1. Board Announcements (Discussion)

2. Public Open Time (Discussion)

3. Report from Executive Officer (Discussion)

4. Consent Calendar (Discussion/Action)
   C.1 9.18.14 Board Retreat Minutes
   C.2 10.2.14 Board Minutes
   C.3 Monthly Budget Report
   C.4 Approved Contracts Update
   C.5 1st Addendum to 2nd Agreement with Stion Corp.
   C.6 1st Addendum to 1st Agreement with Today’s Sustainability
   C.7 2nd Agreement with Bevilacqua Knight Inc. for Technical Support on Energy Efficiency Program Development

5. Appointment of Chair and Vice-Chair for MCE Board (Discussion/Action)
6. Resolution No. 2014-07 Honoring MCE Board Member Damon Connolly (Discussion/Action)

7. Appointment of Directors to MCE Standing Committees (Discussion/Action)

8. MCE Integrated Resource Plan (Discussion/Action)

9. Addendum to Agreement with Noble Americas Energy Solutions, LLC (Discussion/Action)

10. MCE Office Space Update (Discussion/Action)

11. Agreement with Puget Sound Energy to Supply MCE’s Voluntary Renewable Energy Requirements (Discussion/Action)

13. Energy Efficiency Update (Discussion)

14. Communications Update (Discussion)

15. Regulatory and Legislative Update (Discussion)

16. Board Member & Staff Matters (Discussion)

17. Adjourn
Roll Call

Present: Damon Connolly, City of San Rafael, Chair  
Kate Sears, County of Marin, Vice Chair  
Bob McCaskill, City of Belvedere  
Sloan Bailey, Town of Corte Madera  
Larry Bragman, Town of Fairfax  
Kevin Haroff, City of Larkspur  
Garry Lion, City of Mill Valley  
Brad Wagenknecht, County of Napa  
Denise Athas, City of Novato  
Gayle McLaughlin, City of Richmond  
Carla Small, Town of Ross  
Ford Greene, Town of San Anselmo  
Emmett O’Donnell, Town of Tiburon

Absent: Ray Withy, City of Sausalito

Staff:  
Dawn Weisz, Executive Officer  
Elizabeth Kelly, Legal Director  
Jamie Tuckey, Communications Director  
Beckie Menten, Director of Energy Efficiency Programs,  
Meaghan Doran, Energy Efficiency Specialist  
Alice Stover, Energy Efficiency Specialist  
Greg Brehm, Director of Power Resources  
Kirby Dusel, Technical Consultant  
John Dalessi, Technical Consultant  
Brian Goldstein, Technical Consultant  
Justin Kudo, Manager of Account Services  
Sarah Estes-Smith, Administrative Associate  
Emily Goodwin, Director of Internal Operations  
Darlene Jackson, Clerk

Public Session:  9:38 AM

Chair Connolly welcomed Board members, staff and audience members and briefly reiterated MCE’s charge and desire to hold a retreat. He welcomed new members from the County of Napa and asked Executive Director Weisz to perform the Oath of Office to Director Brad Wagenknecht, County of Napa.
Director Wagenknecht was sworn in by Ms. Weisz. He expressed that he is very excited about joining MCE and announced that his alternate, Keith Caldwell would be joining the Board Retreat later in the afternoon.

**Agenda Item #1- Board Announcements (Discussion)**
Chair Connolly announced the November meeting will be his final MCE Board meeting, given him being elected to the Marin County Board of Supervisors. He commented that Director Sears will continue as the County representative on the MCE Board and that City of San Rafael Councilmember Andrew McCullough has been appointed to replace him on the MCE Board in December.

**Agenda Item #2 – Public Open Time (Discussion)**
Ed Mainland spoke about grassroots volunteer efforts in defeating AB 2145 and suggested that MCE not proceed without due caution in further expansion. He said a larger board is more cumbersome and acts as a further risk by making MCE a better target in the future for PG&E. He then spoke about the CPUC workshop on the distributed resources plan and how to tell utilities how to plan for distributed power, and asked that MCE continue its involvement. Lastly, he spoke on energy efficiency and feels MCE is restricted by regulations of the CPUC and PG&E. He asked that MCE further involve itself in working with the CPUC to level the playing field and providing financing, as well as search for non-CPUC funding for programs and partnerships with water and energy providers.

David Haskell, Interim Director of Sustainable Marin, indicated he works closely with Mr. Mainland and the Sierra Club to define the optimum configuration for CCAs as they move forward, as well as several people regarding programs. He said the relationship that MCE has with energy efficiency needs to be fundamentally defined and, as stated by Charles McGlashan, to “ensure that MCE delivers the green kilowatts of power first to reduce the threats of global climate chaos” and then move on. He said MCE relies totally on CPUC funds which are constrained. He recommended that MCE take a radical reform and allocate deep green money exclusively to energy efficiency.

**Agenda Item #3 – Report from Executive Officer (Discussion)**
Executive Officer Dawn Weisz reported that she has only one item in the way of an introduction by Director of Energy Efficiency Programs Beckie Menten.

Ms. Menten introduced new staff member, Alice Stover, who comes to MCE from Opinion Dynamics, a leading evaluation monitoring and verification firm for energy efficiency programs in the State. Ms. Stover will serve as an excellent complement to the Energy Efficiency Team.

**Agenda Item #4 – Historical Review**
Executive Officer Weisz thanked everyone for their participation in the Retreat and said they will discuss MCE’s accomplishments and future plans, commenting that there is much to celebrate in terms of what has been achieved.

Ms. Weisz provided a chronology how Community Choice Aggregators (CCAs) were born, starting as far back as the late 1990’s.

1999: Bay Area Advocates promoted idea of CCA to spur use of renewable energy
2001 – 2002: County of Marin conducted greenhouse gas inventory and approved reduction target, and supported AB 117
2003: Demonstration project for CCA by Navigant Consulting funded by the California Energy Commission

2004: Berkeley, Emeryville, Marin, Oakland and Pleasanton approved participation in Demonstration Project

The results of the Demonstration Project was presented to the County of Marin in February 2004 with promising results. At that time, the County of Marin, joining with the North Marin Water District and the Marin Municipal Water District, put in funds to take a hard look at CCA and to evaluate the feasibility study. The study was subjected to peer review, bond counsel review and risk analysis over the course of three years.

In 2007 the Bay Area Air Quality Management District (BAAQMD) awarded a grant to Marin County for MCE to develop an MCE Business Plan and a Joint Powers Authority (JPA) Agreement under which MCE is governed today. In May 2007 a local government Task Force was formed with elected officials from each city and town, as well as the County of Marin. This marked the inclusion of all the cities and towns in exploring the idea of CCA within Marin County.

Ms. Weisz noted in 2008 MCE produced the MCE Business Plan which was approved by the Task Force and work began to determine participation in a JPA to run a CCA program. In December 2008 the JPA was formed and 8 of the cities and towns as well as the County of Marin participated in the initial JPA which was known as the Marin Energy Authority (MEA). An RFP was conducted to select a power supplier and an agreement was executed in February 2010.

In May 2010 MCE began delivering power to about 8,000 customers and thereafter, additional phases were enrolled. In December 2010 MCE executed its first direct power contract for California Based Renewable Energy Supply. This is an important milestone in that it had always been a primary goal of MCE that new renewable California supply would be added onto the grid. By the end of the first year MCE was able to refinance the loans and pay back the initial investment that had been loaned by the County of Marin and the angel investors, and release the guarantees provided by the Town of Fairfax and the County of Marin.

Who We Are, Where We’re Going, What We’ve Accomplished

Ms. Weisz presented MCE’s Mission and provided an overview of MCE’s Primary functions as:

1. Resource Procurement;
2. Energy Efficiency;
3. Customer and Community Relations;
4. Regulatory and Compliance; and
5. Internal which includes Finance and Administration.

Ms. Weisz shared MCE’s Organizational Chart which outlines staffing and functions of the organization, and shared some of the objectives MCE has achieved since its 2010 launch:

1. Offered customers a choice between two energy supply options (50% renewable content and 100% renewable content);
2. Stimulated new renewable energy production;
3. Reduced greenhouse gas emissions from customers in MCE jurisdiction;
4. Launched an Energy Efficiency Program for all MCE customers;
5. Provided stable and competitive electric rates along with public visibility to energy supply activities and a modest increase in local economic activity.

6. She pointed to awards and recognition received by MCE, along with a scrapbook on the back table showing media attention, certificates, and awards recognizing MCE’s accomplishments.

Ms. Weisz reported that annual updates would be provided and include the following areas: 1) Communications, 2) Procurement, 3) Regulatory Legislative and, 4) Energy Efficiency.

Jamie Tuckey, Communications Director provided an overview of where MCE is, where MCE was last year and where we are headed for next year. MCE is serving over 124,000 customers in the County of Marin and the City of Richmond. The majority of MCE customers are in Richmond followed by Unincorporated Marin. Looking at communities based on participation levels, the City of Richmond currently has the lowest opt-out rate of any of MCE’s service area. Ms. Tuckey shared that the Deep Green customer base has increased by 20% and represents about 4% of MCE’s total electricity load. Mill Valley has the highest number of customers enrolled in Deep Green.

Opt-outs have decreased over the past year and rate or cost concerns have been one of the factors. The opt-out rate since 2013 has dropped in 2014 due to lower rates as MCE is expecting to save its customers $5.9 million in 2014. The Call Center tracks customers who call to opt out, identifies their reason for opting out, and identifies how many actually follow through with the request.

There have been approximately 12,000 calls to the Call Center in the last year. The average talk time increased from 5 minutes in 2013 to 5 minutes 44 seconds in 2014, and the average hold time decreased from 49 seconds in 2013 to 17 seconds in 2014.

MCE provides 7 different language options at the Call Center. 86% of calls are in English, 14% in Spanish and 1% in Vietnamese, Tagalog, Lao, Mandarin and Cantonese.

Ms. Tuckey presented the paid media campaigns MCE has engaged in over the past year and indicated that MCE has earned media coverage in the form of at least 130 published news stories. Social media is also continuing to grow in popularity. MCE also held a couple of Deep Green Campaigns where monetary awards were given for the Earth Day 2014 Campaign and will be awarded on September 29th to the Solar Schools Campaign.

There have been 60,000 visits to the MCE website over the past year with 64% being new visitors with a small percentage being referred through the CPUC website. The year ahead looks very exciting for MCE Communications, with our plan to:

1. Continue to reduce customer opt-outs;
2. Increase Light Green and Deep Green enrollments;
3. Fully subscribe 100% local solar program to existing customer base;
4. Build brand awareness and support in new member communities;
5. Enhance relationships with business communities;
6. Implement print, electronic, and outdoor advertising campaigns in member communities; and
7. Enhance customer service functionalities via the call center and website

A member of the public questioned the total number of people who have actually opted out of the program as well as the reasons for the opt-outs.
Ms. Tuckey indicated that 23% of MCE’s customer base has opted out and there are a variety of reasons as previously stated such as rates, concern about the fact it is an opt-out program instead of an opt-in program, and site renewable energy concerns.

Justin Kudo, Manager of Account Services, added that another concern cited relates to government-run power agency. Usually customers think MCE charges are extra or higher than PG&E, but MCE has definitely seen a strong decrease in the number of opt-outs received especially over the last six months, with growing interest.

**Agenda Item #4 - Renewable Energy - New Projects**

Greg Brehm, Director of Power Resources, reported that slightly less than 2 years ago MCE added its first independent contract with the San Rafael Airport. Last year 3 landfill gas power plants were added to our portfolio. In 2014 MCE added 2 independent power contracts with major counterparties, both Exelon and CalPine. Next year we are anticipating 3 scheduled projects to come online.

Mr. Brehm stated that the Recurrent Energy Kansas project is under development and is expected to deliver enough energy to serve approximately 8,000 MCE customers. This project was brought online 1 year earlier than expected, has created roughly 300 California-based union jobs, and is expected to be online by January 2015.

He shared that the EDP Renewable - Rising Tree Wind Project that was added this year will be coming online in 2015. It is a short-term wind project as a new construction in Kern County and it will deliver enough energy to support about 24,000 – 37,000 MCE residential customers.

The EDF Cottonwood Project is coming online March 29, 2015 and will generate enough energy to serve approximately 10,600 MCE residential customers.

From MCE’s Open Season process there currently are two contracts under negotiation. One is a 30 MW solar project in the Central Valley and the other is a 4 MW Landfill Gas Project.

Mr. Brehm reported that the MCE contracts online and currently supplying power are the San Rafael Airport, Gen Power 2001 Project, G2 Hay Road, G2 Ostrom Road, CalPine (geothermal contract) and Exelon, formerly known as Constellation.

Ed Mainland suggested that MCE work with public outreach groups to let people know that union jobs are being provided. This could possibly forestall future attacks such as AB 2145. He also suggested holding public relations events with a union leader who is involved in jobs on a particular project which will help advocates in arguing MCE’s case to the broader public.

Mr. Brehm indicated that MCE does take those things into consideration during contract negotiation and in bringing contracts online. We provide as much information as possible about the union job content and we are working with the union representatives to strengthen relationships.

Roger Roberts noted he attended the AB 2145 hearings in Sacramento and it was clear that IBEW was not happy with what MCE is doing. He suggested MCE do a better job of helping the unions understand where MCE is going and benefits of partnering with IBEW.
Director Athas mentioned she had an opportunity to speak with Ralph O’Rear, Project Manager at the Buck Institute and inquired how the solar projects were progressing there, specifically the upcoming project in Novato. He indicated that the only frustration is the delay in interconnections that are not big enough to support the grid and they must wait for PG&E to upgrade those pipes. She wonders what the incentive is for PG&E to do that.

Mr. Brehm said unfortunately there is not a direct incentive. PG&E is the gatekeeper in terms of transmission lines/interconnection.

Director Haroff referred to the Rising Tree Wind project and questioned the amount of total MWs, noting there were two numbers of 99 and 100 MWs. Mr. Brehm replied that 100 MW was the initial negotiating capacity, but the project contract is 99 MWs.

David Haskell referenced the 2013 Power Content Label slide and mentioned the largest source of power is “unspecified” at 39%. He asked if this is the purchasing of RECS and asked what goes into that number. Kirby Dusel, Technical Consultant, responded that the information related to MCE’s Power Content label has already been distributed to the public and to customers directly a couple times this year. In mid-summer a joint mailer was distributed with MCE and PG&E’s rate information, power content information and also some information regarding environmental impact, specifically Greenhouse Gas (GHG) emissions. All of the numbers on the 2013 Power Content Label in green were included in that mailer and there has been a lot of work at the staff level to audit the information related to their power purchases before it goes out to the public. It is a part of the overall process that they make sure that those participating in the MCE program and other programs throughout the State are well-informed about the power purchases that they are making and the sources of the energy they are buying. Mr. Dusel indicated that it will be interesting to see how this chart will look next year as they bring on geothermal purchases and some additional solar, so the mix will continue to evolve but it compares favorably to the State’s power mix.

To address the question about unspecified sources of power, Mr. Dusel noted this is an area where one of their supply agreements allows for flexibility on the supplier’s side to how they source resources and the electricity they ultimately deliver to MCE. What that 39% means is there is not a direct contract between MCE and a specific generator and so this is power essentially bought from a pool of resources, namely the CAISO pool. The resources within that pool are substantially natural gas resources but they do include other resources like hydro-electric and renewables in small percentages. Because there is not a direct relationship between MCE and a specific generator, these are captured as ‘unspecified’ and this is per regulation.

Mr. Brehm concluded and indicated with all the projects coming online, MCE will be serving roughly 50% of its load even after Napa with Bucket 1 in-state resources. He said this is a big change for MCE because in the past they have always procured per compliance goals. Now, due to the market conditions, they are actually able to procure additional renewable resources.

**Regulatory and Legislative**

Beth Kelly, Legal Director, provided a general overview and explained her functions as Legal Director and how MCE operates both on the regulatory and the legislative level. She sees her role as having 3 core functions:

- To be a strong advocate for MCE, CCA in the reduction of GHG emissions
• To fight for a fair playing field. At the PUC, we are not in a situation where we have a fair playing field. Ms. Kelly noted what we fight for in the regulatory and legislative arena, particularly at the PUC is ensuring proper cost allocation, making sure our customers are not double charged, preventing cross-subsidization and ensuring competitive neutrality so we are on an even playing field.

• To protect the autonomy the Board has in directing CCA operations. One of the greatest advantages we have is to make choices for our own local communities which are not driven by the PUC or other objectives. We can therefore exceed the standards achieved by IOUs and others.

Ms. Kelly noted MCE’s biggest challenge in 2014 clearly was AB 2145 which was strongly supported by IBEW, PG&E and SDG&E. The Bill was successfully fought by MCE along with grassroots organizations in raising awareness of CCA at the legislative level and beyond.

Ms. Kelly shared that MCE practices before a wide range of regulatory bodies: the CPUC, the Energy Commission, the California Independent System Operator (CAISO), and the California Air Resources Board (CARB) Success Case. Our primary weight of engagement is at the CPUC. We are involved in over 20 active proceedings before the CPUC. MCE has a regulatory staff of 3 and PG&E has a regulatory and legal staff of 500.

Ms. Kelly shared some of MCE’s successes. MCE successfully sought a competitively neutral return of $340M from the Department of Energy litigation; MCE sought competitively neutral recovery of overhead costs for Public Purpose Programs. There will continue to be challenges on the regulatory front but also opportunities for success and change.

Ms. Kelly shared some of the key issues MCE will be looking at in the year ahead:

1. MCE to reform the Power Change Indifference Adjustment (PCIA) which is a non-bypassable exit fee that MCE customers pay that represents over 10% of customers’ generation rate. These fees will cost MCE customers over $13 million in 2014; and
2. Pursue Cost Allocation Mechanism (CAM) offset for CCA. CAM is an additional charge that is imposed on to MCE customers related to gas fired power plants. They are looking to procure their own capacity per legislation on a more GHG beneficial basis.

Director Sears referred to the voracious fight against AB 2145 and the wonderful outcome of galvanizing the CCA community. She said most interesting and significant is the opposition list, which was nicely compiled of political advocates and coalitions.

Roger Roberts inquired as to what the basic strategy would be to deal with the cost allocation issue. Ms. Kelly indicated when CAM is discussed in the context of CCAs, you are looking at what costs are appropriately allocated for PG&E for their generation or distribution rate. There is a strong incentive for them to charge costs to the distribution rate so that MCE customers also bear those costs. When thinking about renewables, integration and those types of procurement costs, it is the obligation of MCE to procure appropriately and have in place flexible resources. She added that MCE has not been allowed to opt out of Cost Allocation Mechanism (CAM) so this year MCE is looking to either offset or opt out of the CAM and do our own procurement on a long-term basis. Coalition efforts are in place and their regulatory counsel has been a leader of building coalitions, and she discussed efforts which they continue to plan to pursue.
Agenda Item #5 – Energy Efficiency Discussion
Ms. Weisz announced that we will now move into program updates starting with Energy Efficiency and focus on what MCE has been doing the last few months around community outreach and what we are planning before the next portfolio cycle. She announced that Beckie Menten, Director of Energy Efficiency, would cover this item.

Ms. Menten shared that she has been meeting with David Haskell and Ed Mainland and they have similar goals and motivations in terms of upscaling the investment in Energy Efficiency within our communities, with a focus on greenhouse gas mitigation, resource conservation and leveraging of other community programs. She shared that Mr. Haskell has some provocative ideas about how energy efficiency should figure into the portfolio and it is this sort of pushing on our program that she thinks is beneficial. It allows MCE as a local government agency to be driven by our community and to feel that they should be going even further.

Ms. Menten mentioned the possibility of forming an Energy Efficiency Technical Advisory Committee, as there are a lot of people in their community who have a lot to offer. She thanked Mr. Haskell and Mr. Mainland for being active members of the community.

Ms. Menten provided an overview of 2014, MCE’s challenges and accomplishments, and future activities in 2015 and beyond. Challenges include:

- The On Bill Repayment Program has had a very slow uptake.
- Title 24 and the Building Energy Codes: The CPUC requires a baseline assumption in assessing the energy efficiency based on a Code. For buildings built in the 1970s, rather than being able to indicate the existing conditions of the building, one has to pretend as though the building was actually up to Code. This diminishes as Code increases the amount of energy savings that can be claimed.
- The Multi-Family Program is experiencing high attrition. It is a robust program but if more of the projects in the pipeline could be finished we would be making very significant strides toward MCE goals. However, the projects are dropping out along the way so we are developing strategies to turn that around moving into 2015.
- The Home Utility Report Program (“HUR”): Mailers were sent to about 18,000 customers in the MCE service area showing them how their home energy use ranks with comparable homes in the neighborhood. The program launch was delayed last year and the program design was capturing high-energy users. We discovered that PG&E had launched a similar program the month prior and gathered a number of those folks MCE had hoped to target for our program. As a result, we had to adjust the target audience.
- Uncertainty from the regulatory framework in terms of 2015 funding and beyond: A 2015 funding request was submitted in March 2014 and the proposed decision was not released until Tuesday, September 16th. During this time period there was uncertainty about whether MCE would be able to have gas funding to implement natural gas savings measures as part of the MCE program.

Ms. Menten then shared MCE Energy Efficiency Program accomplishments:
• Starting and building an Energy Efficiency Program; over 300 buildings have been audited through the Multi-Family Program, and direct install services were completed for tenants in 919 units in Marin and the City of Richmond; the Commercial Program has audited 332 facilities and the resulting projects will be split with PG&E;
• We have reached over 1,000 students in Marin area schools through the Single Family Program, encouraging kids to start thinking about climate change and using less energy and then take that information home and incorporate it into the family lifestyle
• The MyEnergyTool website had over 1,100 people in MCE’s service area log on and start action plans for how they are going to use energy to make energy impacts in their own lives.
• The ability to develop information through a database and having the ability to query the data and interpreting it is a huge accomplishment in identifying trends and to make recommendations moving forward.
• We have completed projects in 50 buildings with another 82 in the pipeline.
• The Single Family Program has had significant savings and it is highest performing on a total resource cost level.
• The On-Bill Repayment Program or Financing Program: We have an applicant in the City of Richmond which has allowed us to go through the application process, get to know contractors and hope to prove they can close the deal on projects they are pitching.

Ms. Menten presented the Proposed Decision as it relates to 2015 energy efficiency funding, when it was issued, and how it directs PG&E to contract with MCE for gas funding and act as a “fiscal” agent. MCE received most of the things asked for regarding the proposed funding award.

Director Greene asked if the CPUC ordered PG&E to help fund MCE to take up the slack because of the decision excising gas from being within the scope of MCE’s energy efficiency program. Ms. Menten indicated that Director Greene’s comments provided a great summary of that part of the Decision. Jeremy Waen, Legal Analyst, reminded everyone that this is still a “Proposed” Decision and there is still a comment period which means it is all subject to change.

Ms. Menten shared some of the proposed program changes the CPUC is looking at for 2015:
• Home Utility Report Program (“HUR”) – Changing messaging to show customers how to do more regarding energy savings. As a result of the 18,000 mailers sent out, people are actually paying attention and responding to the message.
• On-Bill Repayment Program (“OBR”) – The messaging is very confusing and could be limiting incoming projects. We have proposed to the CPUC that the program be opened up to anyone in our service territory. This would create opportunities to discuss other energy saving measures once you have the customer’s attention.
• Standard Offer Program – We have discovered this is not a good program for a 1-year time frame or for a limited budget. Met with Marin Municipal Water District and plan on doing a bit more research on energy saving from the water side.

Ms. Menten noted that the CPUC has requested that MCE achieve a 1.25 TRC; however, the CPUC has also limited MCE and the programs that it offers to only non-IOU selected programs. MCE wants to design a portfolio that can serve every customer segment, and we believe we need to have first right of refusal on the programs we offer, and suggest that the CPUC tell PG&E that they have to work around MCE programs.
Director Connolly asked for the definition of TRC and Ms. Menten explained it means Total Resource Cost. She explained it is a 20-page spreadsheet called E3 Calculator and explained how it works.

Director Butt asked that the acronyms be spelled out and possibly provided in hard copy so that the Board and others can understand their meanings. Ms. Menten confirmed she will provide this information.

Meaghan Doran, Energy Efficiency Specialist, discussed the Community Workshops that have been held by the Energy Efficiency Team. They've held the following 6 public workshops:

- Day-long Exploration of Energy Efficiency matters with 15 industry experts
- City of Richmond: 20 stakeholders attended
- San Rafael Fair Grounds: 23 community members attended
- Napa Agricultural Workshop: 12 attendees focused on vineyards and wineries
- Novato Single Family Focus Group: 9 residents attended
- West Marin Agricultural Workshop: 9 persons attended

Ms. Doran then shared post-workshop engagement strategies.

Alice Stover, Energy Efficiency Program Specialist, presented Community Workshops findings and Community Survey findings. Community-specific findings were from West Marin, Napa, Marin, Richmond and Novato (single family residents):

- MCE should focus on peer to peer education in marketing efforts and work through community based organizations.
- Should emphasize non-energy benefits/EE should be an ancillary benefit.
- The future of utility will be selling a service, not kWh (example: House at 68 degrees).
- Barriers include access to data, infrastructure, constraints, rules tied to funding, split incentive and a lack of skilled workforce.
- Drafting of an energy efficiency mission statement

In looking at Workshop findings, we gathered information from three sources: Facilitated group discussions we asked people to complete surveys, and asked to complete internet accessible survey. We identified the following findings:

- People are interested in EV ownership and it is important the MCE generates the electricity to offset charging, but not necessarily on-site
- Most building owners would like to do significant energy efficiency work and are willing to spend up to $7,000 or are willing to finance the work
- Using the local workforce is important

She then provided a diversity of specific community findings for all communities at the workshops.

Ms. Menten discussed the Energy Efficiency timeline for 2016 Program Development. The timeline includes:

- Research Analysis which includes workshop data analysis and research into existing programs.
- Program Design which includes program design descriptions to be completed by 11/6, internal reviews by 11/6-14, targeted Board review on 11/6 and 12/4, and a public comment period between 11/14 and 12/19/14.
The primary focus is to have an Energy Efficiency Program Implementation Plan by the end of 2014.

Ms. Menten shared Initial 2016 Program Concepts:
- Robust program with solutions for every customer segment
- Single entry point with coordination on back end for program resources (health, water, EVs, distributed generation)
- Sophisticated customer management platform to facilitate long term relationships
- Program design to achieve market transformation

Director Connolly asked and confirmed with Ms. Menten that ideally they would like to expand the market. They are thinking of single family, commercial, agricultural, industrial and multi-family as separate entry points. They are grappling with whether or not the commercial program should be split between small and medium commercial and whether or not the larger commercial customers get grouped together as industrial. There clearly will be a different type of incentive provided to a local small grocer/convenience store versus the complex they currently rent. Important to note is that these programs are driven by two key metrics of success: customer satisfaction and the ability to have increased market saturation which results in declining public intervention.

Director Sears noted there is a theme throughout the community to train a skilled workforce and asked if that will be a component of the program and one which CPUC dollars will support. Ms. Menten responded in the affirmative.

Director McCaskill asked if he understood that the goal is one dollar of savings for every dollar spent on energy efficiency. Ms. Menten explained that at the highest level this is the metric that the CPUC drives MCE toward for evaluating the cost effectiveness of its programs. Their assumption is that every dollar MCE spends on the programs should result in a $1.25 worth of savings. This includes activities like marketing and workforce development that does not necessarily result in dollars spent.

Director McCaskill referenced the slide on page 3 showing MCE-generated savings for 2013-2014 ($1.25 worth of savings). He asked if that is the right metric to be looking at. Per Ms. Menten, what they should be looking at is the actual TRC calculation because it is not a one-to-one in terms of dollar spent per unit of energy saved. It is the valuation of that savings and there are several things that go into that value of unit of energy saved. In order to achieve a one-to-one ratio we need to choose programs to implement that have very high performance to help boost the lower programs.

Director McCaskill asked if it is not the MCE Board’s responsibility to monitor their moving forward goal without getting into too many details, and suggested receipt of a simple summary based on the CPUC’s own guidelines so that they are clear and understood by the Board. Ms. Menten pointed out there are tables that include the TRC figures.

Following several comments from members of the public, Chair Connolly announced a break from 11:45AM to 12:00pm.

**Mid-Morning Break 11:45AM - 12:00PM**

Following the mid-morning break Agenda Items #7 and #8 were taken out of order for discussion.

**Agenda Item #7 – MCE Local Renewable Projects**
Ms. Weisz noted within the last few months MCE has had several Feed-In-Tariff ("FIT") applications to come in and they wanted to have an opportunity for the Board and the public to hear from the folks who are a part of these programs.

Greg Brehm, Director of Power Resources, introduced Daviya Saleme from the RGS Solar to discuss the Cost Plus Project in Larkspur. Ms. Saleme explained that she was standing in for the Project Developer and briefly talked about the company and the project. She shared that they are MCE approved, and initially there was an issue getting a CEQA exemption and other delays. Currently, she noted that they were waiting for execution of the PG&E interconnection agreement and also noted that the timeline associated with the PG&E interconnection process is quite long and costly.

Mr. Brehm introduced Roy Philips of REP Energy, project sponsor for the Cooley Quarry Project in Novato. Mr. Philips provided some history of Cooley Quarry and explained that, from an environmental impact standpoint, it is a good site. Mr. Philips shared that the project has gone smoothly overall but the primarily hurdle has been the PG&E interconnection process. Also, the PG&E interconnection fees are exorbitant but he will do everything in his power to expedite the interconnection process.

He also shared that a local union is being used for electrical work through the Marin City Community Development Corporation (MCCDC). He and Frank Gobar will ultimately own the project, without selling it off to another company.

Director O'Donnell asked if the $416 interconnection fee was an expected cost. Mr. Philips indicated he did know about it 8 months ago and has been fighting it since that time but unfortunately there is no way to regulate the costs.

Misti Norton, consultant for the 2 MW redevelopment Richmond Project, provided a status update on the project and shared photos indicating where the project would lay. The City of Richmond has been very helpful and cooperative and she thanked Director Butt for his assistance. They plan on breaking ground on this project sometime this year. She indicated there is a tariff on Chinese modules coming into the US with the US government putting money into an escrow account but it looks like the tariff is going to stay.

Member of the public, Shawn Marshall, asked who is fighting the interconnection tariff issues and associated costs. Ms. Norton noted it is costly to connect directly to the grid. There is a net metering tariff that feeds into the building and the cost for net metering is minimal. When feeding power directly into the grid, they are a power company and there must be safety factors built into PG&E and they are conservative. Her recommendation is if it is a smaller system, go net meter.

Trevor Ham said he is working on the Binford Road Self Storage Project near Novato and shared the site plan for Phase I of the project and indicated they expect to have it completed by Summer 2015. He noted they are still in review of the project.

Director Connolly inquired if these were existing buildings. Mr. Ham indicated they were new buildings to be built in the spring but there are two existing storage facilities.

Director O'Donnell asked why it took a year to clear Marin Planning. Per Mr. Ham, it actually took over 10 years to get development approval for this site but he really did not have an answer to Director
O'Donnell’s question. Per Mr. Brehm, this project had a solar requirement as part of its original planning component.

Mr. Brehm noted that MCE has 6 projects currently in the queue: The SolShares Project and other FIT projects and they are in Stage 3 of the FIT and still have about 1,200 kW in condition 3 of the tariff. He introduced Jeff Cheng from Stion Corporation, who is working on the Chevron Project and leads the Project Development Group at Stion. Mr. Cheng provided current project status indicating that MCE has secured the land lease, and MCE, Stion and Chevron held a detailed site walk and review on September 17, 2014. Mr. Cheng briefly discussed the project schedule and the estimated pre-construction budget requirements. He also noted that Stion has a pre-existing relationship with Chevron and they are locally headquartered in the Bay Area.

Director Butt asked if union labor would be used. Mr. Cheng indicated yes, union labor would be used for the electrical and sourcing, as well as on the Cooley Quarry per Mr. Philips. Director Butt indicated that is information that needs to be shared with the public as this is a $30 million project.

**Agenda Item #8 – MCE Local Renewable Projects Continued - Discussion**

Greg Brehm, Director of Power Resources presented this item. Director Connolly asked Mr. Brehm to focus his discussion on our local solar development, and how it works.

Mr. Brehm provided background on MCE’s local development history: San Rafael Airport project was completed less than 2 years ago, is producing 15% more energy than originally anticipated, and is serving about 300 average MCE customers. In the current local development projects MCE has a 1 MW EDF Marin Carport under development with some interconnection delays with the Buck Institute which they expect to be online by the end of next year. There is an approved site control agreement with Chevron for a 12 MW site. There is also a potential solar project at the Port of Richmond location where there continues to be issues with the competing interest of the existing tenants there.

**Lunch Break – The Board reconvened at 1:30 and ended the Retreat with Agenda Items #6 and #9 combined.**

**Agenda Item #6 - MCE Identity and Governance - Discussions**

Ms. Weisz indicated this item is one that we wanted to spend a considerable amount of time reviewing. She thanked Director McCaskill for assisting with this item. She reminded the Board of this discussion last fall regarding expansion, the Affiliate Membership: Policy 007, 5 membership requests that have come to MCE and 2 of the 5 are now complete. She briefly discussed Special Consideration Membership which allows for consideration of a jurisdiction beyond 30 miles of an MCE service area or with a customer base of more than 40,000.

The Special Consideration Membership has not yet been used but the Ad Hoc Expansion Committee will be meeting on September 23rd to discuss future expansions.

Ms. Weisz reminded the Board of structures that were discussed at the 2013 Board Retreat.

Discussion was held surrounding governance and how big the MCE Board should become, and different ideas were explored as to what makes sense and if there are changes warranted. There was some common ground in terms of exploring expansion in an incremental way.
Ms. Weisz mentioned there would not be enough time today to come up with a viable plan but perhaps they could suggest some key issues to take to the Ad Hoc Expansion Committee for further discussion.

Director Lion asked whether a JPA allows for an executive or small committee or group which would attend monthly meetings and have oversight and report major issues back to the Board. Ms. Weisz noted this was one of the items she had planned to offer for discussion. She indicated time was spent in the past discussing a “delegated authority” approach where an executive committee might continue meeting on a frequent basis and the full Board might meet on a less frequent basis to address some of the logistical challenges that a large Board could present, perhaps, quarterly and the Executive Committee would take on more month-by-month functions of the Agency.

Director McCaskill noted there seems to be an ancillary issue to the governance, also the issue of voting control, the potential of having jurisdictional votes split over cost control versus environmental issues, and what that could mean to the direction MCE is heading. Ms. Weisz indicated what they have seen so far from the communities that have interest in joining MCE is that they have been extremely environmentally-minded. She reminded everyone that the bigger a Board gets there is more opportunity for differing of opinions.

Director Butt mentioned bringing on the planned 2 to 3 new Board members in the near future should not be a problem and they have looked at other Boards with up to 20 members and they seem to work smoothly. What model they might want to look at is a spin-off approach into some of the other organization. For example, if cities in Napa County wanted to join it might be easier for an existing CCA organization to spin off of its own CCA, and similarly those cities in Contra Costa County.

Director Sears said she thinks that the City of Richmond coming on board has been great for MCE and some were not quite sure the model would be a success given the difference in its socio-economics. The agency has matured in its skill set, marketing and she hopes Napa will have a similar effect. The agency is not Marin-centric but one with multiple communities.

Chair O’Donnell asked what the Board thinks about expansion in-filling within existing Counties, and Director Wagenknect said he would like to see this conceptually something this Board and his constituents might contemplate in the future. Director O’Donnell agreed and said the Board has worked well together and he could see adding in-fill agencies, but wondered if the structure might need to change a bit. He suggested an Executive Board and a General Governing Board, such that some level of seniority or election would get a general Board member to the Executive Board level.

Former Board member Lew Tremaine indicated that one of the first policies made on the MCE Board was that members be elected officials. He offered some ideas regarding expansion and the one-representative per county idea, and suggested MCE have in-county representatives sent to the Board to act as their regional executive committee. Shawn Marshal suggested being careful that every city in a county might want to join and while they can encourage this, Sonoma has a similar structure and learned yesterday that they allow for representation of a community appointee. She noted the learning curve is huge and to consider this in appointing a representative.
Director Athas stated when they think about the 30 mile radius in their policy they might want to determine just how far they are willing to go geographically before the expansion no longer makes sense.

Ms. Weisz commented that that she is hearing three ideas from the various comments and what might be brought to the Ad Hoc Expansion Committee: 1) Create a map, look at boundaries and what geographic areas makes the most sense to consider; 2) Talk more about the different governance ideas that have been discussed and seeing if there is a common idea they are gravitating toward; and 3) Explore what leadership can or will MCE provide for other CCAs across the State.

The leadership issue is different from the expansion issue; however, it is helping to further many of the goals that we have which is getting more renewables onto the grid while supporting legislative priorities. As part of providing leadership support to other CCAs, we have learned in the last 6 months of the need for legislative leadership or support for emerging CCAs. MCE provided leadership and support for Lancaster and Sonoma Clean Power.

Director Athas supported MCE’s desire to share its knowledge with other CCAs. Some concerns are staffing when we are educating someone else, and the associated costs. She suggested an interactive Webinar-type education set up for supporting other CCAs.

Director Bailey said the advantages MCE sees from expanding is reduced prices and an increased voice. He asked that by using a model aggregating the aggregators, whether MCE has increased their voice and still reducing prices or if there is a danger of going the other way where they are now competing with other CCA’s. Ms. Weisz said she does not think MCE is at a point now or in the future where CCA’s will be competing for resources. There will continue to be co-benefits as CCAs emerge and there are more benefits to be had as far as getting more renewables and a louder voice at the legislative level.

Director Haroff concurred and said he worries about a sense of excess caution in terms of what expectations they are setting for themselves. They are successful, along with legislative success and he thinks there are real opportunities they have not only to promote the mission statement but also setting an example throughout California. They are more mature now and are acting like an actual utility and showing the capacity to be successful. Therefore, while there are legitimate points regarding expansion, they should be optimistic as an organization and continue moving forward to provide rate benefits to their constituents.

Director Small referred to costs for support and suggested that this be worked into the budget in supporting other CCA efforts. She also said they sit on these committees at the pleasure of their mayors, and non-elected officials are often kept on committees given their history and knowledge. She complimented staff for getting them up to speed, but there is a learning curve which should be considered into the future. Director Sears recognized turnover, which she thinks has been beneficial, given their views on growth had changed.

Director Greene said this reminds him of the Japanese game of Go where the name of the game is to expand and consolidate territories. He thinks they are manifesting a new paradigm to reduce GHGs to get a grip on climate change. The scope is broad and new and for him, it is the foremost value to maintain fidelity. He thinks there is a way to integrate real issues about how to maintain sufficient control on one hand but not do it in such a way where one becomes afraid of success. He does not think the Board is too big and he thinks they are on a good course.
Former Board member Lew Tremaine suggested focus and staff attention remain on energy efficiency. He suggested continual analysis and reaffirmation first and then to consider increased expansion.

Chair Connolly summarized Board comments by stating MCE currently has 14 Board members and will likely reach 17 in the near future. It is agreed that they will continue with the one vote per jurisdiction model. There is no consensus to push back the cooling off period to 2016 but will leave it to mid-2015 which has been staff’s recommendation. We will have the Ad Hoc Expansion Committee dig more deeply into the areas raised including governance. This is not mutually exclusive with the concept that we do need to master energy efficiency and that we need to excel at everything we are doing separate and apart from expansion. We will continue to seek partnerships with other jurisdictions that would not be part of MCE, per se but would receive support and work together on regulatory and legislative issues. We will continue to play a leadership role.

Ms. Weisz added a point between expansion and energy efficiency and said they have been able to do a good job in the past of doing multiple things at the same time and activities complement each other. Energy efficiency is likely the place where that could happen. She said they have seen in Richmond and in Napa opportunities to do energy efficiency that were not wholly available in Marin County. The multi-family opportunity has been good in Richmond and has helped our TRC and the opportunities in Napa are likely to do the same. Also, the more communities we represent the more leverage we have on the legislative front.

Additionally on the benefits side there are new opportunities for community partnerships. Those partnerships are a great way to leverage funding from other sources and this is a preview of something we may want to begin discussing at the policy level.

**Agenda Item #9 – Completion of Unfinished Items**
This item was combined with Agenda Item #6.

**Agenda Item #10 - Board Matters**
Director Greene said he would like to receive an ongoing cheat sheet of acronyms and a link provided for website access.

Director Sears complimented MCE staff and expressed how grateful the Board is for what staff does.

**Agenda Item #16 – Adjourn**
The Board adjourned at 3:30 PM.

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Damon Connolly, Chair

Attest:

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Dawn Weisz, Secretary
REGULATORY WORKSHOP

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.

SB (1X) 2 – Senate Bill 2 (1st Extd. Session) California Renewable Energy Resources Act
SB (1X) 2 was approved in April of 2011 to expand upon previous RPS legislation. It raised the statewide RPS procurement target to 33% by 2020 and also includes interim procurement targets, new RPS content categories, and limitations. All IOUs, CCAs, ESPs, and POUs are all required to meet these procurement goals (with certain exceptions). The CPUC is addressing the implementation of SB (1X) 2 through its rulemaking process (R.11-05-005).

Terminology:

Bundled Customers receive both their electricity generation and distribution services from the same entity, typically the resident IOU.
Unbundled Customers receive their electricity generation and distribution services from separate entities. Customers of MEA are considered unbundled customers because they purchase their electricity generation for MEA and their electricity distribution 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 RA-related procurement costs within an IOU’s service territory. In cases where there is a system or local reliability need, the Commission may authorize an IOU to procure RA on behalf of other LSEs and to recover the related capacity costs through a NBC.

**CARB – California Air Resources Board**
CARB was 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.

**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. MEA is the only operational CCA in California.

**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 because it is more energy efficient than conventional power generation systems.
CIA – Conservation Incentive Adjustment
The CIA is a NBC 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, 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 ESPs. 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.

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.

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.

ESP – Electricity Service Provider
ESPs are non-utility entities that offer DA electric service to customers within the service territory of an electric utility. ESPs share various regulatory interests with CCAs because the customers of both types of entities face departing load charges through the PCIA and other non-bypassable charges.

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.
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.

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.

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 IOUs, ESPs, CCAs, and any other entity serving electricity load to end-use or wholesale customers. POUis 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 transmission access charges and nuclear power plant decommissioning costs.

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
OBR 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 MEA, 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). POUs are not within the jurisdiction of the CPUC, and are thus subject to different regulation and enforcement than IOUs, CCAs, and ESPs.

**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 LSEs to procure a certain quantity of electricity resources that will ensure the safe and reliable operation of the grid in real time. 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 was most recently modified by SB (1X) 2 (2011). RPS requires that electricity providers meet certain minimum RPS requirements over time, and no less than 33% RPS by 2020.
**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.