Parties in the Transaction.

1.48 “Put Option” means an Option entitling, but not obligating, the Option Buyer to sell and deliver the Product to the Option Seller at a price equal to the Strike Price for the Delivery Period for which the option may be exercised, all as specified in a Transaction. Upon proper exercise of the Option by the Option Buyer, the Option Seller will be obligated to purchase and receive the Product.

1.49 “Quantity” means that quantity of the Product that Seller agrees to make available or sell and deliver, or cause to be delivered, to Buyer, and that Buyer agrees to purchase and receive, or cause to be received, from Seller as specified in the Transaction.

1.50 “Recording” has the meaning set forth in Section 2.4.

1.51 “Replacement Price” means the price at which Buyer, acting in a commercially reasonable manner, purchases at the Delivery Point a replacement for any Product specified in a Transaction but not delivered by Seller, plus (i) costs reasonably incurred by Buyer in purchasing such substitute Product and (ii) additional transmission charges, if any, reasonably incurred by Buyer to the Delivery Point, or at Buyer’s option, the market price at the Delivery Point for such Product not delivered as determined by Buyer in a commercially reasonable manner; provided, however, in no event shall such price include any penalties, ratcheted demand or similar charges, nor shall Buyer be required to utilize or change its utilization of its owned or controlled assets or market positions to minimize Seller’s liability. For the purposes of this definition, Buyer shall be considered to have purchased replacement Product to the extent Buyer shall have entered into one or more arrangements in a commercially reasonable manner whereby Buyer repurchases its obligation to sell and deliver the Product to another party at the Delivery Point.

1.52 “S&P” means the Standard & Poor’s Rating Group (a division of McGraw-Hill, Inc.) or its successor.

1.53 “Sales Price” means the price at which Seller, acting in a commercially reasonable manner, resells at the Delivery Point any Product not received by Buyer, deducting from such proceeds any (i) costs reasonably incurred by Seller in reselling such Product and (ii) additional transmission charges, if any, reasonably incurred by Seller in delivering such Product to the third party purchasers, or at Seller’s option, the market price at the Delivery Point for such Product not received as determined by Seller in a commercially reasonable manner; provided, however, in no event shall such price include any penalties, ratcheted demand or similar charges, nor shall Seller be required to utilize or change its utilization of its owned or controlled assets, including contractual assets, or market positions to minimize Buyer’s liability. For purposes of this definition, Seller shall be considered to have resold such Product to the extent Seller shall have entered into one or more arrangements in a commercially reasonable manner whereby Seller repurchases its obligation to purchase and receive the Product from another party at the Delivery Point.

1.54 “Schedule” or “Scheduling” means the actions of Seller, Buyer and/or their designated representatives, including each Party’s Transmission Providers, if applicable, of notifying, requesting and confirming to each other the quantity and type of Product to be delivered on any given day or days during the Delivery Period at a specified Delivery Point.

1.55 “Seller” means the Party to a Transaction that is obligated to sell and deliver, or cause to be delivered, the Product, as specified in the Transaction.

1.56 “Settlement Amount” means, with respect to a Transaction and the Non-Defaulting Party, the Losses or Gains, and Costs, expressed in U.S. Dollars, which such party incurs as a result of the liquidation of a Terminated Transaction pursuant to Section 5.2.

1.57 “Strike Price” means the price to be paid for the purchase of the Product pursuant to an Option.

1.58 “Terminated Transaction” has the meaning set forth in Section 5.2.

1.59 “Termination Payment” has the meaning set forth in Section 5.3.

1.60 “Transaction” means a particular transaction agreed to by the Parties relating to the sale and purchase of a Product pursuant to this Master Agreement.

1.61 “Transmission Provider” means any entity or entities transmitting or transporting the Product on behalf of Seller or Buyer to or from the Delivery Point in a particular Transaction.

## **ARTICLE TWO: TRANSACTION TERMS AND CONDITIONS**

2.1 Transactions. A Transaction shall be entered into upon agreement of the Parties orally or, if expressly required by either Party with respect to a particular Transaction, in writing, including an electronic means of communication. Each Party agrees not to contest, or assert any defense to, the validity or enforceability of the Transaction entered into in accordance with this Master Agreement (i) based on any law requiring agreements to be in writing or to be signed by the parties, or (ii) based on any lack of authority of the Party or any lack of authority of any employee of the Party to enter into a Transaction.

2.2 Governing Terms. Unless otherwise specifically agreed, each Transaction between the Parties shall be governed by this Master Agreement. This Master Agreement (including all exhibits, schedules and any written supplements hereto), , the Party A Tariff, if any, and the Party B Tariff, if any, any designated collateral, credit support or margin agreement or similar arrangement between the Parties and all Transactions (including any Confirmations accepted in accordance with Section 2.3) shall form a single integrated agreement between the Parties. Any inconsistency between any terms of this Master Agreement and any terms of the Transaction shall be resolved in favor of the terms of such Transaction.

2.3 Confirmation. Seller may confirm a Transaction by forwarding to Buyer by facsimile within three (3) Business Days after the Transaction is entered into a confirmation (“Confirmation”) substantially in the form of Exhibit A. If Buyer objects to any term(s) of such Confirmation, Buyer shall notify Seller in writing of such objections within two (2) Business Days of Buyer’s receipt thereof, failing which Buyer shall be deemed to have accepted the terms as sent. If Seller fails to send a Confirmation within three (3) Business Days after the Transaction is entered into, a Confirmation substantially in the form of Exhibit A, may be forwarded by Buyer to Seller. If Seller objects to any term(s) of such Confirmation, Seller shall notify Buyer of such objections within two (2) Business Days of Seller’s receipt thereof, failing

which Seller shall be deemed to have accepted the terms as sent. If Seller and Buyer each send a Confirmation and neither Party objects to the other Party's Confirmation within two (2) Business Days of receipt, Seller's Confirmation shall be deemed to be accepted and shall be the controlling Confirmation, unless (i) Seller's Confirmation was sent more than three (3) Business Days after the Transaction was entered into and (ii) Buyer's Confirmation was sent prior to Seller's Confirmation, in which case Buyer's Confirmation shall be deemed to be accepted and shall be the controlling Confirmation. Failure by either Party to send or either Party to return an executed Confirmation or any objection by either Party shall not invalidate the Transaction agreed to by the Parties.

2.4 Additional Confirmation Terms. If the Parties have elected on the Cover Sheet to make this Section 2.4 applicable to this Master Agreement, when a Confirmation contains provisions, other than those provisions relating to the commercial terms of the Transaction (e.g., price or special transmission conditions), which modify or supplement the general terms and conditions of this Master Agreement (e.g., arbitration provisions or additional representations and warranties), such provisions shall not be deemed to be accepted pursuant to Section 2.3 unless agreed to either orally or in writing by the Parties; provided that the foregoing shall not invalidate any Transaction agreed to by the Parties.

2.5 Recording. Unless a Party expressly objects to a Recording (defined below) at the beginning of a telephone conversation, each Party consents to the creation of a tape or electronic recording ("Recording") of all telephone conversations between the Parties to this Master Agreement, and that any such Recordings will be retained in confidence, secured from improper access, and may be submitted in evidence in any proceeding or action relating to this Agreement. Each Party waives any further notice of such monitoring or recording, and agrees to notify its officers and employees of such monitoring or recording and to obtain any necessary consent of such officers and employees. The Recording, and the terms and conditions described therein, if admissible, shall be the controlling evidence for the Parties' agreement with respect to a particular Transaction in the event a Confirmation is not fully executed (or deemed accepted) by both Parties. Upon full execution (or deemed acceptance) of a Confirmation, such Confirmation shall control in the event of any conflict with the terms of a Recording, or in the event of any conflict with the terms of this Master Agreement.

### **ARTICLE THREE: OBLIGATIONS AND DELIVERIES**

3.1 Seller's and Buyer's Obligations. With respect to each Transaction, Seller shall sell and deliver, or cause to be delivered, and Buyer shall purchase and receive, or cause to be received, the Quantity of the Product at the Delivery Point, and Buyer shall pay Seller the Contract Price; provided, however, with respect to Options, the obligations set forth in the preceding sentence shall only arise if the Option Buyer exercises its Option in accordance with its terms. Seller shall be responsible for any costs or charges imposed on or associated with the Product or its delivery of the Product up to the Delivery Point. Buyer shall be responsible for any costs or charges imposed on or associated with the Product or its receipt at and from the Delivery Point.

3.2 Transmission and Scheduling. Seller shall arrange and be responsible for transmission service to the Delivery Point and shall Schedule or arrange for Scheduling services

with its Transmission Providers, as specified by the Parties in the Transaction, or in the absence thereof, in accordance with the practice of the Transmission Providers, to deliver the Product to the Delivery Point. Buyer shall arrange and be responsible for transmission service at and from the Delivery Point and shall Schedule or arrange for Scheduling services with its Transmission Providers to receive the Product at the Delivery Point.

3.3 Force Majeure. To the extent either Party is prevented by Force Majeure from carrying out, in whole or part, its obligations under the Transaction and such Party (the “Claiming Party”) gives notice and details of the Force Majeure to the other Party as soon as practicable, then, unless the terms of the Product specify otherwise, the Claiming Party shall be excused from the performance of its obligations with respect to such Transaction (other than the obligation to make payments then due or becoming due with respect to performance prior to the Force Majeure). The Claiming Party shall remedy the Force Majeure with all reasonable dispatch. The non-Claiming Party shall not be required to perform or resume performance of its obligations to the Claiming Party corresponding to the obligations of the Claiming Party excused by Force Majeure.

#### **ARTICLE FOUR: REMEDIES FOR FAILURE TO DELIVER/RECEIVE**

4.1 Seller Failure. If Seller fails to schedule and/or deliver all or part of the Product pursuant to a Transaction, and such failure is not excused under the terms of the Product or by Buyer’s failure to perform, then Seller shall pay Buyer, on the date payment would otherwise be due in respect of the month in which the failure occurred or, if “Accelerated Payment of Damages” is specified on the Cover Sheet, within five (5) Business Days of invoice receipt, an amount for such deficiency equal to the positive difference, if any, obtained by subtracting the Contract Price from the Replacement Price. The invoice for such amount shall include a written statement explaining in reasonable detail the calculation of such amount.

4.2 Buyer Failure. If Buyer fails to schedule and/or receive all or part of the Product pursuant to a Transaction and such failure is not excused under the terms of the Product or by Seller’s failure to perform, then Buyer shall pay Seller, on the date payment would otherwise be due in respect of the month in which the failure occurred or, if “Accelerated Payment of Damages” is specified on the Cover Sheet, within five (5) Business Days of invoice receipt, an amount for such deficiency equal to the positive difference, if any, obtained by subtracting the Sales Price from the Contract Price. The invoice for such amount shall include a written statement explaining in reasonable detail the calculation of such amount.

#### **ARTICLE FIVE: EVENTS OF DEFAULT; REMEDIES**

5.1 Events of Default. An “Event of Default” shall mean, with respect to a Party (a “Defaulting Party”), the occurrence of any of the following:

- (a) the failure to make, when due, any payment required pursuant to this Agreement if such failure is not remedied within three (3) Business Days after written notice;

- (b) any representation or warranty made by such Party herein is false or misleading in any material respect when made or when deemed made or repeated;
- (c) the failure to perform any material covenant or obligation set forth in this Agreement (except to the extent constituting a separate Event of Default, and except for such Party's obligations to deliver or receive the Product, the exclusive remedy for which is provided in Article Four) if such failure is not remedied within three (3) Business Days after written notice;
- (d) such Party becomes Bankrupt;
- (e) the failure of such Party to satisfy the creditworthiness/collateral requirements agreed to pursuant to Article Eight hereof;
- (f) such Party consolidates or amalgamates with, or merges with or into, or transfers all or substantially all of its assets to, another entity and, at the time of such consolidation, amalgamation, merger or transfer, the resulting, surviving or transferee entity fails to assume all the obligations of such Party under this Agreement to which it or its predecessor was a party by operation of law or pursuant to an agreement reasonably satisfactory to the other Party;
- (g) if the applicable cross default section in the Cover Sheet is indicated for such Party, the occurrence and continuation of (i) a default, event of default or other similar condition or event in respect of such Party or any other party specified in the Cover Sheet for such Party under one or more agreements or instruments, individually or collectively, relating to indebtedness for borrowed money in an aggregate amount of not less than the applicable Cross Default Amount (as specified in the Cover Sheet), which results in such indebtedness becoming, or becoming capable at such time of being declared, immediately due and payable or (ii) a default by such Party or any other party specified in the Cover Sheet for such Party in making on the due date therefor one or more payments, individually or collectively, in an aggregate amount of not less than the applicable Cross Default Amount (as specified in the Cover Sheet);
- (h) with respect to such Party's Guarantor, if any:
  - (i) if any representation or warranty made by a Guarantor in connection with this Agreement is false or misleading in any material respect when made or when deemed made or repeated;
  - (ii) the failure of a Guarantor to make any payment required or to perform any other material covenant or obligation in any guaranty made in connection with this Agreement and such failure shall not be remedied within three (3) Business Days after written notice;

- (iii) a Guarantor becomes Bankrupt;
- (iv) the failure of a Guarantor's guaranty to be in full force and effect for purposes of this Agreement (other than in accordance with its terms) prior to the satisfaction of all obligations of such Party under each Transaction to which such guaranty shall relate without the written consent of the other Party; or
- (v) a Guarantor shall repudiate, disaffirm, disclaim, or reject, in whole or in part, or challenge the validity of any guaranty.

5.2 Declaration of an Early Termination Date and Calculation of Settlement Amounts. If an Event of Default with respect to a Defaulting Party shall have occurred and be continuing, the other Party (the "Non-Defaulting Party") shall have the right (i) to designate a day, no earlier than the day such notice is effective and no later than 20 days after such notice is effective, as an early termination date ("Early Termination Date") to accelerate all amounts owing between the Parties and to liquidate and terminate all, but not less than all, Transactions (each referred to as a "Terminated Transaction") between the Parties, (ii) withhold any payments due to the Defaulting Party under this Agreement and (iii) suspend performance. The Non-Defaulting Party shall calculate, in a commercially reasonable manner, a Settlement Amount for each such Terminated Transaction as of the Early Termination Date (or, to the extent that in the reasonable opinion of the Non-Defaulting Party certain of such Terminated Transactions are commercially impracticable to liquidate and terminate or may not be liquidated and terminated under applicable law on the Early Termination Date, as soon thereafter as is reasonably practicable).

5.3 Net Out of Settlement Amounts. The Non-Defaulting Party shall aggregate all Settlement Amounts into a single amount by: netting out (a) all Settlement Amounts that are due to the Defaulting Party, plus, at the option of the Non-Defaulting Party, any cash or other form of security then available to the Non-Defaulting Party pursuant to Article Eight, plus any or all other amounts due to the Defaulting Party under this Agreement against (b) all Settlement Amounts that are due to the Non-Defaulting Party, plus any or all other amounts due to the Non-Defaulting Party under this Agreement, so that all such amounts shall be netted out to a single liquidated amount (the "Termination Payment") payable by one Party to the other. The Termination Payment shall be due to or due from the Non-Defaulting Party as appropriate.

5.4 Notice of Payment of Termination Payment. As soon as practicable after a liquidation, notice shall be given by the Non-Defaulting Party to the Defaulting Party of the amount of the Termination Payment and whether the Termination Payment is due to or due from the Non-Defaulting Party. The notice shall include a written statement explaining in reasonable detail the calculation of such amount. The Termination Payment shall be made by the Party that owes it within two (2) Business Days after such notice is effective.

5.5 Disputes With Respect to Termination Payment. If the Defaulting Party disputes the Non-Defaulting Party's calculation of the Termination Payment, in whole or in part, the Defaulting Party shall, within two (2) Business Days of receipt of Non-Defaulting Party's calculation of the Termination Payment, provide to the Non-Defaulting Party a detailed written

explanation of the basis for such dispute; provided, however, that if the Termination Payment is due from the Defaulting Party, the Defaulting Party shall first transfer Performance Assurance to the Non-Defaulting Party in an amount equal to the Termination Payment.

#### 5.6 Closeout Setoffs.

Option A: After calculation of a Termination Payment in accordance with Section 5.3, if the Defaulting Party would be owed the Termination Payment, the Non-Defaulting Party shall be entitled, at its option and in its discretion, to (i) set off against such Termination Payment any amounts due and owing by the Defaulting Party to the Non-Defaulting Party under any other agreements, instruments or undertakings between the Defaulting Party and the Non-Defaulting Party and/or (ii) to the extent the Transactions are not yet liquidated in accordance with Section 5.2, withhold payment of the Termination Payment to the Defaulting Party. The remedy provided for in this Section shall be without prejudice and in addition to any right of setoff, combination of accounts, lien or other right to which any Party is at any time otherwise entitled (whether by operation of law, contract or otherwise).

Option B: After calculation of a Termination Payment in accordance with Section 5.3, if the Defaulting Party would be owed the Termination Payment, the Non-Defaulting Party shall be entitled, at its option and in its discretion, to (i) set off against such Termination Payment any amounts due and owing by the Defaulting Party or any of its Affiliates to the Non-Defaulting Party or any of its Affiliates under any other agreements, instruments or undertakings between the Defaulting Party or any of its Affiliates and the Non-Defaulting Party or any of its Affiliates and/or (ii) to the extent the Transactions are not yet liquidated in accordance with Section 5.2, withhold payment of the Termination Payment to the Defaulting Party. The remedy provided for in this Section shall be without prejudice and in addition to any right of setoff, combination of accounts, lien or other right to which any Party is at any time otherwise entitled (whether by operation of law, contract or otherwise).

Option C: Neither Option A nor B shall apply.

5.7 Suspension of Performance. Notwithstanding any other provision of this Master Agreement, if (a) an Event of Default or (b) a Potential Event of Default shall have occurred and be continuing, the Non-Defaulting Party, upon written notice to the Defaulting Party, shall have the right (i) to suspend performance under any or all Transactions; provided, however, in no event shall any such suspension continue for longer than ten (10) NERC Business Days with respect to any single Transaction unless an early Termination Date shall have been declared and notice thereof pursuant to Section 5.2 given, and (ii) to the extent an Event of Default shall have occurred and be continuing to exercise any remedy available at law or in equity.

### **ARTICLE SIX: PAYMENT AND NETTING**

6.1 Billing Period. Unless otherwise specifically agreed upon by the Parties in a Transaction, the calendar month shall be the standard period for all payments under this Agreement (other than Termination Payments and, if “Accelerated Payment of Damages” is specified by the Parties in the Cover Sheet, payments pursuant to Section 4.1 or 4.2 and Option premium payments pursuant to Section 6.7). As soon as practicable after the end of each month,



each Party will render to the other Party an invoice for the payment obligations, if any, incurred hereunder during the preceding month.

6.2 Timeliness of Payment. Unless otherwise agreed by the Parties in a Transaction, all invoices under this Master Agreement shall be due and payable in accordance with each Party's invoice instructions on or before the later of the twentieth (20th) day of each month, or tenth (10th) day after receipt of the invoice or, if such day is not a Business Day, then on the next Business Day. Each Party will make payments by electronic funds transfer, or by other mutually agreeable method(s), to the account designated by the other Party. Any amounts not paid by the due date will be deemed delinquent and will accrue interest at the Interest Rate, such interest to be calculated from and including the due date to but excluding the date the delinquent amount is paid in full.

6.3 Disputes and Adjustments of Invoices. A Party may, in good faith, dispute the correctness of any invoice or any adjustment to an invoice, rendered under this Agreement or adjust any invoice for any arithmetic or computational error within twelve (12) months of the date the invoice, or adjustment to an invoice, was rendered. In the event an invoice or portion thereof, or any other claim or adjustment arising hereunder, is disputed, payment of the undisputed portion of the invoice shall be required to be made when due, with notice of the objection given to the other Party. Any invoice dispute or invoice adjustment shall be in writing and shall state the basis for the dispute or adjustment. Payment of the disputed amount shall not be required until the dispute is resolved. Upon resolution of the dispute, any required payment shall be made within two (2) Business Days of such resolution along with interest accrued at the Interest Rate from and including the due date to but excluding the date paid. Inadvertent overpayments shall be returned upon request or deducted by the Party receiving such overpayment from subsequent payments, with interest accrued at the Interest Rate from and including the date of such overpayment to but excluding the date repaid or deducted by the Party receiving such overpayment. Any dispute with respect to an invoice is waived unless the other Party is notified in accordance with this Section 6.3 within twelve (12) months after the invoice is rendered or any specific adjustment to the invoice is made. If an invoice is not rendered within twelve (12) months after the close of the month during which performance of a Transaction occurred, the right to payment for such performance is waived.

6.4 Netting of Payments. The Parties hereby agree that they shall discharge mutual debts and payment obligations due and owing to each other on the same date pursuant to all Transactions through netting, in which case all amounts owed by each Party to the other Party for the purchase and sale of Products during the monthly billing period under this Master Agreement, including any related damages calculated pursuant to Article Four (unless one of the Parties elects to accelerate payment of such amounts as permitted by Article Four), interest, and payments or credits, shall be netted so that only the excess amount remaining due shall be paid by the Party who owes it.

6.5 Payment Obligation Absent Netting. If no mutual debts or payment obligations exist and only one Party owes a debt or obligation to the other during the monthly billing period, including, but not limited to, any related damage amounts calculated pursuant to Article Four, interest, and payments or credits, that Party shall pay such sum in full when due.

6.6 Security. Unless the Party benefiting from Performance Assurance or a guaranty notifies the other Party in writing, and except in connection with a liquidation and termination in accordance with Article Five, all amounts netted pursuant to this Article Six shall not take into account or include any Performance Assurance or guaranty which may be in effect to secure a Party's performance under this Agreement.

6.7 Payment for Options. The premium amount for the purchase of an Option shall be paid within two (2) Business Days of receipt of an invoice from the Option Seller. Upon exercise of an Option, payment for the Product underlying such Option shall be due in accordance with Section 6.1.

6.8 Transaction Netting. If the Parties enter into one or more Transactions, which in conjunction with one or more other outstanding Transactions, constitute Offsetting Transactions, then all such Offsetting Transactions may by agreement of the Parties, be netted into a single Transaction under which:

- (a) the Party obligated to deliver the greater amount of Energy will deliver the difference between the total amount it is obligated to deliver and the total amount to be delivered to it under the Offsetting Transactions, and
- (b) the Party owing the greater aggregate payment will pay the net difference owed between the Parties.

Each single Transaction resulting under this Section shall be deemed part of the single, indivisible contractual arrangement between the parties, and once such resulting Transaction occurs, outstanding obligations under the Offsetting Transactions which are satisfied by such offset shall terminate.

## **ARTICLE SEVEN: LIMITATIONS**

7.1 Limitation of Remedies, Liability and Damages. EXCEPT AS SET FORTH HEREIN, THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ANY AND ALL IMPLIED WARRANTIES ARE DISCLAIMED. THE PARTIES CONFIRM THAT THE EXPRESS REMEDIES AND MEASURES OF DAMAGES PROVIDED IN THIS AGREEMENT SATISFY THE ESSENTIAL PURPOSES HEREOF. FOR BREACH OF ANY PROVISION FOR WHICH AN EXPRESS REMEDY OR MEASURE OF DAMAGES IS PROVIDED, SUCH EXPRESS REMEDY OR MEASURE OF DAMAGES SHALL BE THE SOLE AND EXCLUSIVE REMEDY, THE OBLIGOR'S LIABILITY SHALL BE LIMITED AS SET FORTH IN SUCH PROVISION AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED. IF NO REMEDY OR MEASURE OF DAMAGES IS EXPRESSLY PROVIDED HEREIN OR IN A TRANSACTION, THE OBLIGOR'S LIABILITY SHALL BE LIMITED TO DIRECT ACTUAL DAMAGES ONLY, SUCH DIRECT ACTUAL DAMAGES SHALL BE THE SOLE AND EXCLUSIVE REMEDY AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED. UNLESS EXPRESSLY HEREIN PROVIDED, NEITHER PARTY SHALL BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, PUNITIVE, EXEMPLARY OR INDIRECT DAMAGES, LOST PROFITS OR

OTHER BUSINESS INTERRUPTION DAMAGES, BY STATUTE, IN TORT OR CONTRACT, UNDER ANY INDEMNITY PROVISION OR OTHERWISE. IT IS THE INTENT OF THE PARTIES THAT THE LIMITATIONS HEREIN IMPOSED ON REMEDIES AND THE MEASURE OF DAMAGES BE WITHOUT REGARD TO THE CAUSE OR CAUSES RELATED THERETO, INCLUDING THE NEGLIGENCE OF ANY PARTY, WHETHER SUCH NEGLIGENCE BE SOLE, JOINT OR CONCURRENT, OR ACTIVE OR PASSIVE. TO THE EXTENT ANY DAMAGES REQUIRED TO BE PAID HEREUNDER ARE LIQUIDATED, THE PARTIES ACKNOWLEDGE THAT THE DAMAGES ARE DIFFICULT OR IMPOSSIBLE TO DETERMINE, OR OTHERWISE OBTAINING AN ADEQUATE REMEDY IS INCONVENIENT AND THE DAMAGES CALCULATED HEREUNDER CONSTITUTE A REASONABLE APPROXIMATION OF THE HARM OR LOSS.

#### **ARTICLE EIGHT: CREDIT AND COLLATERAL REQUIREMENTS**

8.1 Party A Credit Protection. The applicable credit and collateral requirements shall be as specified on the Cover Sheet. If no option in Section 8.1(a) is specified on the Cover Sheet, Section 8.1(a) Option C shall apply exclusively. If none of Sections 8.1(b), 8.1(c) or 8.1(d) are specified on the Cover Sheet, Section 8.1(b) shall apply exclusively.

(a) Financial Information. Option A: If requested by Party A, Party B shall deliver (i) within 120 days following the end of each fiscal year, a copy of Party B's annual report containing audited consolidated financial statements for such fiscal year and (ii) within 60 days after the end of each of its first three fiscal quarters of each fiscal year, a copy of Party B's quarterly report containing unaudited consolidated financial statements for such fiscal quarter. In all cases the statements shall be for the most recent accounting period and prepared in accordance with generally accepted accounting principles; provided, however, that should any such statements not be available on a timely basis due to a delay in preparation or certification, such delay shall not be an Event of Default so long as Party B diligently pursues the preparation, certification and delivery of the statements.

Option B: If requested by Party A, Party B shall deliver (i) within 120 days following the end of each fiscal year, a copy of the annual report containing audited consolidated financial statements for such fiscal year for the party(s) specified on the Cover Sheet and (ii) within 60 days after the end of each of its first three fiscal quarters of each fiscal year, a copy of quarterly report containing unaudited consolidated financial statements for such fiscal quarter for the party(s) specified on the Cover Sheet. In all cases the statements shall be for the most recent accounting period and shall be prepared in accordance with generally accepted accounting principles; provided, however, that should any such statements not be available on a timely basis due to a delay in preparation or certification, such delay shall not be an Event of Default so long as the relevant entity diligently pursues the preparation, certification and delivery of the statements.

Option C: Party A may request from Party B the information specified in the Cover Sheet.

(b) Credit Assurances. If Party A has reasonable grounds to believe that Party B's creditworthiness or performance under this Agreement has become unsatisfactory, Party A will provide Party B with written notice requesting Performance Assurance in an amount determined by Party A in a commercially reasonable manner. Upon receipt of such notice Party B shall have three (3) Business Days to remedy the situation by providing such Performance Assurance to Party A. In the event that Party B fails to provide such Performance Assurance, or a guaranty or other credit assurance acceptable to Party A within three (3) Business Days of receipt of notice, then an Event of Default under Article Five will be deemed to have occurred and Party A will be entitled to the remedies set forth in Article Five of this Master Agreement.

(c) Collateral Threshold. If at any time and from time to time during the term of this Agreement (and notwithstanding whether an Event of Default has occurred), the Termination Payment that would be owed to Party A plus Party B's Independent Amount, if any, exceeds the Party B Collateral Threshold, then Party A, on any Business Day, may request that Party B provide Performance Assurance in an amount equal to the amount by which the Termination Payment plus Party B's Independent Amount, if any, exceeds the Party B Collateral Threshold (rounding upwards for any fractional amount to the next Party B Rounding Amount) ("Party B Performance Assurance"), less any Party B Performance Assurance already posted with Party A. Such Party B Performance Assurance shall be delivered to Party A within three (3) Business Days of the date of such request. On any Business Day (but no more frequently than weekly with respect to Letters of Credit and daily with respect to cash), Party B, at its sole cost, may request that such Party B Performance Assurance be reduced correspondingly to the amount of such excess Termination Payment plus Party B's Independent Amount, if any, (rounding upwards for any fractional amount to the next Party B Rounding Amount). In the event that Party B fails to provide Party B Performance Assurance pursuant to the terms of this Article Eight within three (3) Business Days, then an Event of Default under Article Five shall be deemed to have occurred and Party A will be entitled to the remedies set forth in Article Five of this Master Agreement.

For purposes of this Section 8.1(c), the calculation of the Termination Payment shall be calculated pursuant to Section 5.3 by Party A as if all outstanding Transactions had been liquidated, and in addition thereto, shall include all amounts owed but not yet paid by Party B to Party A, whether or not such amounts are due, for performance already provided pursuant to any and all Transactions.

(d) Downgrade Event. If at any time there shall occur a Downgrade Event in respect of Party B, then Party A may require Party B to provide Performance Assurance in an amount determined by Party A in a commercially reasonable manner. In the event Party B shall fail to provide such Performance Assurance or a guaranty or other credit assurance acceptable to Party A within three (3) Business Days of receipt of notice, then an Event of Default shall be deemed to have occurred and Party A will be entitled to the remedies set forth in Article Five of this Master Agreement.

(e) If specified on the Cover Sheet, Party B shall deliver to Party A, prior to or concurrently with the execution and delivery of this Master Agreement a guarantee in an amount not less than the Guarantee Amount specified on the Cover Sheet and in a form reasonably acceptable to Party A.

8.2 Party B Credit Protection. The applicable credit and collateral requirements shall be as specified on the Cover Sheet. If no option in Section 8.2(a) is specified on the Cover Sheet, Section 8.2(a) Option C shall apply exclusively. If none of Sections 8.2(b), 8.2(c) or 8.2(d) are specified on the Cover Sheet, Section 8.2(b) shall apply exclusively.

(a) Financial Information. Option A: If requested by Party B, Party A shall deliver (i) within 120 days following the end of each fiscal year, a copy of Party A's annual report containing audited consolidated financial statements for such fiscal year and (ii) within 60 days after the end of each of its first three fiscal quarters of each fiscal year, a copy of such Party's quarterly report containing unaudited consolidated financial statements for such fiscal quarter. In all cases the statements shall be for the most recent accounting period and prepared in accordance with generally accepted accounting principles; provided, however, that should any such statements not be available on a timely basis due to a delay in preparation or certification, such delay shall not be an Event of Default so long as such Party diligently pursues the preparation, certification and delivery of the statements.

Option B: If requested by Party B, Party A shall deliver (i) within 120 days following the end of each fiscal year, a copy of the annual report containing audited consolidated financial statements for such fiscal year for the party(s) specified on the Cover Sheet and (ii) within 60 days after the end of each of its first three fiscal quarters of each fiscal year, a copy of quarterly report containing unaudited consolidated financial statements for such fiscal quarter for the party(s) specified on the Cover Sheet. In all cases the statements shall be for the most recent accounting period and shall be prepared in accordance with generally accepted accounting principles; provided, however, that should any such statements not be available on a timely basis due to a delay in preparation or certification, such delay shall not be an Event of Default so long as the relevant entity diligently pursues the preparation, certification and delivery of the statements.

Option C: Party B may request from Party A the information specified in the Cover Sheet.

(b) Credit Assurances. If Party B has reasonable grounds to believe that Party A's creditworthiness or performance under this Agreement has become unsatisfactory, Party B will provide Party A with written notice requesting Performance Assurance in an amount determined by Party B in a commercially reasonable manner. Upon receipt of such notice Party A shall have three (3) Business Days to remedy the situation by providing such Performance Assurance to Party B. In the event that Party A fails to provide such Performance Assurance, or a guaranty or other credit assurance acceptable to Party B within three (3) Business Days of receipt of notice, then an Event of Default under Article Five will be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.

(c) Collateral Threshold. If at any time and from time to time during the term of this Agreement (and notwithstanding whether an Event of Default has occurred), the Termination Payment that would be owed to Party B plus Party A's Independent Amount, if any, exceeds the Party A Collateral Threshold, then Party B, on any Business Day, may request that Party A provide Performance Assurance in an amount equal to the amount by which the Termination Payment plus Party A's Independent Amount, if any, exceeds the Party A Collateral

Threshold (rounding upwards for any fractional amount to the next Party A Rounding Amount) (“Party A Performance Assurance”), less any Party A Performance Assurance already posted with Party B. Such Party A Performance Assurance shall be delivered to Party B within three (3) Business Days of the date of such request. On any Business Day (but no more frequently than weekly with respect to Letters of Credit and daily with respect to cash), Party A, at its sole cost, may request that such Party A Performance Assurance be reduced correspondingly to the amount of such excess Termination Payment plus Party A’s Independent Amount, if any, (rounding upwards for any fractional amount to the next Party A Rounding Amount). In the event that Party A fails to provide Party A Performance Assurance pursuant to the terms of this Article Eight within three (3) Business Days, then an Event of Default under Article Five shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.

For purposes of this Section 8.2(c), the calculation of the Termination Payment shall be calculated pursuant to Section 5.3 by Party B as if all outstanding Transactions had been liquidated, and in addition thereto, shall include all amounts owed but not yet paid by Party A to Party B, whether or not such amounts are due, for performance already provided pursuant to any and all Transactions.

(d) Downgrade Event. If at any time there shall occur a Downgrade Event in respect of Party A, then Party B may require Party A to provide Performance Assurance in an amount determined by Party B in a commercially reasonable manner. In the event Party A shall fail to provide such Performance Assurance or a guaranty or other credit assurance acceptable to Party B within three (3) Business Days of receipt of notice, then an Event of Default shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.

(e) If specified on the Cover Sheet, Party A shall deliver to Party B, prior to or concurrently with the execution and delivery of this Master Agreement a guarantee in an amount not less than the Guarantee Amount specified on the Cover Sheet and in a form reasonably acceptable to Party B.

8.3 Grant of Security Interest/Remedies. To secure its obligations under this Agreement and to the extent either or both Parties deliver Performance Assurance hereunder, each Party (a “Pledgor”) hereby grants to the other Party (the “Secured Party”) a present and continuing security interest in, and lien on (and right of setoff against), and assignment of, all cash collateral and cash equivalent collateral and any and all proceeds resulting therefrom or the liquidation thereof, whether now or hereafter held by, on behalf of, or for the benefit of, such Secured Party, and each Party agrees to take such action as the other Party reasonably requires in order to perfect the Secured Party’s first-priority security interest in, and lien on (and right of setoff against), such collateral and any and all proceeds resulting therefrom or from the liquidation thereof. Upon or any time after the occurrence or deemed occurrence and during the continuation of an Event of Default or an Early Termination Date, the Non-Defaulting Party may do any one or more of the following: (i) exercise any of the rights and remedies of a Secured Party with respect to all Performance Assurance, including any such rights and remedies under law then in effect; (ii) exercise its rights of setoff against any and all property of the Defaulting Party in the possession of the Non-Defaulting Party or its agent; (iii) draw on any outstanding

Letter of Credit issued for its benefit; and (iv) liquidate all Performance Assurance then held by or for the benefit of the Secured Party free from any claim or right of any nature whatsoever of the Defaulting Party, including any equity or right of purchase or redemption by the Defaulting Party. The Secured Party shall apply the proceeds of the collateral realized upon the exercise of any such rights or remedies to reduce the Pledgor's obligations under the Agreement (the Pledgor remaining liable for any amounts owing to the Secured Party after such application), subject to the Secured Party's obligation to return any surplus proceeds remaining after such obligations are satisfied in full.

## **ARTICLE NINE: GOVERNMENTAL CHARGES**

9.1 Cooperation. Each Party shall use reasonable efforts to implement the provisions of and to administer this Master Agreement in accordance with the intent of the parties to minimize all taxes , so long as neither Party is materially adversely affected by such efforts.

9.2 Governmental Charges. Seller shall pay or cause to be paid all taxes imposed by any government authority("Governmental Charges") on or with respect to the Product or a Transaction arising prior to the Delivery Point. Buyer shall pay or cause to be paid all Governmental Charges on or with respect to the Product or a Transaction at and from the Delivery Point (other than ad valorem, franchise or income taxes which are related to the sale of the Product and are, therefore, the responsibility of the Seller). In the event Seller is required by law or regulation to remit or pay Governmental Charges which are Buyer's responsibility hereunder, Buyer shall promptly reimburse Seller for such Governmental Charges. If Buyer is required by law or regulation to remit or pay Governmental Charges which are Seller's responsibility hereunder, Buyer may deduct the amount of any such Governmental Charges from the sums due to Seller under Article 6 of this Agreement. Nothing shall obligate or cause a Party to pay or be liable to pay any Governmental Charges for which it is exempt under the law.

## **ARTICLE TEN: MISCELLANEOUS**

10.1 Term of Master Agreement. The term of this Master Agreement shall commence on the Effective Date and shall remain in effect until terminated by either Party upon (thirty) 30 days' prior written notice; provided, however, that such termination shall not affect or excuse the performance of either Party under any provision of this Master Agreement that by its terms survives any such termination and, provided further, that this Master Agreement and any other documents executed and delivered hereunder shall remain in effect with respect to the Transaction(s) entered into prior to the effective date of such termination until both Parties have fulfilled all of their obligations with respect to such Transaction(s), or such Transaction(s) that have been terminated under Section 5.2 of this Agreement.

10.2 Representations and Warranties. On the Effective Date and the date of entering into each Transaction, each Party represents and warrants to the other Party that:

- (i) it is duly organized, validly existing and in good standing under the laws of the jurisdiction of its formation;

- (ii) it has all regulatory authorizations necessary for it to legally perform its obligations under this Master Agreement and each Transaction (including any Confirmation accepted in accordance with Section 2.3);
- (iii) the execution, delivery and performance of this Master Agreement and each Transaction (including any Confirmation accepted in accordance with Section 2.3) are within its powers, have been duly authorized by all necessary action and do not violate any of 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;
- (iv) this Master Agreement, each Transaction (including any Confirmation accepted in accordance with Section 2.3), and each other document executed and delivered in accordance with this Master Agreement constitutes its legally valid and binding obligation enforceable against it in accordance with its terms; subject to any Equitable Defenses.
- (v) 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;
- (vi) there is not pending or, to its knowledge, threatened against it or any of its Affiliates any legal proceedings that could materially adversely affect its ability to perform its obligations under this Master Agreement and each Transaction (including any Confirmation accepted in accordance with Section 2.3);
- (vii) no Event of Default or Potential Event of Default with respect to it has occurred and is continuing and no such event or circumstance would occur as a result of its entering into or performing its obligations under this Master Agreement and each Transaction (including any Confirmation accepted in accordance with Section 2.3);
- (viii) it is acting for its own account, has made its own independent decision to enter into this Master Agreement and each Transaction (including any Confirmation accepted in accordance with Section 2.3) and as to whether this Master Agreement and each such Transaction (including any Confirmation accepted in accordance with Section 2.3) is appropriate or proper for it based upon its own judgment, is not relying upon the advice or recommendations of the other Party in so doing, and is capable of assessing the merits of and understanding, and understands and accepts, the terms, conditions and risks of this Master Agreement and each Transaction (including any Confirmation accepted in accordance with Section 2.3);
- (ix) it is a “forward contract merchant” within the meaning of the United States Bankruptcy Code;



- (x) it has entered into this Master Agreement and each Transaction (including any Confirmation accepted in accordance with Section 2.3) in connection with the conduct of its business and it has the capacity or ability to make or take delivery of all Products referred to in the Transaction to which it is a Party;
- (xi) with respect to each Transaction (including any Confirmation accepted in accordance with Section 2.3) involving the purchase or sale of a Product or an Option, it is a producer, processor, commercial user or merchant handling the Product, and it is entering into such Transaction for purposes related to its business as such; and
- (xii) the material economic terms of each Transaction are subject to individual negotiation by the Parties.

10.3 Title and Risk of Loss. Title to and risk of loss related to the Product shall transfer from Seller to Buyer at the Delivery Point. Seller warrants that it will deliver to Buyer the Quantity of the Product free and clear of all liens, security interests, claims and encumbrances or any interest therein or thereto by any person arising prior to the Delivery Point.

10.4 Indemnity. Each Party shall indemnify, defend and hold harmless the other Party from and against any Claims arising from or out of any event, circumstance, act or incident first occurring or existing during the period when control and title to Product is vested in such Party as provided in Section 10.3. Each Party shall indemnify, defend and hold harmless the other Party against any Governmental Charges for which such Party is responsible under Article Nine.

10.5 Assignment. Neither Party shall assign this Agreement or its rights hereunder without the prior written consent of the other Party, which consent may be withheld in the exercise of its sole discretion; provided, however, either Party may, without the consent of the other Party (and without relieving itself from liability hereunder), (i) transfer, sell, pledge, encumber or assign this Agreement or the accounts, revenues or proceeds hereof in connection with any financing or other financial arrangements, (ii) transfer or assign this Agreement to an affiliate of such Party which affiliate's creditworthiness is equal to or higher than that of such Party, or (iii) transfer or assign this Agreement to any person or entity succeeding to all or substantially all of the assets whose creditworthiness is equal to or higher than that of such Party; provided, however, that in each such case, any such assignee shall agree in writing to be bound by the terms and conditions hereof and so long as the transferring Party delivers such tax and enforceability assurance as the non-transferring Party may reasonably request.

10.6 Governing Law. THIS AGREEMENT AND THE RIGHTS AND DUTIES OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY AND CONSTRUED, ENFORCED AND PERFORMED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. EACH PARTY WAIVES ITS RESPECTIVE RIGHT TO ANY JURY TRIAL WITH RESPECT TO ANY LITIGATION ARISING UNDER OR IN CONNECTION WITH THIS AGREEMENT.

10.7 Notices. All notices, requests, statements or payments shall be made as specified in the Cover Sheet. Notices (other than scheduling requests) shall, unless otherwise specified herein, be in writing and may be delivered by hand delivery, United States mail, overnight courier service or facsimile. Notice by facsimile or hand delivery shall be effective at the close of business on the day actually received, if received during business hours on a Business Day, and otherwise shall be effective at the close of business on the next Business Day. Notice by overnight United States mail or courier shall be effective on the next Business Day after it was sent. A Party may change its addresses by providing notice of same in accordance herewith.

10.8 General. This Master Agreement (including the exhibits, schedules and any written supplements hereto), the Party A Tariff, if any, the Party B Tariff, if any, any designated collateral, credit support or margin agreement or similar arrangement between the Parties and all Transactions (including any Confirmation accepted in accordance with Section 2.3) constitute the entire agreement between the Parties relating to the subject matter. Notwithstanding the foregoing, any collateral, credit support or margin agreement or similar arrangement between the Parties shall, upon designation by the Parties, be deemed part of this Agreement and shall be incorporated herein by reference. This Agreement shall be considered for all purposes as prepared through the joint efforts of the parties and shall not be construed against one party or the other as a result of the preparation, substitution, submission or other event of negotiation, drafting or execution hereof. Except to the extent herein provided for, no amendment or modification to this Master Agreement shall be enforceable unless reduced to writing and executed by both Parties. Each Party agrees if it seeks to amend any applicable wholesale power sales tariff during the term of this Agreement, such amendment will not in any way affect outstanding Transactions under this Agreement without the prior written consent of the other Party. Each Party further agrees that it will not assert, or defend itself, on the basis that any applicable tariff is inconsistent with this Agreement. This Agreement shall not impart any rights enforceable by any third party (other than a permitted successor or assignee bound to this Agreement). Waiver by a Party of any default by the other Party shall not be construed as a waiver of any other default. Any provision declared or rendered unlawful by any applicable court of law or regulatory agency or deemed unlawful because of a statutory change (individually or collectively, such events referred to as "Regulatory Event") will not otherwise affect the remaining lawful obligations that arise under this Agreement; and provided, further, that if a Regulatory Event occurs, the Parties shall use their best efforts to reform this Agreement in order to give effect to the original intention of the Parties. The term "including" when used in this Agreement shall be by way of example only and shall not be considered in any way to be in limitation. The headings used herein are for convenience and reference purposes only. All indemnity and audit rights shall survive the termination of this Agreement for twelve (12) months. This Agreement shall be binding on each Party's successors and permitted assigns.

10.9 Audit. Each Party has the right, at its sole expense and during normal working hours, to examine the records of the other Party to the extent reasonably necessary to verify the accuracy of any statement, charge or computation made pursuant to this Master Agreement. If requested, a Party shall provide to the other Party statements evidencing the Quantity delivered at the Delivery Point. If any such examination reveals any inaccuracy in any statement, the necessary adjustments in such statement and the payments thereof will be made promptly and shall bear interest calculated at the Interest Rate from the date the overpayment or underpayment was made until paid; provided, however, that no adjustment for any statement or payment will be

made unless objection to the accuracy thereof was made prior to the lapse of twelve (12) months from the rendition thereof, and thereafter any objection shall be deemed waived.

10.10 Forward Contract. The Parties acknowledge and agree that all Transactions constitute “forward contracts” within the meaning of the United States Bankruptcy Code.

10.11 Confidentiality. If the Parties have elected on the Cover Sheet to make this Section 10.11 applicable to this Master Agreement, neither Party shall disclose the terms or conditions of a Transaction under this Master Agreement to a third party (other than the Party’s employees, lenders, counsel, accountants or advisors who have a need to know such information and have agreed to keep such terms confidential) except in order to comply with any applicable law, regulation, or any exchange, control area or independent system operator rule or in connection with any court or regulatory proceeding; provided, however, each Party shall, to the extent practicable, use reasonable efforts to prevent or limit the disclosure. The Parties shall be entitled to all remedies available at law or in equity to enforce, or seek relief in connection with, this confidentiality obligation.

## SCHEDULE M

**(THIS SCHEDULE IS INCLUDED IF THE APPROPRIATE BOX ON THE COVER SHEET IS MARKED INDICATING A PARTY IS A GOVERNMENTAL ENTITY OR PUBLIC POWER SYSTEM)**

- A. The Parties agree to add the following definitions in Article One.

“Act” means \_\_\_\_\_.<sup>1</sup>

“Governmental Entity or Public Power System” means a municipality, county, governmental board, public power authority, public utility district, joint action agency, or other similar political subdivision or public entity of the United States, one or more States or territories or any combination thereof.

“Special Fund” means a fund or account of the Governmental Entity or Public Power System set aside and or pledged to satisfy the Public Power System’s obligations hereunder out of which amounts shall be paid to satisfy all of the Public Power System’s obligations under this Master Agreement for the entire Delivery Period.

- B. The following sentence shall be added to the end of the definition of “Force Majeure” in Article One.

If the Claiming Party is a Governmental Entity or Public Power System, Force Majeure does not include any action taken by the Governmental Entity or Public Power System in its governmental capacity.

- C. The Parties agree to add the following representations and warranties to Section 10.2:

Further and with respect to a Party that is a Governmental Entity or Public Power System, such Governmental Entity or Public Power System represents and warrants to the other Party continuing throughout the term of this Master Agreement, with respect to this Master Agreement and each Transaction, as follows: (i) all acts necessary to the valid execution, delivery and performance of this Master Agreement, including without limitation, competitive bidding, public notice, election, referendum, prior appropriation or other required procedures has or will be taken and performed as required under the Act and the Public Power System’s ordinances, bylaws or other regulations, (ii) all persons making up the governing body of Governmental Entity or Public Power System are the duly elected or appointed incumbents in their positions and hold such

---

<sup>1</sup> Cite the state enabling and other relevant statutes applicable to Governmental Entity or Public Power System.

positions in good standing in accordance with the Act and other applicable law, (iii) entry into and performance of this Master Agreement by Governmental Entity or Public Power System are for a proper public purpose within the meaning of the Act and all other relevant constitutional, organic or other governing documents and applicable law, (iv) the term of this Master Agreement does not extend beyond any applicable limitation imposed by the Act or other relevant constitutional, organic or other governing documents and applicable law, (v) the Public Power System's obligations to make payments hereunder are unsubordinated obligations and such payments are (a) operating and maintenance costs (or similar designation) which enjoy first priority of payment at all times under any and all bond ordinances or indentures to which it is a party, the Act and all other relevant constitutional, organic or other governing documents and applicable law or (b) otherwise not subject to any prior claim under any and all bond ordinances or indentures to which it is a party, the Act and all other relevant constitutional, organic or other governing documents and applicable law and are available without limitation or deduction to satisfy all Governmental Entity or Public Power System' obligations hereunder and under each Transaction or (c) are to be made solely from a Special Fund, (vi) entry into and performance of this Master Agreement and each Transaction by the Governmental Entity or Public Power System will not adversely affect the exclusion from gross income for federal income tax purposes of interest on any obligation of Governmental Entity or Public Power System otherwise entitled to such exclusion, and (vii) obligations to make payments hereunder do not constitute any kind of indebtedness of Governmental Entity or Public Power System or create any kind of lien on, or security interest in, any property or revenues of Governmental Entity or Public Power System which, in either case, is proscribed by any provision of the Act or any other relevant constitutional, organic or other governing documents and applicable law, any order or judgment of any court or other agency of government applicable to it or its assets, or any contractual restriction binding on or affecting it or any of its assets.

D. The Parties agree to add the following sections to Article Three:

Section 3.4 Public Power System's Deliveries. On the Effective Date and as a condition to the obligations of the other Party under this Agreement, Governmental Entity or Public Power System shall provide the other Party hereto (i) certified copies of all ordinances, resolutions, public notices and other documents evidencing the necessary authorizations with respect to the execution, delivery and performance by Governmental Entity or Public Power System of this Master Agreement and (ii) an opinion of counsel for Governmental Entity or Public Power System, in form and substance reasonably satisfactory to the Other Party, regarding the validity, binding effect and enforceability of this Master Agreement against Governmental Entity or Public Power System in

respect of the Act and all other relevant constitutional organic or other governing documents and applicable law.

Section 3.5 No Immunity Claim. Governmental Entity or Public Power System warrants and covenants that with respect to its contractual obligations hereunder and performance thereof, it will not claim immunity on the grounds of sovereignty or similar grounds with respect to itself or its revenues or assets from (a) suit, (b) jurisdiction of court (including a court located outside the jurisdiction of its organization), (c) relief by way of injunction, order for specific performance or recovery of property, (d) attachment of assets, or (e) execution or enforcement of any judgment.

E. If the appropriate box is checked on the Cover Sheet, as an alternative to selecting one of the options under Section 8.3, the Parties agree to add the following section to Article Three:

Section 3.6 Governmental Entity or Public Power System Security. With respect to each Transaction, Governmental Entity or Public Power System shall either (i) have created and set aside a Special Fund or (ii) upon execution of this Master Agreement and prior to the commencement of each subsequent fiscal year of Governmental Entity or Public Power System during any Delivery Period, have obtained all necessary budgetary approvals and certifications for payment of all of its obligations under this Master Agreement for such fiscal year; any breach of this provision shall be deemed to have arisen during a fiscal period of Governmental Entity or Public Power System for which budgetary approval or certification of its obligations under this Master Agreement is in effect and, notwithstanding anything to the contrary in Article Four, an Early Termination Date shall automatically and without further notice occur hereunder as of such date wherein Governmental Entity or Public Power System shall be treated as the Defaulting Party. Governmental Entity or Public Power System shall have allocated to the Special Fund or its general funds a revenue base that is adequate to cover Public Power System's payment obligations hereunder throughout the entire Delivery Period.

F. If the appropriate box is checked on the Cover Sheet, the Parties agree to add the following section to Article Eight:

Section 8.4 Governmental Security. As security for payment and performance of Public Power System's obligations hereunder, Public Power System hereby pledges, sets over, assigns and grants to the other Party a security interest in all of Public Power System's right, title and interest in and to [specify collateral].

G. The Parties agree to add the following sentence at the end of Section 10.6 - Governing Law:

NOTWITHSTANDING THE FOREGOING, IN RESPECT OF THE APPLICABILITY OF THE ACT AS HEREIN PROVIDED, THE LAWS OF THE STATE OF \_\_\_\_\_<sup>2</sup> SHALL APPLY.

---

<sup>2</sup> Insert relevant state for Governmental Entity or Public Power System.

## **SCHEDULE P: PRODUCTS AND RELATED DEFINITIONS**

“Ancillary Services” means any of the services identified by a Transmission Provider in its transmission tariff as “ancillary services” including, but not limited to, regulation and frequency response, energy imbalance, operating reserve-spinning and operating reserve-supplemental, as may be specified in the Transaction.

“Capacity” has the meaning specified in the Transaction.

“Energy” means three-phase, 60-cycle alternating current electric energy, expressed in megawatt hours.

“Firm (LD)” means, with respect to a Transaction, that either Party shall be relieved of its obligations to sell and deliver or purchase and receive without liability only to the extent that, and for the period during which, such performance is prevented by Force Majeure. In the absence of Force Majeure, the Party to which performance is owed shall be entitled to receive from the Party which failed to deliver/receive an amount determined pursuant to Article Four.

“Firm Transmission Contingent - Contract Path” means, with respect to a Transaction, that the performance of either Seller or Buyer (as specified in the Transaction) shall be excused, and no damages shall be payable including any amounts determined pursuant to Article Four, if the transmission for such Transaction is interrupted or curtailed and (i) such Party has provided for firm transmission with the transmission provider(s) for the Product in the case of the Seller from the generation source to the Delivery Point or in the case of the Buyer from the Delivery Point to the ultimate sink, and (ii) such interruption or curtailment is due to “force majeure” or “uncontrollable force” or a similar term as defined under the applicable transmission provider’s tariff. This contingency shall excuse performance for the duration of the interruption or curtailment notwithstanding the provisions of the definition of “Force Majeure” in Section 1.23 to the contrary.

“Firm Transmission Contingent - Delivery Point” means, with respect to a Transaction, that the performance of either Seller or Buyer (as specified in the Transaction) shall be excused, and no damages shall be payable including any amounts determined pursuant to Article Four, if the transmission to the Delivery Point (in the case of Seller) or from the Delivery Point (in the case of Buyer) for such Transaction is interrupted or curtailed and (i) such Party has provided for firm transmission with the transmission provider(s) for the Product, in the case of the Seller, to be delivered to the Delivery Point or, in the case of Buyer, to be received at the Delivery Point and (ii) such interruption or curtailment is due to “force majeure” or “uncontrollable force” or a similar term as defined under the applicable transmission provider’s tariff. This transmission contingency excuses performance for the duration of the interruption or curtailment, notwithstanding the provisions of the definition of “Force Majeure” in Section 1.23 to the contrary. Interruptions or curtailments of transmission other than the transmission either immediately to or from the Delivery Point shall not excuse performance

“Firm (No Force Majeure)” means, with respect to a Transaction, that if either Party fails to perform its obligation to sell and deliver or purchase and receive the Product, the Party to which performance is owed shall be entitled to receive from the Party which failed to perform an



amount determined pursuant to Article Four. Force Majeure shall not excuse performance of a Firm (No Force Majeure) Transaction.

“Into \_\_\_\_\_ (the “Receiving Transmission Provider”), Seller’s Daily Choice” means that, in accordance with the provisions set forth below, (1) the Product shall be scheduled and delivered to an interconnection or interface (“Interface”) either (a) on the Receiving Transmission Provider’s transmission system border or (b) within the control area of the Receiving Transmission Provider if the Product is from a source of generation in that control area, which Interface, in either case, the Receiving Transmission Provider identifies as available for delivery of the Product in or into its control area; and (2) Seller has the right on a daily prescheduled basis to designate the Interface where the Product shall be delivered. An “Into” Product shall be subject to the following provisions:

1. Prescheduling and Notification. Subject to the provisions of Section 6, not later than the prescheduling deadline of 11:00 a.m. CPT on the Business Day before the next delivery day or as otherwise agreed to by Buyer and Seller, Seller shall notify Buyer (“Seller’s Notification”) of Seller’s immediate upstream counterparty and the Interface (the “Designated Interface”) where Seller shall deliver the Product for the next delivery day, and Buyer shall notify Seller of Buyer’s immediate downstream counterparty.

2. Availability of “Firm Transmission” to Buyer at Designated Interface; “Timely Request for Transmission,” “ADI” and “Available Transmission.” In determining availability to Buyer of next-day firm transmission (“Firm Transmission”) from the Designated Interface, a “Timely Request for Transmission” shall mean a properly completed request for Firm Transmission made by Buyer in accordance with the controlling tariff procedures, which request shall be submitted to the Receiving Transmission Provider no later than 30 minutes after delivery of Seller’s Notification, provided, however, if the Receiving Transmission Provider is not accepting requests for Firm Transmission at the time of Seller’s Notification, then such request by Buyer shall be made within 30 minutes of the time when the Receiving Transmission Provider first opens thereafter for purposes of accepting requests for Firm Transmission.

Pursuant to the terms hereof, delivery of the Product may under certain circumstances be redesignated to occur at an Interface other than the Designated Interface (any such alternate designated interface, an “ADI”) either (a) on the Receiving Transmission Provider’s transmission system border or (b) within the control area of the Receiving Transmission Provider if the Product is from a source of generation in that control area, which ADI, in either case, the Receiving Transmission Provider identifies as available for delivery of the Product in or into its control area using either firm or non-firm transmission, as available on a day-ahead or hourly basis (individually or collectively referred to as “Available Transmission”) within the Receiving Transmission Provider’s transmission system.

3. Rights of Buyer and Seller Depending Upon Availability of/Timely Request for Firm Transmission

A. Timely Request for Firm Transmission made by Buyer, Accepted by the Receiving Transmission Provider and Purchased by Buyer. If a Timely Request for Firm Transmission is made by Buyer and is accepted by the Receiving Transmission Provider

and Buyer purchases such Firm Transmission, then Seller shall deliver and Buyer shall receive the Product at the Designated Interface.

i. If the Firm Transmission purchased by Buyer within the Receiving Transmission Provider's transmission system from the Designated Interface ceases to be available to Buyer for any reason, or if Seller is unable to deliver the Product at the Designated Interface for any reason except Buyer's non-performance, then at Seller's choice from among the following, Seller shall: (a) to the extent Firm Transmission is available to Buyer from an ADI on a day-ahead basis, require Buyer to purchase such Firm Transmission from such ADI, and schedule and deliver the affected portion of the Product to such ADI on the basis of Buyer's purchase of Firm Transmission, or (b) require Buyer to purchase non-firm transmission, and schedule and deliver the affected portion of the Product on the basis of Buyer's purchase of non-firm transmission from the Designated Interface or an ADI designated by Seller, or (c) to the extent firm transmission is available on an hourly basis, require Buyer to purchase firm transmission, and schedule and deliver the affected portion of the Product on the basis of Buyer's purchase of such hourly firm transmission from the Designated Interface or an ADI designated by Seller.

ii. If the Available Transmission utilized by Buyer as required by Seller pursuant to Section 3A(i) ceases to be available to Buyer for any reason, then Seller shall again have those alternatives stated in Section 3A(i) in order to satisfy its obligations.

iii. Seller's obligation to schedule and deliver the Product at an ADI is subject to Buyer's obligation referenced in Section 4B to cooperate reasonably therewith. If Buyer and Seller cannot complete the scheduling and/or delivery at an ADI, then Buyer shall be deemed to have satisfied its receipt obligations to Seller and Seller shall be deemed to have failed its delivery obligations to Buyer, and Seller shall be liable to Buyer for amounts determined pursuant to Article Four.

iv. In each instance in which Buyer and Seller must make alternative scheduling arrangements for delivery at the Designated Interface or an ADI pursuant to Sections 3A(i) or (ii), and Firm Transmission had been purchased by both Seller and Buyer into and within the Receiving Transmission Provider's transmission system as to the scheduled delivery which could not be completed as a result of the interruption or curtailment of such Firm Transmission, Buyer and Seller shall bear their respective transmission expenses and/or associated congestion charges incurred in connection with efforts to complete delivery by such alternative scheduling and delivery arrangements. In any instance except as set forth in the immediately preceding sentence, Buyer and Seller must make alternative scheduling arrangements for delivery at the Designated Interface or an ADI under Sections 3A(i) or (ii), Seller shall be responsible for any additional transmission purchases and/or associated congestion charges incurred by Buyer in connection with such alternative scheduling arrangements.

B. Timely Request for Firm Transmission Made by Buyer but Rejected by the Receiving Transmission Provider. If Buyer's Timely Request for Firm Transmission is rejected by the Receiving Transmission Provider because of unavailability of Firm Transmission from the Designated Interface, then Buyer shall notify Seller within 15 minutes after receipt of the Receiving Transmission Provider's notice of rejection ("Buyer's Rejection Notice"). If Buyer timely notifies Seller of such unavailability of Firm Transmission from the Designated Interface, then Seller shall be obligated either (1) to the extent Firm Transmission is available to Buyer from an ADI on a day-ahead basis, to require Buyer to purchase (at Buyer's own expense) such Firm Transmission from such ADI and schedule and deliver the Product to such ADI on the basis of Buyer's purchase of Firm Transmission, and thereafter the provisions in Section 3A shall apply, or (2) to require Buyer to purchase (at Buyer's own expense) non-firm transmission, and schedule and deliver the Product on the basis of Buyer's purchase of non-firm transmission from the Designated Interface or an ADI designated by the Seller, in which case Seller shall bear the risk of interruption or curtailment of the non-firm transmission; provided, however, that if the non-firm transmission is interrupted or curtailed or if Seller is unable to deliver the Product for any reason, Seller shall have the right to schedule and deliver the Product to another ADI in order to satisfy its delivery obligations, in which case Seller shall be responsible for any additional transmission purchases and/or associated congestion charges incurred by Buyer in connection with Seller's inability to deliver the Product as originally prescheduled. If Buyer fails to timely notify Seller of the unavailability of Firm Transmission, then Buyer shall bear the risk of interruption or curtailment of transmission from the Designated Interface, and the provisions of Section 3D shall apply.

C. Timely Request for Firm Transmission Made by Buyer, Accepted by the Receiving Transmission Provider and not Purchased by Buyer. If Buyer's Timely Request for Firm Transmission is accepted by the Receiving Transmission Provider but Buyer elects to purchase non-firm transmission rather than Firm Transmission to take delivery of the Product, then Buyer shall bear the risk of interruption or curtailment of transmission from the Designated Interface. In such circumstances, if Seller's delivery is interrupted as a result of transmission relied upon by Buyer from the Designated Interface, then Seller shall be deemed to have satisfied its delivery obligations to Buyer, Buyer shall be deemed to have failed to receive the Product and Buyer shall be liable to Seller for amounts determined pursuant to Article Four.

D. No Timely Request for Firm Transmission Made by Buyer, or Buyer Fails to Timely Send Buyer's Rejection Notice. If Buyer fails to make a Timely Request for Firm Transmission or Buyer fails to timely deliver Buyer's Rejection Notice, then Buyer shall bear the risk of interruption or curtailment of transmission from the Designated Interface. In such circumstances, if Seller's delivery is interrupted as a result of transmission relied upon by Buyer from the Designated Interface, then Seller shall be deemed to have satisfied its delivery obligations to Buyer, Buyer shall be deemed to have failed to receive the Product and Buyer shall be liable to Seller for amounts determined pursuant to Article Four.

4. Transmission

A. Seller's Responsibilities. Seller shall be responsible for transmission required to deliver the Product to the Designated Interface or ADI, as the case may be. It is expressly agreed that Seller is not required to utilize Firm Transmission for its delivery obligations hereunder, and Seller shall bear the risk of utilizing non-firm transmission. If Seller's scheduled delivery to Buyer is interrupted as a result of Buyer's attempted transmission of the Product beyond the Receiving Transmission Provider's system border, then Seller will be deemed to have satisfied its delivery obligations to Buyer, Buyer shall be deemed to have failed to receive the Product and Buyer shall be liable to Seller for damages pursuant to Article Four.

B. Buyer's Responsibilities. Buyer shall be responsible for transmission required to receive and transmit the Product at and from the Designated Interface or ADI, as the case may be, and except as specifically provided in Section 3A and 3B, shall be responsible for any costs associated with transmission therefrom. If Seller is attempting to complete the designation of an ADI as a result of Seller's rights and obligations hereunder, Buyer shall co-operate reasonably with Seller in order to effect such alternate designation.

5. Force Majeure. An "Into" Product shall be subject to the "Force Majeure" provisions in Section 1.23.

6. Multiple Parties in Delivery Chain Involving a Designated Interface. Seller and Buyer recognize that there may be multiple parties involved in the delivery and receipt of the Product at the Designated Interface or ADI to the extent that (1) Seller may be purchasing the Product from a succession of other sellers ("Other Sellers"), the first of which Other Sellers shall be causing the Product to be generated from a source ("Source Seller") and/or (2) Buyer may be selling the Product to a succession of other buyers ("Other Buyers"), the last of which Other Buyers shall be using the Product to serve its energy needs ("Sink Buyer"). Seller and Buyer further recognize that in certain Transactions neither Seller nor Buyer may originate the decision as to either (a) the original identification of the Designated Interface or ADI (which designation may be made by the Source Seller) or (b) the Timely Request for Firm Transmission or the purchase of other Available Transmission (which request may be made by the Sink Buyer). Accordingly, Seller and Buyer agree as follows:

A. If Seller is not the Source Seller, then Seller shall notify Buyer of the Designated Interface promptly after Seller is notified thereof by the Other Seller with whom Seller has a contractual relationship, but in no event may such designation of the Designated Interface be later than the prescheduling deadline pertaining to the Transaction between Buyer and Seller pursuant to Section 1.

B. If Buyer is not the Sink Buyer, then Buyer shall notify the Other Buyer with whom Buyer has a contractual relationship of the Designated Interface promptly after Seller notifies Buyer thereof, with the intent being that the party bearing actual responsibility to secure transmission shall have up to 30 minutes after receipt of the Designated Interface to submit its Timely Request for Firm Transmission.

C. Seller and Buyer each agree that any other communications or actions required to be given or made in connection with this “Into Product” (including without limitation, information relating to an ADI) shall be made or taken promptly after receipt of the relevant information from the Other Sellers and Other Buyers, as the case may be.

D. Seller and Buyer each agree that in certain Transactions time is of the essence and it may be desirable to provide necessary information to Other Sellers and Other Buyers in order to complete the scheduling and delivery of the Product. Accordingly, Seller and Buyer agree that each has the right, but not the obligation, to provide information at its own risk to Other Sellers and Other Buyers, as the case may be, in order to effect the prescheduling, scheduling and delivery of the Product

“Native Load” means the demand imposed on an electric utility or an entity by the requirements of retail customers located within a franchised service territory that the electric utility or entity has statutory obligation to serve.

“Non-Firm” means, with respect to a Transaction, that delivery or receipt of the Product may be interrupted for any reason or for no reason, without liability on the part of either Party.

“System Firm” means that the Product will be supplied from the owned or controlled generation or pre-existing purchased power assets of the system specified in the Transaction (the “System”) with non-firm transmission to and from the Delivery Point, unless a different Transmission Contingency is specified in a Transaction. Seller’s failure to deliver shall be excused: (i) by an event or circumstance which prevents Seller from performing its obligations, which event or circumstance was not anticipated as of the date the Transaction was agreed to, which is not within the reasonable control of, or the result of the negligence of, the Seller; (ii) by Buyer’s failure to perform; (iii) to the extent necessary to preserve the integrity of, or prevent or limit any instability on, the System; (iv) to the extent the System or the control area or reliability council within which the System operates declares an emergency condition, as determined in the system’s, or the control area’s, or reliability council’s reasonable judgment; or (v) by the interruption or curtailment of transmission to the Delivery Point or by the occurrence of any Transmission Contingency specified in a Transaction as excusing Seller’s performance. Buyer’s failure to receive shall be excused (i) by Force Majeure; (ii) by Seller’s failure to perform, or (iii) by the interruption or curtailment of transmission from the Delivery Point or by the occurrence of any Transmission Contingency specified in a Transaction as excusing Buyer’s performance. In any of such events, neither party shall be liable to the other for any damages, including any amounts determined pursuant to Article Four.

“Transmission Contingent” means, with respect to a Transaction, that the performance of either Seller or Buyer (as specified in the Transaction) shall be excused, and no damages shall be payable including any amounts determined pursuant to Article Four, if the transmission for such Transaction is unavailable or interrupted or curtailed for any reason, at any time, anywhere from the Seller’s proposed generating source to the Buyer’s proposed ultimate sink, regardless of whether transmission, if any, that such Party is attempting to secure and/or has purchased for the Product is firm or non-firm. If the transmission (whether firm or non-firm) that Seller or Buyer is attempting to secure is from source to sink is unavailable, this contingency excuses performance for the entire Transaction. If the transmission (whether firm or non-firm) that Seller

or Buyer has secured from source to sink is interrupted or curtailed for any reason, this contingency excuses performance for the duration of the interruption or curtailment notwithstanding the provisions of the definition of “Force Majeure” in Article 1.23 to the contrary.

“Unit Firm” means, with respect to a Transaction, that the Product subject to the Transaction is intended to be supplied from a generation asset or assets specified in the Transaction. Seller’s failure to deliver under a “Unit Firm” Transaction shall be excused: (i) if the specified generation asset(s) are unavailable as a result of a Forced Outage (as defined in the NERC Generating Unit Availability Data System (GADS) Forced Outage reporting guidelines) or (ii) by an event or circumstance that affects the specified generation asset(s) so as to prevent Seller from performing its obligations, which event or circumstance was not anticipated as of the date the Transaction was agreed to, and which is not within the reasonable control of, or the result of the negligence of, the Seller or (iii) by Buyer’s failure to perform. In any of such events, Seller shall not be liable to Buyer for any damages, including any amounts determined pursuant to Article Four.

**EXHIBIT A**

**MASTER POWER PURCHASE AND SALE AGREEMENT  
CONFIRMATION LETTER**

This confirmation letter shall confirm the Transaction agreed to on \_\_\_\_\_, \_\_\_\_\_  
between \_\_\_\_\_ (“Party A”) and \_\_\_\_\_ (“Party B”)  
regarding the sale/purchase of the Product under the terms and conditions as follows:

Seller: \_\_\_\_\_

Buyer: \_\_\_\_\_

Product:

- ☐ Into \_\_\_\_\_, Seller’s Daily Choice
- ☐ Firm (LD)
- ☐ Firm (No Force Majeure)
- ☐ System Firm  
(Specify System: \_\_\_\_\_)
- ☐ Unit Firm  
(Specify Unit(s): \_\_\_\_\_)
- ☐ Other \_\_\_\_\_
- ☐ Transmission Contingency (If not marked, no transmission contingency)
  - ☐ FT-Contract Path Contingency      ☐ Seller      ☐ Buyer
  - ☐ FT-Delivery Point Contingency      ☐ Seller      ☐ Buyer
  - ☐ Transmission Contingent      ☐ Seller      ☐ Buyer
  - ☐ Other transmission contingency  
(Specify: \_\_\_\_\_)

Contract Quantity: \_\_\_\_\_

Delivery Point: \_\_\_\_\_

Contract Price: \_\_\_\_\_

Energy Price: \_\_\_\_\_

Other Charges: \_\_\_\_\_

Confirmation Letter

Page 2

Delivery Period: \_\_\_\_\_

Special Conditions: \_\_\_\_\_

Scheduling: \_\_\_\_\_

Option Buyer: \_\_\_\_\_

Option Seller: \_\_\_\_\_

Type of Option: \_\_\_\_\_

Strike Price: \_\_\_\_\_

Premium: \_\_\_\_\_

Exercise Period: \_\_\_\_\_

This confirmation letter is being provided pursuant to and in accordance with the Master Power Purchase and Sale Agreement dated \_\_\_\_\_ (the "Master Agreement") between Party A and Party B, and constitutes part of and is subject to the terms and provisions of such Master Agreement. Terms used but not defined herein shall have the meanings ascribed to them in the Master Agreement.

[Party A]

[Party B]

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Phone No: \_\_\_\_\_

Phone No: \_\_\_\_\_

Fax: \_\_\_\_\_

Fax: \_\_\_\_\_





June 18, 2015

TO: Marin Clean Energy Board of Directors

FROM: Rafael Silberblatt, Program Specialist

RE: Pilot Residential Battery Storage Program and Pilot Battery Storage Tariff (Agenda Item #07)

ATTACHMENTS: A. Draft Electric Schedule PBST - Pilot Battery Storage Tariff  
B. Pilot Battery Storage Presentation

**SUMMARY:**

In April 2015, Tesla Motors, Inc. ("Tesla") announced the release of two new batteries aimed at the residential market: a 7kWh battery that can be dispatched daily and a 10kWh battery that can be dispatched weekly. The batteries will be sold through select retailers, and should be available in Q3 2015. MCE has begun exploring partnering with Tesla in order to facilitate the purchase, financing, installation and optimized dispatch of the batteries for MCE customers.

At the June 1, 2015 Technical Committee meeting, Staff presented preliminary program designs and the draft Pilot Battery Storage Tariff (see attached). As discussed at that meeting, Staff intends to:

- work closely with Tesla to market the program to MCE customers;
- purchase Powerwall batteries in bulk from Tesla on behalf of customers who have provided a non-refundable deposit;
- offer on-bill financing (in conjunction with a third party partner) towards the purchase of the batteries;
- offer installation services (in conjunction with a third party partner);
- offer a Pilot Battery Storage Tariff to provide customers with a monthly incentive payment in exchange for allowing MCE to dispatch the battery (within certain parameters);
- optimize battery dispatches (in conjunction with a third party partner) to maximize customer/grid benefits;
- bid loadshed into CAISO (in conjunction with a third party partner)

The proposed Pilot Battery Storage Tariff would be an optional rate schedule available to the first twenty residential customers who have installed a fully operational residential electricity battery storage unit with a qualifying inverter providing MCE with remote control and dispatch capability, and who have provided MCE with a completed MCE Battery Storage Application. Participating customers would receive a \$5 or \$10 monthly credit depending on the amount of battery capacity they allow MCE to discharge via internet-based remote access to the inverter.

**Recommendation:** Approve the MCE Pilot Residential Battery Program and Electric Schedule PBST - Pilot Battery Storage Tariff.



## **Electric Schedule PBST - Pilot Battery Storage Tariff**

**Applicability:** This Pilot Battery Storage Tariff (PBST) schedule is applicable to any MCE residential customer who has installed a fully operational residential electricity battery storage unit with a qualifying micro-inverter providing MCE with remote control and dispatch capability (for purposes of this tariff, a “battery” or in aggregate “batteries”).

This optional schedule is available on a first-come, first-served basis to the first twenty customers with batteries who have provided MCE with a completed MCE Battery Storage Application.

**Territory:** The entire MCE service area.

**Rates:** All rates charged under this schedule will be in accordance with the customer’s otherwise-applicable MCE rate schedule, noting the following exceptions:

Customers served under this schedule must choose Partial Cycle Participation or Full Cycle Participation:

- a) Full Cycle Participation: MCE shall have the option to fully discharge the electricity from the battery during each 24 hour discharge cycle. Customers electing Full Cycle Participation will receive a credit of \$10/billing cycle.
- b) Partial Cycle Participation: MCE shall have the option to discharge the electricity from the battery to 50% of its available storage capacity during each 24 hour discharge cycle. Customers electing Partial Cycle Participation will receive a credit of \$5/billing cycle.

### **Program Requirements:**

1. A participating customer must have an installed and fully operational battery with a qualifying micro-inverter. The battery must provide a minimum of 7 kWh of storage capacity per 24 hour discharge cycle and provide a minimum discharge rate of 2 kW per hour. Qualifying micro-inverters are listed on Attachment A. The aforementioned specifications related to battery capacity and discharge rate shall be applicable at the time of battery installation.

2. A participating customer must take electric service under an MCE residential rate schedule.
3. A participating customer must provide MCE with internet-based remote access to the inverter, enabling control of the battery for charging and discharging by MCE. Bill credits provided pursuant to this tariff schedule shall be reduced on a pro rata basis for any hours during which MCE is unable to remotely access and control the battery. Participating customers must provide any information reasonably requested by MCE that is necessary for MCE to administer this tariff.
4. A participating customer must allow MCE to charge/discharge the battery at its discretion, subject to the following limitations:
  - a) During each 24 hour cycle, MCE may charge the customer's battery up to one time prior to discharging the battery; charging of the battery shall occur at any time of day selected by MCE.
  - b) During each 24 hour cycle, MCE may discharge the customer's battery (fully or partially, depending upon the option selected by the customer under this tariff) up to one time prior to charging the battery; discharging of the battery shall occur at any time of day selected by MCE.
  - c) The hours during which MCE charges and discharges the battery need not be continuous.
  - d) The 24 hour discharge cycle shall generally coincide with each calendar day, beginning at hour ending 1:00 AM and continuing through hour ending 12:00 AM.
5. In the event that available storage capacity is less than the Minimum Storage Capacity due to circumstances other than failure of MCE to fully charge the battery, the monthly bill credit may be reduced by an Availability Adjustment. For purposes of applying the Availability Adjustment, the otherwise applicable monthly bill credit shall be multiplied by the ratio of the total kWh available for dispatch by MCE during the billing month divided by the monthly Minimum Storage Capacity. Monthly Minimum Storage Capacity shall equal the number of billing days during the month multiplied by:
  - a. For Full Cycle Participation: 7 kWh
  - b. For Partial Cycle Participation: 3.5 kWh

**Electric Schedule PBST – Pilot Battery Storage Tariff**

**Attachment A: Qualifying Micro-Inverters**

SolarEdge DC-AC PV Models SE3000A-US, SE3800A-US, SE5000A-US,  
SE6000A-US, SE10000A-US, SE11400A-US

# Pilot Residential Battery Storage Program

June 18, 2015



# Tesla Powerwall Batteries

Tesla has developed two batteries aimed at residential customers:

- 7kWh Battery
  - \$3,000
  - 10 year warranty guarantees 60% capacity for 365/yr use
  - 2 kW discharge
  - Ideal for solar self-consumption, time of use arbitrage
- 10kWh Battery
  - \$3,500
  - 10 year warranty guarantees 60% capacity for 52/yr use
  - 2 kW discharge
  - Ideal for back-up

Additional costs include:

- A compatible inverter (roughly \$1,500)
- Installation (roughly \$500-\$1,500)

## How much electricity does a home use?



Flat Screen TV  
0.1 kWh /hr



Lights Per Room  
0.1 kWh /hr



Laptop  
0.05 kWh /hr



Refrigerator  
4.8 kWh /day



Clothes Washer  
2.3 kWh each use



Clothes Dryer  
3.3 kWh each use

## MCE's Role:

- Purchase Powerwall batteries in bulk from Tesla on behalf of customers who have provided a non-refundable deposit
- Offer on-bill financing (in conjunction with a third party partner) towards the purchase of the batteries
- Offer installation services (in conjunction with a third party partner)
- Offer a battery storage tariff that provides customers a monthly payment in exchange for allowing MCE to dispatch the battery (within certain parameters)
- Optimize battery dispatches (in conjunction with a third party partner) to maximize customer/grid benefits
- Bid loadshed into CAISO (in conjunction with a third party partner)



# Marketing, Collateral & Outreach

- Email outreach
- Targeted marketing
- Printed material for events and tabling
- Webpage with program information, tariff options and “Frequently Asked Questions”
- Call center script
- Application form
- Invoice form

# Thank you! Questions?





June 18, 2015

TO: Marin Clean Energy Board of Directors

FROM: Katie Gaier, Human Resources Coordinator

RE: MCE New Staff Position (Agenda Item #08)

ATTACHMENT: Job Description - Community Power Organizer

**SUMMARY:**

In early 2015, MCE applied to the San Francisco Foundation for funding to support a part-time community organizer to help further MCE Community Power's mission. After receiving and evaluating MCE's grant request the San Francisco Foundation selected MCE as a grant recipient and allocated \$35,000 for the purpose of hiring a community organizer for MCE Community Power to conduct a low-income needs assessment, to lead outreach on an innovative energy efficiency program that aims to serve the needs of low-income individuals, engage with community stakeholders on an educational kiosk for MCE Solar One, conduct educational meetings for marginalized communities, and present briefings for community partners to better engage on CCA policy issues.

At the May 21, 2015 Board Meeting, MCE's Board of Directors voted to accept the grant award in the amount of \$35,000 from the San Francisco Foundation in order to fund a part-time community organizer position. At the June 3, 2015 Executive Committee meeting, it was recommended that the new position of Community Power Organizer be approved by the Board of Directors at a salary range of \$20.20 - \$25.00 per hour. Subsequent to the Executive Committee meeting, staff reviewed its need for a Community Power Organizer and a Community Affairs Representative, each as part-time positions. It was determined that the duties of both could be combined into the Community Power Organizer position. The job description was adjusted to encompass both duties and the salary was reviewed internally for consistency. The result is the attached draft job description and the salary recommendation below. Additional funding for the position would come from MCE's regular staffing budget. A budget change is not needed to accommodate this position.

**Recommendation**

Based upon the Executive Committee's recommendation as well as subsequent staff review, it is recommended that your Board approve the addition of a position of Community Power Organizer with a salary range of \$57,784 – 79,847 per year with exact compensation to be determined by the Chief Executive Officer within the Board approved budget for fiscal year 2015-2016.



## **Job Description**

### **Community Power Organizer**

#### **Summary**

The MCE Community Power Organizer (CPO) works within the Public Affairs Team under supervision by MCE's Community Development Manager, and has a wide range of responsibilities for advancing the mission of MCE Community Power and supporting the Public Affairs Team's broader business and community development objectives.

The mission of MCE Community Power is to cultivate a deep and dynamic relationship with ratepayer advocates and community-based organizations that primarily focus on the interests of underrepresented and historically marginalized constituencies to:

- Expand access to affordable, renewable energy and energy efficiency programs;
- Advance equitable, local, and sustainable workforce and economic development;
- Accelerate the transition to a cleaner, more efficient energy economy; and
- Build and develop equitable and inclusive programs and policies for all MCE communities.

#### **Class Characteristics**

The MCE Community Power Organizer interfaces with a wide range of stakeholder and customer groups to enhance collaborative partnerships with historically marginalized communities and constituencies. With this end in mind, the CPO is also responsible for supporting the Public Affairs Team's broader business and community development work, such as supporting enrollments in Light Green, Deep Green and Local Sol service options; increasing awareness of MCE's Energy Efficiency programs; and fostering relationships that further MCE's mission to reduce energy-related greenhouse gas emissions.

The CPO is responsible for research on marginalized communities, partner organizations, and developing internal processes and capacity at MCE in order to expand access to affordable renewable energy. The CPO conducts strategic outreach and community organizing efforts to implement MCE Community Power programs and is responsible for cultivating, developing, and maintaining relationships with key grassroots partners and marginalized communities, and for communicating MCE Community Power's central messages consistently to target audiences via professional networking, printed literature, web-based material, electronic correspondence,

public presentations, and verbal interactions. The CPO will engage in two-way education in order to facilitate empowerment and knowledge-building with MCE's communities and grassroots partners while educating MCE on the needs of its marginalized and disadvantaged communities. The CPO will partner with community and grassroots policy advocacy organizations to further statewide environmental justice policy goals, such as increasing funding opportunities for solar installations in low-income communities, advocating for alternative models of community solar programs, and reducing excessive exit fees on disadvantaged communities.

### **Supervisory Responsibilities**

Supervisory responsibilities are not required for this position.

### **Essential Duties and Responsibilities (Illustrative Only)**

- Conduct a low-income needs assessment of disadvantaged and marginalized communities within MCE's service area.
- Draft a report based on the low-income needs assessment with recommendations for future actions and potential programs/policies.
- Draft a report outlining best practices for integrating the input of community groups into community choice aggregation programs.
- Seek community input and educate community members on innovative energy efficiency pilots that serve the needs of hidden and marginalized communities.
- Regarding MCE's upcoming 10.5 MW solar installation at the Chevron Refinery in Richmond, seek input from grassroots and community partners to assist in crafting its educational kiosk on-site, including in-language elements.
- Market existing and new energy options (e.g. Light Green, Deep Green and Local Sol) to marginalized communities, thereby increasing access to more renewable energy and empowering customers with knowledge related to the community choice energy model.
- Maintain and edit MCE Community Power webpage.
- Increase engagement with communities on their energy consumption and electricity bills.
- Co-host and mediate workshops to educate and empower community partners on statewide energy policy issues, particularly as they affect the intersection of low-income and community choice aggregation customers.
- Develop educational materials (issue one-pagers) with partners that explain complex regulatory concepts in plain language.
- Deliver presentations to various community groups and grassroots partners.
- Engage and manage relationships with community advocates so that they can support MCE's goal to expand participation in Light Green, Deep Green, Local Sol, and energy efficiency programs

- Represent MCE in spaces related to environmental justice issues within its service area. Act as a liaison to grassroots partners, community advocates, and community-based organizations working on environmental and energy issues affecting MCE's customers.
- Support other staff in expanding Deep Green, Light Green, and Local Sol enrollments and relationship management as needed, including email and phone follow-up and Deep Green Champions webpage updates and management.
- Represent MCE before local Chambers of Commerce.
- Coordinate with MCE's 100% Renewable Deep Green Champions and other businesses within MCE's service area (e.g., develop and implement marketing opportunities for MCE's Deep Green commercial customers)

### **Break-down of Time spent on various work areas**

Community outreach and organizing	75%
Developing education materials and reports	20%
Other related duties	5%

### **Minimum Qualifications**

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed are representative of the knowledge, skill and/or abilities required.

### **Education/Experience.**

Education and experience equal to a Bachelor's degree in Communications, Marketing, Public Administration, Business, Political Science, Legal Studies, Sociology or a related field.

### **Knowledge of:**

- Issues of environmental, social, and racial justice, labor relations and local coalition building.
- Environmental policy, public administration, and energy regulation.
- Advanced knowledge of Microsoft Office Suite including Excel, Word, and PowerPoint, and Adobe Acrobat.
- Wordpress and/or HTML.
- Diverse communities and cultures (i.e., cultural competency with communities of color, low income communities, and communities that speak English as a second language).

### **Ability to**

- Exhibit strong interpersonal and phone etiquette skills, verbal communications, grammatical and professional business skills.
- Engage in productive two-way education with MCE's grassroots partners and community stakeholders.
- Interact effectively with customers, local community groups, organizations, and MCE staff.
- Cultivate and maintain collaborative relationships with diverse and dynamic constituencies and customer groups.
- Mediate group discussions and negotiations.
- Manage projects and time efficiently as well as multi-task.
- Present oneself in an outgoing, confident and detail oriented manner.
- Resolve issues quickly and effectively.
- Manage multiple priorities and quickly adapt to changing priorities in a fast paced, dynamic environment.
- Take responsibility and work independently, as well as coordinate team efforts.
- Work accurately and swiftly under pressure.
- Demonstrate patience, tact, courtesy, and flexibility.
- Create clear and effective professional work products without grammatical or spelling errors.
- Establish and maintain effective working relationships with persons encountered during the performance of duties.
- Communicate in Spanish and/or another language spoken in MCE's communities, such as Tagalog, Vietnamese, Mandarin or Cantonese.

### **Mathematical Skills**

Ability to add, subtract, multiply, and divide in all units of measure, using whole numbers, common fractions, and decimals. Ability to compute rate, ratio, and percent and to draw and interpret bar graphs.

### **Physical Demands**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. While performing the duties of this job, the employee is frequently required to use hands to finger, handle, or feel and reach with hands and arms. The employee is occasionally required to stand.

The employee must occasionally lift and/or move up to 20 pounds.

### **Work Environment**

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. The noise level in the work environment is usually moderate.

However, much of the work will be performed outside of the MCE offices at meetings and events, both during the day and on evenings and weekends.

### **ADA Compliance**

MCE will make reasonable accommodation of the known physical or mental limitations of a qualified applicant with a disability upon request.





June 18, 2015

TO: Marin Clean Energy Board

FROM: Jennifer Dowdell, MCE Consultant

RE: Adjustment to MCE Retirement Plans (Agenda Item #09)

Attachments: A. Overview of Services from Genovese Burford & Brothers  
B. Overview of Services from PenServ Plan Services  
C. Draft Form of Agreement with Genovese Burford & Brothers

Dear Board Members:

---

**BACKGROUND:**

MCE's retirement plans were established in August 2012 and include: 1) a defined contribution, employer-funded 401(a) retirement plan; and 2) an employee-funded 457(b) retirement plan. Both plans are currently managed by Nationwide which keeps account of employee balances and reports total asset balances and fund activity monthly. Nationwide also hosts an employee interface portal that facilitates selection of the mutual funds offered by Nationwide and a variety of leading broker dealers such as Oppenheimer, T Rowe Price, American Funds, and PIMCO.

A combination of MCE's relatively small size in 2012,<sup>1</sup> and the limited number of providers who manage both 401(a) and 457(b) plans typical of public agencies, led to the selection of Nationwide who was willing to service a small public agency plan. Under MCE's current agreement Nationwide offers a fairly generic, bundled set of plan services. This choice represented the best available balance of service quality and cost at the time.<sup>2</sup>

As of June 5, 2015, MCE's retirement plan assets are approximately \$517,096 in the 401(a) plan and \$390,218 in the 457(b) plan. The 401(a) plan has 27 participants with an average balance of approximately \$20,000, including past employees who have not rolled their funds

---

<sup>1</sup> Most retirement fund managers like Fidelity or Schwab require each plan have assets of \$1 million dollars or more in order to provide service.

<sup>2</sup> Nationwide is the plan provider for the County of Marin.

into other plans.<sup>3</sup> The 457(b) plan has 11 participants reflecting only half of the currently eligible MCE employees. The average 457(b) balance is approximately \$35,000. Plan assets are invested over roughly 40 funds of the 400 funds Nationwide offers in the plans. The average employee contribution to the 457(b) plan is \$350 per month.

Currently MCE acts as both the retirement plan sponsor and fiduciary. This is not the best practice currently available and it may expose MCE to some unnecessary risks in the case of an audit or other challenge to investment decisions made regarding the plan.

#### Current Plan Cost:

The cost of the MCE's current retirement plans is paid through: 1) commission and fees for purchasing the funds ("loads"); and 2) custodial fees charged on the assets under management. Fund "loads" generally range from 1%-2%. The administrative fee is 0.8% of the assets in each employee account. This fee is deducted from employee retirement accounts. Because it is a percent of assets rather than a flat charge, this fee will increase over time with the growth of plan assets and participants. Nationwide also offers optional paid investment advisory services<sup>4</sup> to MCE plan participants at a cost of 1% of account assets.

Under the current retirement plan structure, MCE employees bear all cost of the plans – fiduciary, administrative and mutual fund "loads." These costs can be significant relative to employee accounts. For example a typical employee cost of the 457(b) plan with load and administration is about \$640 per year<sup>5</sup>, significantly more than the average employee monthly contribution of \$350.

We estimate that total current MCE employees plan costs are approximately \$16,000 per year. Because they are charged as a percent of assets they will continue to increase as the plans grow (by approximately \$8 for every additional \$1,000 of plan assets). A breakdown of costs and allocation is shown below.

<b>MCE Nationwide Retirement Plan Estimated Costs</b>			
<b>Service</b>	<b>Rate</b>	<b>Cost Owner</b>	<b>Total Cost</b>
Fiduciary	N/A	N/A	\$0
Administration	0.8%	Employee	\$7250
Average Fund Load <sup>6</sup>	1%	Employee	\$9,000
<b>Total MCE Retirement Plan Cost</b>	1.8%	Employee	<b>\$16,250</b>

<sup>3</sup> Employees can transfer their 401(a) fund balances to 401(k) plans or individual retirement accounts when they change employers or leave government service but do not have to do so.

<sup>4</sup> This is a service where Nationwide selects and manages the retirement funds for the employee. Currently no MCE employees are using this service.

<sup>5</sup> This assumes \$390,000 in assets, 11 employee accounts fund load of 1%, and administrative fee of 0.8%.

<sup>6</sup> Assumes low end estimate of average 1% load for conservatism. Actual loads range from 0.6%-2.25%.

<sup>7</sup> Total cost of Nationwide plan is increased from \$15,000 based on an increase in assets from March 31.

### Other Plan Options

Due to the growth of MCE's retirement plan and staff, management conducted an analysis of available retirement plan options and interfaced with a range of providers to determine which other cost-effective options would be available that could be better suited to the current needs of the Agency and employees. Options considered included both a renegotiated arrangement with Nationwide to reduce administrative costs, and moving the plan to a new platform with a separate fiduciary. Total estimated plan costs including average investment costs and fund loads range from \$9,000-\$25,000 annually with Nationwide's renegotiated option at the lowest cost.

Some key differences in cost and service are summarized below. A detailed summary of all options and costs is attached in Appendix A.

<b>MCE Retirement Plan Option Comparisons</b>			
<b>Items Included</b>	<b>Current Plan</b>	<b>Nationwide Update Plan</b>	<b>Recommended</b>
Investment Advice	N/A	Morningstar	Designed for MCE
Customized Investments	N/A	Schwab Direct	Designed for MCE
Regular Investment review meetings	N/A	N/A	Designed for MCE
Documentation of Investment Decisions	N/A	Maintained by MCE	Designed for MCE/ Maintained by Advisor
Investment meetings with employees	N/A	Additional cost	Designed for MCE/ Included in Fee
Average Fund Load	0.6%- 2.25%	0.6%-2.25%	0.1%-0.8%
Fiduciary	0	0	\$3,600 <sup>8</sup>
Administration <sup>9</sup>	\$7,250	\$0	\$4,500
One-time Implementation Fee	N/A	N/A	\$1,350
<b>Subtotal Plan Costs (Recommended to be paid by MCE going forward)</b>	<b>\$7,250</b>	<b>\$0</b>	<b>\$9,450</b>
Estimated Investment Costs Paid by Employees on Accounts	\$9,000	\$9,000	\$6,000
<b>Total MCE Retirement Plan Cost</b>	<b><u>\$16,250</u></b>	<b><u>\$9,000</u></b> <sup>10</sup>	<b><u>\$15,450</u></b> <sup>11</sup>

<sup>8</sup> This figure is estimated based on total assets of \$900,000. Genovese charges its fee as 0.4% of assets.

<sup>9</sup> PenServ administration is a flat fee. \$4,500 figure excludes \$1,350 first year implementation fee. Current Nationwide plan is based on 0.8% of assets.

<sup>10</sup> The figure for the updated Nationwide plan includes only fund loads assumed at an average of 1% on assets. Since the proposal received was preliminary, this figure may fail to include custodial fees or other charges.

<sup>11</sup> Total cost calculation for Genovese and PenServ assumes average fund load of 0.6% and a fiduciary fee of 0.4% on assets of \$900,000, administration fees of \$4,500, and \$1,350 of first year implementation fees to move the plans.

Options and costs were discussed in the MCE Executive Committee meeting on May 6 and June 3. The options were also presented for discussion at the regular MCE Board meeting held on May 21. Based on those discussions and a final recommendation from the Executive Committee on June 3, the recommended option is to retain two new firms to provide administrative and fiduciary services to MCE's retirement plans: Genovese Burford & Brothers ("Genovese") as the investment advisor and PenServ Plan Services ("PenServ") as the administrator. Based on assets of \$900,000 and current numbers of participants in both plans the costs on an annual basis would be \$3,600 for Genovese's fiduciary services and \$4,500 for PenServ for a total yearly cost of \$8,100.<sup>12</sup> That does not include the costs that employees will pay for investment fees and fund loads. We believe providers offer the best options to ensure a high quality plan for employees and low risk to the agency as plan sponsor.

The services provided by Genovese include regular investment meetings and documentation of all decisions, annual meetings with employees either in groups or individually to discuss investments as requested, and lower investment costs due to the ability to easily customize offerings and select low cost funds on the PenServ platform.

The implementation of the PenServ administration platform will enable MCE to include the lowest cost mutual funds such as those offered by Vanguard Investments. Retaining Genovese as an investment advisor will provide MCE with a professional fiduciary partner to advise it on fund decisions and help document its activities as plan sponsor.

The estimated total cost for employees and MCE under the recommended option, including average investment fees, is approximately \$15,000 in the first year or \$13,500 ongoing based on current asset levels. As plan assets increase the annual cost will increase at approximately \$6 for each \$1,000 of asset increase for the recommended option.

#### Cost Allocation between MCE and Employees:

Based on a research into best practices it is recommended that MCE pay all plan costs except fund loads and fees on individual employee investment selections. A survey of other employers indicates that, while not universal, it is a fairly common practice for plan sponsors to pay all administrative and fiduciary fees. These fees are often offset through plan forfeitures. It is typical for fiduciary costs to be borne by the plan sponsor.

Based on the history of the MCE plan, these costs would have been offset by forfeitures in the past which have totaled approximately \$30,000 since 2013. The additional administrative costs that MCE would cover are relatively small in consideration of MCE's overall budget, but significant in the value provided to employees. The costs of fiduciary services (approximately 40 basis points on assets) is a necessary investment to appropriately manage MCE's risk as plan sponsor.

---

<sup>12</sup> The approximate \$9,000 per year estimated cost quoted throughout this staff report for the recommended option is rounded up to the nearest \$1,000 to provide ample allowance for additional plan participation by recently hired employees.

The cost of the recommended administrative and fiduciary services would be approximately \$10,000 in the first year not including employee contributions. This includes \$1,350 of set-up costs associated with moving the accounting and administrative processes from Nationwide to the PenServ platform. In future years, the on-going costs are expected to be about \$9,000 per year for both administration and fiduciary services based on the current level of plan assets and including some allowance for additional employee participation.

As mentioned above, MCE employees currently pay approximately \$7,000 annually for administration only. This cost increases by \$8 for each \$1,000 increase in plan assets. The cost is allocated 100% to employee accounts. So, under the recommendation, MCE's costs would increase by about \$9,000 due to paying the full fiduciary and administrative costs. Management anticipates these costs could be offset by plan forfeitures. Total forfeitures have been significant in the past, amounting to approximately \$30,000 since 2013.

Engaging the recommended service providers is expected to result in: 1) lower-cost investment options for employees; 2) reduced risk to MCE as the plan sponsor; and 3) a fairer allocation of plan costs between MCE and employees.

**Recommendation:**

Direct CEO to negotiate agreements retaining two firms to provide administrative and fiduciary services to MCE's retirement plans: Genovese Buford & Brothers as an investment advisor and PenServ Plan Services as administrator.

## Appendix A— Retirement Plan Provider Proposal Summary

### Retirement Plan Provider Proposal Summary

Key Plan Features	Bundled Management		Administrators		Investment Fiduciaries	
	Current Plan	Nationwide Proposal	PenServ	Admin Partners	Sage View	Genovese Burford
ERISA 3(21) fiduciary plan oversight and investment advice	N/A	✓	N/A	N/A	✓	✓
Retirement plan best practices and procedures	N/A	✓	N/A	N/A	✓	✓
Investment selection support	N/A	✓	N/A	N/A	✓	✓
Quarterly analysis of plan performance	✓	✓	N/A	N/A	✓	✓
Custom financial investment offerings	N/A	✓+	✓+	✓+	✓+	✓+
Investment Policy and Board Investment Committee design and implementation	N/A	?	N/A	N/A	✓+	✓+
Regular investment meeting and decision documentation	N/A	?	N/A	N/A	✓+	✓+
Annual group and individual employee account consultation as requested	✓-	✓	N/A	N/A	✓+	✓+
Proactive on-going plan compliance consulting and legislative updates	N/A	✓	✓+	✓	✓	✓
Management reporting and analysis	✓	✓	✓+	✓	✓+	✓+
Participant notifications and collection of plan/account data[1]	✓-	✓-	✓	✓	N/A	N/A
Hardship and Loan Processing	✓	✓	✓	✓	N/A	N/A

## Appendix A— Retirement Plan Provider Proposal Summary

### Retirement Plan Provider Proposal Summary (cont.)

Providers Costs						
Key Plan Features	Bundled Management		Administrators		Investment Fiduciaries	
	Current Plan - Nationwide	Nationwide Proposal	PenServ	Admin Partners	Sage View	Genovese Burford
Admin and Fiduciary Costs Billed to Plan Sponsor (MCE)	No	Yes	Yes	Yes	Yes	Yes
Fiduciary costs (paid by MCE)	\$ -	\$ -			\$ 10,000.00	0.4% on assets
Plan Transfer Fees (paid by MCE)	\$ -	\$ -	\$ 1,350.00	\$ 1,000.00	N/A	N/A
Administrative charge on assets (paid by MCE)	0.80%	0%	0.1%	\$ -	N/A	N/A
Administrative/Records charges (paid by MCE)	\$ -	\$ -	\$ 4,500.00	\$ 1,400.00	N/A	N/A
Fund/Investment costs (paid by employees)	0.6%-2.25%	0.1-2.25%	N/A	N/A	0.1%-0.8%	01%-0.8%
<b>Estimated Cost to MCE in First Year</b>	<b>\$ 7,250.00</b>	<b>\$ 0.00</b>	<b>\$ 5,850.00</b>	<b>\$ 2,400.00</b>	<b>\$ 10,000.00</b>	<b>\$3,65000</b>

## Appendix A— Retirement Plan Provider Proposal Summary

### Short Company Overviews

Provider Type	Company	Contact	Description
<b>Fiduciary/ Advisor</b>	Sage View Advisors	Bob Patton, Managing Director	Small national investment firm. California-based, founded in 1989. Offices in San Francisco and 17 other location nationwide. 650 clients/\$38 billion under management.
	Genovese	Kevin Thelen, Partner	Small regional firm. California based, founded in 1987. Offices in Sacramento, introduced by River City Bank. \$2.2 billion under management.
<b>Record-keeper</b>	PenServ	Bill Fisher, Director Business Development	Small national administrator. Founded in 1986 and based in South Carolina, services all types of retirement plans. Services over 1,100 plan sponsors. Introduced by Vanguard Funds
	Admin Partners	Doug Baldino, Sales Manager	Large national administrator specializing in public education and non-profit employers including church and religious organizations. Services over 400 plan sponsors. Introduced by Vanguard Funds.
<b>Bundled All-in-One</b>	Nationwide	Brent Flowers, Relationship Consultant	Large national plan manager. Thousands of clients serving all types of public and private plans.



# GENOVESE BURFORD & BROTHERS

## WEALTH & RETIREMENT PLAN MANAGEMENT

### **Retirement Plan Management: Our Firm, People, Qualifications, and Services**



**Your Best Interest. Always.**



## Our Firm



### Independence

*Our firm was founded  
with a vision to offer  
independent high-quality  
consulting services to  
individuals & retirement  
plans*

### Participant Results

*We focus on increasing  
the retirement incomes of  
plan participants*

### Fiduciary Protection

*Our services and solu-  
tions are designed to help  
protect plan fiduciaries*

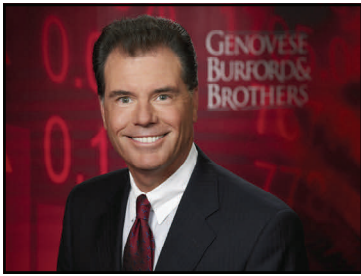


Genovese Burford & Brothers (GBB) was formed in 1987 as a consolidation of financial advisory practices. The intent was to gather a team of dedicated professionals that could deliver a broad spectrum of comprehensive financial services. Our firm has focused on retirement consulting services, fee based asset management, and estate planning & insurance since our inception.

We serve as a trusted partner with companies in providing guidance and solutions based on a thorough understanding of each client's situation and goals. Whether performing investment advisory services, consulting on plan design, providing employee communications, or evaluating service providers to compare fees and services, our process-driven, documented approach can help protect employers from corporate and personal financial liability, while striving to increase the retirement income of your employees.



## *Our Team of Experts*



Lon E. Burford, CFP®, AIF®

Lon is the firm's principal partner in charge of GBB Retirement Plan management services. He, along with Mike Genovese, was a founding partner of the firm in 1987 and has been a registered investment professional for 30 years.

Lon is a Certified Financial Planner and an Accredited Investment Fiduciary. He holds a Series 7, 63 and 65 securities registrations. He is also a Registered Investment Advisor Representative.



Michael T. Genovese, CFP®

Mike, also a founding partner of the firm, is the Chief Investment Officer of the Genovese Burford & Brothers Wealth Management Division. He has been registered investment professional for 31 years and he holds a Series 7, 24, 51 and 63 securities registrations. He is a Registered Investment Advisor Representative.

In his role as the CIO of the Genovese Burford & Brothers Wealth Management Division, Mike is responsible for the development and implementation of custom risk based asset allocation models for our retirement plan clients who wish to offer those vehicles to their participants. Genovese Burford and Brothers has managed this series of risk based models for over twenty years.



Kevin M. Thelen, CFA, CFP®

Kevin joined Genovese Burford and Brothers in 2007 and became partner in 2012. He holds the Certified Financial Planner and Chartered Financial Analyst designation, a Series 7 & 66 securities registration, and he is a Registered Investment Advisor Representative.

Kevin's responsibilities include the management of our retirement plan client relationships, serves as a member on GBB's investment committee, participates in our investment research and custom reporting, and engages heavily with retirement plan participants.



Alex G. Brown, CFP®, CPA

Alex joined Genovese Burford & Brothers in 2004 and was made a partner in 2008. He is a Certified Public Accountant, and worked for several years with Arthur Anderson and then as a financial analyst for Hewlett Packard. Alex also holds the Certified Financial Planner Designation, holds a Series 7 and 66 securities registration, and he is a Registered Investment Advisor Representative.

Alex occupies the lead role in a number of our retirement plan relationships and brings a significant level of tax, audit, and investment experience to those companies.



## Our Team of Experts



Kelly T. Brothers

Kelly became a GBB partner in 2007. He's not only a specialist in asset management; he's also a well-known business reporter for KCRA and KFBK. In fact, he delivers all of his reports from a fully-functional news studio inside the GBB office. He holds an MBA in international business from Notre Dame and the London School of Business. Kelly, a dual citizen of the U.S. and Ireland, has been named Volunteer of the Year by the Mercy Foundation, Father of the Year by the Center for Fathers and Families and twice named News Anchor of the Year by the Sacramento Bee.



Kevin A. Chang, CPA, AIF®

Kevin joined Genovese Burford and Brothers in 2011. Before joining GBB, Kevin gained valuable experience as a client relationship manager with Smart Investor and a senior auditor with KPMG. He is a Certified Public Accountant and an Accredited Investment Fiduciary. Kevin holds a Series 7 & 66 security registrations and is a Registered Investment Advisor Representative.

Kevin's responsibilities include the management of retirement plan client relationships, investment research, employee education, and assisting individuals with their personal financial planning and investment management needs.



Jonathan L. Deering, CFA

Jonathan recently joined Genovese Burford & Brothers from Capital Research and Management, manager of the American Funds, where he served as an investment analyst and manager of client assets for the last ten years. Prior to Capital Research, Jonathan held investment positions with Franklin Templeton Investments and Caxton Associates, and he brings over fifteen years of investment experience to Genovese Burford & Brothers. Jonathan holds an M.B.A. from The Wharton School of the University of Pennsylvania and a Chartered Financial Analyst designation.

Jonathan's responsibilities include assisting with investment strategy, including asset allocation and manager selection, and advising clients with respect to wealth management and retirement planning objectives.



---

## *Our Designations*

---

Our team holds the flagship designations in our industry. Genovese Burford & Brothers' has developed a team with diverse expertise with focuses in individual financial planning, institutional investment knowledge, tax planning, and fiduciary practice standards. Below we have highlighted what each of our designations means to you.

### **Certified Financial Planner (CFP®):**

The CFP® exam is a rigorous exam which covers general principles of financial planning, insurance planning, investment planning, income tax planning, retirement planning, estate planning, interpersonal communications, professional conduct, and fiduciary responsibility.

### **Chartered Financial Analyst (CFA):**

The Chartered Financial Analyst (CFA) charter is an investment credential that, for more than 60 years, has been the global standard for embodying the integrity, dedication, and advanced skills needed to build a stronger, more accountable financial industry. No credential is as widely respected for its focus on current investment expertise and performing in the client's best interest. None is harder to obtain.

### **Certified Public Accountant (CPA):**

Certified Public Accountant (CPA) is the statutory title of qualified accountants in the United States who have passed the Uniform Certified Public Accountant Examination and have met additional state education and experience requirements for certification as a CPA. The CPA designation provides a technical background in corporate and individual tax issues.

### **Accredited Investment Fiduciary (AIF®)**

The Accredited Investment Fiduciary® (AIF®) designation represents a thorough knowledge of and ability to apply the fiduciary practices. AIF® designees learn fiduciary practices and the legal and best practice framework they are built upon.





---

## Overview of Services

---

### Investment Services

ERISA states that plan fiduciaries must act “with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims”. In other words, fiduciaries are expected to behave as an expert would in making investment decisions. Genovese Burford & Brothers can accept the highest fiduciary standard for the management of plan investments.

Our investment services include:

- ◆ **Investment Fiduciary Services**

- ◆ Discretionary Investment Fiduciary Service (ERISA 3(38) investment manager)

- ◆ Non-Discretionary Investment Fiduciary Service (ERISA 3(21) investment advisor)

- ◆ **Investment Manager Evaluation**

- ◆ **Investment Manager Monitoring**

- ◆ **Investment Policy Statement Design**

- ◆ **Participant Asset Allocation Strategies**

### Plan Design

Plan design decisions are among the most important decisions plan fiduciaries will make. A well designed plan can help protect fiduciaries, improve retirement income for employees, and provide a valued benefit to your employees.

Our plan design consulting helps to ensure your goals are met:

- ◆ **Improve participant saving and investment decisions**
- ◆ **Benefit executives and key employees**
- ◆ **Reduce administrative burden**



---

## Overview of Services

---

### Service Provider Evaluation, Selection and Monitoring Assistance

Selecting service providers, like a financial advisor, third party administrator, plan auditor, record-keeper, or attorney to help manage your plan is an important decision, and if that service provider is paid from plan assets it is a fiduciary decision. Service providers paid from plan assets must have both the contract or arrangement and the compensation be “reasonable”. As ERISA, the Department of Labor, nor the court system has defined reasonable, it is the duty of plan fiduciaries to use their judgment in determining the reasonableness of fees paid out of plan assets; with this perspective, the “judgment” used by a plan sponsor must be defensible if scrutinized. We have a documented process to facilitate both a quality decision and a means to protect fiduciaries if scrutinized.

#### ♦ **Service Provider Evaluation Assistance**

- ◇ Identify appropriate service providers for plan
- ◇ Evaluate their services and fees

#### ♦ **Service Provider Selection Assistance**

- ◇ Review findings from evaluation analysis
- ◇ Help plan sponsor match needs with most appropriate provider.

#### ♦ **Monitoring Assistance**

- ◇ Share market knowledge with plan sponsor
- ◇ Benchmark service providers
  - \* Compare fees and services of competing providers
  - \* Compare fees and services with market data



---

## Overview of Services

---

### Participant Education

Participants in a company retirement plan typically have two decisions, how much to save and how to invest that money. The impact of those decisions on their retirement income is significant, but we find that most are not prepared to make those decisions effectively. We design our engagement programs with the goals of improved decisions, increased participant confidence, and promoting the retirement plan as a key company benefit.

#### ♦ **Group Seminars**

- ◇ Enrollment
- ◇ Popular Seminars
  - \* **Investing 101 - Stocks & Bonds:** Their risks, historical returns, and building a retirement portfolio.
  - \* **Saving In Your 20s & 30s:** Buying Retirement While It's Cheap!
  - \* **Preparing for Retirement in Your 40s & 50s:** Aligning Retirement Expenses with Social Security, Investment Income, and Other Sources.
  - \* **Investing in Your 50s & 60s:** Managing Risk and Preparing to Generate Income from Your Portfolio.
  - \* **Social Security:** Strategies to Maximize Your Retirement Income.

#### \* **One-on-One Meeting**

- ◇ Investment selection guidance
- ◇ Savings rate guidance

#### ♦ **Ongoing Access to Advisors**

- ◇ Provide all employees email and phone number of advisors



## Genovese Burford & Brothers - 2015-2017 Service Plan Marin Clean Energy

<p style="text-align: center;"><b><u>Q2 2015</u></b></p> <p><b>Record-Keeper Request for Proposal Analysis:</b> Review the fees, services, and investment opportunities at multiple record-keepers based on “Retirement Plan Service Needs Data Gather Questionnaire”.</p> <p><b>Record-Keeper Selection:</b> GBB to provide recommendation to MCE.</p>	<p style="text-align: center;"><b><u>Q3 2015</u></b></p> <p><b>Record-Keeper Transition:</b> There will be weekly phone calls with record-keeper to facilitate a smooth transfer.</p>
<p style="text-align: center;"><b><u>Q4 2015</u></b></p> <p><b>Record-Keeper Implementation:</b> Assets from current record-keeper to new record-keeper.</p> <p><b>Employee Education (GBB):</b> Group seminar to educate on change, who GBB is, and resources available to them. One-on-one meetings to follow focusing on investment decision with new record-keeper.</p> <p><b>Investment Services:</b> Email quarterly investment performance report.</p>	<p style="text-align: center;"><b><u>Q1 2016</u></b></p> <p><b>Investment Services:</b></p> <ul style="list-style-type: none"> <li>- Email quarterly investment performance report.</li> <li>- Meet with plan fiduciaries to review investment plan.</li> </ul>
<p style="text-align: center;"><b><u>Q2 2016</u></b></p> <p><b>Investment Services:</b></p> <ul style="list-style-type: none"> <li>- Email quarterly investment performance report.</li> </ul>	<p style="text-align: center;"><b><u>Q3 2016</u></b></p> <p><b>Investment Services:</b> Email quarterly investment performance report.</p>
<p style="text-align: center;"><b><u>Q4 2016</u></b></p> <p><b>Investment Services:</b> Email quarterly investment performance report.</p>	<p style="text-align: center;"><b><u>Q1 2017</u></b></p> <p><b>Investment Services:</b></p> <ul style="list-style-type: none"> <li>- Email quarterly investment performance report.</li> <li>- Meet with committee to review investments plan.</li> </ul> <p><b>Employee Education:</b></p> <ul style="list-style-type: none"> <li>- Group seminar &amp; one-on-one meetings</li> <li>.</li> </ul>



## Genovese Burford & Brothers Service and Fee Summary Marin Clean Energy

Below we have summarized our fee and services to manage the retirement plans at Marin Clean Energy. We welcome the opportunity to work with you on further customizing our services and pricing based on your needs.

**FEE:** 0.40%

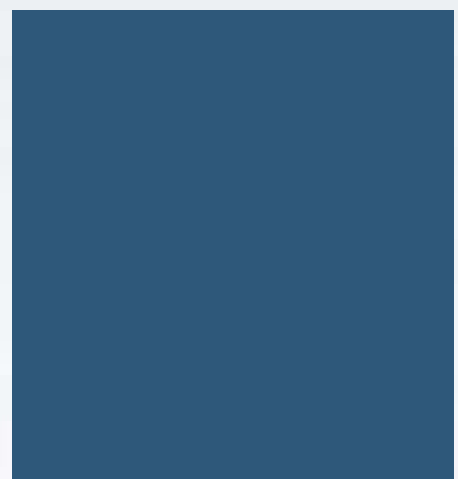
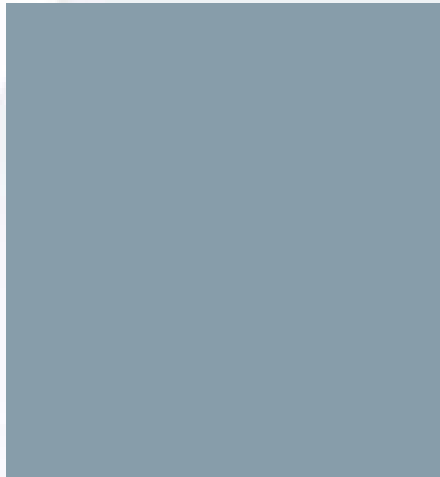
Summary of Services	
<u>Service</u>	<u>Details</u>
<b>Discretionary Investment Fiduciary Service (ERISA 3(38)) or Non-Discretionary Investment Fiduciary Services (ERISA 3(21))</b>	<ul style="list-style-type: none"> <li>- Annual fiduciary meeting: GBB to review investment plan and communicate potential changes.</li> <li>- Quarterly performance reporting: plan fiduciaries will receive a quarterly performance update.</li> <li>- Provide in-depth manager evaluation analysis</li> <li>- Investment policy statement</li> <li>- Asset allocation strategies</li> </ul>
<b>Service Provider Evaluation, Selection and Monitoring Assistance</b>	<ul style="list-style-type: none"> <li>- Service Provider Evaluation Assistance                             <ul style="list-style-type: none"> <li>o Identify appropriate service providers for plan</li> <li>o Evaluate their services and fees</li> </ul> </li> <li>- Service Provider Selection Assistance                             <ul style="list-style-type: none"> <li>o Review findings from evaluation analysis</li> <li>o Help plan sponsor match needs with most appropriate provider.</li> </ul> </li> <li>- Monitoring Assistance                             <ul style="list-style-type: none"> <li>o Share market knowledge with plan sponsor</li> <li>o Benchmark service providers                                     <ul style="list-style-type: none"> <li>▪ Compare fees and services of competing providers</li> <li>▪ Compare fees and services with market data</li> </ul> </li> </ul> </li> </ul>
<b>Employee Education</b>	<ul style="list-style-type: none"> <li>- GBB to provide annual group and one-on-one meetings.</li> <li>- Focus efforts on increasing the financial security of employees.</li> </ul>

*Prepared for:*

**MCE Energy**



## **401(a) Retirement Plan and Recordkeeping Services**





## Selecting a Recordkeeper/Administrator

Selecting a recordkeeper/administrator for your 401(k) plan is one of the most important decisions you'll make when designing a program for your employees.

In today's marketplace, many firms offer plans with standard provisions that may result in increased costs to maintain the program or result in reduced allocations to higher-paid employees. At PenServ, we focus on the needs and goals of the employer, to ensure there are no surprises. With information on your firm and your employee base, our experienced Consulting Group can design a plan tailored to your specific needs.

As a PenServ client, you will be guided by a trained relationship team that will oversee the day-to-day operations of the Plan. Utilizing the latest in technology, this group will focus on compliance with IRS and DOL regulations to ensure contributions, distributions and general operations are managed according to your plan document.

### *Services Include:*

- ✓ Compliance Monitoring and Reporting to Plan Sponsor
- ✓ Annual Review of the Plan Design
- ✓ Monitoring of Plan and Loan Limits, Hardship Withdrawals and Permitted Distributions for compliance purposes
- ✓ Operational Procedures that ensure IRS Audit Requirements are implemented and documented



## Industry Best Practices Standards

### *Managing Change*

Regulations define how qualified retirement plans are managed. The PenServ Relationship Teams guide employers through these complex rules to ensure that transactions are documented and applied on a timely basis. Beginning with the document design, through the processing of payroll files, employers are provided guidance to establish the proper oversight of administrative activities.

As regulatory changes impact the design and operational aspects of the plan, the Relationship Team assists the plan sponsor with document changes and employee communication materials.

### *Conversion Analysis*

As part of the takeover process, PenServ will conduct a due-diligence analysis of the procedures currently in place for managing the program. This process identifies any options that may improve the efficiency of the administrative process. The Conversion Team assigned to the plan coordinates the project and directs the activities based on a timeline designed to ensure all records are captured and applied properly.

Upon completion of the conversion process, the account detail is reviewed by a senior plan specialist and the plan is transitioned to the Relationship Group.





## On-going Plan Administration

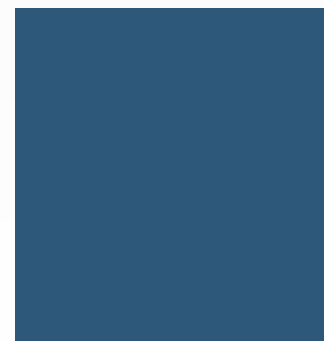
### *It Takes a Team*

When your plan is managed by PenServ Administration, a team of qualified individuals will be responsible for all aspects of the program. The PenServ Benefits Group is responsible for consulting with individual participants requesting assistance with a loan, a in-service distribution or other qualified payment of benefits. With *PenStation*<sup>SM</sup> all activities and communication are connected to ensure documentation and continuity for follow-up on pending matters. The focus of this Group is to assist employees and beneficiaries with the complex rules that now apply to their accounts.

The Relationship Team also works with the plan's investment providers to ensure best industry practices are applied to the operation of the program, relieving the employer of coordinating the day-to-day administrative functions.

### *Standard Annual Activities:*

- ✓ Plan Document Review
- ✓ Management Summary Analysis
- ✓ Required Notifications
- ✓ Collection of Plan Data
- ✓ Eligibility Projections
- ✓ Hardship and Loan Processing
- ✓ Non-Discrimination Testing
- ✓ Legislative Updates



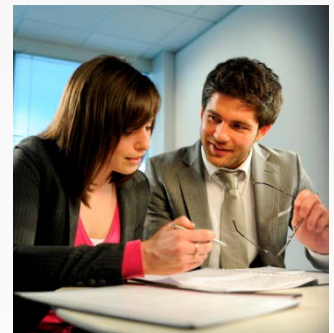
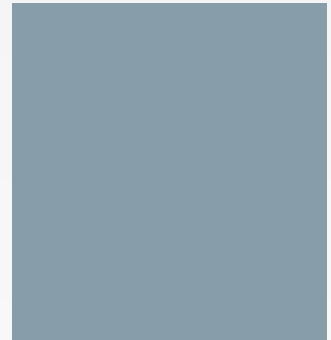
## Audited Controls Ensure Accuracy

### *Controls are Audited Annually*

The PenServ Operations Group maintains controls and procedures that are audited each year by an independent CPA firm. This process ensures that plan activities are handled and maintained according to AICPA standards. If the plan requires an independent audit, the SSAE-16 report on internal controls may permit the employer's CPA to conduct a limited-scope audit and reduce the cost for the plan.

### *Security Measures Protect Sensitive Records*

Controls also ensure participant data is secured within our system. Individual access to the PenServ Operations Center is controlled by electronic identification and entry is captured in permanent electronic media. Data is duplicated and stored in a backup location that can be activated in case of a natural disaster.



### *Security and Control Measures*

- |                                   |                                      |
|-----------------------------------|--------------------------------------|
| ✓ Secure File Transfer of Data    | ✓ System Access Tracking             |
| ✓ Full Backup System/Data Storage | ✓ Monitoring of Workstation Security |
| ✓ On-Site Power Backup Testing    | ✓ Limited Employee Access Levels     |
| ✓ 24/7 Intrusion Monitoring       | ✓ 24/7 Physical Location Security    |





## **Innovative Technology**

### *Periodic System Enhancements*

As new advances in technology becomes available, the Product Development and Marketing Group collaborates to review concepts that could improve the delivery of plan information to participants and plan sponsors.

New tools to analyze plan data, communicate plan information and changes within the industry allow plan sponsors to view investment performance, program demographics and trends that may be developing in the plan. Reports can be defined by the user and downloaded electronically in simple text or delimited files.

### *Electronic Communication*

In addition to improved access to plan data, technology improvements now allow participants 24/7 access to enrollment and educational systems, information on investment providers and sophisticated tools to manage retirement accounts. Amounts available for participant loans are captured and displayed in the system and employees can receive immediate approval through the web site.

### *Sample Electronic Communications:*

- ✓ Payroll Due Notification
- ✓ Hardship Suspension Notice
- ✓ Late Payroll Notification
- ✓ Expiration of Suspension Notice
- ✓ Payroll Confirmation
- ✓ Late Loan Payment Review
- ✓ Electronic Transfer of Funds
- ✓ Notification of Information Due
- ✓ Reconciliation with Vendors
- ✓ Legislative Updates



## 401(a) Plan Administration Services

Administration of a 401(a) program requires assistance with the many complex rules that govern qualified retirement plans. As a PenServ client, the activities needed to meet IRS and DOL regulations are provided on an annual basis:

- ✓ Plan Design and Initial Qualification Testing
- ✓ Plan Document and Administrative Forms
- ✓ Open-Architecture Investment Option
- ✓ Limitation Testing
- ✓ Quarterly Participant Statements
- ✓ 24/7 Automated Response Systems
- ✓ Automated Loan Processing
- ✓ Monitoring Coverage and Non-discrimination
- ✓ Compliance Rules
- ✓ Annual Management Review of Plan
- ✓ Compliance Reporting
- ✓ Monitoring and Reporting of Plan Expenses
- ✓ Preparation of Audit Reports
- ✓ Periodic Legislative Updates





## Estimated Annual Plan Fees

### MCE Energy 401(a) Plan

25 Participants and \$750,000 (Combined with 457b)

Service Description	Cost
<b>ONE-TIME FEES</b>	
Plan Take-Over Fee (Includes Takeover of 457b Plan)	\$ 1,350
Includes due-diligence review of Plan records and plan design, testing options, review of SPD, administrative policies and forms for compliance purposes, design, build and test of participant/plan sponsor web site, enrollment and participant training video for new and existing participants, management of conversion project and implementation timeline	
<b>ANNUAL FEES</b>	
Base Fee	\$ 1,800
Maintain Plan Sponsor web portal, process and reconcile periodic contributions with limitation monitoring, Plan specification vs. document analysis, 410(b), 401(a)(4), 401(k)/401(m), 414(s) and 415 contribution testing, preliminary and final testing reports, calculation and tracking of excesses, annual compliance audit report	
Participant Fees @ \$40	
Provide customized Participant website, Participant telephone and on-line support in Spanish and English, quarterly statements, allocation of contributions, trade/investment transaction capture and transmission, account maintenance	\$ 200
Preparation of Form 5500 and Financial Reports	\$ 500
Preparation of Trust transactions and financial reports, signature-ready Form 5500, Summary Annual Report, annual compliance notices, testing reports and management review	
<b>OTHER FEES</b>	
Benefit Payments	\$ 70/each
Calculation of benefits due, track cash-out distributions, location service for lost participants, calculation, processing and communication of required minimum distributions, qualification and processing of hardship payments, employee and employer suspension notifications	
Initial Participant Loan	\$ 70/each
Calculation and set-up of loan, amortization schedule, participant loan guide	
Loan Administration	\$ 12.50/qtr
Processing and tracking of loan repayments, loan default processing, monitoring special loan of military and leave of absence, confirmation of payroll deductions	



## Contact Information

The Marketing and Business Development Group from PenServ can assist you with information relating to our services. A qualified marketing representative can provide recommendations or solutions to your specific questions.

To speak with a marketing representative, please contact our office:

### *PenServ Marketing Group*

Phone	(800) 849-4001 or (803) 791-4923
Fax	(803) 791-5925
Web Site	<a href="http://www.penserv.com">www.penserv.com</a>
Email:	<a href="mailto:marketing@penserv.com">marketing@penserv.com</a>



**GENOVESE BURFORD & BROTHERS WEALTH AND RETIREMENT PLAN  
MANAGEMENT, LLC.  
INVESTMENT ADVISORY AGREEMENT  
--DRAFT--**

Plan Sponsor: Marin Clean Energy  
1125 Tamalpais Avenue  
San Rafael, CA 94901

Plan: \_\_\_\_\_  
[name of Plan]

Investment Adviser: Genovese Burford & Brothers Wealth and  
Retirement Plan Management, LLC.  
1515 Response Road  
Sacramento, CA 95815

Effective Date: \_\_\_\_\_, 2015

The Plan Sponsor, as the responsible plan fiduciary for the Plan (that is, the fiduciary with authority to cause the Plan to enter into this Agreement), engages the Investment Adviser (“Adviser”) to provide the services described in this Agreement.

1. Fiduciary Authority. The Plan is a participant-directed plan and the Plan Sponsor has the authority to designate investment alternatives under the Plan and the related trust, and to enter into an Agreement with third parties to assist in these and related duties. In this capacity, the Plan Sponsor (or, to the extent the Plan Sponsor has delegated its investment authority to an investment committee, the committee) is referred to as the Client.

2. Services. Adviser agrees to provide the following services (collectively, “Services”) to Client, the Plan and the Plan participants:

- (a) **Fiduciary Services:** Adviser will perform the Fiduciary Services described in Appendix A.
- (b) **Non-Fiduciary Services:** Adviser will perform the Non-Fiduciary Services described in Appendix B.
- (c) Client acknowledges that Adviser has no responsibility to provide any services related to the following types of assets: employer securities; real estate (except for real estate funds and publicly traded REITs); life insurance, stock brokerage accounts or mutual fund windows; participant loans; non-publicly traded partnership interests; other non-publicly traded securities or property (other than collective trusts and similar vehicles); or other hard-to-value or illiquid securities or property (collectively, “Excluded Assets”). The Excluded Assets shall be

disregarded in determining the Fees payable to Adviser under this Agreement, and the Fees shall be calculated only on the remaining assets (the “Included Assets”). All references in this Agreement to the Plan assets shall be construed as a reference to the Included Assets.

- (d) In performing the Fiduciary Services, Adviser is acting as (i) a fiduciary of the Plan under the Employee Retirement Income Security Act (“ERISA”) for the purposes of providing the services described in Appendix A, and (ii) a non-discretionary investment adviser only under ERISA §3(21)(A) and (iii) a registered investment adviser under the Investment Advisers Act of 1940 (the “Advisers Act”).
- (e) In performing the Non-Fiduciary Services, Adviser is not acting as a fiduciary of the Plan as defined in ERISA.

3. Fees.

- (a) The compensation of the Adviser for its Services is described in Appendix C.
- (b) The Plan is obligated to pay the fees described in Appendix C. However, the Plan Sponsor, at its option, may choose to pay the fees.
- (c) Neither Adviser nor any affiliate reasonably expects to receive any other compensation, direct or indirect, for its Services under this Agreement. If Adviser receives any other compensation for such services, Adviser will (i) offset that compensation against its stated fees, and (ii) will disclose to Client the amount of such compensation, the services rendered for such compensation, the payer of such compensation and a description of Adviser’s arrangement with the payer.

4. Client Acknowledgements and Representations. Client acknowledges and represents that:

- (a) It has retained, and will exercise, final decision-making authority and responsibility for the implementation (or rejection) of any recommendations or advice rendered to Client by Adviser.
- (b) Client shall have the sole discretion to determine whether investments should pay, directly or indirectly, amounts to or on behalf of the Plan to cover all or most of the expenses of the Plan. Client’s decision is reflected in the selected provision below.

\_\_\_\_\_ It is the intention of the Client not to bear any of the cost of operating the Plan. Accordingly, when rendering Fiduciary Services, Adviser is hereby directed to recommend investment alternatives that will pay, directly or indirectly, amounts to or on behalf of the Plan to cover all or most of the expenses of the Plan, unless it is clearly imprudent to do so.

\_\_\_\_\_When rendering Fiduciary Services, Adviser is hereby directed to recommend investment alternatives that will not pay, directly or indirectly, amounts to or on behalf of the Plan to cover all or most of the expenses of the Plan, unless it is clearly imprudent to do so.

- (c) In performing both Non-Fiduciary Services and Fiduciary Services, Adviser does not act as, nor has Adviser agreed to assume the duties of, a trustee or the Plan Administrator, as defined in ERISA, and Adviser has no discretion to interpret the Plan documents, to determine eligibility or participation under the Plan, or to take any action with respect to the management, administration or other aspect of the Plan
- (d) Adviser does not provide legal or tax advice.
- (e) Investments are subject to various market, political, currency, economic, business and other risks, and may not always be profitable; and further that Adviser does not and cannot guarantee financial or investment results.
- (f) Adviser (i) may perform other services for other Clients, (ii) may charge a different fee for other Clients, and (iii) may give advice and take action that is different for each Client even where retirement plans are similar. Nothing in this Agreement shall limit or restrict the Adviser or any of its directors, officers, affiliates or employees from buying, selling or trading in any securities or other assets for its or their own account or accounts, and the Client acknowledges that the Adviser, its directors, officers, affiliates and employees, and other clients of the Adviser, may at any time acquire, increase, decrease or dispose of portions of investment which are at the same time being acquired held or disposed of for the Plan.
- (g) Adviser may, by reason of performing services for other clients, acquire confidential information. Client acknowledges and agrees that Adviser is unable to divulge to the Client or any other party, or to act upon, any such confidential information with respect to its performance of this Agreement. In addition, Client acknowledges that all information and advice furnished by Adviser to Client in connection with this Agreement will be treated as confidential and will not be disclosed to third parties unless such disclosure is required by law or Client authorizes that such information and advice be disclosed.
- (h) Adviser is entitled to rely upon all information provided to Adviser, whether financial or otherwise, from reputable third parties or by Client, Client's representatives or third-party service providers to Client, the Plan, or the Adviser without independent verification. Client agrees to promptly notify Adviser in writing of any material change in the financial and other information provided to Adviser and to promptly provide any such additional information as may be reasonably requested by Adviser. Client agrees to indemnify Adviser for any losses, claims or damages, including legal fees, which may be incurred by

Adviser as a result of its reliance upon inaccurate information provided by the Client.

- (i) Adviser will not be responsible for voting (or recommending how to vote) proxies of the mutual fund shares held by the Plan (or its trust). Responsibility for voting proxies of investments held by the Plan or its trust remain with Client (or, if applicable, the Plan participants).
- (j) Client is the “responsible plan fiduciary” for the selection and monitoring of service providers for the Plan, in accordance with the requirements of ERISA. Adviser is entitled to rely upon this statement until notified in writing to the contrary.
- (k) The execution of this Agreement and the performance thereof is within the scope of authority authorized by the governing instrument of the Plan and applicable laws. The signatory on behalf of Client represents that (i) the execution of the Agreement is authorized, (ii) the signatory has authority to execute the Agreement on behalf of the Plan, and (iii) it will provide supporting documentation as may be reasonably required by Adviser.
- (l) Upon request, Client shall deliver to Adviser copies of the Plan documents, including any and all amendments thereto, and shall provide Adviser with copies of any subsequent amendments or restatements of these documents.
- (m) The Plan and related Trust permit payment of Fees out of Plan assets. Client has determined that the Fees charged by Adviser are reasonable and, if paid out of Plan assets, are a proper obligation of the Plan.
- (n) Adviser does not have custody of the Plan assets and therefore, Adviser has no liability to the Client for any loss or other harm to any Plan assets, including any harm to Plan assets resulting from the insolvency of the custodian or any acts of the agents or employees of the custodian regardless of whether the full amount of such loss is covered by SIPC or any other insurance which may be carried by the custodian. The Client understands that SIPC provides only limited protections for the loss of property held by a broker-dealer.

5. Standard of Care.

- (a) Adviser will perform the Fiduciary Services described in Appendix A in accordance with the prudent man rule set forth in ERISA Section 404(a)(1)(B).
- (b) Adviser will perform the Non-Fiduciary Services described in Appendix B and shall not be liable for any liabilities and claims arising thereunder unless directly caused by Adviser’s intentional misconduct or gross negligence.

6. Receipt of Disclosure. Client acknowledges receipt of (i) this Agreement, which contains the disclosures required by ERISA Regulation Section 2550.408b-2(c), including the disclosure as to Adviser’s status as a fiduciary and a registered investment adviser under the Advisers Act,

and (ii) Adviser's Form ADV Part 2A reasonably in advance of entering into this Agreement. Client agrees to review and consider the disclosures made by Adviser (including in this Agreement and the Form ADV Part 2A), in particular the portions related to services, compensation, and potential conflicts of interest, as well as the remainder of the disclosures concerning, among other matters, background information such as educational and business history, business practices such as the types of advisory services provided, the methods of securities analysis used, and the like.

7. Termination. Either party may terminate this Agreement upon thirty (30) days prior written notice to the other party. Such termination will not, however, affect the liabilities or obligations of the parties arising from transactions initiated prior to such termination, and such liabilities and obligations (together with the provisions of sections 5 and subsection 8(i)) shall survive any expiration or termination of this Agreement. Upon the effective date of termination, Adviser will have no further obligation under this Agreement to act or advise Client with respect to Services under this Agreement.

8. Miscellaneous.

(a) Representations of Adviser.

- (i) Adviser will disclose, to the extent required by ERISA Regulation Section 2550.408b-2(c), to Client any change to the information in this Agreement required to be disclosed by Adviser under ERISA Regulation Section 2550.408b-2(c)(1)(iv)(A) through (D), and (G) as soon as practicable, but no later than sixty (60) days from the date on which Adviser is informed of the change (unless such disclosure is precluded due to extraordinary circumstances beyond Adviser's control, in which case the information will be disclosed as soon as practicable).
- (ii) In accordance with ERISA Regulation Section 2550.408b-2(c)(1)(vi), upon the written request of the responsible plan fiduciary or plan administrator, Adviser will disclose all information related to this Agreement and any compensation or fees received in connection with this Agreement that is required for the Plan to comply with the reporting and disclosure requirements of Title I of ERISA and the regulations, forms and schedules issued thereunder. Such disclosure shall be made reasonably in advance of the date upon which the responsible plan fiduciary or plan administrator states that it must comply with the reporting and disclosure requirement (unless such disclosure is precluded due to extraordinary circumstances beyond Adviser's control, in which case the information will be disclosed as soon as practicable); provided that the responsible fiduciary or plan administrator provides the written request to Adviser reasonably in advance of the date upon which the responsible plan fiduciary or plan administrator must comply with the reporting and disclosure requirement and any failure to do so shall be deemed to be an extraordinary circumstance beyond Adviser's control.



- (iii) If Adviser makes an unintentional error or omission in disclosing the information required under ERISA Regulation Section 2550.408b-2(c)(1)(iv), a change to such information as described in part (i) hereof and disclosed pursuant to ERISA Regulation Section 2550.408b-2(c)(1)(v)(B), or information required under ERISA Regulation Section 2550.408b-2(c)(1)(vi), Adviser will disclose to Client the corrected information as soon as practicable, but no later than thirty (30) days from the date on which Adviser learns of such error or omission.
- (b) Notices. Any and all notices required or permitted under this Agreement shall be in writing and shall be sufficient in all respects if (i) delivered personally, (ii) mailed by registered or certified mail, return receipt requested and postage prepaid, (iii) sent via a nationally recognized overnight courier service to the address on the first page of this Agreement, or such other address as any party shall have designed by notice in writing to the other party, or (iv) as otherwise mutually agreed by the parties. In addition, Client expressly agrees to accept electronic communication of any notice, advice, or report in lieu of a printed copy, including applicable disclosure documents and disclosures required under ERISA Section 408(b)(2) at the email address listed above or such other email address as Client may designate in writing to Adviser. Client may revoke this consent at any time by providing notice to Adviser pursuant to this section (b).
- (c) Assignability. This Agreement is not assignable (within the meaning of the Advisers Act) by either party hereto without the prior written consent of the other party.
- (d) Effect. This Agreement shall be binding upon and shall inure to the benefit of the Parties and their respective heirs, successors, survivors, administrators and assigns.
- (e) Entire Understanding and Modification. This Agreement constitutes and contains the entire understanding between the parties and supersedes all prior oral or written statements dealing with the subject matter herein. This Agreement can be amended or modified by the written consent of the parties.
- (f) Severability. If any one or more of the provisions of this Agreement shall, for any reason, be illegal or invalid, such illegality or invalidity shall not affect any other provision of this Agreement and this Agreement shall be enforced as if such illegal or invalid provision had not been contained herein.
- (g) Headings. All headings used herein are for ease of reference only and in no way shall be construed as interpreting, decreasing or enlarging the provisions of this Agreement.
- (h) Applicable Law; Forum. The laws of the State of California shall govern this Agreement in all respects, including but not limited to the construction and enforcement thereof, unless preempted by ERISA or other federal law.

(i) Arbitration Agreement.

(i) To the extent permitted by law, any controversy or dispute which may arise between the Client and Adviser concerning any transaction or the construction, performance, or breach of this Agreement shall be settled by arbitration. Any arbitration shall be pursuant to the rules, then applying, of the American Arbitration Association, except to the extent set forth herein. The arbitration panel shall consist of at least three (3) individuals, with at least one (1) panelist having knowledge of investment advisory activities. The parties agree that any arbitration proceeding pursuant to this provision shall be held in Sacramento County, California under the Commercial Arbitration Rules of the American Arbitration Association. The award of the arbitrators shall be final and binding on the parties, and judgment upon the award rendered may be entered in any court, state or federal, having jurisdiction. The parties acknowledge and understand the following regarding arbitration:

(A) Arbitration is final and binding on all parties.

(B) The parties are waiving their right to seek remedies in court, including the right to jury trial, except to the extent such a waiver would violate applicable law.

(C) Pre-arbitration discovery is generally more limited than and different from court proceedings.

(D) The arbitrators' award is not required to include factual findings or legal reasoning and any party's right to appeal or to seek modification of rulings by the arbitrators is strictly limited.

(E) The panel of arbitrators will typically include a minority of arbitrators who were or are affiliated with the securities industry.

(ii) The agreement to arbitrate does not entitle any party to obtain arbitration of claims that would be barred by the relevant statute of limitations if such claims were brought in a court of competent jurisdiction. If at the time a demand for arbitration is made or an election or notice of intention to arbitrate is served, the claims sought to be arbitrated would have been barred by the relevant statute of limitations or other time bar, any party to this Agreement may assert the limitations as a bar to the arbitration by applying to any court of competent jurisdiction, and Client expressly agrees that any issues relating to the application of a statute of limitations or other time bar, are referable to such a court. The failure to assert such bar by application to a court, however, shall not preclude its assertion before the arbitrators.

(iii) Client understands that this agreement to arbitrate does not constitute a waiver of the right to seek a judicial forum where such waiver would be void under applicable federal or state securities laws.

- (j) Amendment Process. The Agreement may also be modified, including without limitation the services to be provided by Adviser or the fees charged by Adviser, in the manner set forth herein and consistent with the procedure described in Department of Labor Advisory Opinion 97-16A or by written consent of both parties.

Adviser may propose to increase or otherwise change the fees charged, to change the services provided or otherwise modify this Agreement by giving Client reasonable advance notice of the proposed change. The notice shall be given in the manner described in this Agreement. The notices will (1) explain the proposed modification of the fees, services of other provision; (2) fully disclose any resulting changes in the fees to be charged as a result of any proposed change in the services of other changes to this Agreement; (3) identify the effective date of the change; (4) explain Client's right to reject the change or terminate this Agreement; and (5) state that pursuant to the provisions of this Agreement, if Client fails to object to the proposed change(s) before the date on which the change(s) become effective Client will be deemed to have consented to the proposed change(s).

If Client objects to any change to this Agreement proposed by Adviser, Adviser shall not be authorized to make the proposed change. In that event Client shall have an additional sixty (60) days from the proposed effective date (or such additional time beyond 60 days as may be agreed by Adviser) to locate a service provider in place and instead of Adviser. If at the end of such additional sixty (60) day period (or such additional time period as agreed by Adviser), the parties have not reached Agreement on the proposed changes, this Agreement shall automatically terminate.

- (k) Waiver of Limitation. Nothing in this Agreement shall in any way constitute a waiver or limitation of any rights which Client or Plan or any other party may have under ERISA or federal or state securities laws.
- (l) Delivery of Services. Services shall be delivered on behalf of Adviser by an Investment Adviser Representative ("IAR"), who is licensed under the Investment Advisers Act of 1940 and applicable state securities law. Adviser reserves the right to remove or replace the IAR.

[Remainder of page left intentionally blank.]

This Agreement constitutes both an agreement between the parties and a disclosure statement under ERISA Regulation Section 2550.408b-2(c). The parties have caused this Agreement to be executed by their duly authorized officers. This Agreement shall not be binding on Adviser until accepted by it, in writing, as indicated by its signature below.

Plan Sponsor:\*

Adviser:

Marin Clean Energy

Genovese Burford & Brothers Wealth and Retirement Plan Management, LLC.

By:\_\_\_\_\_

By:\_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title:\_\_\_\_\_

Date:\_\_\_\_\_

\*The Plan Sponsor is signing this Agreement both as the employer that sponsors the Plan and as the fiduciary responsible for selecting the Plan investments and engaging its service providers.

## **APPENDIX A**

### **FIDUCIARY SERVICES**

The Adviser will perform the following Fiduciary Services:

**A. Plan-Level Non-Discretionary Investment Advice Services**

(i) Provide non-discretionary investment advice to the Client about asset classes and investment alternatives available for the Plan in accordance with the Plan's investment policies and objectives. Client shall have the final decision-making authority regarding the initial selection, retention, removal and addition of investment options.

(ii) Assist the Client with the selection of a broad range of investment options consistent with ERISA Section 404(c) and the regulations thereunder.

(iii) Assist the Client in the development of an investment policy statement (IPS). The IPS establishes the investment policies and objectives for the Plan and shall set forth the number of general investment options and asset class categories to be offered under the Plan. Client shall have the ultimate responsibility and authority to establish such policies and objectives and to adopt and amend the investment policy statement.

(iv) Assist in monitoring investment options by preparing periodic investment reports that document investment performance, consistency of fund management and conformance to the guidelines set forth in the IPS and make recommendations to maintain or remove and replace investment options.

(v) Meet with Client on a periodic basis to discuss the reports and the investment recommendations.

(vi) Provide non-discretionary investment advice to the Plan Sponsor with respect to the selection of a qualified default investment alternative ("QDIA") for participants who are automatically enrolled in the Plan or who otherwise fail to make an investment election. The Client retains the sole responsibility to provide all notices to participants required under ERISA Section 404(c)(5).

## **APPENDIX B**

### **NON-FIDUCIARY SERVICES**

The Adviser will perform the Non-Fiduciary services described below. Adviser may provide these services or, alternatively, may arrange for the Plan's other providers to offer these services, as agreed upon between Adviser and Client.

#### **A. Plan-Level Non-Fiduciary Services**

- (i) Assist in the group enrollment meetings designed to increase retirement plan participation among employees and investment and financial understanding by the employees.
- (ii) Educate Client as to its fiduciary responsibilities.
- (iii) Assist the Client in monitoring, selecting, and supervising service vendors and coordinate the transition process if the service vendor is replaced.

#### **B. Participant-Level Non-Fiduciary Services**

Assist in the education of the participants in the Plan about general investment principles and the investment alternatives available under the Plan. Client understands that Adviser's assistance in participant investment education shall be consistent with and within the scope of (d) of Department of Labor Interpretive Bulletin 96-1 (i.e., the definition of investment education). As such, the Adviser is not providing fiduciary advice (as defined in ERISA) to the participants.

**APPENDIX C:**

**FEE SCHEDULE**

**(A) Billing Frequency**

Fees are billed quarterly. Such billing period is the “Fee Period.” For purposes of determining and calculating Fees, Plan assets are based on Included Assets.

**(B) Calculation of Fees.** The fee for Fiduciary Services shall be calculated as follows:

- ☐ Annual fee of 40 basis points (or 0.40%) per year.

Annual fees are based on the market value of Included Assets. The initial fee will be the amount, prorated for the number of days remaining in the initial Fee Period from the Effective Date of this Agreement, based upon the market value of the Included Assets on the last business day of the initial Fee Period and will be due within 30 business days following the last business day of the initial Fee Period. Thereafter, the Fee will be based upon the market value of the Included Assets on the last business day of the Fee Period (without adjustment for anticipated withdrawals by Plan participants or other anticipated or scheduled transfers or distributions of assets) and will be due within 30 business days following the last business day of the Fee Period. If this Agreement is terminated prior to the end of a Fee Period, Adviser shall be entitled to a fee, prorated for the number of days in the Fee Period prior to the effective date of termination, based on the market value of the Included Assets on the effective date of termination and will be due within 30 business days following the effective date of termination.

Market value of Plan assets means the value of assets as reported by the custodian or record keeper.

**(C) Additional Fees:** To the extent Client requests Adviser to work on a project or provide services outside the scope of the services listed on Appendices A and B, Adviser will provide Client, in writing or via email, with Adviser’s hourly rate or estimated fees for performing such services in advance.



June 18, 2015

TO: Marin Clean Energy Board

FROM: Beckie Menten, Energy Efficiency Director

RE: Energy Efficiency Update (Agenda Item #10)

ATTACHMENT: Draft 2016 Energy Efficiency Business Plan

Dear Board Members:

---

**Summary**

MCE's energy efficiency team has been working since May 2014 to develop its next phase of energy efficiency programs. The proposed Business Plan document for consideration by your Board is the result of many hours of work, discussion with the public and with staff and advisors of the California Public Utilities Commission, and represents a cutting edge, carefully considered plan to expand MCE's Energy Efficiency programs and meet Commission mandated policy objectives.

**Discussion**

Energy efficiency has always been an integral component of the MCE vision. The initial MCE Business Plan, issued in 2008, included energy efficiency, and energy efficiency was included in the MCE Implementation Plan prepared in 2009. MCE has been administering over \$5 million worth of energy efficiency programs in our service territory since 2012. Pursuant to Commission direction, these programs have focused on hard to reach market sectors and gaps within the existing programs offered by the Investor Owner Utilities (IOUs). The main programs currently in the MCE Energy Efficiency portfolio are:

- Multi-family
- Small commercial
- Single family utility demand reduction pilot program and
- Four financing pilot programs: On Bill Repayment for multi-family, small commercial, and single family, and a standard offer pilot.

Tables 1 and 2 demonstrate the success MCE has had in providing energy efficiency services to our community.



**Table 1: Program Performance Metrics 2013 – 2015 (April)**

<b>Multi-Family Program</b>	
Multi-Family Buildings Audited	193
Multi-Family Units Provided Free Direct Install Services	919
<b>Commercial Program</b>	
Commercial Facilities Audited	2,437
<b>Single Family Program</b>	
Students Reached through Schools Program	2,025
Action Plans Created on Website	1,691
Homes Receiving Utility Reports	13,286

**Table 2: Cumulative Savings Results, 2013 – 2015 (April)**

Program	2013-2015 Budget	Program Expenditures	Installed Energy Savings (Gross Annual kWh)	Installed Gas Savings (Gross Annual Therms)	Number of Completed Projects
<b>Multifamily</b>	\$1,284,457	\$582,533	105,337	26,513	75 buildings
<b>Small Commercial</b>	\$1,795,940	\$800,939	1,202,166	(4,924)	176 businesses
<b>Single Family</b>	\$755,075	\$569,983	117,360	5,189	186,651 HURs <sup>1</sup>
<b>Financing Pilots</b>	\$1,400,000	\$1,303,176	N/A <sup>2</sup>	N/A	1
<b>Portfolio Total:</b>	<b>\$5,235,472</b>	<b>\$3,256,631</b>	<b>1,424,863</b>	<b>26,778</b>	<b>N/A</b>

**Energy Efficiency in 2015 and Beyond**

In Rulemaking 13-11-015, the CPUC established a process for addressing significant structural changes in the way ratepayer funded energy efficiency is authorized and overseen in California, including proposing a shift to a ten year funding cycle for energy efficiency, versus the two to three year funding cycles the Commission has historically approved. In November of 2014, the CPUC issued a decision providing an extension of MCE's existing portfolio of programs. The funding authorization for these programs, as with other independent administrators, was granted for ten years, allowing the Commission time to deal procedurally with the shift to the ten year rolling portfolio

<sup>1</sup> Home Utility Reports mailed to customers; approximately 18,000 customers in the MCE service territory receive these mailers on a monthly or quarterly basis.

<sup>2</sup> Our financing program leverages existing rebate programs, so the project savings are reported under the PG&E portfolio.

without interrupting funding for energy efficiency in California. The 2015 funding authorization for MCE is summarized below in Table 3.

**Table 3: 2015 Funding Authorization**

Program	Funding Level
Multifamily	\$430,486
Small Commercial	\$462,311
Single Family	\$227,470
Financing	\$100,000

While this proceeding is ongoing, MCE has identified the need to expand the portfolio of programs beyond hard to reach market sectors<sup>3</sup>. This includes development of a broader suite of programs that will allow us to better serve our service territory and achieve cost effectiveness targets. Additionally, MCE is seeking to design a program focused on greenhouse gas mitigation and market transformation in the energy efficiency sector, potentially including alternative metrics for gauging success.

## 2016 Program Development

### Public Outreach

MCE began development of the 2016 program in May of 2014. The process has involved reviewing energy usage and building characteristics in the service territory, identifying existing programs, and soliciting information from both the general public and specific subject matter experts. The MCE Energy Efficiency staff team conducted several workshops to present program ideas to various stakeholder committees and gain input on program design.

**Table 4: Summary of Workshops on 2016 Efficiency Program Design**

Location	Date	Focus	Attendees
San Rafael	5/29/14	Subject Matter Expert Workshops	14
Richmond	6/23/14	MCE Energy Efficiency Programs	20
San Rafael	7/24/14	MCE Energy Efficiency Programs	23
Napa	7/30/14	Agricultural Energy Efficiency Programs	12
Novato	8/7/14	Residential Energy Efficiency Programs	9
West Marin	8/13/14	Agricultural Energy Efficiency Programs	9
West Marin	11/12/14	RCD Workshop on Agriculture	30
Marin	1/9/15	Marin Conservation League Meeting	10

---

<sup>3</sup> When MCE first approached the CPUC about implementing energy efficiency programs in 2012, MCE was directed to avoid duplication of existing program offerings and to focus on 'gaps' in the existing IOU portfolio. MCE's application in July of 2012 complied with this direction, focusing on multifamily and small commercial sectors which are notoriously hard to reach due to the split-incentive issues (where the landlord owns energy using equipment but the tenant pays energy bills). In January of 2014, the CPUC passed Decision (14-01-033) directing CCAs implementing energy efficiency programs to achieve a cost-effectiveness target of 1.25, the same standard the IOUs must meet. MCE has determined that it will not be possible to achieve this high threshold without expanding beyond hard to reach market sectors and balancing these programs with more cost effective alternatives, some of which may overlap with those currently offered by the IOUs.

The MCE staff team learned a lot of valuable information at these workshops. This information was presented to the Board at the annual Board retreat in September of 2014 including:

- Richmond residents are very concerned with health and safety
- Transmission line constraints have made interconnection agreements challenging in West Marin
- Much of the MCE service territory relies on propane gas and well water (primarily West Marin and Unincorporated Napa County)

This input has helped to shape consideration of which opportunities make sense in our service territory, and which financial or personal levers can be used when marketing the energy efficiency program. In addition to these workshops, MCE also received written comments from a small handful of community members, including a letter from the Marin Conservation League Board with many recommendations that will be evaluated for inclusion in the more detailed implementation plans.

#### Format of the Submission to the CPUC

The CPUC is still considering the format in which they would like to see applications for funding in the rolling portfolio. MCE is closely monitoring this proceeding and developing an application that meets the best, most current, guidance.

The recommendation in the proceeding is to move away from traditional program implementation plans (PIP), which have been filed in the past for every program within the portfolio, and to move towards a Business Plan approach. This reduces the redundancy of much of the information contained in the PIPs and allows for a high level strategy to be articulated in alignment with the ten year funding cycle. MCE has taken this approach and developed the attached Business Plan for 2016 and beyond. This document outlines the high level strategy for the programs, and includes some analysis of market characterization. The proposed sector level program, for example residential and commercial, are briefly summarized; more detailed information on each sector level program will be presented in Implementation Plans which will be filed separately at the Commission and not formally voted on.

While this process and format is subject to change as the Proceeding develops at the Commission, MCE feels it is important to identify the programs we would like to administer in advance of other energy efficiency administrators. This is primarily due to the Commission expectation that we achieve a high level of cost effectiveness in our programs (pursuant to Decision 14-11-033 regarding CCA's and energy efficiency.) It is more difficult to achieve cost effectiveness in a predominantly residential and largely coastal service territory; thus MCE needs to have the 'first dibs' on programs in our area to meet these cost effectiveness thresholds.

#### Features of the 2016 Business Plan

The proposed program design represents a desire to achieve greater integration in energy services delivery, offering to the applicant a suite of services beyond energy efficiency to optimize the use of energy at each site. This integrated design focuses on the customer experience, rather than the silos of CPUC programs, and is more consistent with the reality of customer motivations in undertaking energy projects.

A major component of the 2016 program design is the seamless delivery of integrated programs through a customer service specialist. Each of these program designs includes a Single Point of Contact, or (SPOC), an assigned customer representative who would assist the applicant through every step of the process. The SPOC would assist the applicant not only with energy efficiency measures, but would also facilitate access to renewable energy, water, demand response, and more. This concept received warm support in vetting with the community and with the advisors to Commissioners of the CPUC.

A central component of the 2016 program design is also the development of a sophisticated Customer Relationship Management (CRM) tool. This tool will ensure that projects are efficiently tracked and moved through the pipeline in a timely manner. This tool will also retain information gathered at each property through the energy audit process, creating the opportunity for an ongoing relationship between the project applicant and the MCE program, and for the phasing of projects over time. If for example a project applicant chooses to only follow through with a portion of the upgrade project, the CRM can be used to develop a menu of reminders to follow up with that applicant over time. If the HVAC system is estimated to have five years remaining, in five years the program could follow up to suggest a more efficient HVAC unit. If the program provides a good experience for the customer, the customer may be more willing to return to the program for more and deeper upgrades.

The 2016 Business Plan also proposes taking advantage of the long-term nature of the rolling portfolio cycle to consider a declining incentive structure over time. Ideally, as a technology or idea gains traction in the market, public subsidy will no longer be needed to influence consumer behavior. MCE intends to monitor participation levels on a measure level basis and drop incentives per pre-defined steps when certain participation levels are met. This should allow for a program to pay high incentives up front, but drop these incentives over time, improving cost effectiveness in the long term.

**Table 5. Program Summary (2016-2019<sup>4</sup>)**

<b>Program</b>	<b>Budget</b>	<b>Savings (kWh)</b>	<b>Savings (therms)</b>
Single Family	\$6,323,441	6,323,441	224,688
Multifamily	\$7,171,341	7,171,341	166,053
Commercial	\$6,596,845	6,596,845	(28,126)
Industrial	\$2,811,669	2,811,669	(19,873)
Agricultural	\$1,319,090	1,319,090	1,539
<b>Total</b>	<b>\$24,222,385</b>	<b>24,222,385</b>	<b>344,282</b>

<sup>4</sup> The savings and budget for the ten year portfolio are organized in two year sections, as that is the timeframe estimated for the 'step down' in incentive costs. The first four years are presented here. These figures are subject to incremental adjustments before the Board Meeting as the cost effectiveness calculations are refined; final updates will be provided at the meeting.

## **Next Steps**

### **Documents for Submittal**

The most recent guidance issued by the CPUC suggests that the document that should be submitted for formal review and approval by the Commission is the Business Plan document, outlining the high level strategy for the energy efficiency program. The detailed information about each of the sector approaches is currently being fleshed out in Implementation Plan documents, more similar to the traditional program implementation plans that Program Administrators have been developing for years.

### **Submission to the CPUC**

MCE plans to bring the Business Plan to the CPUC after the Implementation Plans have been vetted and approved by MCE's Technical Committee and Executive Committee, in August. As this application will likely precede a formal invitation to submit by the Commission, MCE anticipates developing a Motion for Consideration, similar to what was done when we filed the 2013-2014 Application. This Motion would not only request consideration of the Business Plan (and associated Implementation Plans), but would also request resolution of several outstanding issues MCE raised in a Petition for Modification to the CCA Energy Efficiency Decision (D. 14-11-033) that the Commission has yet to consider.

Because MCE has a strong desire to file this plan in advance of other administrators, and because there is no Board meeting in July, MCE requests that the Board delegate authority to approve the Implementation Plans to the Executive Committee. MCE staff will bring draft plans for review in early July to Technical Committee and Executive Committee, and will provide an opportunity for members of the MCE service territory to comment on these plans. Comments will be incorporated to final drafts, which are expected in early August. These Implementation Plans, per the current guidance in the proceeding, may be modified at any time with the proper notifications to CPUC staff and stakeholder groups.

**Recommendation:** Approve the 2016 Energy Efficiency Business Plan for submission to the CPUC. Delegate authority for approval of the 2016 Energy Efficiency Implementation Plans to the Executive Committee.

## DRAFT DOCUMENT FOR PUBLIC REVIEW

**Marin Clean Energy**  
**Energy Efficiency Business Plan**  
**DRAFT | June 5, 2015**

## Table of Contents

Introduction .....	4
Background .....	7
MCE as an Energy Efficiency Program Administrator .....	8
Changes to MCE's Energy Efficiency Directives.....	8
Opportunities in California's New Program Cycle.....	9
Purpose of MCE's Business Plan for Energy Efficiency .....	10
California's Energy Efficiency Goals.....	11
MCE's Strategic Advantages.....	12
Market Analysis .....	16
Current Market Boundaries .....	18
Customer Segments.....	19
Market Opportunities.....	20
Building Stock and Energy Efficiency.....	20
Market Transformation and Decreasing Incentives .....	22
Business Model .....	23
Value Proposition: Provide a One-Stop Shop for Energy Savings .....	23
Customer Value Chain .....	26
MCE's Customer Value Chain.....	27
Energy Efficiency Guiding Principle: Integrate Resource Conservation Solutions .....	28
MCE's Business Model .....	29
Key Activities: Programs by Sector .....	30
Residential Program: Multifamily.....	30
Residential Program: Single Family .....	34
Industrial Program .....	38
Agricultural Program.....	41
Commercial Program .....	45
Workforce Development .....	49

## DRAFT DOCUMENT FOR PUBLIC REVIEW

Energy Savings: Logic and Assumptions.....	52
Energy Efficiency Program Budget .....	56
Conclusions .....	59
Appendices .....	60
Appendix A: Placemats .....	61
Appendix B: Management and Staffing Resources 2017-2018.....	62

## Table of Tables

Table 1. Multifamily Program Summary.....	30
Table 2. Single Family Program Budget and Savings Summary .....	34
Table 3. Industrial Program Budget and Savings Summary.....	38
Table 4. Agricultural Program Budget and Savings Summary. ....	41
Table 5. Commercial Program Budget and Savings Summary. ....	45
Table 6. Assumed MCE Participation Rates (Fraction of Participants).....	53
Table 7. Assumed MCE Participation Rates (Number of Participants).....	53
Table 10. Energy Efficiency Program Budget Summary, Years 2016-2018.....	56
Table 11. Staff Positions and Descriptions.....	56

## Table of Figures

Figure 1. MCE Marginal Abatement Cost Curve (Placeholder) .....	13
Figure 2. Market Context for MCE. ....	17
Figure 3 Accounts by Climate Zone.....	18
Figure 4. Customer Segmentation. ....	19
Figure 5. Residential Building Vintage by Service Territory.....	20
Figure 6. Commercial Building Vintage by Service Territory. ....	21
Figure 7. Commercial Building Size by Service Territory. *Data not available for Benicia..	21
Figure 8. CSI Incentive Step Down Approach.....	22
Figure 9. MCE as a Critical Hub.....	24
Figure 10 MCE as a critical hub .....	24
Figure 11 MCE's Customer Value Chain .....	27
Figure 12. MCE's Market Context.....	29
Figure 13. Multifamily Program Diagram.....	32
Figure 14. Multifamily Program Logic Model. ....	33
Figure 15. Single Family Program Diagram.....	36
Figure 16. Single Family Program Logic Model.....	37
Figure 17. Industrial Program Diagram. ....	39
Figure 18. Industrial Program Logic Model.....	40
Figure 19. Agricultural Program Diagram.....	43
Figure 20. Agricultural Program Logic Model.....	44
Figure 21. Commercial Program Diagram.....	47

DRAFT DOCUMENT FOR PUBLIC REVIEW

Figure 22. Commercial Program Logic Model.....	48
Figure 23. Workforce Program Diagram. ....	50
Figure 24. Workforce Program Logic Model. ....	51
Figure 25. Rebate Level Reductions by Program Goal Benchmark. ....	54
Figure 26. Rebate Level Reductions Over Time (Estimated).....	54
Figure 27. MCE Organizational Chart (2016).....	58



## DRAFT DOCUMENT FOR PUBLIC REVIEW

## Introduction

### A Competitive Opportunity for Energy Efficiency

The effects of our warming climate are here. They are currently being experienced in California and across the globe in the form of drought, flooding, severe weather, and sea level rise. We are now at a critical juncture with regard to stemming further climate change and its negative impacts. The Intergovernmental Panel on Climate Change (IPCC) has indicated that to avoid catastrophic warming, greenhouse gas (GHG) emissions have to be reduced by 80% from 1990 levels. California Governor Jerry Brown has created an executive order to reduce the state's GHG emissions to 40% below 1990 levels by 2030. This should help put the state on target to achieve GHG emissions 80% below 1990 levels by 2050, a necessary action if we are to live sustainably on the planet.

Energy efficiency is California's preferred energy resource. It is an important approach toward reducing GHG emissions and a necessary strategy to employ for meeting climate change targets. All scenarios of climate change mitigation rely heavily upon capturing the significant cost effective potential in energy efficiency and strive toward zero net energy (ZNE) usage and a dramatic drop in GHG emissions.

Capturing the level of energy efficiency dictated by the AB 32 Scoping Plan, the Existing Building Energy Efficiency Action Plan, and the Governor's recent targets for energy efficiency will require that we move beyond a "rebate per widget" mentality in energy efficiency program delivery. Reaching our climate change goals requires a bold new focus on energy efficiency and a notable reworking of the way energy efficiency programs are delivered in California. The old top-down investor-owned utilities (IOU) programs must be augmented and/or replaced by more nimble, localized approaches.

Effective reversal of climate change will also require significantly greater participation in demand-reduction programs by each market sector involved in energy efficiency programs. Program administrators need to move toward a future in which energy efficiency is the status quo and subsidies are no longer necessary to drive market participation in energy efficiency programs. In short, they must develop and articulate a vision for achieving transformation in how California residents see and use energy on a daily basis.

Fortunately, there are more opportunities than ever for customers in every rate class to participate in energy reduction and efficiency. For example, powerful energy efficiency products and technologies now exist to give customers the ability to monitor and control their own energy use. Distributed generation from homes and businesses is helping to close supply gaps in renewables. Electric vehicles offer a non-carbon form of transportation that can also assist with renewable energy integration. Innovations such as these represent huge potential to drastically reduce energy demand and ratepayer utility costs as well as to increase the comfort, health, and sustainability of our communities and significantly stem the adverse effects of climbing GHG emissions.

## DRAFT DOCUMENT FOR PUBLIC REVIEW

These important emerging opportunities, however, can only be achieved through direct customer engagement and participation. Therefore, an organization's effectiveness with regard to energy efficiency is strongly dependent on an exceptional level of customer service. Those organizations that can react the fastest to ratepayer needs, be nimble in overcoming barriers, and work on the ground with place-based institutions to achieve deep market penetration are best poised to deliver energy efficiency programs with high participation and impact.

California's push toward ZNE and less carbon dependence is spurring massive change across the energy sector and leading to the development of energy producing organizations that are focused on this type of customer engagement and participation. New actors are entering the regulated markets of energy generation, distribution, and efficiency, bringing changes that challenge the notion that these activities must be carried out exclusively by utility providers. Where IOUs once held a regional monopoly on energy generation, now renewable and distributed energy resources are changing the landscape. Changes are taking place on the procurement side, with local energy collectives and aggregators now purchasing energy from varied sources on behalf of their communities, breaking the regional monopsony of the few utilities that traditionally purchased and delivered power.

The changing landscape within the energy sector has given rise to the Community Choice Aggregation (CCA) energy supply model. This approach allows local governments to aggregate their buying power in order to secure alternative energy supply contracts on behalf of their constituents. CCAs are taking hold in a handful of states across the U.S. In fact, as of 2014, CCAs were serving nearly 5% of all Americans in over 1300 municipalities<sup>1</sup>, and this trend is rising.

Marin Clean Energy (MCE) was California's first operating CCA and is a mission-driven, not-for-profit electricity provider that is governed by local elected officials. Its mission and sole motivation is to address climate change by reducing energy-related GHG emissions through the use of renewable energy and energy efficiency. While the focus of this document is on energy efficiency, MCE's outlook is much larger than energy efficiency. Integrating energy and water efficiency, renewable energy, distributed generation, and energy delivery, MCE moves toward solutions that achieve maximum GHG reductions. MCE's goal is to drive market transformation by engaging more people than ever in energy reduction. Part of MCE's success derives from its community-based structure and strong local partnerships to achieve deep market penetration. With a focus on engaging customers in energy reduction initiatives, MCE aims to transform the energy market by decreasing the need for incentives and reducing reliance on subsidies.

MCE puts a high priority on delivering exceptional service and personalized value to its customers (who are also MCE's shareholders). MCE utilizes its local knowledge to effectively develop innovative programs that are well tailored to specific regions and result in high levels of customer participation (e.g., point-based incentives and project phasing in the multi-family sector). This approach has created points of entry for

---

<sup>1</sup> <http://www.localpower.com/CommunityChoiceAggregation.html>

## DRAFT DOCUMENT FOR PUBLIC REVIEW

projects that were not well served under current statewide programs, while at the same time creating new models that can be implemented in other communities. MCE's customer-driven, tailored approach puts the organization in a strong position to achieve the levels of customer engagement and participation necessary for realizing the emerging energy efficiency opportunities that now exist.

MCE's uniquely customer-focused program ushers in a new approach to energy efficiency program planning that gives the organization a significant advantage in achieving deep market penetration. MCE's business plan outlines the key aspects of this focus on customer experience and the emphasis on localized solutions, along with a long-term vision and strategies around market acceptance and penetration. The underlying foundation of MCE's program design is based on customers' needs; its strategic position as a leader in customer service forms the basis for its business approach to energy efficiency.

The pages that follow contain a further exploration of how MCE will leverage its strengths to expand the base of participating customers in its energy efficiency program. It is structured as a business plan, as we believe that MCE needs to make a business case for increased investment in energy conservation and GHG reduction. The organization will build on its success and reengage existing energy efficiency customers toward continuous improvement. MCE will closely track market transformation indicators and adjust incentives to increase cost effectiveness over time. As a local organization invested in creating mutual benefit with regional partners, MCE will also provide workforce development and other opportunities that generate additional community benefits.

## DRAFT DOCUMENT FOR PUBLIC REVIEW

## Background

The mission statement of Marin Clean Energy (MCE) is to address climate change by:

- Reducing energy related greenhouse gas emissions
- Securing energy supply, price stability, and energy efficiency
- Providing local economic and workforce benefits

MCE promotes the development and use of a wide range of renewable energy sources and energy efficiency programs, including, but not limited to, solar and wind energy production. MCE provides these utilities at competitive rates for all customers.

MCE has proven its business model, saving customers millions of dollars while also reducing GHG emissions and promoting local renewable generation and energy efficiency. MCE is also rapidly expanding its territory. MCE launched in Marin County in 2010 with about 9,000 customers. Today, MCE serves approximately 160,000 customers, and 2015 enrollment is expected to climb. MCE now includes the City of Richmond and is in its first year of providing service in unincorporated Napa County, as well as the communities of El Cerrito, Benicia, and San Pablo. Given the public's increasing interest in local control, utility bill savings, and GHG reduction, MCE expects interest from area municipalities to grow dramatically in the coming months and years.

MCE has administered ratepayer funded energy efficiency programs under the auspices of the California Public Utilities Commission (CPUC) since 2012, alongside PG&E, an IOU, and the Bay Area Regional Energy Network (BayREN)—a local government Program Administrator (PA). As a relatively new energy efficiency PA, MCE is not bound to legacy programs or business-as-usual planning traps. MCE is committed to testing innovative solutions and enacting continuous, measured improvements as the organization's reach grows.

## DRAFT DOCUMENT FOR PUBLIC REVIEW

## MCE as an Energy Efficiency Program Administrator

California Public Utilities Code 381.1 authorizes Community Choice Aggregators (CCAs) to become independent administrators of energy efficiency funds and permits them to apply to administer cost-effective energy efficiency and conservation programs.

In 2012, shortly after enrolling all customers in Marin, MCE brought an Energy Efficiency Program Plan to the California Public Utilities Commission (CPUC) for consideration.

In August of 2012, MCE was approved for \$328,949 of funding to administer energy efficiency programs in its service territory, becoming the first local government Program Administrator and the first CCA Program Administrator (Resolution E-4518). This first funding approval was for the authority a CCA holds under subsection 381 (e-f) of the CPUC, meaning MCE was only collecting funds from its customers and could only offer programs to its customers. In November of 2012, MCE's application to the CPUC for \$4.1 million was approved. This allowed MCE to offer programs to any customer in its service territory, regardless of customer status.

When MCE first brought an application to the CPUC, MCE was advised to "avoid duplication of existing IOU programs, focus on hard to reach market sectors, and provide innovative program concepts." (D. 12-11-015) Subsequently, D. 14-01-033 was put into place, establishing the first guidelines for CCA energy efficiency programs and directing MCE to achieve a total resource cost (TRC) equivalent to the investor-owned utility program administrators within the third year of program administration, while lifting previous restrictions on the types of programs a CCA could apply to administer. Thus, as MCE approaches the third year of program administration, it seeks to align with the direction of the CPUC and apply for a balanced portfolio to better serve its customers.

## Changes to MCE's Energy Efficiency Directives

In the 2013-2014 Energy Efficiency Portfolio ruling, CPUC limited the roles of Regional Energy Networks (RENs) and CCAs to specific market segments. The CPUC asked that these organizations:

- Target hard to reach market sectors (such as multi-family and small commercial customers)
- Target gaps in current IOU statewide energy efficiency programs
- Pursue innovative programs, technologies, and approaches

## DRAFT DOCUMENT FOR PUBLIC REVIEW

The CPUC initially chose a regional approach to cost effectiveness, rolling the budgets and savings of the CCAs into a larger IOU service territory-wide equation. During the 2013-2014 program cycle, the CPUC developed first-time regulations on CCA-administered energy efficiency programs. Decision 14-01-033 released CCAs from the previous program limitations and required them to achieve the same cost effectiveness as IOUs by the third year of their programs. The total resource cost (TRC) measures the net costs of a demand-side management program as a resource option based on the total costs of the program, including both the participants' and the utilities' costs, divided by the total benefits of the program, including energy cost savings.

The CPUC's new directive asks MCE to achieve a TRC of at least 1.25 and provides MCE with a good opportunity to revise its portfolio. Focusing on IOU program gaps in hard to reach markets while striving to attain the 1.25 TRC required of IOUs proves to be challenging. MCE is forecasting a more balanced portfolio that will allow it to attain the 1.25 TRC benchmark in the coming decade. MCE will shift its focus from being a niche provider to positioning itself as the primary provider of energy efficiency to the ratepayers in its territory. It will offer broader programs and rebates, including those it avoided in the past because of program overlap with other providers.

## Opportunities in California's New Program Cycle

Beginning in 2015, the CPUC began moving from a 2-3 year approval cycle to a 10-year rolling cycle. 2015 is considered "Year 0" of the first 10-year rolling cycle. Portfolios approved in 2013-2014 are approved through 2025, with additional considerations for new Proposition 39-related school funding for the 2015 portfolio year. During this transition, the CPUC is encouraging PAs to consider the implications of a 10-year cycle on their program planning and how the program administration process may be improved.

The switch to a 10-year rolling cycle presents yet another opportunity for MCE to look strategically at its efforts to date and to enact a bold vision for energy efficiency over the coming decade. The rolling cycle provides an opportunity to consider how cost effectiveness can be achieved within a long-term vision. For example, programs designed to promote market transformation over a 10-year period may begin with low participation and high incentives, with these two reversing as the program matures. Programs that must focus on low-hanging fruit to achieve cost effectiveness will not easily bring customers from modest energy savings toward ZNE. Flexibility in cost effectiveness over a longer program cycle could help PAs invest in innovations that may not be cost effective in early years, but where reduced incentives in the later years of the program may balance initial costs.

One of MCE's most important differentiators is that it is a utility provider designed with today's needs in mind. Most IOUs and publicly owned utilities (POUs) are saddled with massive infrastructure costs involved in maintaining energy transmission and generation systems. One of the most powerful critiques of the current, large, regulated monopolies that provide much of California's energy is that they are too large to meet the urgent

## DRAFT DOCUMENT FOR PUBLIC REVIEW

service, safety, and efficiency needs of local communities. As a result, energy efficiency and market transformation are not primary concerns for most of these utilities.

Fortunately, MCE is in a unique position and does not suffer from these limitations. MCE can focus on energy efficiency, market transformation, and customer responsiveness in the service of effective and significant GHG reduction. MCE can be nimble and take advantage of the best new opportunities provided by smart grid technology, distributed energy distribution, and new technologies. Most importantly, because of its local connectivity, MCE can focus on the local needs and engagement of communities without the cumbersome responsibility of needing to manage a complicated and aging energy and distribution system.

MCE's focus on reducing GHG emissions, combined with its flexibility in addressing customer needs, sets its energy efficiency program apart from other ratepayer funded programs. MCE's commitment to helping customers embrace energy efficiency at all levels of engagement will drive meaningful market transformation: increased customer demand and decreased need for incentives and subsidies. As it establishes its track record, MCE recognizes that this momentum provides an important opportunity to fully articulate its vision and the business approach that will guide the next decade of its energy efficiency services.

### **Purpose of MCE's Business Plan for Energy Efficiency**

- Clearly articulate MCE's value proposition
- Establish a portfolio oriented to the customers' needs
- Seize the opportunity of a transition to a 10-year rolling cycle to assess energy efficiency strategy
- Set a strategic vision for energy efficiency as MCE's territory and reach grow
- Articulate strategic advantages and position MCE as the primary provider in its service territory
- Demonstrate MCE's local customer knowledge through its energy efficiency vision
- Establish a commitment to innovation and continuous improvement

## DRAFT DOCUMENT FOR PUBLIC REVIEW

## California's Energy Efficiency Goals

Californians' per capita electricity use has remained relatively flat over the last 20 years, while per capita use has risen 33% nationally. These savings have allowed California power facilities to expand capacity at two-thirds the rate of the rest of the nation. This is due in part to California's ambitious energy reduction goals.

Energy efficiency is California's preferred energy resource. Public Utilities Code Sec 454.5 requires that IOUs "meet unmet resource needs with all available [energy efficiency] and demand reduction that is cost-effective, reliable, and feasible." It further requires the CPUC to establish targets for IOUs to achieve all cost-effective electric and gas energy efficiency goals. These targets are released by the CPUC with each program application cycle.

While these targets do not apply to CCAs, MCE has chosen to emphasize energy reduction as a core component of its Integrated Resource Plan. MCE is also committed to supporting California's many other energy and GHG reduction goals, including:

- All new residential construction in California will be ZNE by 2020
- All new commercial construction in California will be ZNE by 2030
- The Heating Ventilation and Air Conditioning (HVAC) industry and market will be transformed to ensure that its energy performance is optimal for California's climate
- All eligible low-income customers will be given the opportunity to participate in low-income energy efficiency programs by 2020

*(Big Bold Energy Efficiency Strategies (BBEES) from the California Energy Efficiency Strategic Plan, a collaborative statewide effort to identify market barriers and develop cross-industry solutions)*

- 32,000 GWh and 800 million therms by 2020  
*(California Air Resources Board's Scoping Plan for Assembly Bill 32)*

- Achieve 1990 GHG levels by 2020
- Double the pace of energy efficiency improvements (State of the State)
- Establish cleaner sources of heating fuels

*(GHG reduction targets set first by AB 32 and strengthened by Executive Order from Governor Jerry Brown)*



## DRAFT DOCUMENT FOR PUBLIC REVIEW

## MCE's Strategic Advantages

From an energy efficiency perspective, MCE is a strong choice to best deliver on key energy efficiency as a result of its key differentiators:

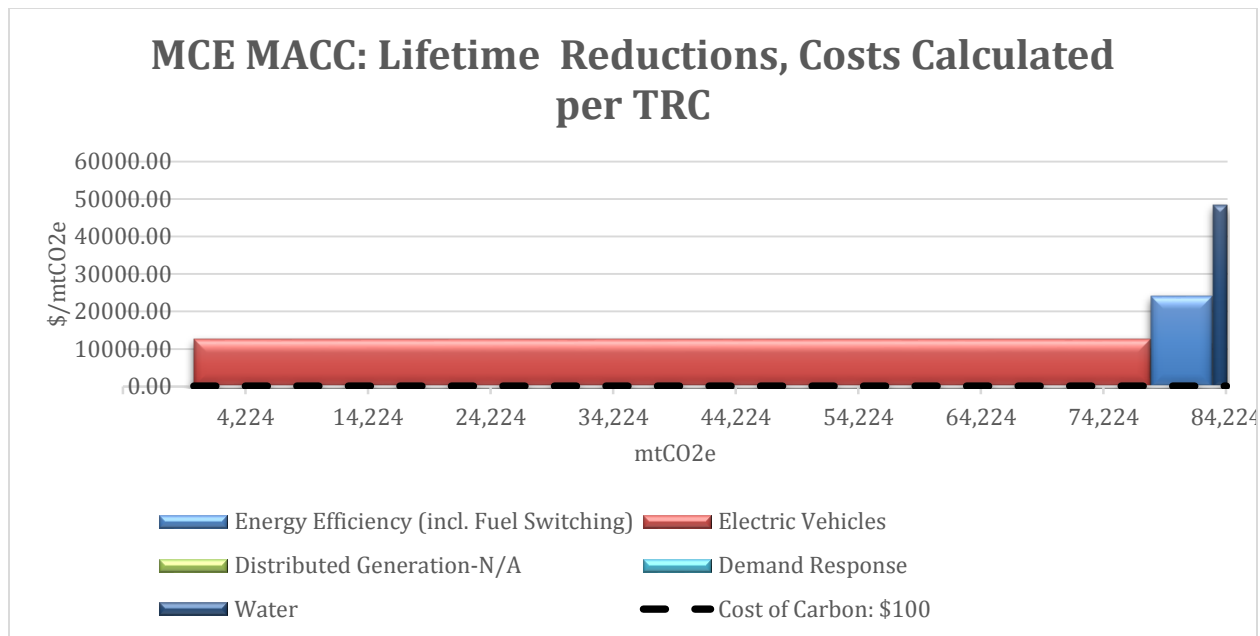
- GHG reduction is MCE's top priority
- The customer is MCE's shareholder
- MCE leadership is local and responsive to community needs
- Local partnerships provide a foundation for deepening market penetration

**Greenhouse gas reduction is MCE's top priority.** Reducing GHG gases and mitigating the effects of climate change is MCE's central mission. MCE's carbon-reduction based orientation is in strong alignment with Governor Jerry Brown's executive order to establish GHG reductions 40% below 1990 levels by 2030, a necessary step to ultimately reaching 80% reductions by 2050. To support these goals, MCE evaluates and prioritizes activities across operations according to GHG reductions rather than energy savings per se. The energy world is rapidly changing; SmartMeter technology has enabled customers to be in control of how and when they use energy across their properties, integrating energy conservation, energy efficiency, distributed generation, and demand response strategies into simple, easy to understand dashboards. These new strategies are enabling customers to become a part of the renewable energy solution, turning homes and businesses into providers of grid services. The energy solutions of tomorrow will not be focused on a single end use or single conservation strategy. Achieving our carbon reduction goals as a state will require recognizing this changing landscape and utilizing these emerging integrated solutions as a key component of renewables integration and demand reduction.

MCE is developing an integrated demand-side tool that evaluates the marginal cost of carbon abatement across demand-side management programs to help prioritize investment on a portfolio level from a carbon perspective. See **Figure 1** for an example of a marginal abatement cost curve for a potential portfolio of MCE programs.

## DRAFT DOCUMENT FOR PUBLIC REVIEW

Figure 1. MCE Marginal Abatement Cost Curve (Placeholder)



MCE's multi-family program features a strong emphasis on high-efficiency natural gas measures, which can offer considerable GHG reductions. In addition, MCE proposes to run an innovative fuel-switching pilot.

MCE's primary focus on GHG reductions enables its energy efficiency strategy to drive market transformation in unique ways. Aligning incentives with market transformation indicators will allow MCE to take a long-term approach to energy efficiency program planning. A TRC considered over a 10-year program cycle will allow for more innovation and flexibility in early years, compensated for by higher participation as the measure matures and as demand increases. Programs like the California Solar Initiative have demonstrated the success of this approach, and similar logic could be applied to penetrate harder to reach markets or to bring customers in the later stages of energy efficiency to full ZNE. Continuing to reach beyond the low-hanging fruit and toward these deep, sometimes difficult to achieve energy savings is a key component of meeting California's carbon reduction goals.

**The customer is MCE's shareholder.** California is the nation's most populous state, and its ratepayers are geographically, demographically, and politically diverse. Engaging these diverse ratepayers in energy efficiency efforts will be critical in reaching California's ambitious energy reduction goals.

While certain statewide programs are beneficial to customers, the size of these programs can inhibit PAs from taking a more proactive approach in reaching customers. A strength of the CCA model is that its designed purpose is to meet the needs of local customers. Not only are MCE's local constituents its customers as well as its shareholders, but deep market penetration is how MCE creates "shareholder return"

## DRAFT DOCUMENT FOR PUBLIC REVIEW

in the form of greater GHG reductions. As a result, MCE strives to understand customers' specific needs and motivators, which in turn drive the design of MCE's energy efficiency program. The program is designed for ease of use with greater accessibility to program staff that can navigate offerings and provide integrated, streamlined solutions. It includes activities that increase MCE's customer knowledge, such as use of sophisticated CRM software, customer satisfaction feedback, and collaboration with organizations deeply seated in the local community.

MCE's customer-centered approach directly addresses the following barriers and missed opportunities:

- There are a myriad of resource conservation programs made available by a variety of administrators, and customers have a hard time navigating their options or accessing multiple offerings within the scope of one project.
- Because program offerings can be inflexible, many small- to medium-sized projects as well as projects that must happen in phases (as tenants move out, for example) often have a hard time taking advantage of incentives.
- New technologies and incentives are frequently marketed broadly, rather than targeted to customers for whom the solution meets a clear need.
- Opportunities to follow up with past energy efficiency customers are rarely utilized, often due to poor household/building data collection at the time of assessment.
- Private interests often push IOUs to focus on opportunities that will offer the biggest shareholder incentives rather than toward integrated, customer-focused solutions that target overall GHG emissions.

MCE provides a competitive advantage over IOUs when it comes to addressing customer engagement and participation barriers. MCE's programs take a flexible approach to the uniquely local characteristics of commercial, residential, industrial, and agricultural customers in its territory. CRM systems use previous interactions with, and behaviors of, ratepayers to best anticipate their needs and to target new technologies and incentives that best align with specific customers and their needs. MCE is able to leverage and include statewide programs in its customized solutions for each customer, thereby increasing the overall value provided.

Because MCE's shareholders are also its customers, an important alignment takes place because the need to make profits for external shareholders is removed. MCE can make decisions that are in the very best interests of those it serves. This means that MCE can optimize energy and efficiency without the pressure of making profits for shareholders.

**MCE leadership is local and responsive to community needs.** As a CCA, MCE is governed by local elected officials and supported by community leaders and local institutions. Partnerships with community organizations and local banks, contractors, and technical assistants aggregate the opportunities available to MCE's ratepayers, while also fostering community connectedness and trust between parties. Ratepayer

## DRAFT DOCUMENT FOR PUBLIC REVIEW

fees are invested in energy programs that directly benefit constituents without diverting funds to private investors. MCE's energy efficiency programs are discussed at publicly noticed board meetings; this offers transparency and allows for constituents to provide immediate feedback on program design and implementation.

MCE is governed by a board of directors comprised of elected officials from the communities it serves. Because these elected officials need to respond to their constituents, MCE also shares this responsibility for meeting the needs of the local community. This means that MCE can undertake local initiatives that would be unlikely to be led by IOUs.

Further, local governments are under strict mandates to manage carbon emissions. Because of MCE's strong connectivity to local governments, MCE is uniquely positioned to partner with communities in order to help them address their most pressing needs.

**Local partnerships aid market penetration.** MCE maximizes the strengths of a flexible, locally connected energy efficiency program by meeting ratepayers where they are. MCE collaborates with innovative partner companies to access community-based organizations, schools, local companies, religious institutions, and other organizations as drivers of energy efficient behaviors. Partnerships with place-based organizations that employ local residents as part of energy efficiency solutions engage customers not only as ratepayers, but also as contractors, employers, workers, and community leaders, resulting in behavior change across many important sectors. MCE's ability to deeply penetrate the local market helps to maximize program participation.

The program's local partnerships also allow MCE to serve hard to reach residents, including renters, low to moderate income households, and non-English speaking households, who often miss out on services due to language barriers. With workforce partners, MCE brings services directly to underserved households by using bilingual contractors and job trainees. Because program contractors are hired directly from the communities they serve, their language skills mirror the communities themselves and allow increased access to non-English speaking households. MCE connects with these segments by participating in over 100 public community events annually. This outreach empowers customers and local contractors to promote the program to their neighbors, friends, and family members to help spread information about energy efficiency through trusted channels.

## DRAFT DOCUMENT FOR PUBLIC REVIEW

## Market Analysis

Like most businesses and organizations, MCE exists within three different market contexts: (1) the macro context, (2) the industry context, and (3) the local context. Understanding these contexts is important because they show why MCE is so well positioned to deliver energy efficiency programs to northern California customers.

**Macro Context.** The macro context includes those forces largely outside of a business' control that influence the conditions for the business to operate. The macro context for MCE is quite strong with the political, regulatory, and social/cultural environments favoring significant action on curbing GHG emissions. As a CCA, MCE is well poised to help dramatically cut GHG from energy usage. Because MCE was created for this purpose, it is much more effective than traditional utilities at providing low-carbon intensive energy at competitive rates. Further, its nimbleness allows MCE to quickly adopt and deploy new technologies and to work toward market transformation efforts. Finally, MCE has demonstrated its ability to provide local, high-paying "green" jobs such as solar installers and energy educators. These jobs are needed in many of the communities that MCE serves, and they help meet the goal of many communities to be seen as leaders in environmental issues.

**Industry Context.** MCE exists in a highly regulated industry, with a long-established regulated monopoly as its primary competitor. While large companies may be good at providing reliable service, they have not proven themselves to be agile in meeting local community needs. MCE can provide targeted, relevant service focused on meeting the specific needs of its customers. Further, its size allows MCE to more readily adapt to new energy savings technologies. By its very structure and scale, MCE can take calculated risks and be more innovative, and thus create market transformation much faster than larger entities.

**Local Context.** The local context also strongly favors MCE, as many communities are frustrated with the large utilities and seeking alternatives that offer greater local control. MCE can provide its growing and diverse customer base with relevant options that provide energy with a much lower carbon footprint. Further, MCE creates an easy way for local elected officials to meet many of their climate goals. Finally, MCE's local and customized focus generates distinct solutions for the needs of particular customers.

DRAFT DOCUMENT FOR PUBLIC REVIEW

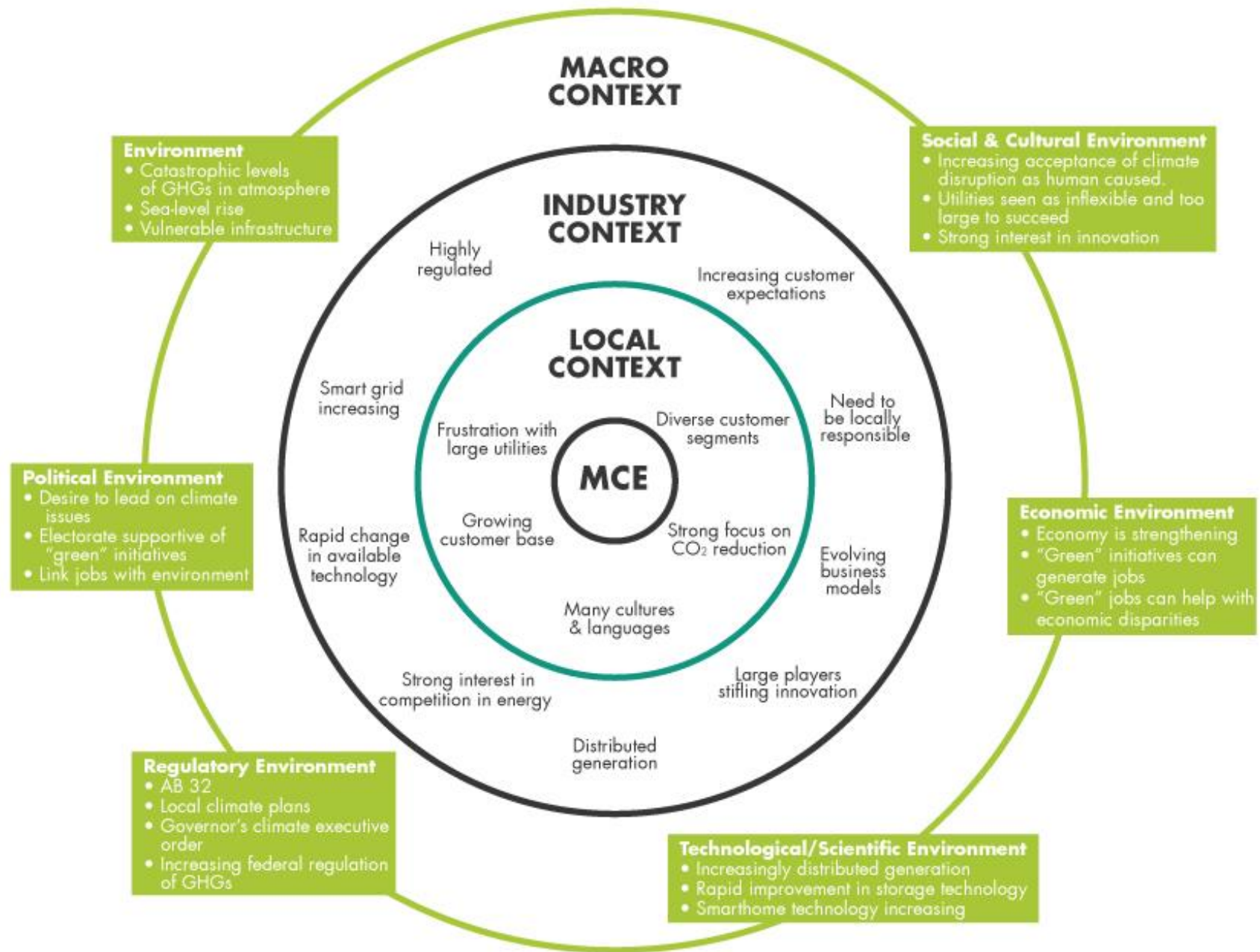


Figure 2. Market Context for MCE.

## Current Market Boundaries

MCE serves a much broader and more diverse territory today than it did in its founding years. MCE's territory has grown from the largely residential and small commercial customers in Marin to include some of the San Francisco Bay Area's agricultural, industrial, and large commercial ratepayers. MCE's expanded energy efficiency portfolio provides programs designed for all customers in its expanded territory.

MCE's territory now spans four Title 24 Climate Zones.

### Unincorporated Napa County and Participating Communities in Sonoma County

- Climate Zone 2
- Characterized by large, high-energy use single family homes
- More pronounced air conditioning load
- Hotels and vineyards comprise large commercial and industrial/agriculture accounts

### Cities in Marin County

- Climate Zones 2 & 3b
- Characterized by residential and small commercial accounts
- High electric vehicle adoption
- Agricultural uses include dairy and small organic farms

### City of Benicia

- Climate Zone 12
- Characterized by large industrial accounts and higher energy-use homes
- Cooler winters and hotter summers than neighboring climate zones; more pronounced air conditioning load

### Cities of El Cerrito, Richmond, and San Pablo

- Climate Zone 3a
- Characterized by large industrial accounts
- El Cerrito has highest "Deep Green" (100% renewable energy) opt-in rate, indicating possible early adopters for new measures and technologies
- High diversity of languages spoken in Richmond and San Pablo, including Mandarin and Spanish

### Accounts by Climate Zone

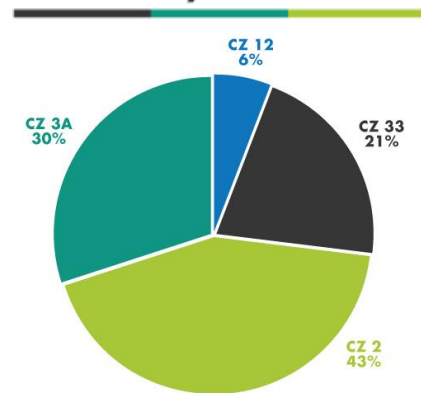


Figure 3 Accounts by Climate Zone



## Customer Segments

MCE serves customers in the following sectors:

- Residential: Multifamily
- Residential: Single Family
- Industrial
- Agricultural
- Commercial

The residential segment characterizes the largest number of energy users in MCE's territory at 234,385 accounts, or nearly 90% of all ratepayers. However, MCE's high-consuming energy accounts in industrial, agricultural, and commercial make up 50% of its estimated electricity consumption and over 20% of estimated natural gas consumption, representing an equally important opportunity for efficiency<sup>2</sup>.

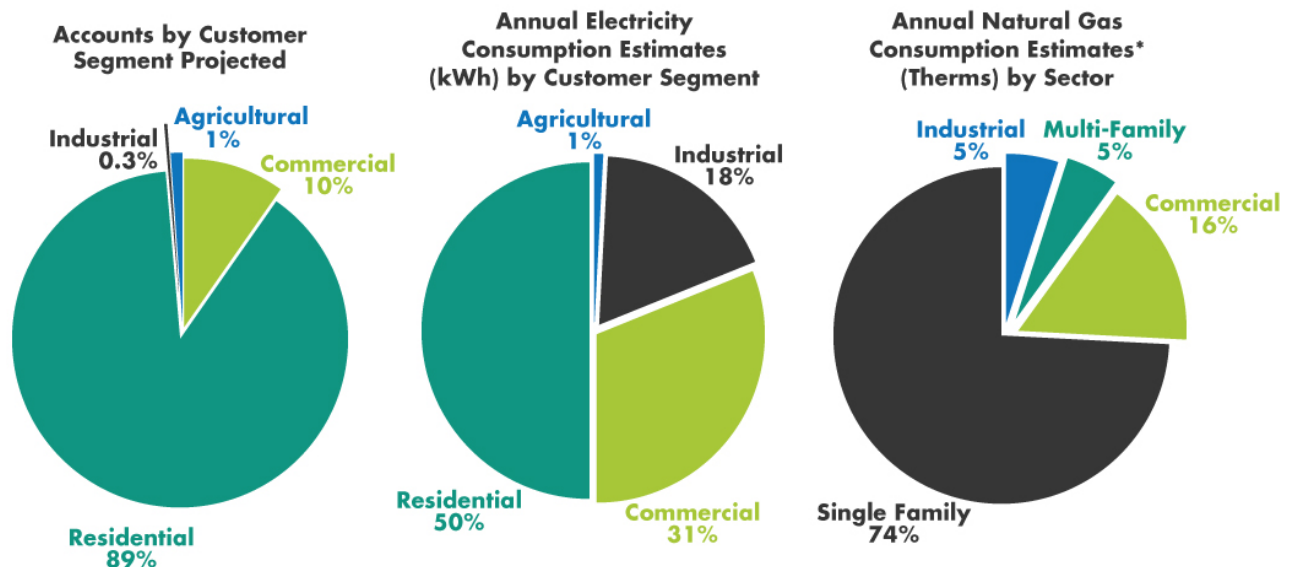


Figure 4. Customer Segmentation.

<sup>2</sup> Natural gas consumption is not applicable to agricultural customers. In CZ 12—MCE's newest territory—gas consumption data is not yet available.



## Market Opportunities

Consideration of the following opportunities will help guide energy efficiency efforts. Indicators for potential savings include:

- Buildings constructed prior to California's building energy code (Title 24)
- HVAC systems installed prior to 2000 (expected lifespan: 15-20 years)
- Considering water/energy nexus: residential and small-commercial water fixtures installed before 1995 (Energy Policy Act) and agricultural irrigation systems
- Lighting upgrade potential, "leapfrogging" incandescent to LED where possible
- Communities/segments with larger per-account usage compared to others in MCE's territory

## Building Stock and Energy Efficiency

MCE analyzed information from Housing Elements reports, US Census Bureau State & County QuickFacts, and county assessor data to gain insights into building characteristics<sup>3</sup>. This information informs program design, marketing and outreach efforts.

### Residential Building Stock Characteristics

Construction in the residential sector has followed relatively similar trends within Marin's service territory, with the majority of the building stock aged from 1950-2000, and close to 50% of the buildings between 1950-1975. The exception is Benicia, which saw its greatest growth in the 1975-1999 timeframe.

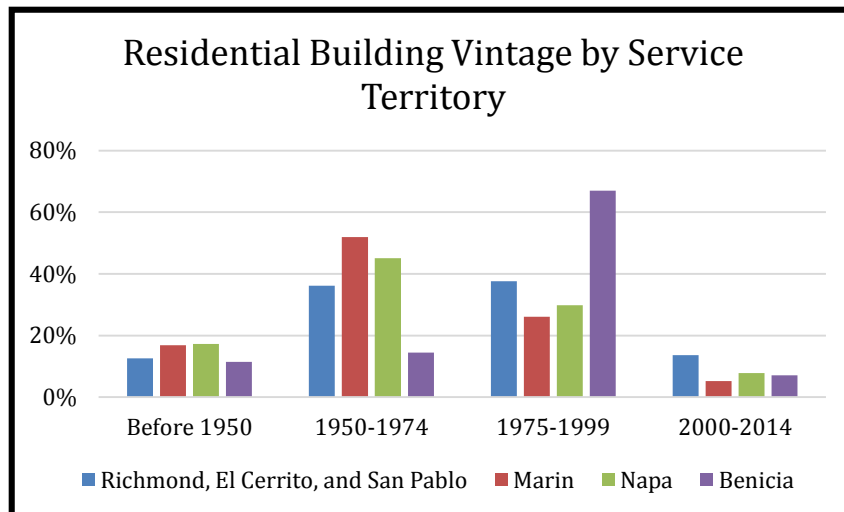


Figure 5. Residential Building Vintage by Service Territory.

<sup>3</sup> The data presented in the three charts below comes from county assessor data; Marin commercial data is from a February 2014 Navigant study "BAYREN Commercial PACE Financing Market Research Survey."

### Commercial Building Stock Characteristics

The chart below illustrates the diversity of commercial building vintage within MCE's service territory, and can provide insights into trends affecting construction and growth within MCE's service territory. Marin County, for example, has seen declining growth since the mid 1970's due to growth limits and planning regulations, while Benicia has seen considerable growth and expansion during that same time period. Building vintage provides useful insights into energy efficiency program planning and marketing strategies.

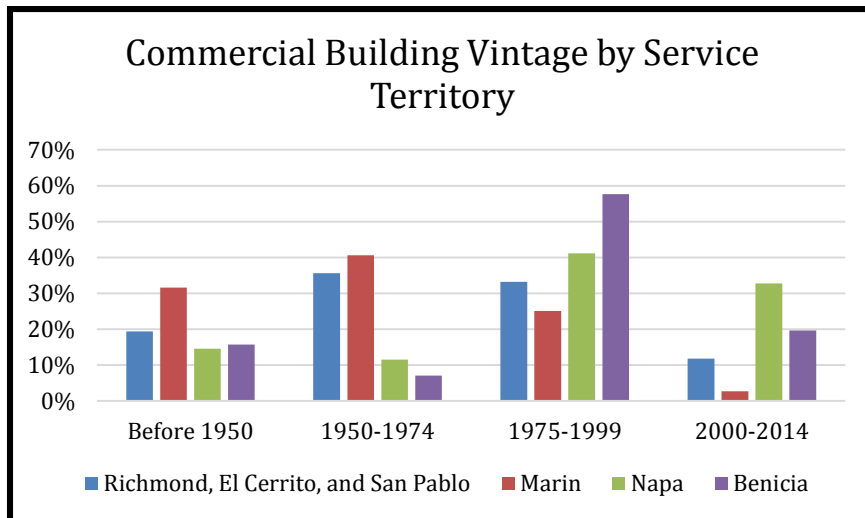


Figure 6. Commercial Building Vintage by Service Territory.

The information presented in the chart below provides insights into the types of energy efficiency programs best suited to each of MCE's service territories. For example, small commercial offerings will be better suited to Richmond, El Cerrito and San Pablo (with the greatest number of commercial buildings under 5,000 square feet); meanwhile, there may be opportunities for large commercial upgrades in Napa and Marin (which have the greatest share of commercial facilities over 100,000 square feet).

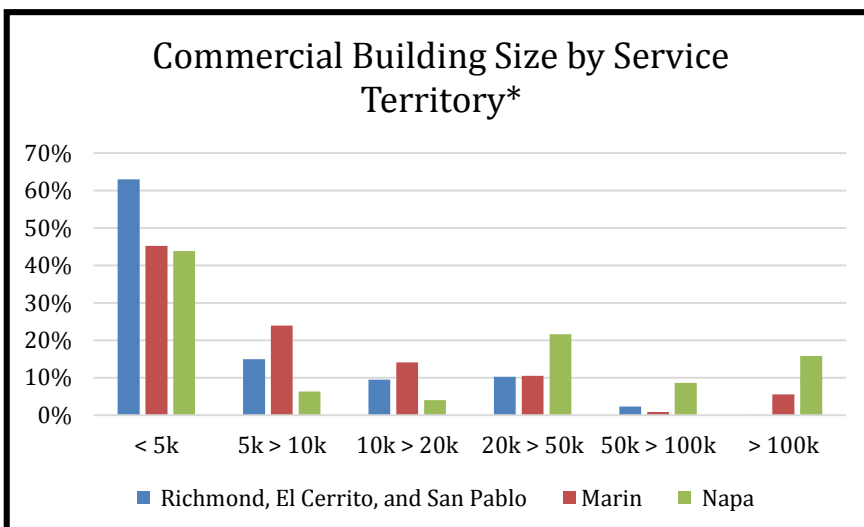


Figure 7. Commercial Building Size by Service Territory. \*Data not available for Benicia.

## Market Transformation and Decreasing Incentives

### Case Highlight: California Solar Initiative

MCE has designed its 10-year energy efficiency program using market transformation logic. As demand increases for any given energy measure, MCE predicts that incentives will be less necessary to increase participation or adoption. Decreasing incentives help move the market to be more demand-driven and less subsidy-dependent. Thus, MCE has set program participation rates that will trigger step-wise incentive decreases at pace with market adoption. At the same time, declining incentives cause the measure's TRC to increase over the life of the program.

The California Solar Initiative (CSI) is an example of a statewide program designed with similar logic. As the solar market has grown, solar electric system costs have dropped and incentives offered through the program have declined according to participation targets. The CPUC divided the overall megawatt goal for the incentive program into ten programmatic incentive level steps. They also assigned a target amount of capacity in each step to receive an incentive based on dollars per-watt or cents per-kilowatt-hour. The megawatt (MW) targets in each incentive step level were assigned to particular customer classes (residential, commercial, and government/non-profit) and allocated across the three IOU service territories, in proportion with each group's contribution to overall state electricity sales.

Once all the MW targets in a particular incentive step level were reserved via CSI application—which could occur at different times for each customer class in each utility service territory—the incentive level offered by the CSI Program automatically reduced to the next lower incentive step level. This created a demand-driven incentive program that adjusted solar incentive levels based on local solar market conditions.

The figure below shows how CSI incentives declined as the program progressed through the ten steps and more MWs were installed. The CSI incentive levels have declined by customer class and utility from January 2007 to the present.

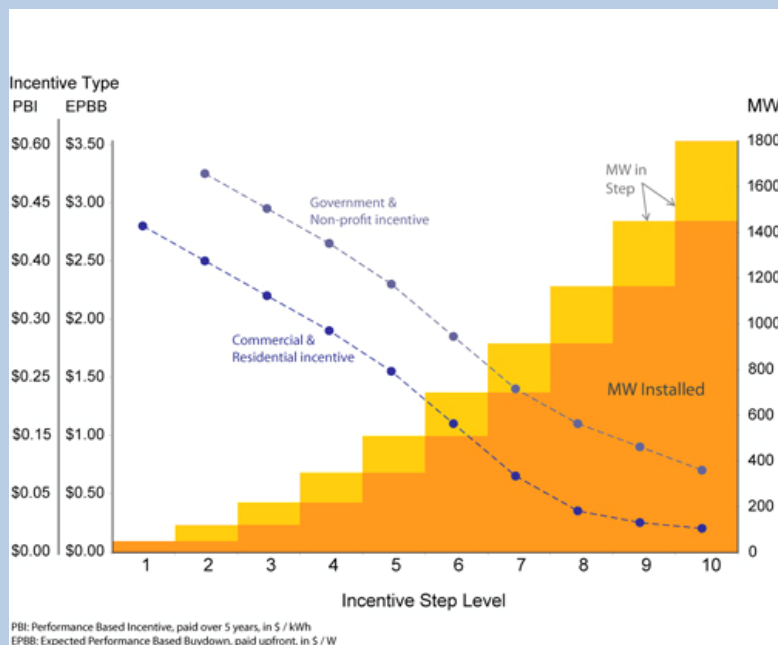


Figure 8. CSI Incentive Step Down Approach.

Source: CPUC Website <http://www.cpuc.ca.gov/puc/energy/solar/aboutsolar.htm>

## Business Model

MCE is one of California's CCAs. Community choice aggregation allows communities, residents, businesses, and municipal facilities to pool their electricity demand in order to increase their purchasing power and scale. CCAs also have the authority to administer ratepayer funded energy efficiency programs on equal footing with the existing IOU PAs<sup>4</sup>.

With its vision to engage more customers in energy reduction, MCE leverages its local knowledge and customer proximity to penetrate its market. MCE's energy efficiency programs present integrated solutions—including opportunities for distributed generation, on-site energy storage, and water reduction measures—and track opportunities for further engagement with customers. Not only does an integrated approach provide streamlined rather than piecemeal pathways for customers, it also aligns all of MCE's key activities behind its mission of GHG reduction. MCE has carefully considered and invested in the partnerships required to provide customers with integrated solutions. It has built upon customer knowledge to create channels that reach customers where they are and provide a suite of programming that is relevant to customer needs.

### Value Proposition: Provide a One-Stop Shop for Energy Savings

MCE helps customers plan energy reductions holistically by providing integrated, one-stop service. MCE presents customers with complete solutions that best suit their needs by acting as a hub that coordinates all relevant opportunities for energy savings. MCE takes the onus off of customers to navigate all applicable ratepayer programs, including demand response and distributed generation incentives; municipal, county, and regional programs; water utility incentives; trained contractors and technicians; and other local offerings. MCE recognizes its proximity to customers as its core strength, allowing MCE to provide tailored, relevant solutions in each of the key segments in its territory.

---

<sup>4</sup> California Public Utilities Code Section 381.1 (a-f); California Public Utilities Commission Decision 14-01-033.

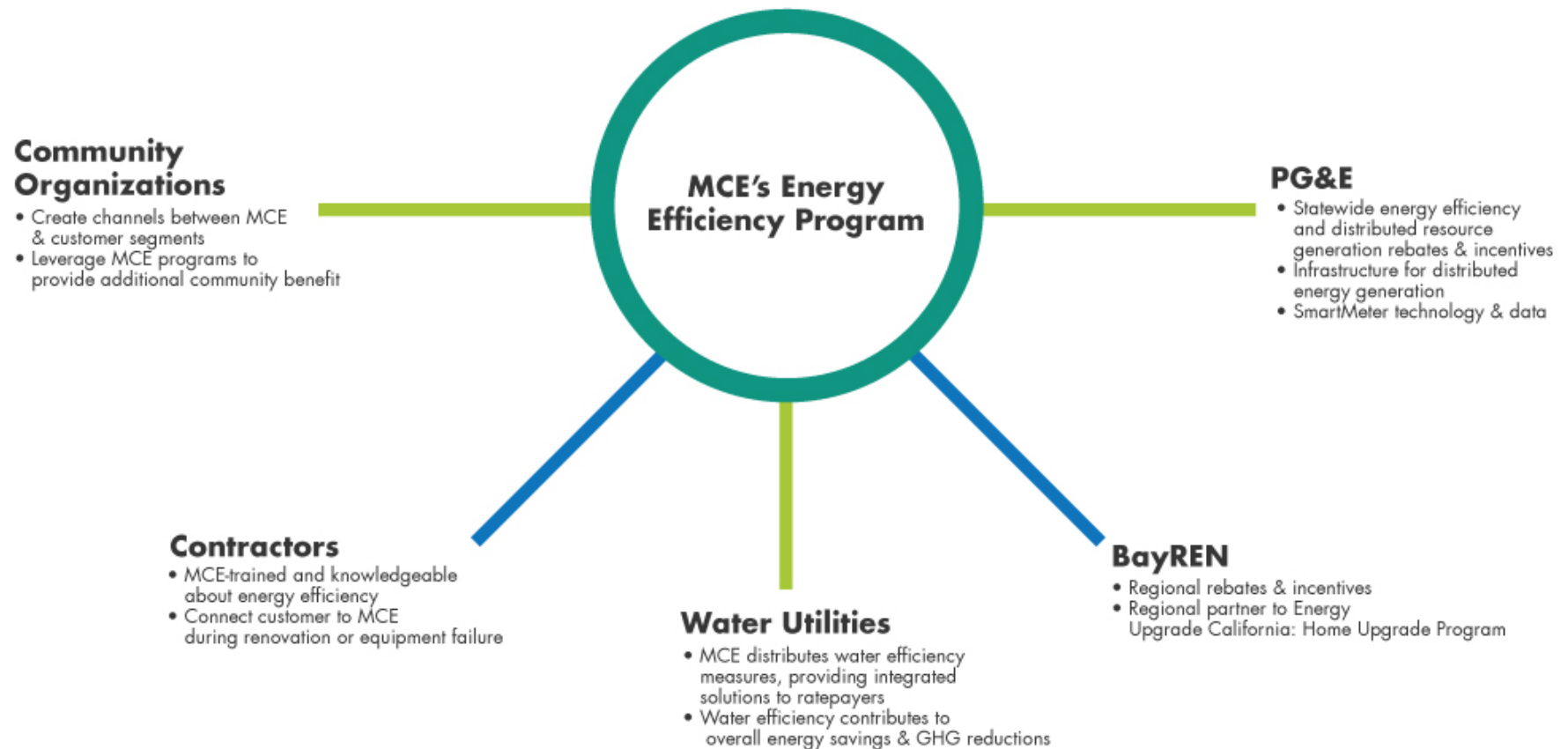


Figure 9. MCE as a Critical Hub.

Figure 10 MCE as a critical hub

MCE supports its role as program hub with two customer relationship features: Single Point of Contact staff and sophisticated Customer Relationship Management software.

**Single Point of Contact.** MCE makes navigating energy savings opportunities simple by providing customers with a Single Point of Contact (SPOC). Across customer segments, the SPOC serves as a facilitator and participant advocate, helping to guide the property owner through the process from initial contact to project completion. The SPOC develops an integrated assessment process streamlining multiple program offerings into one customer report.

MCE is able to effectively remove barriers for residents that face implementation challenges with the aid of the SPOC. The SPOC helps customers take maximum advantage of MCE's energy efficiency program by providing the following:

- **Uniform and Bundled Presentation of Opportunities.** Projects are more attractive to customers and easier to accomplish when all savings opportunities are bundled together and follow a clear, uniform presentation. Moving incentives toward a point-based system allows customers to easily calculate the possible incentive from a bundled measure project and combine points to qualify for bigger incentives. The SPOC also helps complete applications for multiple programs, eliminating extra work and information redundancies as well as streamlining the process for customers.
- **Personalized Attention and Follow-Through.** A SPOC delivery model provides more personalized attention and more follow through to reduce customer confusion and increase project completion rate.
- **Project Phasing.** MCE remains in contact with participating properties over time and encourages property owners to implement projects in phases. This allows customers to take advantage of large project incentives without having to implement improvements all at once.
- **Increased financing options.** MCE partners with local banks to serve building owners who have limited access to private or low-cost financing for retrofits and are underserved by the existing marketplace.

Coordinating a full service solution provides huge value to MCE's ratepayers and helps ensure that customers stick with energy efficiency solutions all the way to the end of MCE's value chain. At the conclusion of each energy efficiency project, the SPOC conducts a satisfaction survey and develops a case study that serves as a learning tool for MCE and a communications tool with potential customers.

**Customer Relationship Management System.** Sophisticated Customer Relationship Management (CRM) allows for an ongoing relationship between the property and the program. MCE aims to provide solutions across customer segments that meet customers' needs, budgets, and levels of readiness for change. By providing resource conservation solutions for customers at any level of desired investment, MCE helps ensure a good customer experience. This increases the likelihood that customers who are not early adopters will consider efficient equipment at future key trigger points, such as at times of equipment failure or refinancing.

Evolving customer relationships supported by CRM will be key to moving MCE's customers toward ZNE. Sophisticated CRM software allows for an ongoing relationship between the customer and the program by providing a "menu of nudges" based on previous interactions and property knowledge to ultimately move the customer toward ZNE buildings.

Opportunities for future improvements are recorded every time a customer receives an integrated efficiency assessment. If, for example, a customer decides not to take action on a home improvement or replace an inefficient appliance, the energy professional will collect information to support follow-up when the appliance is closer to end-of-life or when a new incentive or technology arises. This allows MCE to rollout new opportunities and programs to "warm" targeted audiences, resulting in stronger customer relationships and increased energy efficiency adoption.

## Customer Value Chain

Excellent customer service is one of the keys to MCE's energy efficiency program. MCE is piloting innovative ways to decrease customer barriers to participation, such as large project scopes and long timelines. While MCE is committed to addressing pressing customer needs within their current budget, recording whole building assessments captures opportunities to address further, deeper improvements in the future, especially as new technologies or incentives become available. A SPOC manages the process and provides clear pathways and integrated solutions for customers. The program leverages SmartMeter technology, customer satisfaction surveys, and program performance metrics, creating an instantaneous feedback loop for monitoring success and addressing program issues.

MCE aims to provide multiple on-ramps for energy efficiency at each step of MCE's value chain for homeowners, multi-family building managers, as well as industrial, agricultural, and commercial business owners. MCE's energy efficiency activities are tailored for each customer segment, but a common underlying value chain describes MCE's key program strategy. MCE's energy efficiency program takes ratepayers from a customized assessment to an implemented solution that informs ongoing program improvement.

## MCE's Customer Value Chain

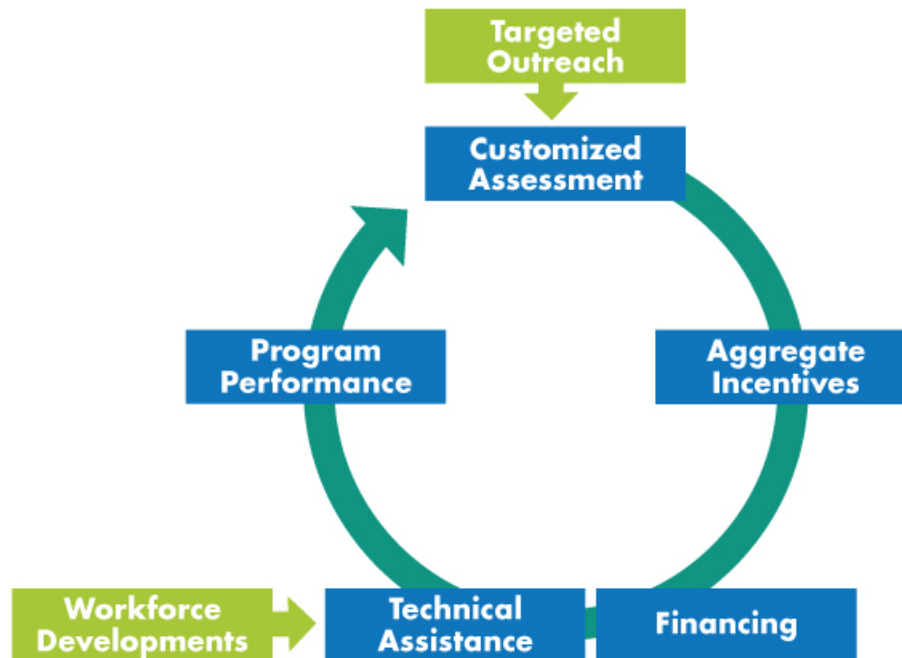


Figure 11 MCE's Customer Value Chain

- **Targeted Outreach:** Reach ratepayers through tested channels and in partnerships with local governments' organizations. A sophisticated CRM system identifies follow-up opportunities with customers.
- **Customized Assessment:** Supervise building and property assessments with certified partners and capture specific opportunities for future improvements in CRM.
- **Aggregate Incentives:** Provide a one-stop shop for local, regional, statewide, and national rebates and incentives. A SPOC coordinates partner programs to deliver a complete, tailored solution for the customer.
- **Financing:** Remove barriers to investment in energy efficiency through low-cost financing with local banks.
- **Technical Assistance:** Enlist trusted organizations and contractors to implement solutions.
- **Workforce Developments:** Partner with local workforce development organizations to provide articulated career pathways with on- and off-ramps based on the participant.
- **Program Performance:** Evaluate each subprogram for actual energy savings, program performance metrics, market transformation indicators, and participant satisfaction surveys. Advanced Metering Infrastructure (AMI) data informs continuous program improvement. Rebate levels reduce over time, following



market trends indicating that customers no longer need financial incentives as motivation to implement specific energy efficiency measures and upgrades.

### **Energy Efficiency Guiding Principle: Integrate Resource Conservation Solutions**

At every assessment opportunity, MCE presents efficiency solutions that integrate energy, water, and GHG reductions. This makes it easy for customers to adopt integrated resource conservation programs rather than to have to cull together piecemeal solutions from different partners.

Across the organization, MCE takes a systems-thinking approach to reducing GHG emissions. Energy efficiency programs are considered alongside distributed generation and emerging technologies. Where it can, MCE leverages partnerships to address all operational aspects that affect energy consumption, including water and waste management. The program leverages SmartMeter technology, customer satisfaction surveys, and program performance metrics, creating an instantaneous feedback loop for monitoring success and addressing program issues. MCE partners with local water utility providers, leveraging water utility rebates for hot water and other water conservation energy measures.

MCE's CRM solution supports long-term engagement with its ratepayers. While MCE is committed to addressing pressing customer needs within customers' budgets, recording whole building assessments and audits in a CRM system captures opportunities to address further, deeper improvements in the future, especially as new technologies and incentives become available.

## MCE's Business Model

<b>Value Propositions</b> <ul style="list-style-type: none"> <li>• Help customers create more efficient homes &amp; businesses</li> <li>• Save \$\$</li> <li>• Increase comfort</li> <li>• Take control of energy consumption</li> <li>• Easy access programs</li> <li>• Clear pathways/process</li> <li>• Provide integrated solutions</li> <li>• Provide jobs &amp; workforce development</li> </ul>	<b>Customer Relationships</b> <ul style="list-style-type: none"> <li>• Single point of contact</li> <li>• Solutions for every customer</li> <li>• Apply local knowledge</li> <li>• Connect to local organizations &amp; contractors</li> </ul>	<b>Customer Segments</b> <ul style="list-style-type: none"> <li>• Multi-Family</li> <li>• Single Family</li> <li>• Industrial</li> <li>• Agricultural</li> <li>• Commercial</li> </ul>
<b>Revenue Streams</b> <ul style="list-style-type: none"> <li>• Rate Systems</li> <li>• Grant Funds</li> <li>• Water Agency Funds</li> <li>• Test Pilot Funds (e.g.DSM)</li> <li>• Fuel Switching offset reduced consumptions</li> </ul>	<b>Channels</b> <ul style="list-style-type: none"> <li>• Online assessment</li> <li>• Targeted Outreach</li> <li>• Workforce Development</li> <li>• Home Utility Reports</li> <li>• Contractor Engagements</li> <li>• One-Off Rebate</li> </ul>	
<b>Key Partnerships</b> <ul style="list-style-type: none"> <li>• BayREN</li> <li>• PG &amp; E</li> <li>• MMWD</li> <li>• Local Governments</li> <li>• Assessment Technical/partners</li> <li>• Finance partners</li> <li>• Workforce DEV partners</li> </ul>		<b>Key Activities</b> <ul style="list-style-type: none"> <li>• Solutions for every customer</li> <li>• Customized assessment</li> <li>• Aggregate incentives/resources</li> <li>• Financing</li> <li>• Targeted Outreach</li> <li>• Technical Assistance</li> <li>• Workforce Development</li> <li>• Program assessment</li> </ul>
<b>Cost Structure</b> <ul style="list-style-type: none"> <li>• Fixed Costs</li> <li>• Single point of contact</li> <li>• Administration &amp; Operations</li> <li>• Evaluation</li> <li>• Program Costs</li> <li>• Rebates &amp; Incentives</li> <li>• Market Transformations</li> <li>• Participation trigger reductions</li> </ul>		

Figure 12. MCE's Market Context.

## Key Activities: Programs by Sector

The following program descriptions demonstrate how MCE tailors its value chain to key customer segments, highlighting the areas where MCE can apply flexibility to reduce barriers to participation. Energy savings, sector characteristics, and key activities are summarized for each segment. Flow charts provide operational snapshots of how MCE's integrated programs, referral programs, SPOC, and rebates combine to create customer value. Logic models display the outputs and short-, intermediate-, and long-term outcomes of MCE's activities in each customer sector. This broader program logic helps to illustrate how energy efficiency measures are integral to further MCE's mission to address climate change.

Complete program details, including information about energy efficiency measures and incentives, can be found in MCE's sector specific Implementation Plans.

### Residential Program: Multifamily

*Table 1. Multifamily Program Summary*

<b>Sector Summary</b>	<b>Years 1-2</b>	<b>Years 3-5</b>
TRC	1.16	1.27
Budget	\$2,726,716	\$3,596,725
Estimated Savings	1,308,381 kWh 48,122 therms	2,668,079 kWh 117,931 therms

### Sector Opportunities

Multi-family buildings are distinct enough from single-family homes to warrant their own program approach. Multi-family programs are often characterized by split incentives because owners often bear the investment costs for energy consuming equipment or conservation upgrades while tenants reap the savings. Tenant turnover is also a factor; landlords may be reluctant to disrupt tenants for invasive upgrades, particularly in market rate buildings.

The multi-family program is an area where MCE's flexibility can greatly reduce participation barriers in tenant/owner situations. MCE takes a phased approach with multi-family upgrades, allowing owners to plan larger projects that take advantage of maximum incentive levels but are implemented over time, as tenants turn over. A combination of light, bundled, and customized measures help accommodate the specialized needs of each multi-family building upgrade opportunity.

### Core Activities

- Provide participants with a Multifamily SPOC to serve as a facilitator and participant advocate, helping to guide property owners through the process from initial contact to project completion.
- Develop an integrated assessment process streamlining multiple program offerings into one customer report.
- Deploy sophisticated CRM software, allowing for an ongoing relationship between the property and the program.

### **Key Innovations**

- Integrates energy savings and on-site generation opportunities, allowing property owners to see the full benefit of upgrade projects, rather than isolating opportunities by savings type.
- Project phasing allows building owners to capitalize on savings for large projects, while completing improvements over time, as tenants turn over.
- A point-based incentives structure encourages and rewards a more comprehensive scope of work and helps the owner easily identify potential rebates based on planned improvements.

## Multifamily Program Flow Chart

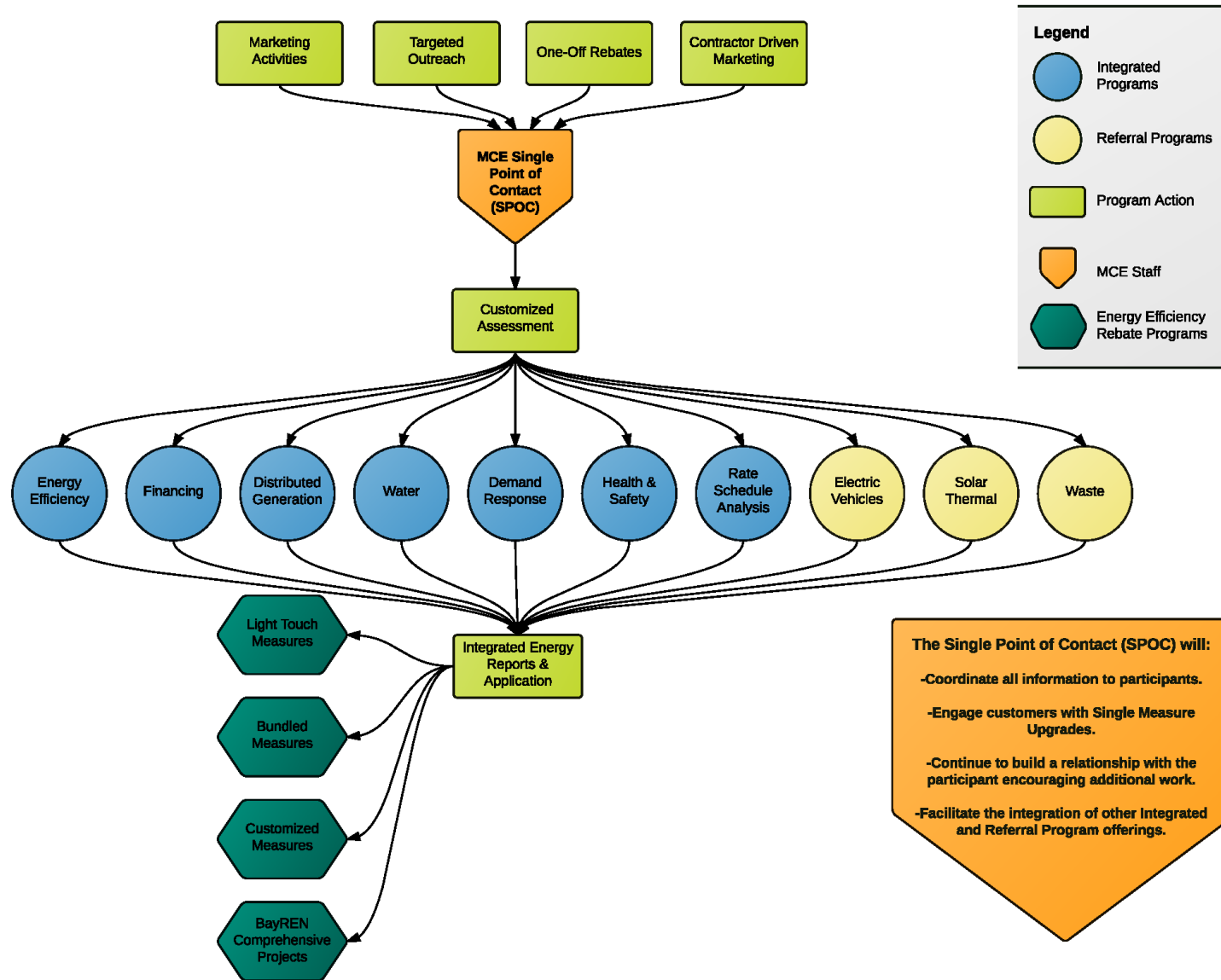


Figure 13. Multifamily Program Diagram.

## Multifamily Program Logic Model

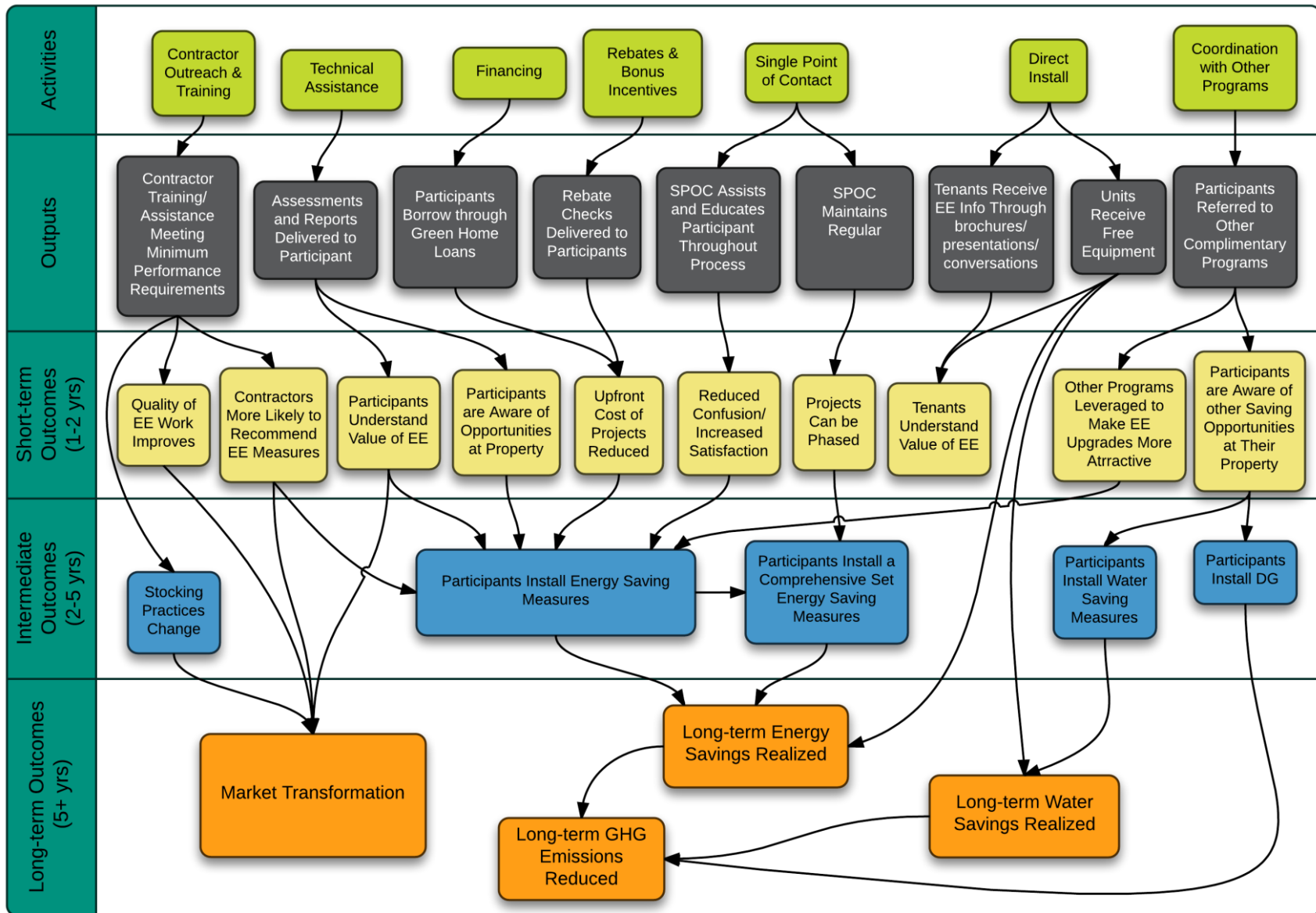


Figure 14. Multifamily Program Logic Model.

## Residential Program: Single Family

Table 2. Single Family Program Budget and Savings Summary

Sector Summary	Years 1-2	Years 3-4
TRC	1.02	1.81
Budget	\$2,367,505	\$4,803,836
Estimated Savings	1,371,484 kWh 66,752 therms	2,683,486 kWh 157,936 therms

### Sector Opportunities

Motivators for energy efficiency and reductions can differ greatly from family to family. Likewise, each household's budget and readiness for change will also vary. Providing bundled solutions that offer meaningful support for whichever project a homeowner is considering will increase customer satisfaction and result in continued energy improvements over time.

MCE's single family program offers one-off rebates to customers who have financial or structural barriers that prevent them from participating in the Energy Upgrade California: Home Upgrade Program, as well as incentives and technical assistance for customers who want to upgrade to ZNE. The program also aims to help the highest energy users reduce their consumption with energy management tools. Online tools and real-time feedback on utility reports are emerging tactics that can help influence a family's interaction with energy use.

### Core Activities

- Provide participants with a Single Family SPOC to serve as a facilitator and participant advocate, helping to guide homeowners through the process from initial contact to project completion.
- Offer financing and rebates to help overcome upfront cost barriers.
- Provide the highest consuming customers with information about how they use energy and advice for how to reduce consumption.

### Key Innovations

- Online portal provides a one-stop-shop to understand energy usage, identify upgrade opportunities, search available rebates and licensed contractors, and perform cost comparisons of energy efficiency appliances.
- Access to one-off energy efficiency rebates for homeowners who have financial or structural barriers that prevent them from participating in the Energy Upgrade California: Home Upgrade Program.

- Additional incentives and technical assistance for ZNE customers educate and enable customers to improve their home's efficiency beyond code.
- Home Utility Reports help highest energy customers reduce their energy consumption by providing a comparison to similar homes nearby.
- Online social networking platforms stimulate behavior changes, utilizing tactics such as competitions and DIY tutorials on a YouTube channel.



## Single Family Program Flow Chart

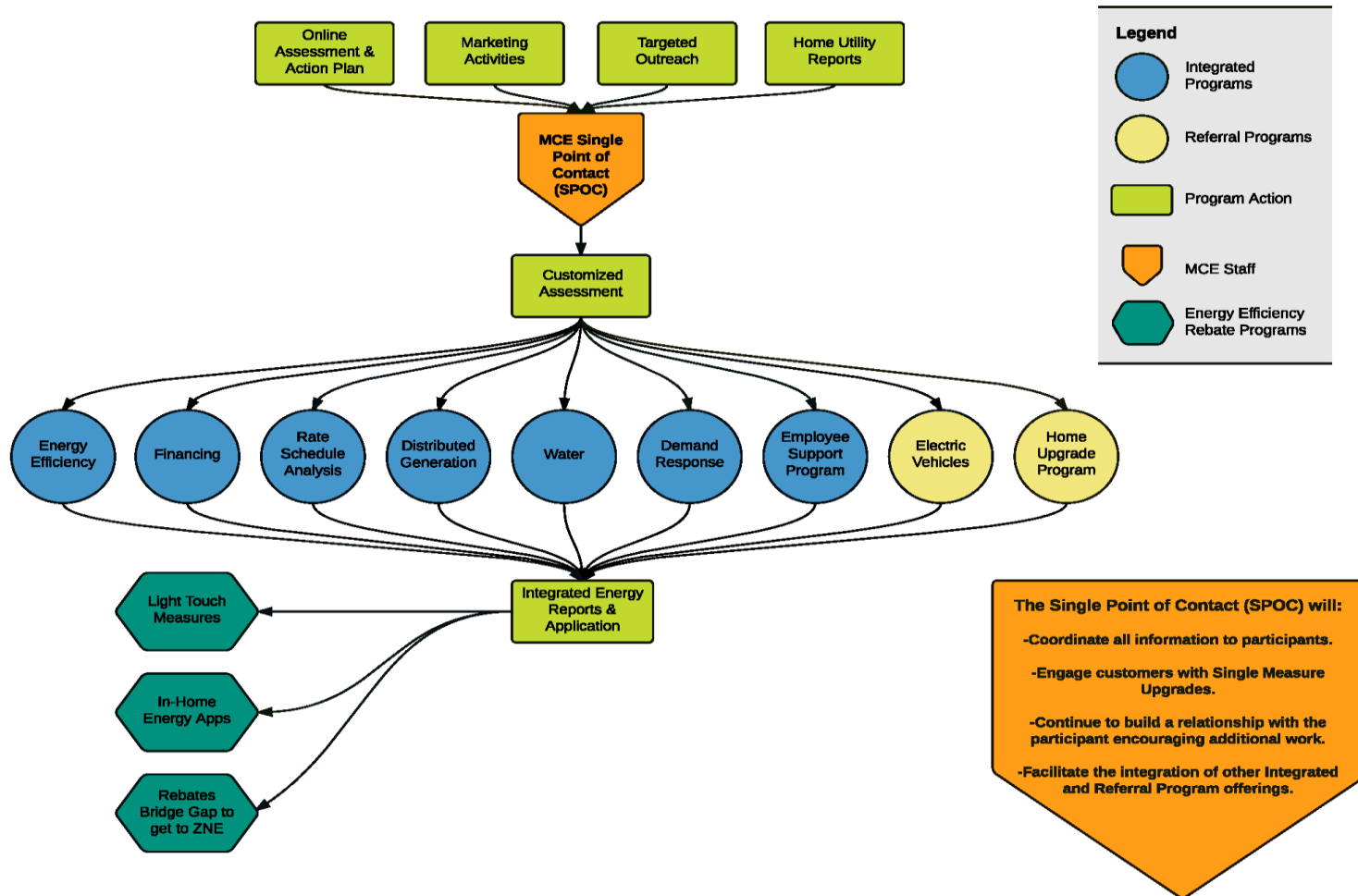


Figure 15. Single Family Program Diagram.

## Single Family Program Logic Model

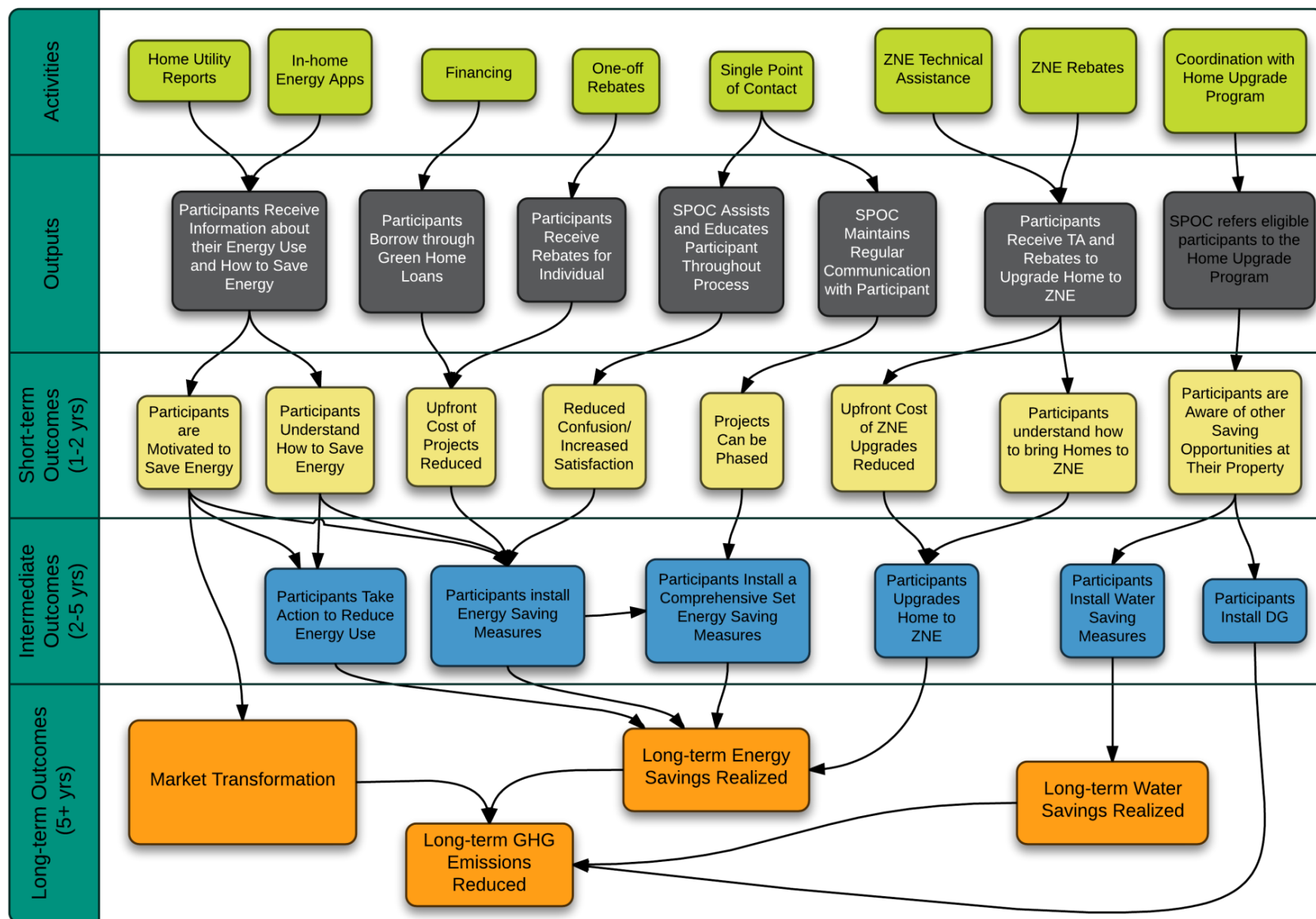


Figure 16. Single Family Program Logic Model.

## Industrial Program

Table 3. Industrial Program Budget and Savings Summary

Sector Summary	Years 1-2	Years 3-4
TRC	0.65	0.95
Budget	\$1,309,178	\$1,502,491
Estimated Savings	799,127 kWh (7,408) therms	1,262,205 kWh (12,465) therms

### Sector Opportunities

Dollar savings from energy efficiency can be significant for some industrial customers. A key consideration for these customers is the need to ensure that reduced energy use does not affect the timing, quality, or workforce efficiency of creating their product. Industrial activities vary significantly by region within MCE's territory, though most offer major opportunities for energy use reduction, water conservation, and distributed generation.

The high-intensity energy demand of food production qualifies many of MCE's agricultural customers that process on-site (including wineries) as "industrial" ratepayers. Thus, in some cases MCE's Industrial Program is designed to serve both manufacturing and refinery facilities as well as some large agricultural producers.

### Core Activities

- Provide participants with an Industrial SPOC to serve as a facilitator and customer advocate and to help guide business owners through the process from initial contact to project completion.
- Offer financing and rebates to help overcome upfront cost barriers.
- Offer technical assistance to help with measure selection, project planning, and project management.
- Use billing data and building characteristics to identify the highest energy users for targeted outreach.
- Utilize one-off or widget rebates as a marketing strategy to get customers in the door.

### Key Innovations

- Promote energy efficient industries by partnering with existing Green Certification Programs.
- Create a Continuous Improvement Peer Advisory group to offer training within a particular industry and share best practices.
- Offer pay for performance incentives.

## Industrial Program Flow Chart

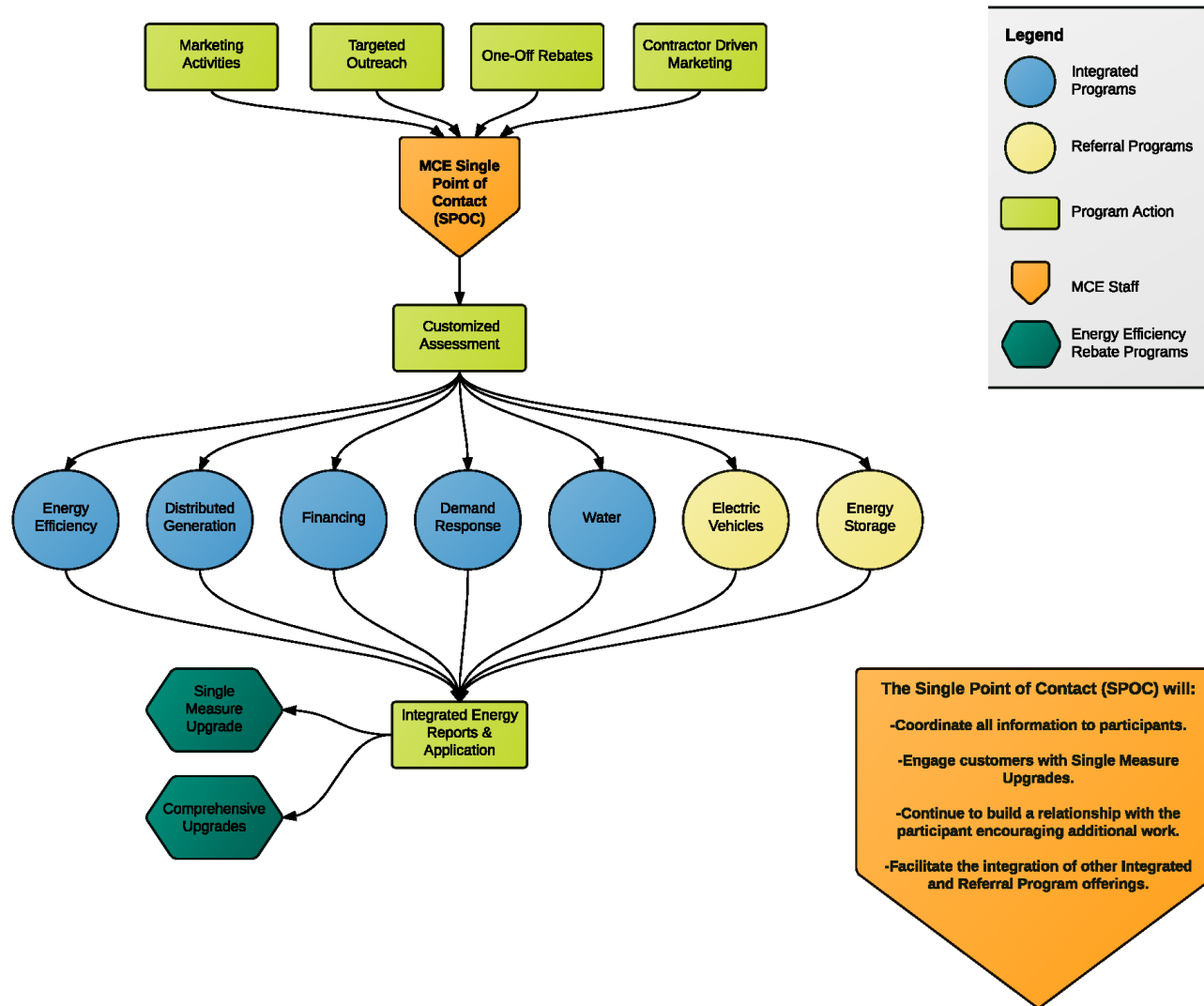


Figure 17. Industrial Program Diagram.

## Industrial Program Logic Model

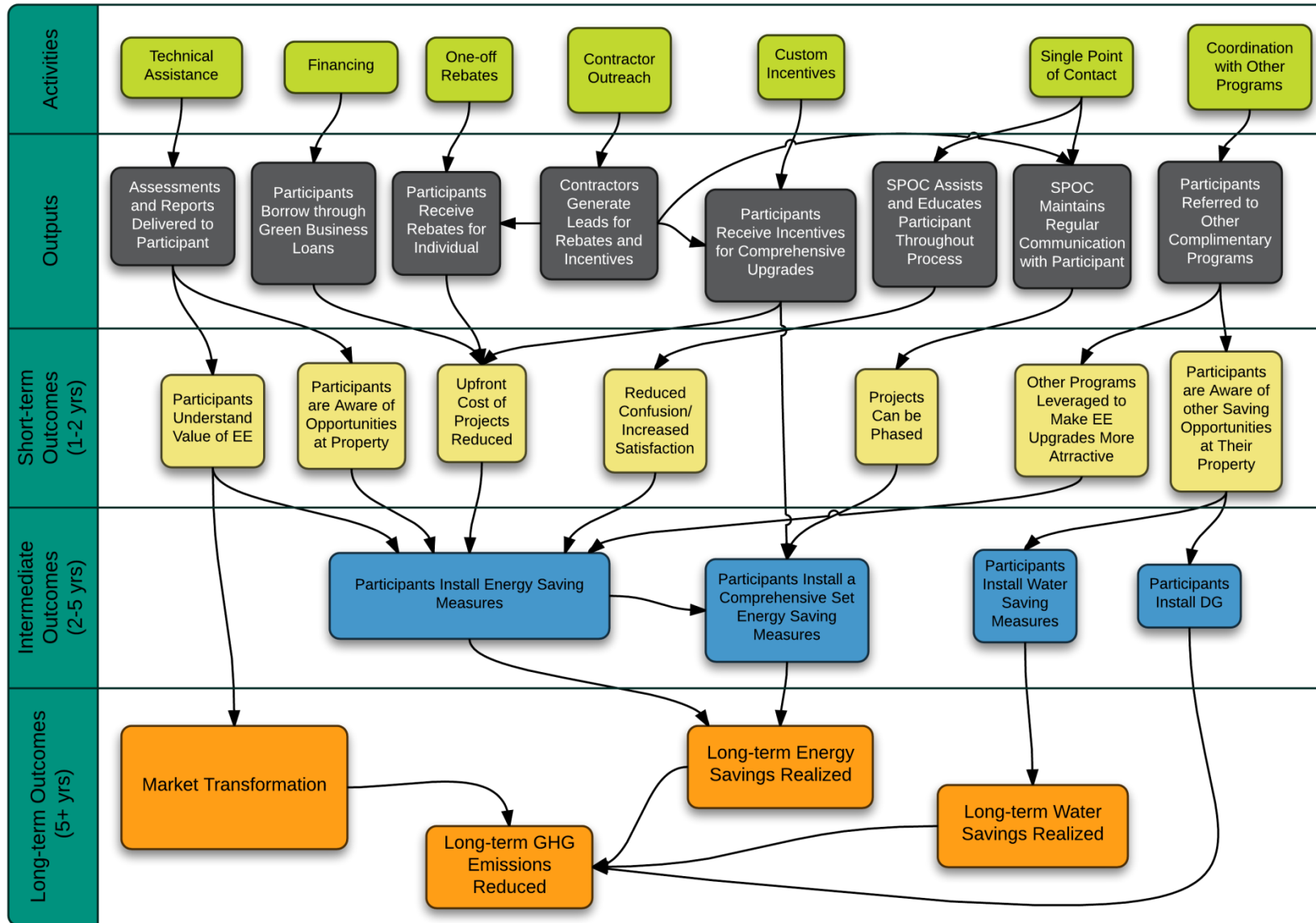


Figure 18. Industrial Program Logic Model.

## Agricultural Program

Table 4. Agricultural Program Budget and Savings Summary.

Sector Summary	Years 1-2	Years 3-4
TRC	1.32	1.59
Budget	\$678,418	\$640,671
Estimated Savings	775,808 kWh 729 therms	1,432,578 kWh 810 therms

### Sector Opportunities

MCE's Agricultural Program focuses on dairies and wineries, the region's largest agricultural users. The seasonal nature of agriculture operations affects the cash flow of these businesses as well as the timing of when equipment is available to be upgraded. MCE can ramp up the activity of its Agricultural Program during the slow production seasons. Integrated on-site generation solutions capitalize on feed-in tariffs or net energy meeting during the off-season and supplement customer energy needs during periods of high production.

The high-intensity energy demand of food production qualifies many of MCE's agricultural customers that process on-site (including wineries) as industrial or large commercial ratepayers. Thus, MCE's Agricultural Program is designed to serve customers whose primary activity is farming as well as to integrate with customers served under the Commercial Program or Industrial Program that can also benefit from energy reductions on their agricultural lands.

### Core Activities

- Provide participants with an Agricultural SPOC to serve as a facilitator and customer advocate and to help guide business owners through the process from initial contact to project completion.
- Develop an integrated assessment process that streamlines multiple program offerings into one customer report.
- Offer financing and rebates to help overcome upfront cost barriers.
- Provide technical assistance to develop customized energy upgrade projects that meet the needs of the customer.

### Key Innovations

- Leverage existing certification programs to increase demand for green agricultural practices.
- Design program and financing options around seasonal work cycles, which impact cash flow and equipment use.

- Coordinate with Multifamily Program to provide farmworker housing energy efficiency assistance.

## Agricultural Program Flow Chart

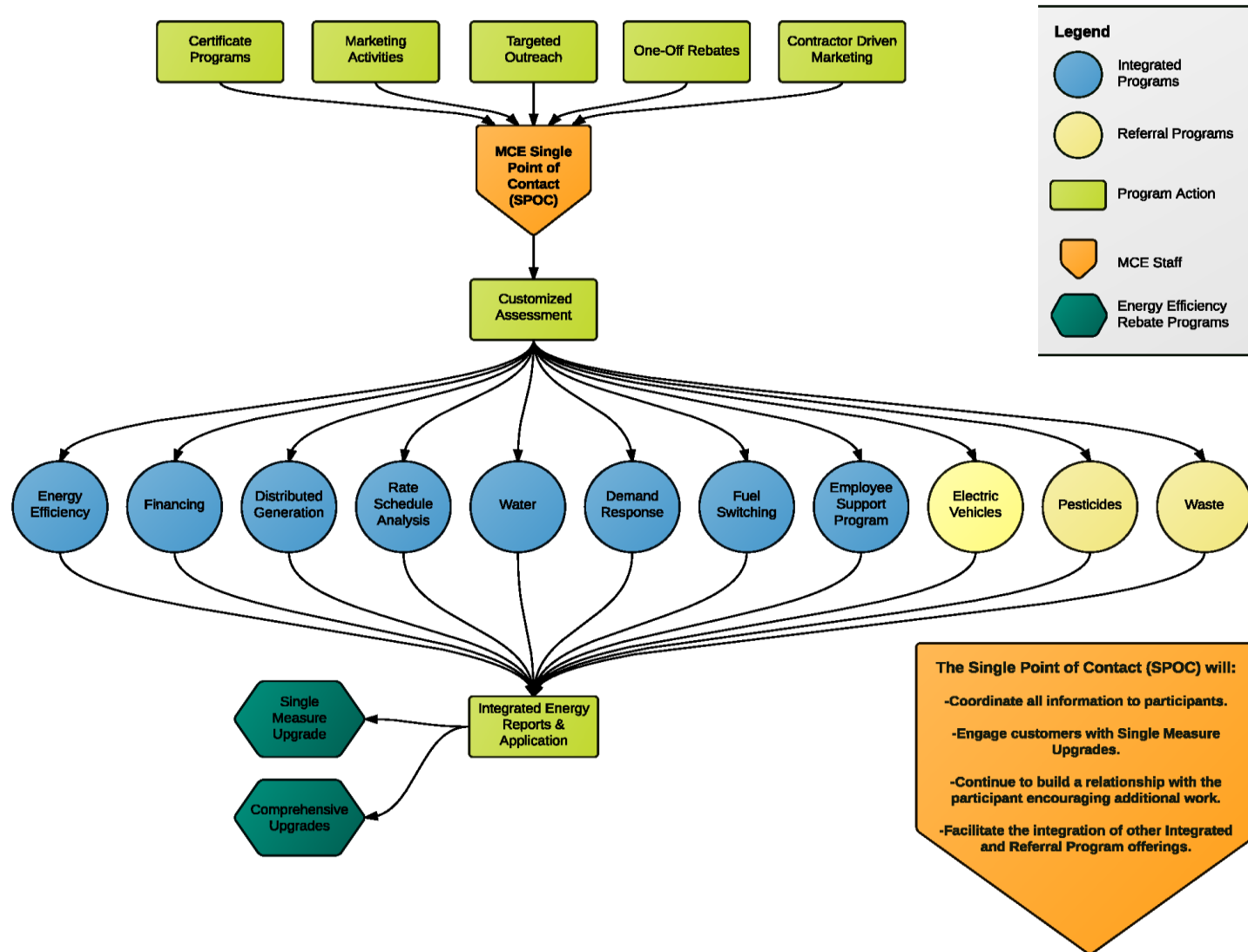


Figure 19. Agricultural Program Diagram.



## Agricultural Program Logic Model

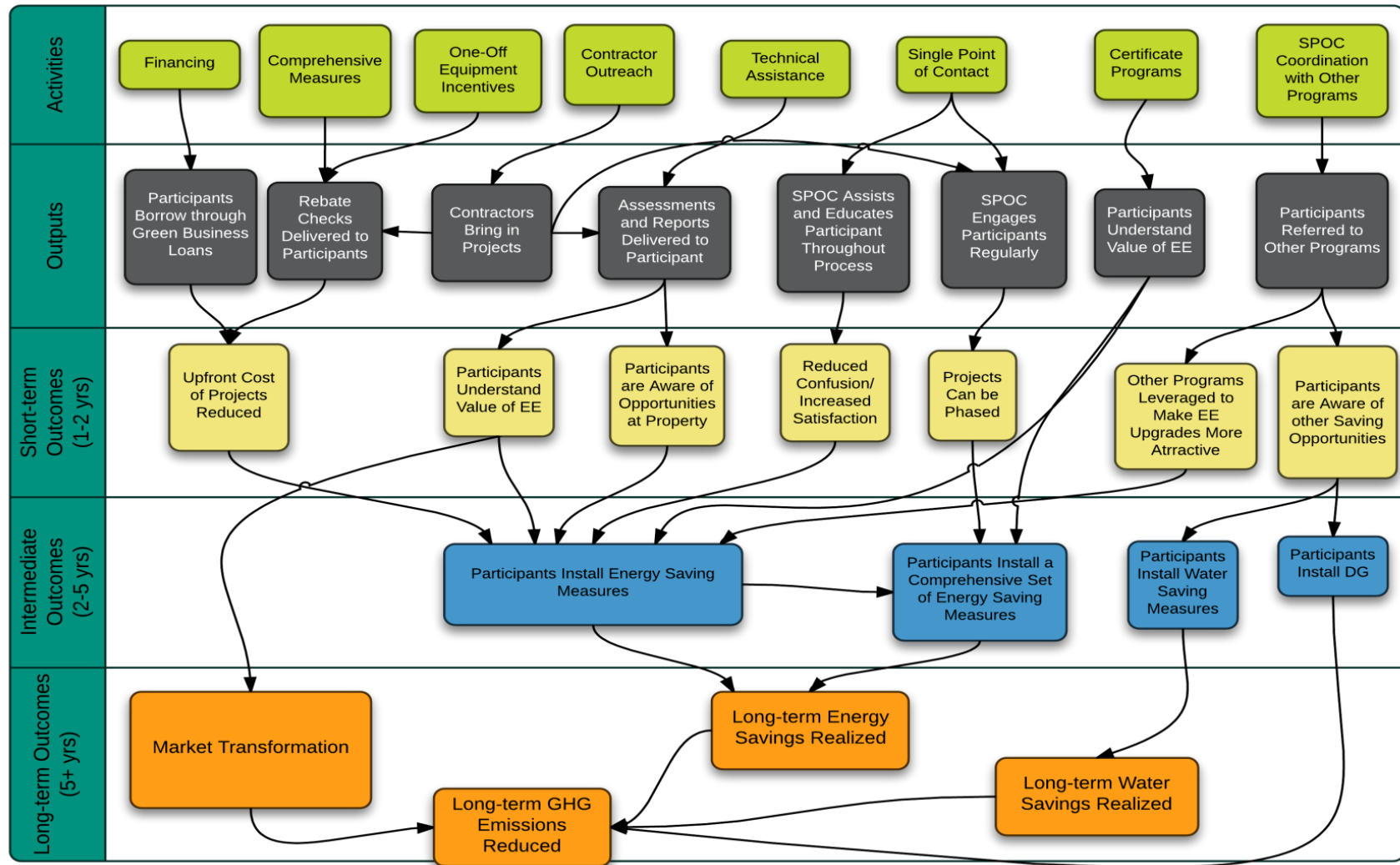


Figure 20. Agricultural Program Logic Model.

## Commercial Program

Table 5. Commercial Program Budget and Savings Summary.

Sector Summary	Years 1-2	Years 3-4
TRC	1.1	1.5
Budget	\$2,438,164	\$4,158,681
Estimated Savings	2,423,121 kWh (3,500) therms	5,331,056 kWh (24,626) therms

### Sector Opportunities

There are distinct differences in strategies for serving commercial properties based on the size of the business. Tenant/owner relationships similar to multi-family buildings affect the placement and effectiveness of incentives for small commercial customers. For larger commercial properties, energy costs are generally a small proportion of overall operating expenditures and dollar savings alone may not be enticing enough for these customers to take action. Energy improvements must appeal to other company objectives, such as corporate social responsibility and community visibility. Integrated solutions can provide an entry for energy efficiency programs when a company may be most interested in more visible improvements, such as solar panels.

MCE's Commercial Program is designed to serve both large and small commercial customers. The program acknowledges inherent differences in opportunities between small and large commercial properties, and emphasizes integrating diverse program offerings under one umbrella. The program focuses on customer satisfaction with the energy upgrade experience. MCE hopes to entice customers back for repeated engagement with the program and to help spur healthy competition between local businesses to demonstrate GHG reduction impact, ultimately driving toward market transformation and reduced need for incentives.

### Core Activities

- Provide participants with a Commercial SPOC to serve as a facilitator and customer advocate and to help guide business owners through the process from initial contact to project completion.
- Target buildings by using SmartMeter technology in order to focus opportunities and improve MCE's sales approach.
- Provide low or no cost audits for small commercial properties with limited opportunities.
- Provide extensive audits with customizable incentives for larger properties.
- Develop an integrated assessment process that streamlines multiple program offerings into one customer report.
- Deploy user-friendly CRM software that supports ongoing relations between the business and the program

## **Key Innovations**

- Offer innovative behavioral approaches that leverage web-based tools and software programs. Depending on demand, offerings could also include competitions and campaigns, social media, green teams, and interactive dashboards.
- Deliver an integrated approach that provides a seamless customer experience.
- Leverage existing and forthcoming benchmarking regulations as a means to assist customers compare their usage to their peers and best-in-class operations, and as a tool to incentivize upgrades and enhancements. Benchmarking can tie into other offerings and be used as a hook for anything from assessments to deep retrofits to behavioral campaigns to fault detection and diagnostics.
- Offer financing options through MCE on-bill repayment to help overcome one of the primary barriers for many small commercial customers (access to capital).
- Provide assistance obtaining Bay Area Green Business certification.

## Commercial Program Flow Chart

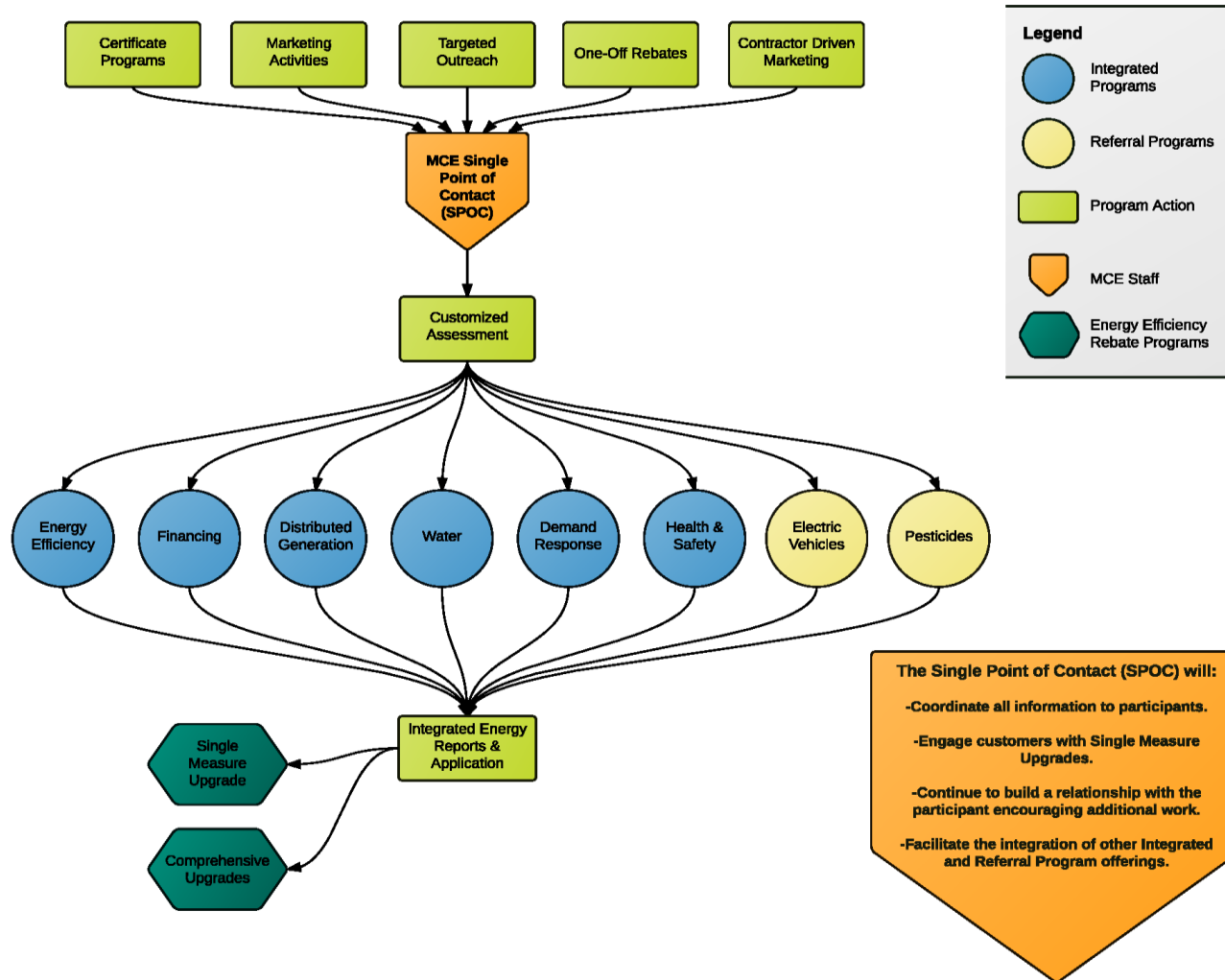


Figure 21. Commercial Program Diagram.

## Commercial Program Logic Model

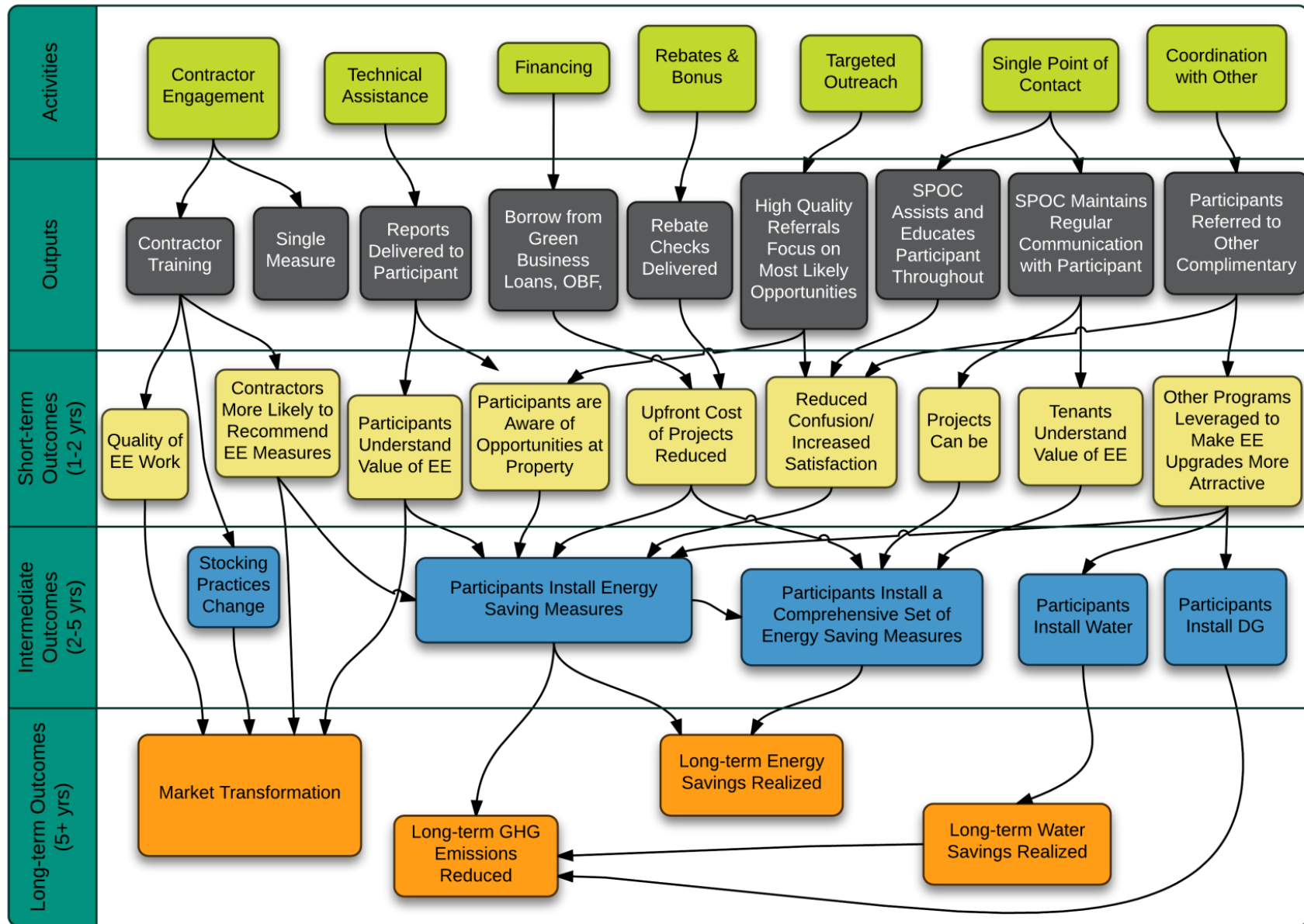


Figure 22. Commercial Program Logic Model.

## Workforce Development

### Community Benefit that Aids Market Transformation

MCE supports the success of its energy efficiency programs with complementary workforce development and training. MCE recognizes that contractors and workers must have the skills necessary to support program success and that a trained workforce is essential to accomplishing market transformation. MCE's growing network of trained local contractors can also help achieve deeper market penetration by identifying trigger events that could bring customers to the energy efficiency program.

MCE's goal is to create meaningful employment pathways for workers who are new or recently returning to the workforce, rather than creating one-off trainings that fail to guide participants toward future opportunities. MCE engages community partners to ensure the inclusion of workers from disadvantaged communities in pursuing energy sector careers. Working closely with community partners helps MCE to build on existing success in the region, fill gaps in service, and provide meaningful local workforce opportunities in connection to MCE's own renewable energy projects. To date, MCE has contracted more than \$250,000 with RichmondBUILD, the Marin City Community Development Corporation, Rising Sun Energy Center, and others to train and provide local workers to implement energy upgrades for our energy efficiency programs.

### Core Activities

- Work with local experts to align, leverage, and influence existing training programs and markets in the MCE service territory.
- Offer stackable credential programs that provide workers with a broad spectrum of transferable skills that qualify them for a variety of green jobs.
- Provide on- and off-ramps for workers of varying levels of experience and ambition.

### Community Benefits

- Skilled workers ensure that efficiency gains are met and that health and safety issues are addressed.
- Marketing, education, and outreach activities increase the demand for skilled labor in the region.
- Increase in skilled labor creates spillover benefit for the whole community, not just program participants.

## Workforce Program Flow Chart

### Workforce Supply Activities

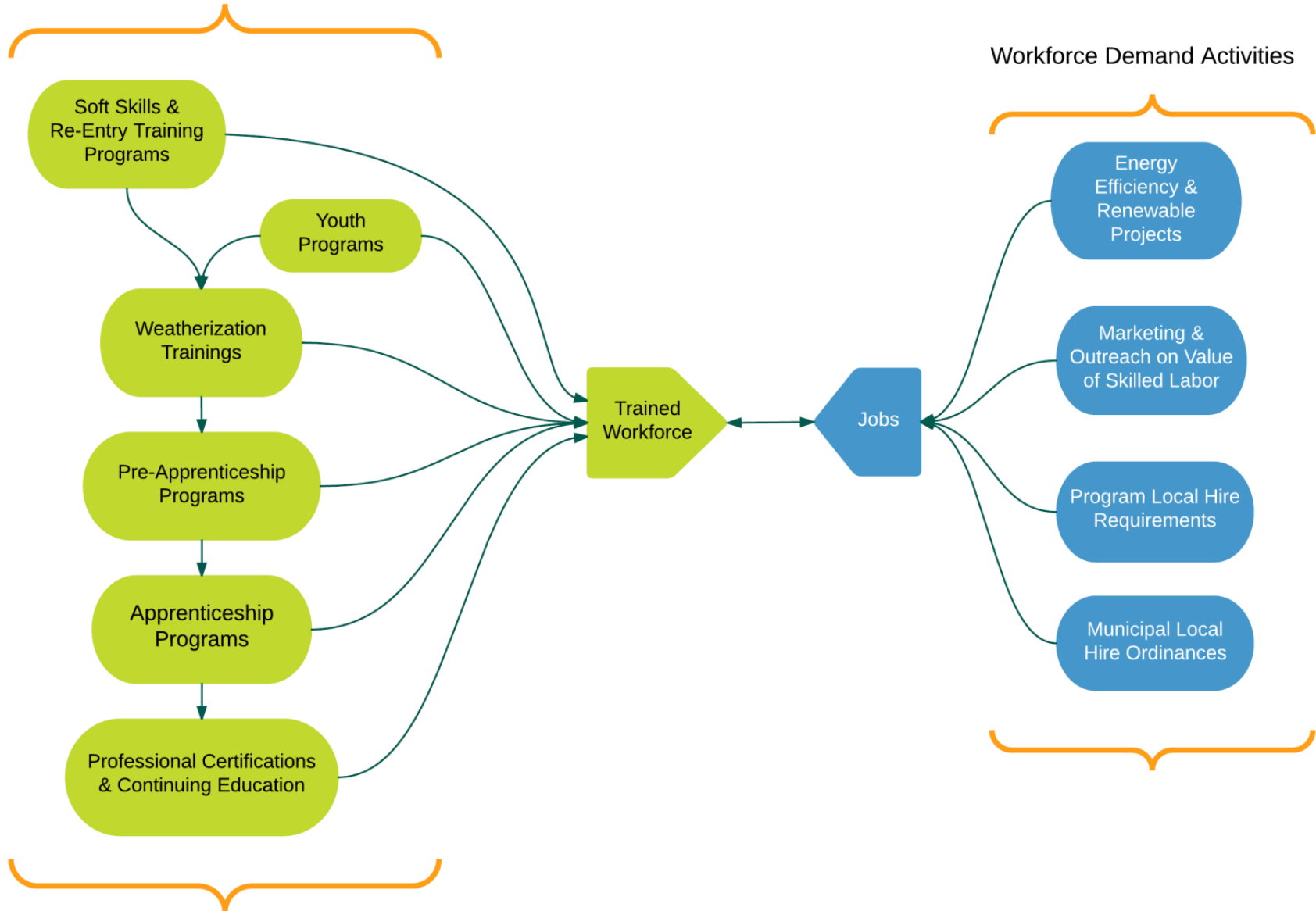


Figure 23. Workforce Program Diagram.

## Workforce Program Logic Model

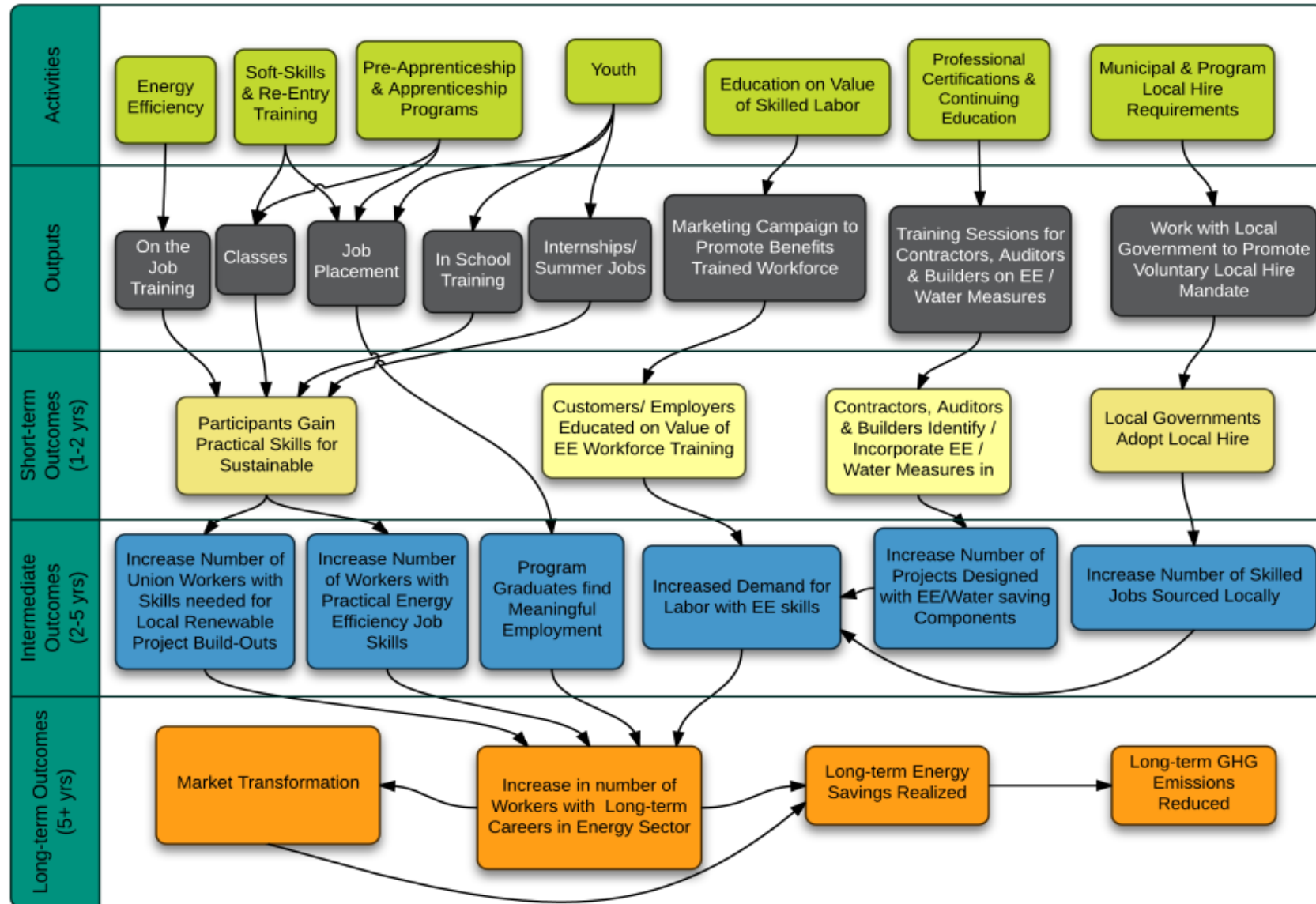


Figure 24. Workforce Program Logic Model.



## Energy Savings: Logic and Assumptions

This section describes the methodology utilized by MCE to arrive at energy savings targets that are both realistic and achievable. Rather than relying on the E3 calculator to create savings targets that are cost effective, MCE first modeled likely participation rates to identify achievable savings targets within its service territory. MCE then developed a set of measures for inclusion into the portfolio based on the DEER database, the Commercial End-Use Survey (CEUS)<sup>5</sup> and Residential Appliance Saturation Survey (RASS)<sup>6</sup> data on appliances and energy use, the age and types of buildings in the service territory, and past program data on the most common measures.

Market transformation involves a future in which public subsidies are no longer necessary to influence consumers' energy efficiency behaviors. The new, 10-year rolling cycle provides an opportunity to consider how cost effectiveness can be achieved within a long-term vision. Flexibility in cost effectiveness over a longer program cycle could help PAs invest in innovations that achieve significant savings from measures that are not feasible under the current TRC structure. MCE's program is designed to promote market transformation over a 10-year period. It will begin with low participation and high incentives, which will reverse as the program matures. A schedule for declining incentives triggered by customer participation is also described in this section.

**Estimated Participation Rates.** The level of ratepayer participation is an important assumption when predicting the energy savings from an energy efficiency portfolio. The following table describes MCE's anticipated market participation over the next 10 years. MCE estimated participation rates based on current energy efficiency program participation and past program data and is confident in its ability to bring customers to the table at the rates noted. These predictions are reinforced by the fact that MCE is close to the customer and has a strong sense of local conditions.

The table below describes the percentage of MCE's entire accounts engaged in the energy efficiency program at years 2, 5, and 10. MCE predicts deeper market penetration over time. Anticipated ZNE participation is estimated over the life of the energy efficiency program and is not cumulative.

---

<sup>5</sup> CEUS is a comprehensive study of commercial sector energy use, primarily designed to support the state's energy demand forecasting activities. The data was published in 2006, and the study was funded by the California Energy Commission.

<sup>6</sup> RASS is a residential mail survey that requested information on appliances, equipment, and general consumption patterns from California households. The most recent round of data collection was completed in 2010. The survey was funded and administered by the California Energy Commission.

Table 6. Assumed MCE Participation Rates (Fraction of Participants)

SECTOR	2-year interval	5-year interval	10-year interval	Zero Net Energy (ZNE) Program
Residential	0.25%	1.00%	3.00%	0.004%
Commercial	0.25%	1.00%	3.00%	0.01%
Industrial	0.50%	2.00%	6.00%	0.10%
Agricultural	0.50%	2.00%	6.00%	0.05%

These participation ratios were applied to MCE's current account information to determine the number of customers the program will serve in each customer segment, as displayed in Table 7.

Table 7. Assumed MCE Participation Rates (Number of Participants)

SECTOR	2-year interval	5-year interval	10-year interval	Zero Net Energy (ZNE) Program <sup>1</sup>
Residential	586	2,344	7,032	9
Commercial	69	275	825	3
Industrial	4	17	50	1
Agricultural	10	42	125	1

<sup>1</sup>Anticipated ZNE participation is not cumulative for the whole 10-year interval.

**Estimating Energy Savings Intensity.** While customer participation is expected to rise over the 10-year interval as shown in Figure 25, MCE also anticipates mixed levels of actual energy savings from customers due to the varying intensity of their individual efficiency projects. For most participants, per participant savings estimates range from an estimated 5% savings (low) to 10% savings (medium). For participants reaching for ZNE, MCE estimates that savings range from 30% to 70%.

**Energy Efficiency Measures List.** MCE developed a set of measures for inclusion into the energy savings portfolio based on the DEER database, the CEUS and RASS data on appliances and energy use, the age and types of buildings in the MCE service territory, and past program data on the most common measures (particularly for custom measure estimates).

**Declining Incentives Structure.** MCE plans to reduce incentives over time, following market trends indicating that customers rely less on financial incentives as motivation to implement specific energy efficiency measures and upgrades increases. Program participation benchmarks will trigger reductions in rebates according to the schedule in Figure 25. It is important to note that these triggers will be applied on a measure by measure basis, not a program wide basis. MCE estimates that these triggers will take place over the timeline described in Figure 26.

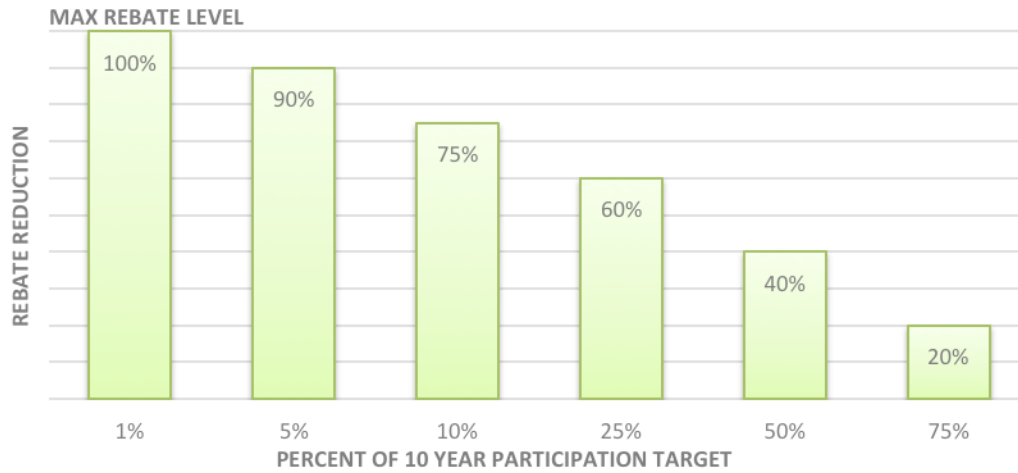


Figure 25. Rebate Level Reductions by Program Goal Benchmark.

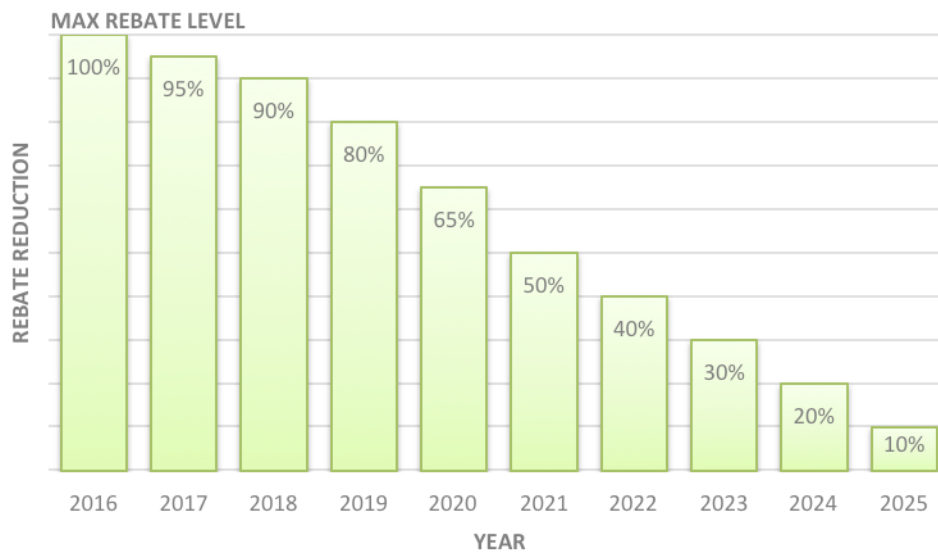


Figure 26. Rebate Level Reductions Over Time (Estimated)

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

Once a ballpark estimate of feasible energy savings was achieved, MCE developed the E3 calculators. MCE's E3 calculations<sup>7</sup> for cost effectiveness utilize the assumed participation rates and measures to arrive at the energy savings targets that allow MCE to achieve a cost effective portfolio within the first 2 years. MCE expects an initial TRC close to 1.0 for the first years of implementation, with improving cost effectiveness over time as participation rates increase and rebates decrease.

## **Risk Mitigation**

The energy savings and associated cost effectiveness of the business plan assume that participation levels will continue to increase even as incentives drop over time. This assumption is not without precedent; the California Solar Initiative demonstrated that increased market participation can result in decreased material and labor expenses, and emerging technology programs have also demonstrated a similar trajectory. However, in order to meet required cost effectiveness levels in later years of implementation, these assumptions must hold.

Therefore, MCE proposes a "re-look," or a reconsideration of budget and incentive levels in the event that assumptions underpinning the portfolio do not hold true. MCE will be responsible for monitoring overall cost effectiveness of the portfolio. Variation in measure by measure implementation can be managed through fund shifting or adjustment of incentives on individual measures, which will be reported on an annual basis. However, if the level of funding shifting or incentive adjustment required to maintain cost effectiveness exceeds the levels allowed by Commission policy, then MCE will be required to re-evaluate the logic of its Business Plan. MCE proposes that such a refresh will be vetted first with CPUC identified stakeholder groups and MCE's community and governing body, and then would be brought to Commission staff and ultimately the Commission for approval.

---

<sup>7</sup> The E3 calculator is a spreadsheet-based tool developed by the CPUC that calculates the cost effectiveness of energy efficiency program portfolios according to several cost effectiveness tests, including the TRC.

## Energy Efficiency Program Budget

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

Table 8. Energy Efficiency Program Budget Summary, Years 2016-2018

Program Budget (2016-2019)		
	2016 - 2017	2018 - 2019
Multifamily	\$2,726,716	\$3,596,725
Single Family	\$2,367,505	\$4,803,836
Commercial	\$2,438,164	\$4,158,681
Industrial	\$1,309,178	\$1,502,491
Agricultural	\$678,418	\$640,671
<b>TOTAL</b>	<b>\$9,519,981</b>	<b>\$14,702,404</b>

### Management and Staffing Resources

MCE projects a need for increasing staff resources over time. An organizational chart for year 2016 is presented below (**Error! Reference source not found.**); further years are elaborated in Appendix B. A detailed description of staff positions is presented below in Table 9.

Table 9. Staff Positions and Descriptions.

Position	Job Description
Director of Energy Efficiency	Responsible for portfolio development and administration, regulatory filings and reporting, meeting and setting targets, and staff management.
Regulatory Counsel	Participates & monitors energy efficiency proceedings, drafts filings, represents MCE's policy interest.
Manager (Customer Facing)	Manages program implementation, responsible for community outreach, education, and engagement, manages SPOCs & support staff. <i>(Estimated future need.)</i>
Manager (Technical)	Manages the technical aspect of the program; responsible for development of measure lists, E3 calculator, savings and cost modeling, and data management. <i>(Estimated future need.)</i>

Single Point of Contact (SPOC)	Core of the program and first point of contact for participants, manages building/project data in CRM, identifies programs to meet participants needs, project management, follows up with additional program opportunities for future participation, maintains relationships to provide highest quality customer service, and collects data for reporting. <i>(Estimated need for increased staffing over time.)</i>
Engineer	Responsible for measure list development, savings and cost modeling, data analysis and E3 calculator management
Technical Specialist	Provides support for data tracking and reporting, measure list development, savings and cost modeling, and target and metrics development. <i>(Estimated future need.)</i>
Marketing Associate	Responsible for designing collateral, print and digital Ad campaigns, and all other tasks related to marketing and outreach.
Administrative Assistant	Provides administrative support – responsible for tracking program metrics, data entry for reporting, scheduling, event and outreach preparation.
Intern	Educational opportunity for high school and college students to learn more about the energy efficiency field – responsible for specific projects: researching funding or rebate opportunities, identifying innovative programs, support marketing, outreach, and administrative tasks.

## MCE Energy Efficiency Team 2016

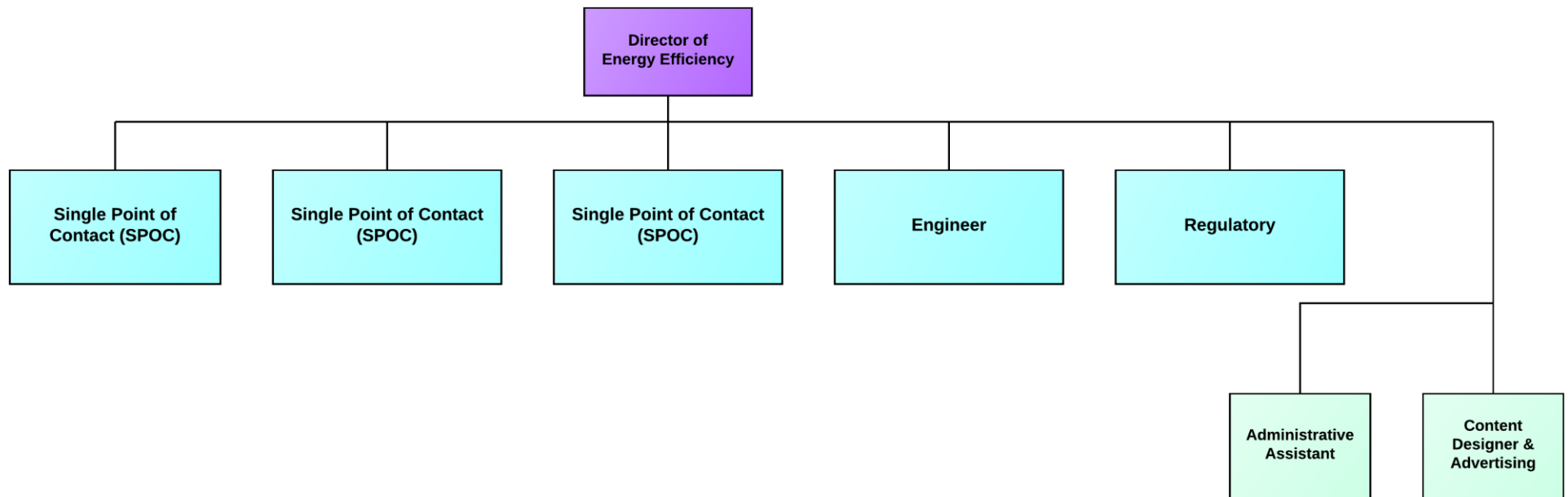


Figure 27. MCE Organizational Chart (2016).

## Conclusions

### **Moving from Niche to Primary Provider**

Given the vast changes taking place in the energy delivery field, MCE is well poised to become the primary provider of energy efficiency services in its territory. The utility of the future needs to be much more nimble and locally responsive than utilities of the past, and MCE is this energy provider. Because MCE was created within the last 10 years specifically in response to urgent customer needs, it is uniquely positioned to address significant customer and societal needs moving forward. Its position as a CCA allows MCE to manage its programs and approach from a local community need position. This will ultimately provide the best results to all communities and customers. From managing distributed energy resources, to empowering the grid of the future, MCE has the local focus combined with operational agility to manage vastly and uniquely changing customer demands and needs. The focus of this document is on energy efficiency, but MCE's outlook includes much more than energy efficiency alone.

### **The Time is Now**

We are living in an extraordinary time. While we currently face intimidating scenarios of climate disruption due to an over-reliance on carbon-based fuels, we are also seeing incredible advances in technologies that offer the potential to reverse the massive build-up of carbon that is taking place in our atmosphere. But rising to the challenge of climate change will require a rethinking and reworking of how we deliver and manage energy systems as a whole.

As Albert Einstein famously quipped, "We cannot solve our problems with the same thinking we used when we created them." Nowhere is this truer than with our energy systems. Most of the energy in America is generated, delivered, and managed by regulated monopolies that are more than 100 years old. These institutions were born in a completely different era, and they have served us well for many years. However, the world now has unique challenges and extraordinary opportunities that did not exist before. MCE was born in this era and is built on a foundation that is focused on today's challenges, perspectives, and relevant issues. MCE was created to take advantage of and embrace the very best of energy efficiency research and practice. Unlike large IOUs and POUs, MCE can be nimble and focus on those areas of the greatest need and opportunity with the requirements of an aging energy generation and distribution system.



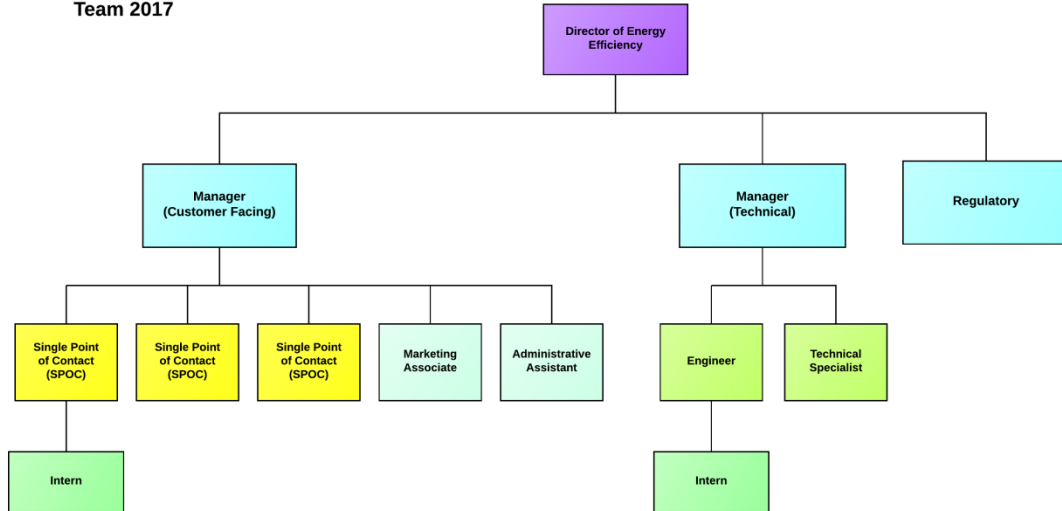
## Appendices

- Placemats
- Organizational Charts Year 2017 and 2018
- Letters of Support

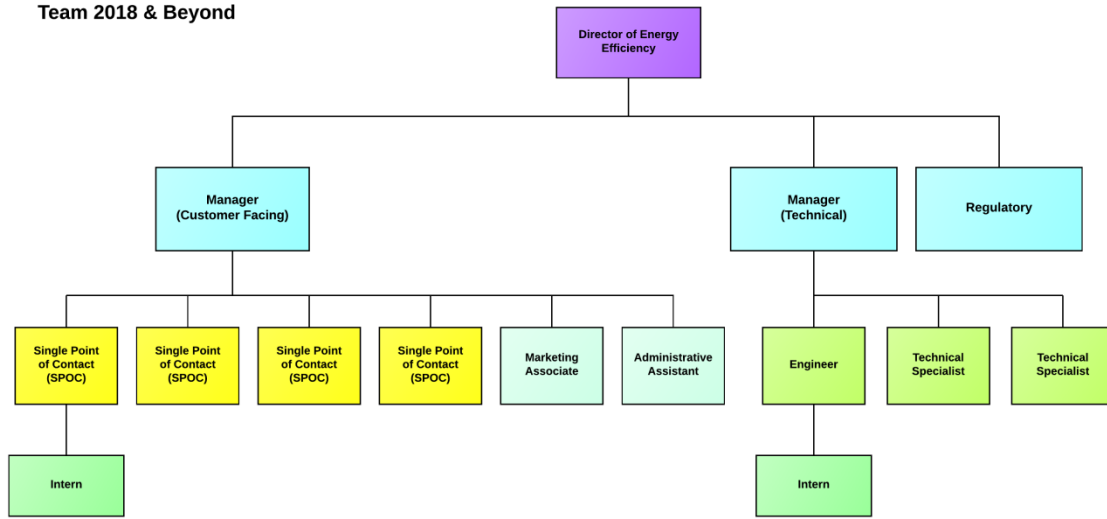
## Appendix A: Placemats

## Appendix B: Management and Staffing Resources 2017-2018

### MCE Energy Efficiency Team 2017



**MCE Energy Efficiency  
Team 2018 & Beyond**





June 18, 2015

TO: Marin Clean Energy Board  
FROM: Jeremy Waen, Senior Regulatory Analyst  
RE: Regulatory Update for June 2015

Dear Board Members:

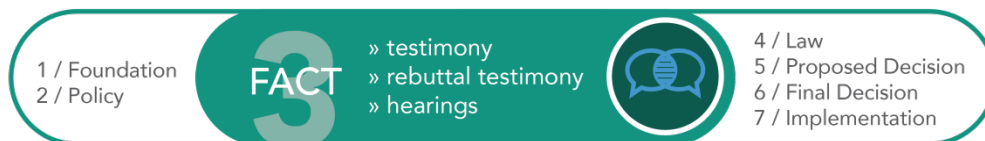
---

## Executive Summary of Regulatory Affairs for June 2015

Below is a summary of the key activities at the California Public Utilities Commission (CPUC) for June 2015 impacting community choice aggregation and MCE.

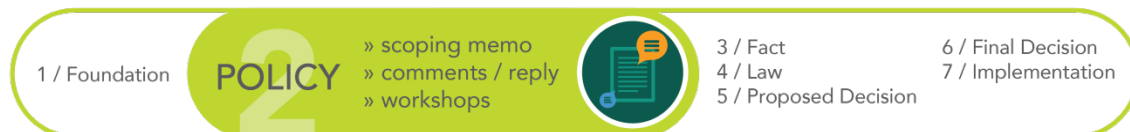
### 1. MCE Advocates for Low-Income Customers Interests (A.14-11-007 et al.)

#### A) *By Proposing an Energy Efficiency (EE) Pilot Program to Better Serve Low-Income Customers*



As part of the main track of this proceeding and in response to MCE's Low-Income Pilot Program proposal presented on April 2, on May 22 several intervening parties provided Rebuttal Testimony addressing in-part MCE's pilot proposal. MCE staff are reviewing parties' positions and preparing for evidentiary hearings that will occur on June 17 and 18.

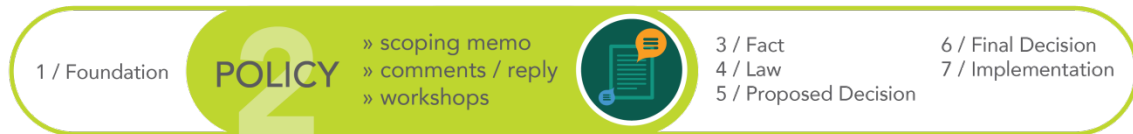
#### B) *By Calling for Protections for CARE and Medical Baseline Customers from PCIA Charges*



As an attempt to start a second track within the proceeding and because the Commission refused to address the MCE's call for consistent protections for CARE- and

Medical Baseline-eligible ratepayers statewide from PCIA charges within the ongoing PG&E 2015 ERRA proceeding (A.14-05-024), MCE filed a Motion to Amend the Scope within the consolidated Low-Income Proceedings to have the matter addressed there. MCE's Motion was filed on May 18 and since then numerous consumer advocates have voiced their support for exploring this topic within this proceeding. The Commission has yet to issue a ruling regarding MCE's Motion.

## 2. MCE Promotes EE Rolling Portfolios for 2016 and Beyond (R.13-11-005)



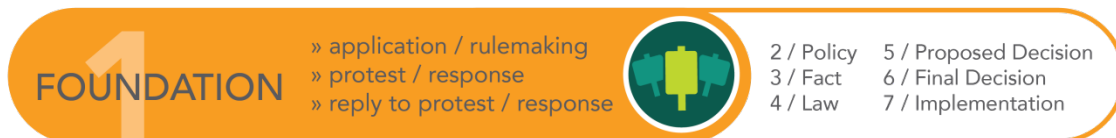
In response to a joint party proposal presented during workshops in March 2015, Energy Division staff issued a White Paper report the concept of implementing “Rolling Portfolio” framework into the Commission’s EE program cycles. As one of the parties that participated in the initial joint party proposal, MCE is very supportive of this concept. On May 26 MCE provided formal comments on the White Paper to highlight CCA-specific nuances should be considered and accounted for as the Commission continues to weigh the merits of the “Rolling Portfolio” framework.

## 3. MCE Advocates for CCA Customer Rights in the Residential Ratemaking Rulemaking (R.12-06-013)



On April 21 the Administrative Law Judges (ALJ) McKinney and Halligan issued their highly anticipated Proposed Decision (PD) regarding the need for on-going structural changes to California Residential Rates in accordance with Assembly Bill 327. On May 22, Commissioner Florio issued an Alternate Proposed Decision (APD). While both the PD and APD propose significant changes to residential rates over the next five years, Florio’s APD recommends slightly less drastic changes with slightly more protections for low-usage customers. Because Florio’s APD presents stronger signals for ratepayers to conserve their electricity usage, MCE is more supportive of the APD. That said, either the PD or the APD will bring about significant changes to the rates of residential CCA customers, so MCE continues to monitor these documents for changes prior to the Commission voting on the matter.

## 4. MCE Advocates for Fair Treatment regarding Energy Storage Procurement Obligations in the new Energy Storage Roadmap Rulemaking (R.15-03-011)



MCE has recognized the possibility that the Commission may not allow the recently launched Energy Storage installation at the College of Marin to count towards the Energy Storage procurement mandate imposed on MCE by the Commission due to how

this installation is funded. MCE staff met with Commissioner Peterman's energy adviser on May 12 to discuss these concerns. Subsequently, Commissioner Peterman and ALJs Halligan and Semcer convened a Prehearing Conference (PHC) on May 20 to discuss the preliminary scope for the new Energy Storage Roadmap proceeding, which includes exploring outstanding matters relating to the Energy Storage procurement targets and CCA, such as being able to count the College of Marin installation towards MCE's obligation.

**5. MCE Works to Ensure Ratepayer and Marketing Protections in PG&E's Green Tariff Shared Renewables (GTSR) and Enhanced Community Renewables (ECR) (A.12-01-008 et al.)**



On May 13, PG&E, SCE and SDG&E all filed their Customer-Side Implementation Advice Letter (CSIAL) detailing how each of the three utilities plans to present the customer-facing material to participants in their GTSR and ECR programs. These materials include both customer bill mock ups depicting how the GTSR and ECR program charges and credits would appear for participants on their bills, and draft Tariff sheets where the details about specific program charges and credits are presented. Despite the informal request submitted to PG&E by MCE staff on April 27, PG&E continues in its final CSIAL to lump Power Charge Indifference Adjustment (PCIA) charges in with the programmatic charges for GTSR and ECR participants.

On June 2 MCE submitted protests to all three utilities' CSIALs on the grounds that all three of the utilities should (i) clearly present PCIA charges on GTSR and ECR participants' bills, (ii) present more details regarding how PCIA vintages will be determined and assigned to GTSR and ECR participants, and (iii) clarify that former GTSR and ECR participants that return to bundled service are obligated to take Transitional Bundled Service (TBS), just as former CCA customers are obligated. Energy Division will now review these Advice Letters in light of MCE's and other parties' protests and determine what should be amended through supplemental filings by the utilities.



June 18, 2015

TO: Marin Clean Energy Board  
FROM: Shalini Swaroop, Regulatory and Legislative Counsel  
RE: MCE Legislative Executive Summary

Dear Board Members:

---

In the past month, many proposed bills have either been held by the Committee on Appropriations or have been put forth to be voted on by their full house of origin. As indicated previously, this particular legislative session has an abundance of energy policy bills due to the Governor's State of the State address and his ambitious energy goals to raise California's renewable portfolio standard, reduce petroleum use in vehicles, and increase energy efficiency in buildings.

Below please find the current status of all of MCE's high priority legislative items. Bills that were held in Appropriations are noted only for informational purposes, as MCE is no longer tracking them.



**Summary of MCE Actions and Bill Activity:**

<b>I. Key Bills Broadly Addressing the Governor's Energy Policy Goals</b>	
<b>SB 350 (De León and Leno)</b> – Implementing the Governor's 50-50-50 Benchmarks	The bill passed out of the Senate floor 24-14. The bill has moved to relevant Assembly policy committees.
<b>AB 645 (Williams and Rendon)</b> – Implementing a 50% Renewable Portfolio Standard by 2030	The bill passed the Assembly 46-29. The bill has moved to relevant Senate policy committees.
<b>AB 802 (Williams)</b> – Expanding Energy Efficiency (EE) Measures Eligible for Ratepayer-Funded Programs	MCE submitted a letter in support of this bill on May 5, 2015. The bill passed the Assembly unanimously.
<b>AB 1330 (Bloom)</b> – Energy Efficiency (EE) Resource Standard	MCE is working with the bill sponsor to alleviate MCE's concerns. The bill passed the Assembly 46-29.
<b>AB 793 (Quirk)</b> – Home Energy Management Systems	MCE is currently evaluating the anti-competitive impacts of this bill. The bill passed the Assembly Floor and is now being considered in the Senate Energy, Utilities, and Communications Committee.
<b>II. Bills Affecting CCAs and CCA Customers</b>	
<b>AB 674 (Mullin)</b> – Reduces Non-bypassable Charges (NBCs) for IOU Customers who Install Clean Distributed Energy Resources	This bill did not pass out of the Appropriations Committee.
<b>SB 180 (Jackson)</b> – Electricity: Emission of Greenhouse Gases	This bill did not pass out of the Appropriations Committee.
<b>SB 286 (Hertzberg)</b> – Raising the Cap on Direct Access Electricity Services	The bill passed out of the Senate floor. The bill has moved to relevant Assembly policy committees.
<b>III. Bill Promoting Electric Vehicles</b>	
<b>AB 1005 (Gordon)</b> – Promoting A Competitive Market to Spur Electric Vehicle Adoption	MCE submitted a letter of support for this bill on April 22, 2015. The bill was held to become a two-year bill. There is an ongoing stakeholder process that MCE's representatives are participating in.
<b>IV. Bills Addressing Reform at the California Public Utilities Commission</b>	
<b>SB 48 (Hill), SB 660 (Leno), and AB 825 (Rendon)</b>	SB 48 and SB 660 both passed out of the Senate floor. AB 825 passed the Assembly with a unanimous vote.

## Detailed Summary of Bill Policy Issues:

### I. Key Bills Broadly Addressing the Governor's Energy Policy Goals

#### 1) **SB 350 (De León and Leno) – Implementing the Governor's 50-50-50 Benchmarks**

##### **About the Bill:**

SB 350 implements the Governor's "50-50-50" benchmarks by raising California's Renewables Portfolio Standard (RPS) from 33% to 50%, striving for a 50% reduction in petroleum use, and increasing energy efficiency in buildings by 50% by the year 2030.

##### ***Renewables Portfolio Standard (RPS):***

The 50% renewable energy standard will be implemented by the California Public Utilities Commission (CPUC) for the private utilities and by the California Energy Commission (CEC) for municipal utilities, as per current law. Unlike previous law, there will be no rulemaking at the CPUC to determine how CCAs should comply. Rather, CCAs are mandated to comply and are subject to the same terms and conditions as the IOUs. The CPUC and the CEC are responsible for tracking Renewable Energy Certificates (RECs) in the system to ensure no double-counting. The RPS standard is proposed to be modified as follows: 33% in 2020, 40% in 2024, 45% in 2027, and 50% in 2030.

**Importantly, the bill as currently written applies the Cost Allocation Mechanism (CAM) to net capacity costs of renewable resources. This would result in higher fees for CCA customers for redundant procurement mechanisms administered by IOUs.**

##### ***Vehicles:***

The 50% reduction in petroleum use also will be implemented using existing laws and financial resources. Under current law, the state air board must reduce pollution in order to achieve state and federal ambient air standards. Current law (Health and Safety Code Section 42013) requires the board to adopt standards for vehicles and fuels to achieve clean air.

**MCE is currently taking an active role in electric vehicle proceedings at the California Public Utilities Commission.**

##### ***Energy Efficiency (EE):***

Finally, the 50% increase in energy efficiency in buildings will be done through the use of existing energy efficiency retrofit funding and regulatory tools already available to state energy agencies under existing law. The measure mandates on or before January 1, 2017 (and every three years thereafter), the CPUC shall update the EE program to double the efficiency of buildings. This implicates a three year cycle within the rolling portfolio proceeding currently underway at the CPUC (R.13-11-005).

**MCE is currently offering energy efficiency programs to customers within MCE's service territory. MCE will be increasing those offerings dramatically in the next year.**

MCE is engaging on this bill to ensure protection of CCA ratepayers and to ensure fair treatment of CCAs in the adjustment to RPS and EE standards. MCE is also engaging to ensure CCAs have access to energy efficiency funding.

**2) AB 645 (Williams and Rendon) – Implementing a 50% Renewable Portfolio Standard by 2030**

**About the Bill:**

This is another of the bills aiming to achieve the Governor's goal of a 50% Renewable Portfolio Standard (RPS) for all retail electricity sellers (including CCAs) in 2030. The RPS standard will be modified as follows: 33% in 2020, 38% in 2023, 44% in 2026, and 50% in 2030.

MCE is monitoring this bill to ensure fair treatment of CCAs in the adjustment to the RPS standards.

**3) AB 802 (Williams) – Expanding Energy Efficiency (EE) Measures Eligible for Ratepayer-Funded Programs**

**About the Bill:**

Current state policy requires ratepayer-funded EE incentives and programs are cost-effective. Cost effectiveness of these programs is currently measured against the standards built into the current Building Code. With the recent enactment of the ambitious Title 24 Building Code, many existing buildings no longer meet the baseline of energy efficiency standards in the code. This has significantly limited opportunities to implement EE programs throughout the state, including in MCE's service territory, because the baseline has been raised to a level that is well above most building standards. AB 802 aims to address this gap by requiring the CPUC to consider the cost-effectiveness of EE measures by using the actual energy savings achieved for a property instead of the Title 24 Building Code. This will allow all EE program administrators in the state to expand their offerings and better achieve the Governor's EE goals.

**4) AB 1330 (Bloom) – Energy Efficiency (EE) Resource Standard**

**About the Bill:**

AB 1330 sets EE goals for investor-owned utilities (IOUs), municipal utilities, CCAs, and other electric service providers. The bill sets EE goals of 1.5% of total system consumption by 2020 and at least 2% by 2025. The bill also indicates the CPUC will set annual demand response requirements for each retail seller of electricity. Gas savings targets are set at .75% by 2020 and at least 1% by 2025. The bill mandates that the energy savings shall first come from disadvantaged communities. An annual energy savings report is also to be filed with the California Energy Commission. The California Energy Commission is also responsible for adopting a cost limitation for each retail seller to achieve these goals.

While MCE is supportive of this bill, in its current state the bill does not reflect current law regarding oversight of CCA procurement by its governing board. MCE is working with the bill sponsor to alleviate these concerns.

## **5) AB 793 (Quirk) – Home Energy Management Systems**

### **About the Bill:**

Low-income weatherization programs are already administered by the IOUs at the direction of the CPUC. This bill would require weatherization to include home energy management technology. However, this bill requires that these incentives are administered primarily by the IOU. MCE, as a local government agency, would be able to apply to PG&E for these incentives.

Allowing the use of home energy management systems for low-income customers would potentially increase the use of energy efficiency measures in low-income housing. Additionally, MCE's current proposed low-income energy efficiency pilot could benefit from the use of these funds.

The bill places particular emphasis on investor-owned utilities, possibly to the detriment of CCAs. MCE is currently evaluating the anti-competitive impacts of this bill.

## **II. Bills Affecting CCAs and CCA Customers**

### **1) AB 674 (Mullin) – Reduces Non-bypassable Charges (NBCs) for IOU Customers who Install Clean Distributed Energy Resources**

#### **About the Bill:**

AB 674 requires the CPUC to limit non-bypassable charges (NBCs) to customers that have installed clean Distributed Energy Resources (DERs) based only on the metered consumption of electricity. Clean DERs would be defined to include renewable resources as well as combined heat and power facilities under 20 MW. The bill also requires the IOU to calculate a reservation capacity for standby service.

### **2) SB 180 (Jackson) – Electricity: Emission of Greenhouse Gases**

#### **About the Bill:**

All load serving entities (LSEs) must adhere to emissions performance standards (EPS) in their baseload generation procurement. This bill adjusts existing standards by eliminating the EPS for baseload generation. It creates two new categories of generation now subject to the EPS: 1) nonpeaking generation and 2) peaking generation.

The bill requires an EPS at the lowest level that is technically feasible while considering reliability and cost impacts. The bill requires the establishment of the new EPS by June 30, 2017; with updates every five years based on new technology; and coordination between the CPUC, CEC, CARB, and CAISO to consider reliability and cost impacts. The CPUC is required to establish the EPS for load serving entities through a rulemaking that will implicate CCA regulatory resources.

### **3) SB 286 (Hertzberg) – Raising the Cap on Direct Access Electricity Services**

#### **About the Bill:**

This bill proposes lifting the cap on direct access service providers to 8 gigawatts above the current cap. The CPUC would be required to adopt and implement a reopening schedule by July 1, 2016.

This bill potentially has various impacts on CCAs. In terms of business revenue, an increase of the direct access market may have effects on CCA revenue for large customers within existing and potential CCA service territories.

However, if passed, eliminating the cap would also lead to a stronger competitive market to protect against cost-shifting and anti-competitive issues. Earlier concerns about the renewable content of the energy used have been addressed with a new amendment that 100% of new distributed generation resources must be from renewable energy resources.

MCE has taken no public stance on this bill. However, MCE has been monitoring this bill closely.

### **III. Bill Promoting Electric Vehicles**

#### **1) AB 1005 (Gordon) – Promoting A Competitive Market to Spur Electric Vehicle Adoption**

#### **About the Bill:**

AB 1005 encourages and supports the widespread deployment of Electric Vehicles (EVs) through protecting competitive markets for electric vehicle charging equipment and supporting consumer choice in electric vehicle charging equipment and network charging services. The bill indicates that the electricity supplied to EV chargers is not limited to corporate utility-owned generation, allowing CCAs to participate in and contribute to innovation in the California EV market. The bill also ensures that investor-owned utilities (IOUs) do not unfairly compete with other entities, such as CCAs, and that the IOUs will not limit customer choice for EV service equipment or electricity source.

MCE is supportive of this bill because it ensures consumer choice in the EV market to encourage growth, innovation, and competitive opportunities for everyone, not just the IOUs.

### **IV. Bills Addressing Reform at the California Public Utilities Commission**

#### **About the Bills:**

There are a variety of bills that address reforms to the California Public Utilities Commission. These include SB 48 (Hill), SB 660 (Leno), and AB 825 (Rendon). However, all three bills address some aspect of the rules regarding *ex parte* communications or Balgey-Keene communications between the Commissioners, given recent information concerning such communications.

MCE is monitoring all three of these bills and has not taken any action.



## **KEY LEGISLATION, GLOSSARY OF TERMINOLOGY AND KEY ACRONYMS**

### **Key Legislation**

#### **AB 32 – Assembly Bill 32, the Global Warming Solutions Act of 2006**

AB 32 is an environmental law in California that establishes a timetable to bring California into near compliance with the provisions of the Kyoto Protocol.

#### **AB 117 – Assembly Bill 117, Community Choice Aggregation Enabling Legislation**

AB 117 is the California legislation passed in 2002 that enabled community choice aggregation, authored by then Assemblywoman Carole Migden.

#### **SB 790 – SB 790, Charles McGlashan Community Choice Aggregation Act**

SB 790, authored by state Senator Mark Leno, was passed in 2012. This bill institutes a code of conduct, associated rules, and enforcement procedures for IOUs' regarding how they interact with CCA. This bill also clarified a CCA's equal right to participating in ratepayer-funded energy efficiency programs.

### **Terminology**

#### **Bundled & Unbundled Renewable Energy Certificates**

All renewable-based electricity generators produce two distinct products, physical electricity and renewable energy certificates (RECs). At the point of generation, both product components can be sold together or separately, as a bundled or unbundled product.

#### **Bundled Customers**

Bundled customers receive both their electricity generation and distribution services from the same entity. If a customer "opts out" of MCE service, they would be a bundled customer of PG&E.

#### **Unbundled Customers**

Unbundled customers receive their electricity generation and distribution services from separate entities. Customers of MCE are considered unbundled customers because they purchase their electricity generation services from MCE and their electricity distribution services from PG&E.

**Key Acronyms****CAISO – California Independent System Operator**

The CAISO maintains reliability and accessibility to the California transmission grid. The CAISO manages, but does not own, the transmission system and oversees grid maintenance.

**CAM – Cost Allocation Mechanism**

CAM is a mechanism for passing through Resource Adequacy costs of generation resources – generally new resources brought online by an investor-owned utility (IOU) such as PG&E – to customers that do not receive generation service from the IOU. The generation facility is supposed to fulfill a system or local area reliability need.

**CARB – California Air Resources Board**

CARB is the State's agency established by California's Legislature in 1967 to: 1) attain and maintain healthy air quality; 2) conduct research to determine the causes of and solutions to air pollution; and 3) address the issue of motor vehicles emissions. Today CARB is tasked with implementing the State's efforts to reduce and track the reduction of greenhouse gases (GHGs) emitted statewide, by overseeing the AB 32 Scoping Plan and managing major GHG-related programs like Cap-and-Trade and the Low Carbon Fuel Standard. CARB with guidance from the Governor and Legislature controls how revenues from these programs are spent to further the State's GHG reducing efforts.

**CARE – California Alternate Rates for Energy**

CARE is a program that allows low-income energy customers to receive a 30-35 percent discount on their electric and natural gas bills. Customers may be eligible for CARE if they are enrolled in public assistance programs such as Food Stamps and Temporary Assistance for Needy Families (TANF). There are no changes to the CARE discount for CCA customers.

**CCA – Community Choice Aggregation**

CCA allows cities and counties to aggregate the buying power of individual customers within a defined jurisdiction in order to secure alternative energy supply. MCE is the first operational CCA in California. Other operational CCAs in California include Sonoma Clean Power and Lancaster Choice Energy.

**CEC – California Energy Commission**

The CEC is California's primary energy policy and planning agency. It has responsibility for activities that include forecasting future energy needs, promoting energy efficiency through appliance and building standards, and supporting renewable energy technologies.

**CHP – Combined Heat and Power**

CHP (also referred to as Cogeneration) is the use of a heat engine or a power station to convert waste heat (usually steam) into additional electricity. Not necessarily considered renewable energy, CHP is still encouraged by state policy and regulations.

**CIA – Conservation Incentive Adjustment**

The CIA is a non-bypassable charge unrelated to generation, transmission or distribution. This rate design will be implemented in the PG&E service territory in July 2012 and will result in flat generation and distribution rates, and a tiered CIA charge.

**CPUC – California Public Utilities Commission**

The CPUC, also simply called the Commission, is the entity that regulates privately-owned utilities in the state of California, including electric power, telecommunications, railway, livery, natural gas and water companies. The CPUC has limited jurisdiction over CCAs.

**DA – Direct Access**

DA is an option that allows eligible customers to purchase their electricity directly from competitive generation providers. There are legislatively mandated caps on DA that have gradually increased since the energy crisis. Large energy users in particular seek the cost certainty associated with being on DA service.

**DER – Distributed Energy Resource**

DER is a relatively new term that refers to a broad number of energy resource types (roof-top solar, fuel cells, energy storage, demand response, electric vehicles, energy efficiency controls, etc.) that are deployed along the distribution grid level. DERs can be controlled in aggregate to behave like localized generation resources there by increasing local grid reliability while meeting the constraints of broader grid reliability needs.

**DG – Distributed Generation**

DG refers to small, modular power sources sited at the point of power consumption. One example of residential distributed generation is an array of solar panels installed on a home's roof.

**DR – Demand Response**

DR is a way of controlling customers' electricity demand through either voluntary or obligatory programs via either manual or automated control systems. While there are many different flavors of DR designed to attain distinct types of benefits, DR is generally intended to shift electricity demand to better align with the real-time electricity supply.

**EE – Energy Efficiency**

EE is a way of managing and restraining the growth in energy consumption. It refers to using less energy to provide the same service. For example: In the summer, efficient windows keep the heat out so that the air conditioner runs less often which helps save electricity.

**ESAP – Energy Savings Assistance Program**

The Energy Savings Assistance Program provides no-cost weatherization services to low-income households who meet the California Alternate Rates for Energy (CARE) income guidelines. Some of the services provided include attic insulation, energy efficient refrigerators, energy efficient furnaces, and weather stripping.



**ESP – Electricity Service Provider**

ESPs are non-utility entities that offer Direct Access (DA) electric service to customers within the service territory of an electric utility. CCAs are not considered ESPs. However, ESPs, CCAs and investor-owned utilities (IOUs) are all considered load-serving entities (LSEs).

**FIT – Feed-In Tariff**

FITs are long-term, standard-offer, must-take contracts offered by electricity retailers to small-scale renewable developers for the procurement of DG renewable energy. MCE currently offers a FIT to encourage local development of renewable energy.

**GHG – Greenhouse Gas**

GHGs are gases in Earth's atmosphere that prevent heat from escaping into space. The burning of fossil fuels, such as coal and oil, and deforestation has caused the concentrations of GHGs to increase significantly in the Earth's atmosphere. This increase in GHGs is the driving force behind climate change.

**HUR – Home Utility Report**

A HUR is a document that provides customers with a detailed analysis of their individual usage data, comparisons to other similar customers, and tips on how to reduce energy usage. HURs are delivered through the mail on a regular schedule to a subset of MCE customers as part of MCE's Single Family Energy Efficiency Program. Customers are selected to receive the HUR based on historic energy usage.

**IDSM – Integrated Demand-Side Management**

IDSM is still being defined by the CPUC but is generally used to refer to coordination among customer-side energy technologies and services. The technologies are often found behind a customer's meter and may be related to distributed generation, energy efficiency, electric vehicles, energy storage, and other areas. The services include demand response programs, specialized rate structures, and education programs. IDSM is viewed as a way to reduce the negative impact of organizational silos among utilities and regulators and to improve customer understanding of available options.

**IOU – Investor Owned Utility**

IOU refers to an electric utility provider that is a private company, owned by shareholders. The three largest IOUs in California are Pacific Gas and Electric (PG&E), Southern California Edison (SCE) and San Diego Gas and Electric (SDG&E).

**LSE – Load-Serving Entity**

LSEs are a categorization term that refers to investor-owned utilities (IOUs), electric service providers (ESPs), and CCAs, all of which offer generation service in the IOU's service territory. POU's are excluded from this categorization.

**NBC – Non-Bypassable Charge**

NBCs are line item charges that all distribution customers (both Bundled and Unbundled) must pay. Types of NBCs include the Power Charge Indifference Adjustment (PCIA) and the Cost

Allocation Mechanism (CAM). These charges have significant impacts on CCA customers. The Public Purpose Program (PPP) charge is also a NBC.

**NEM – Net Energy Metering**

NEM allows a customer to be credited when their renewable generation system generates more power than is used on site. The customer continues to pay for electricity when more power is used on site than the system produces.

**OBF – On Bill Financing**

OBF is a financing mechanism in which repayment is integrated into a customer's utility bill.

**OBR – On Bill Repayment**

OBR is a mechanism for loan repayment in which the loan payments are integrated into a customer's utility bill.

**PAC – Program Administrator Cost**

The PAC is one of two tests of energy efficiency program costs effectiveness used by the CPUC. The test measures the net benefits and costs that accrue to the program administrator (usually a utility) as a result of energy efficiency program activities. The PAC compares the benefits, which are the avoided cost of generating electricity and supplying natural gas, with the total costs, which include program administration costs. The PAC includes the cost of incentives, but excludes any participant costs or tax credits.

**PACE – Property Assessed Clean Energy**

PACE is a way of financing energy efficiency upgrades or renewable energy installations for buildings. In areas with PACE legislation in place municipal governments offer a specific bond to investors and then loan the money to consumers and businesses to put towards an energy retrofit. The loans are repaid over the assigned terms (typically 15 to 20 years) via an annual assessment on their property tax bill. One of the most notable characteristics of PACE programs is that the loan is attached to the property rather than an individual.

**PCIA – Power Charge Indifference Adjustment**

The PCIA is an "exit fee" imposed on departing load that is intended to protect bundled utility customers. When customers leave bundled service to purchase electricity from an alternative supplier, such as MCE, the IOU, who had previously contracted for generation to serve these customers on a going-forward basis, is able to charge these departing customers the above market costs of that power.

**POU – Publicly Owned Utility**

POUs are locally publically owned electric utilities that are administered by a board of publically appointed representatives (similar to a CCA). POU's are not within the jurisdiction of the California Public Utilities Commission (CPUC), and are thus subject to different regulation and enforcement than investor-owned utilities (IOUs), electricity service providers (ESPs) and CCAs.

**PPP – Public Purpose Program**

PPP charges are collected from all Bundled and Unbundled customers in order to fund, among others, discounts for low-income customers on the CARE rate and energy efficiency programs.

**PV – Photovoltaic**

PV is solar electric generation by conversion of light into electrons. The most commonly known form of solar electric power is roof panels on homes.

**RA – Resource Adequacy**

RA refers to a statewide mandate for all load-serving entities (LSEs) to procure a certain quantity of electricity resources that will ensure the safe and reliable operation of the grid in real time, over the course of the calendar year. RA also provides incentives for the siting and construction of new resources needed for reliability in the future.

**RPS – Renewable Portfolio Standard**

The RPS was created in 2002 under Senate Bill 1078 and most recently modified by SB (1X) 2 (2011). A RPS is a requirement that all Load-Serving Entities (LSEs) maintain a minimum percentage of renewable electricity resources within their broader generation supply portfolio. The present RPS requires all of California's LSEs to have no less than 33% renewable generation content by 2020. Recently Governor Brown has challenged the State to aspire to a 50% RPS requirement by 2030. The Legislature and the CPUC are exploring means to adopting a higher RPS mandate.

**SPOC – Single Point of Contact**

The SPOC is a facilitator and participant guide to MCE program offerings, helping to guide the customer through the participation process from initial contact to project completion.

**TRC – Total Resource Cost**

The TRC is one of two tests of energy efficiency program cost effectiveness used by the CPUC. The test measures the net benefits and costs that accrue to society, which is defined as a program administrator (usually a utility) and all of its customers, as a result of energy efficiency program activities. The TRC compares the benefits, which are the avoided cost of generating electricity and supplying natural gas, with the total costs, which include program administration and customer costs. The TRC does not include the costs of incentives.

**ZNE – Zero Net Energy**

A building is ZNE if the amount of energy provided by on-site renewable energy sources is equal to the amount of energy used by the building.