

MARIN CLEAN ENERGY**BOARD RETREAT/BOARD MEETING MINUTES****Thursday, September 17, 2015****9:30 A.M.****Marin Art and Garden Center, Livermore Pavilion
30 Sir Francis Drake, Boulevard, Ross, CA 94957****MARIN CLEAN ENERGY**

Roll Call: Chairperson Sears had not yet arrived and Board member Butt called the Retreat to order at 9:00 a.m. An established quorum was met.

Present: Denise Athas, City of Novato
Sloan Bailey, Town of Corte Madera
Barbara Coler, Town of Fairfax
Tom Butt, City of Richmond
Genoveva Calloway, City of San Pablo
Andrew McCullough, City of San Rafael
Ford Greene, Town of San Anselmo
Kevin Haroff, City of Larkspur
Garry Lion, City of Mill Valley
Bob McCaskill, City of Belvedere
Emmett O'Donnell, Town of Tiburon
Kate Sears, County of Marin
Carla Small, Town of Ross
Brad Wagenknecht, County of Napa
Ray Withy, City of Sausalito
Christina Strawbridge, (Alternate to Alan Schwartzman) City of Benicia
Gabe Quinto (Alternate to Greg Layman) City of El Cerrito

Absent: None

Staff: Dawn Weisz, CEO
Elizabeth Kelly, Legal Director
Shalini Swaroop, Regulatory Counsel
Jamie Tuckey, Communications Director
Meaghan Doran, Energy Efficiency Specialist
Greg Brehm, Director of Power Resources
Nick Shah, Power Supply Contracts Manager
Kirby Dusel, Resource Planning & Renewable Energy Programs
John Dalessi, Operations and Development
Brian Goldstein, Resource Planning & Implementation
Rafael Silberblatt, Program Specialist
Carol Dorsett, Administrative Assistant
LaWanda Hill, Administrative Assistant
Darlene Jackson, Board Clerk

1. Welcome and 2015 Highlights (Discussion)

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Director of Public Affairs Jamie Tuckey provided an overview of MCE achievements to date via PowerPoint presentation and Board members individually discussed slides:

- Board member Butt, on behalf of Chairperson Sears, highlighted the scope of what Marin Clean Energy has provided in the few years it has operated by way of numbers of customers served, megawatts, union work hours, and number of local renewable projects on-line or in the pipeline.
- Board member McCullough introduced the San Rafael Chamber of Commerce Joe Garbarino Green Business City Award for achieving a near zero waste goal.
- Board member Bailey introduced MCE's second award, which was Acterra's 2015 Business Environmental Innovation Award, and thirdly, the Environmental Protection Agency's Marin Clean Energy recognition as Green Power Communities.
- Board member McCaskill referred to SB 350 which increases the renewable portfolio standard to 50% by 2030 which is a level of renewable energy MCE began in 2012. Rates this year are lower than PG&E rates which save customers \$10.6 million.
- Board member Butt said most exciting is that MCE is becoming more and more self-sufficient with the ability to develop energy sources that are within their service area. He presented three examples of projects coming on-line: 1) Two 1 MW projects on the North Shoreline of Richmond called NWC Goodrick and Richmond Parkway, 2) Local Sol project in Marin County of 1.5 MW, and 3) Solar One, being built on a Brownfield site at the Chevron Richmond Refinery. Ground-breaking is expected to occur in November and the first phase will be 2 MW with ultimate buildout at 10.5 MWs.
- Board member Athas spoke about new member communities of Benicia, El Cerrito, Richmond, San Pablo and Napa County, with a 30% increase in MCE's customer base.
- Board member Coler spoke about Climate Action Plans which reduce communities' carbon footprints. MCE communities contributed to the reduction of nearly 60,000 metric tons of GHG reductions between 2010 and 2013, reduction of 12,500 cars per year, carbon sequestration of nearly 50,000 acres of U.S. forests, and eliminating the energy use of 5,500 homes for one year.

Chairperson Sears welcomed all Board members and recognized the many accomplishments of MCE not just in terms of achievements, but what is occurring within such a young organization in acquiring and accelerating local renewable energy. Their expansion over the last couple of years has made a phenomenal difference to the Board and to the organization. She recognized marketing efforts and expansion into various communities, and stated Ms. Weisz will expand on MCE's specific progress.

2. Progress Towards 2015 Goals & Strategic Goals for 2016 (Discussion)

CEO Dawn Weisz spoke about MCE's high bar for performance, goal-setting and achieving those goals. The difference this year is the way MCE has matured as an organization through the development of systems to continue to function in an efficient and effective way through the following:

- Established departmental goal-setting in 2015 with discussion later during the Retreat regarding specific progress towards those goals.
- They are planning for an even more comprehensive strategic planning effort for 2016.
- They built a comprehensive compliance tracking system that covers all 48 of MCE's various reporting obligations.
- They have begun distributing quarterly legislative updates to the legislature and emerging CCA's around the state and are serving as a leader among CCA's and at the CPUC and the Legislature.

- They host three separate, regular calls among the existing and emerging CCA directors, communication staff and regulatory staff which provide an opportunity to provide leadership, coordination and facilitation to ensure they are working collaboratively with other CCA efforts around the state.
- This year they convened a CPUC joint CCA/IOU meeting this summer that included Northern California CCAs, PG&E, Lancaster, and Southern California Edison. Everyone spoke together about how they all can comply with the code of conduct and facilitate CCAs across the state.
- They have established collateral funds on the finance front and reserve targets that will allow them to procure outside of their initial supplier finance relationship, and have reduced their reserve requirements there by half just in the last month because of their financial strength.
- They have been asked to present their model to the Global United Nations Framework Convention on Climate Change this December as an example of climate leadership in California.

Meaghan Doran, Energy Efficiency Specialist, provided an overview of progress towards their 2015 goals and a status of efforts for 2016:

- For multi-family they are 5% towards their KWh goals and 61% toward their therm goals. This seems low but they have a robust timeline of committed products they anticipate closing this year.
- For small commercial they are halfway toward their therm and savings goals. They will be tracking rates as close as possible toward those goals.
- For single-family they are 46% toward KWh goals and 15%^h toward therm goals. They are currently working on developing a campaign with some local community partners to get additional action finance and hopefully increase savings in that program.
- She presented a monthly visual depiction of metrics tracked and savings. Since 2013, their program has given \$400,000 away in rebates for commercial and multi-family projects.
- Towards their 2016 program goals, most Board members have heard a lot about their 2016 application and moving towards their rolling portfolio. They will continue with their same budget and savings goals.
- For multi-family they have a robust pipeline for 2016 of committed projects they anticipate closing.
- With small commercial, they are working with the San Rafael to do an outreach campaign in the hopes of transferring that model to all Chambers of Commerce in their service area, and she asked that Board members forward contacts of any Chamber staff.
- With single family, she stated staff had asked Board members to create action plans and she asked for feedback to help staff provide added motivation. Board members individually provided their efforts to create action plans and feedback on their experience. Katie Elliott who manages the small commercial program was introduced She will be working to expand the financing program, and she is the staff member who Chamber of Commerce representatives should work with.

Jamie Tuckey, Director of Public Affairs, provided an overview of the Communication's team 2015 goals and accomplishments:

- MCE's customer base expanded by 30% with the addition of Napa County, Benicia, El Cerrito and San Pablo. New community relationships were formed by implementing Community Outreach Plans, which included the formation of community leader advisory groups and participating in 184 public community meetings and events. The average enrollment rate among the four new communities is 87%.

- MCE increased its Light Green customer base by enrolling residential and commercial customers who had previously chosen to opt out. MCE serves approximately 170,500 customers to date and enrollment rates are increasing.
 - Success has been seen at Marin school districts where many had decided to opt out but then enrolled in Light Green this year. The Sausalito/Marin City, Mill Valley and Tamalpais School Districts enrolled this year and cumulatively are saving \$50,000 on their electric bills.
- Deep Green has increased by 35% since January 2015.
- To date 94 customers have signed up for the Local Sol 100% local solar waiting list. Staff expects to be able to serve about 200 customers on the Local Sol service option.
 - Staff is continuing to promote Local Sol through advertisements and is in the process of creating a time-lapse video showing the construction of the solar project at the Cooley Quarry at Novato.
- MCE expanded and strengthened MCE brand awareness. An advertising campaign is underway now throughout all service areas focusing on Deep Green, Light Green, Local Sol, energy efficiency, job creation, new local and in state renewable projects, and cost savings.
- MCE expanded their social media outreach this year and experienced a 35% increase in Facebook and Twitter followers.
- MCE successfully encouraged PG&E program equity and good working relationships. MCE ensures PG&E's call center representatives are providing correct and accurate information for customers, treating them fairly. MCE reviews and addresses any issues passed on by customers. An indicator of success is the fact that PG&E now applies customer deposits to both MCE and PG&E charges.
- MCE staff supported new CCA start-ups and customer choice options throughout California. Staff has assisted Alameda, Contra Costa, Mendocino, San Mateo and Los Angeles counties and is working closely with other existing CCAs and SFCleanPower.
- The communications team has supported the legal team in communicating, especially to legislative and regulatory representatives, including the statewide quarterly CCA updates. The team also helps to create materials to explain complex topics in simple, understandable terms.
- The communications team has promoted participation in MCE's energy efficiency program and general awareness around energy efficiency by facilitating introductions to businesses and creating ties between Deep Green and energy efficiencies to offset the extra cost of Deep Green. Three new videos to explain how the different energy efficiency programs work are currently underway and will be used in advertising and community outreach.

Ms. Tuckey then discussed the Communications Team's goals for 2016. The new 2016 goals are to:

- Continually elevate and improve the customer experience and maintain a high level of service despite growth and expansion.
 - The MCE call center received 19,000 calls last year. They implemented a call satisfaction survey earlier in the year. On average, about 10% of callers are willing to take the survey. 93% say it is easy to connect and 94% are saying questions are answered and are satisfied. For those who call in to opt out, about 7% will change their mind on average.
- Create and implement a strategic, goal-oriented, data-driven sales outreach plan to help support more Light Green, Deep Green elements and Local Sol.

- Fully subscribe Local Sol.
- Foster existing and develop new community relationships.
 - On September 22nd, they will hold an advocate training workshop at MCE offices and she asked Board members to RSVP if they would like to attend.
 - MCE will host a workshop for solar installers later in the fall throughout the Bay Area to ensure they know about their Net Energy Metering program.
 - Early next year MCE will host a student workshop to talk about renewable energy and energy efficiency and invite students from schools to participate.
 - MCE has plans to further enhance relationships with member municipalities. They will start next month to provide quarterly updates to each member community via email and also will provide hard copies of the newsletters to distribute to public offices so they are available.
 - MCE will also have a community spotlight to highlight community programs and will continue to apply for EPA Green Power Communities on behalf of municipalities.
 - MCE will act as the administrator for any member community who participates this year in the Cool Challenge California Program, which is administered by Energy Upgrade California and encourages residents to take action to reduce their carbon footprint by using MCE's MyEnergyTool.

Board member Coler requested a focus be placed to enroll all Marin County school districts, citing the potential amount of energy savings.

Chairperson Sears invited public comments.

Leslie Alden referred to MCE's support for SFCleanPower. She said there are two ballot measures coming up for San Francisco in November. One is PG&E's which is Measure H, and Measure G is supported by the Sierra Club to counter-balance PG&E's anti-SF Clean Power Measure H. She said SF Clean Power is in need of funds to provide outreach on those two measures. She also stated that she learned that MCE is now in the theaters.

Ms. Tuckey explained that at the last Board meeting it was suggested they look into advertising in local movie theaters and they have a contract in place for upcoming ads in their service area.

Board member Butt suggested that staff contact individuals who have chosen to opt out and ask them if they would be willing to indicate why they opted out originally, why they came back and capture their story in a video, which he thinks would be very powerful.

Chairperson Sears referred to MCE maturing over the last few years, and commented that the community engagement and action piece is very important. She is glad advocacy workshops are underway which continue to serve as a strong piece in how they engage with the community.

Ms. Weisz encouraged the Board to specifically review the Community Relations Report in the packet which provides a great overview of what MCE is doing in every single city and county.

Elizabeth Kelly, Legal Director, gave a background on her experiences since first starting with MCE, stating it has been an incredible challenge and reward.

She introduced and gave a brief background on each of MCE's legal regulatory team and their roles, and provided an overview of what their team does, as follows:

- Manage all deal transactions that come through the agency, manage all regulatory relations not only at the CPUC and at other venues.
- Run all compliance and legislative work.
- They now have trademarks for Light Green, Deep Green and Local Solar.
- Work with PG&E on implementation issues, issues that often require regulatory engagement, regulatory solutions or legal implications.
- Provide advisory services internally on ethics, confidentiality, Brown Act, Public Records Act, and other services.

She identified the following broad accomplishments for 2015:

- Assisted MCE staff and have built significant relationships with CPUC and the legislature, identifying key people to meet with and this year they have met with the head of the California Air Resources Board, Mary Nichols.
- MCE is the oldest CCA in the state and has a lot of experience. MCE has provided legislative quarterly updates and held monthly meetings with current and to be established CCAs.
- MCE has improved its internal management and has gone to a system where every task is assigned an owner. They have a specific delegation process which they have implemented to ensure all tasks are completed in a timely and organized fashion.
- Continue to hold quarterly meetings at the CPUC to hash through tough issues and emerging issues.
- Have had success in reform relating to one of the several exit fees that are charged to customers.
- Have negotiated agreements with PG&E.
- Have had significant legislative successes and have struck language that would have been significantly detrimental to CCAs and have succeeded in incorporating key language in one of the largest bills passed in the 2015 session.
- Made a measureable impact on the Power Charge Implementation Adjustment (PCIA). The PCIA fee is the main exit fee charged to customers which goes directly back to PG&E. Successes to date includes changing the methodology to incorporate a new portfolio standard into those fees which was an MCE initiative which required work with several stakeholders to accomplish.
- This year MCE has been able to change the scope of the proceeding in order to address another issue called "vintaging" which is the date the exit fee counts from, which is a significant impact. They finally have a specific proceeding to litigate over this issue.
- Succeeded in having PG&E make load projections about CCAs in their long-term procurement processes which has not been done in the past. This is another technical win and it took significant work from many agencies.
- Regarding awareness, MCE has had some significant bills come through such as AB 2145, an anti-CCA bill. There is a lot more awareness about CCAs and MCE in particular in those forums.

Ms. Kelley provided an overview of the Legal Team's 2016 goals and challenges:

- PG&E has proposed a 72% increase to the PCIA which is an incredibly steep increase and will push the PCIA about 2 cents per KWh. This means that in order to be at or below all costs, MCE must be below PG&E's procurement or generation rate by about 30%. Therefore, this is significant and she briefly explained how the methodology works.

- MCE is undertaking significant initiatives this year in order to stop or mitigate the increases in PCIA before January 1, 2016. This charge is volatile, unpredictable and has been ratcheting up. MCE is taking steps to short and long term effects to achieve that reform. This year, customers will pay \$19.3 million to PG&E for PCIA. Next year it is expected that customers will pay \$30.6 million to PG&E for PCIA.
- MCE is working on launching their first application before the PCIA in order to obtain funds for their 2016 rolling portfolio for energy efficiency services. This is a transformational change in energy efficiency and they are looking forward to it.
- On an on-going basis, they will continue all collaboration with regulatory and legislative folks on CCA issues and leverage resources.

Board member Haroff asked what opportunities the legal team has for its communities and Board members to support MCE's efforts to fight the PCIA issue.

Ms. Kelley replied that staff is meeting with other CCAs to engage them on this issue, reaching out to community members on talking points and issues and are reaching out to legislators and she will be requesting support letters from communities.

Board member Coler suggested development of relationships with the Governor's Office as far as PCIA increases, the need for reform, and the fact that they may lose the existing customer base without being able to get new customers. Ms. Kelley said they have not yet had the opportunity to meet with the Governor himself but are working with top advisors.

Ms. Weisz said the focus of the Retreat will now move into their procurement item and she noted that effective procurement of power supply has been a foundation of MCE's work from the beginning, and introduced the procurement team.

3. Integrated Resource Plan 2015 Progress & Goals for 2016 (Discussion/Action)

Greg Brehm, Director of Power Resources, said MCE had four significant contracts come online over the last year and, as a result, MCE has expanded its resource pool to the point where MCE can displace most their Bucket 3 content with Bucket 1 and Bucket 2 products, which he briefly explained. He said last year, 2014 MCE supplied about 30% of their retail load with Bucket 3 products and for 2015, they expect to be down 15%. Next year with the Board's approval, MCE will limit Bucket 3 unbundled RECs to no more than 3% of retail load. As a result of these contracts, MCE has about 750,000 surplus Bucket 1 renewables that MCE will use to displace Bucket 3 products.

Mr. Brehm recapped goals of last year:

- Break ground on the Local Sol project. He reported that the project broke ground in May and he expects them to be on-line in March 2016.
- Mr. Brehm stated the MCE Solar One project is in the middle of the EIR process and they expect to break ground in November, and to be fully on-line in October/November 2016.
- Mr. Brehm stated a goal to increase their GHG free content by 5% per year. Their standing goal was 60% and in the past year they were at 66%. Later in the presentation he will also talk about potential changes to increase that further in coming years.
- MCE added a new goal to increase their line of credit. They began with no secured credit and now have about \$3 million of unsecured credit and are looking to double that in 2016. They also have

a letter of credit facility in place for \$15 million which is about half of their collateral needs to support its energy contracting needs.

- They had a goal to get at least half of their Feed-in Tariff projects in the queue on-line. They expect to exceed that and get 4.8 MW a 5.8 MW queue breaking ground with the one remaining project breaking ground early next year.
- Lastly, they had a goal to integrate roughly 142 MW of new projects and those are on-line.

Board member Coler asked for examples of the Bucket types. Mr. Brehm explained that Bucket 1 projects are located within the State of California where generation and renewable attributes are delivered simultaneously under the same contract, with solar and wind projects as examples.

Bucket 2 projects are generally located outside the State of California and are usually wind or other projects that possibly do not have direct interconnection to the California grid. Those projects generate in one time period, and the renewable attributes are repackaged with energy deliveries that are connected to the CAISO grid in another time period.

Bucket 3 projects are where energy is sold entirely separately from the actual physical energy. They are un-bundled from the power and are sold separately. These are generally wind projects which made up the majority of MCE's Deep Green portfolio in the past. He clarified these "Buckets are also referred to as Product Content Category "PCC1, PCC2, and PCC3 products".

In response to Board member Haroff, Kirby Dusel spoke about renewable energy certificates which represent the environmental attributes associated with all renewable energy generation. Those certificates are administered through a clearinghouse in western United States called WREGIS (Western Renewable Energy Generation Information System). Similar to a bank account, they can transfer certificates from one entity to another, buy them and sell them, maintain accounts that have balances associated with each compliance period. Over time in order to demonstrate compliance with standards, MCE retires certificates by putting them into specific retirement accounts.

Mr. Dusel stated that what Mr. Brehm is talking about is really the association between that renewable energy certificate and the physical electrical energy. What the buckets represent are different relationships between that certificate and the physical electricity commodity.

Board member Greene commented that the more MCE uses Bucket 1 products to displace the Bucket 3 products the better it can respond to the criticism that MCE is not really in the renewable business. Mr. Brehm noted that the debate has grown over the last few years. He thinks one of the primary ways to fend off criticism of these unbundled renewable energy certificates to do exactly what MCE is doing and what MCE planned to do from the start, which is to bring the sources of power closer to first within the state and then as close to customers as possible and then defer the use of other unbundled products secondarily. Mr. Dusel added that to the extent they can achieve this without affecting rates, this has been MCE's goal and practice.

Mr. Brehm then presented their load to resource balance and where all contracted energy come from right now. In moving forward for 2016 he provided the following changes in policy goals for MCE's updated Integrated Resources Plan (IRP):

- They hope to get the MCE Local Sol Project subscription rates to 180 to 200 customers. They expect a commercial operation date of November 2016

- MCE aspires to expand its conventional power portfolio to cover the period after the SENA agreement ends at the end of 2017 and that MCE is fully hedged for all renewable requirements through the next 3-4 years.
- Their MCE renewable content is currently at 56% renewables. They will talk about a change to reduce their Bucket 3 products while increasing their renewable content from 50% to 80%.
- They want to develop at least one more new project after the MCE Solar One project. He presented a project in Napa County and they are looking to expand in other areas.
- He presented a slide of all products and noted that Bucket 3 products are decreasing, with Bucket 1 product increasing.
- Part of the strategy in changing their Integrated Resource Plan, they expect to increase their goal of 60% GHG free products to 95% GHG free by 2025. He presented the plan under business as usual, and discussed various product mixes in various buckets, and said they would like to eliminate Bucket 3 products and that Renewable mix would be approximately 75% Bucket 1 and 25% Bucket 2. If they extend this policy through 2025, they would expect about a 2% increase in rates in 2025 with marginal impact to rates over the next 4 years.
- The next strategy which has a cumulative effect would be to maintain the same portfolio content of 80% on the renewable side and increase hydroelectric to 45% with a goal of achieving a 95% carbon free portfolio by 2025. This would increase rates 3% to 6% in 2025.
- The last option is 100% renewable portfolio, but comments received from both the Technical and Executive committees were that this was not sustainable and they pulled back to 80% renewable content which would also reduce their large hydroelectric exposure. This proposition would have an 8% to 11% rate increase in 2025.

Board member Haroff commented that the 8% to 11% increase would be over a 10-year period or roughly a 1% increase over and above what other increases might come. Mr. Brehm noted that the increase would be cumulative and in addition to normal rate escalation.

Ms. Weisz pointed out that this is the increase projected above what they might otherwise see in rates, so there may be other factors causing rates to go up or down.

Board member Quinto referred to the large exposure on the chart with hydroelectric power and availability, with climate change. Knowing they will have more drought years, he asked for an explanation on the strategy. He wants to know whether there will be difficulty with hydro power given climate change. Mr. Brehm explained that for hydroelectric resources MCE uses the driest year or worst case year in their planning.

Mr. Dusel added that there is also an element of regional diversity and when looking at large hydroelectric production, they talk about not only drawing from California but also from out of state, particularly the Pacific Northwest where it is a bit more abundant.

John Dalessi, Technical Consultant suggested not putting all of the “eggs” in the hydroelectric basket. In the short term there is ample opportunity, but this is a new market where buyers are looking for carbon-free power and the supply is not growing. They are somewhat concerned that with more demand, if supply is not able to expand, this drives up the premiums, whereas with renewable power, they know it is expanding. He suggested considering a more balanced approach which will in the long-run be a better option.

Board member Coler said she has similar concerns about hydroelectricity and suggested one option could be something in between strategies 2 and 3. She asked where the natural gas is located in the charts.

Mr. Brehm stated natural gas makes up the balance of their portfolio that is not renewable so right now 39% would be natural gas or GHG emitting, and that natural gas would be part of each of the three scenarios. He noted that in the State of California about 67% of the generation is natural gas. Board member Coler commented that it is good to know it is a small item.

Board member McCullough said most residential customers are price-sensitive when looking at the three strategies and impacts on rates. He asked how to project what PG&E's rates might be over the same time period in order to determine where they will land if they adopt a given strategy relative to PG&E's rates.

Mr. Brehm said it depends on what PG&E does with its procurement. In fact, renewables may become a larger portion of their portfolio as additional load departs to other CCAs which would allow PG&E to have better/ lower rates. It may be more challenging for MCE to compete. Typically large hydroelectric resources are the cheapest energy and the most flexible.

Chairperson Sears noted that the Technical and Executive Committees had extensive discussions on this subject and one challenge is to understand how to choose a strategy and setting rates. It is important to remember in selecting a specific strategy that MCE may be depriving themselves of flexibility in a given year and should be looking at how those strategies are working out and then discover what PG&E is doing with their rates and how that may impact how MCE chooses to do business. Therefore, she thinks it is important to have the strategies but also make sure it does not handcuff them from making adjustments, given what PG&E and the market does.

Ms. Weisz said what staff is talking about now are strategies that will be incorporated into their Integrated Resource Plan update. The Board goes through this process annually, discuss scenarios with committees later in the month and she will be bringing back adjustments to committees and then to the full Board next month for consideration of approval. Getting feedback on which strategies or combination of strategies make the most sense will be helpful to staff.

Chairperson Sears thanked Mr. Brehm for making changes in strategy 3, which were discussed and requested by the Technical Committee.

Board member O'Donnell said in the final analysis he would think the Board's preference would be strategy 3 other than the concern over what PG&E's rates will be. This is where most Board members get stumped because presumably staff is in a better position to guess what they might be, whereas no one else around the state will be able to forecast them at all.

Ms. Weisz said in echoing what Chairperson Sears stated, the Integrated Resource Plan is a long-range visionary goal of where MCE would like to be in 10 years. The rate setting process happens after they know with certainty what PG&E's rates will be in the beginning part of the year. Therefore, it is possible to set a long-range goal and when they get to the rate-setting process, they will determine how far they want to move toward the long-term Integrated Resource Plan. If they see PG&E's rates are decreasing for some reason and MCE may not be able to move in the direction of the plan, it is an adjustment that could be made on an annual basis.

Board member O'Donnell said the strategy without regard to what PG&E's rates are would be strategy 3 which clearly provides MCE with the maximum flexibility. Mr. Dusel said it is fair to say PG&E's rates are competitive and if the Board is talking about adding 8% to 11% on top of MCE's costs, it is reasonable to assume that rates might be above PG&E.

Board member O'Donnell stated it might be a higher cost strategy but in the push for more renewable power over the last couple of years has brought down the price. So if they set it at Strategy 3, they are partially contributing to global renewable power being brought on the grid and therefore driving the price down. He thinks they could see a benefit and thinks they will be within the same ballpark of other investor-owned utilities and CCAs that are charging their customers, and he supported strategy 3.

Board member Small said in participating on the Technical Committee, they were leaning towards the revised strategy 3, but the other comment is that it is not just PG&E's rates but the conversation on the PCIA. It is the combination of that they will be dealing with. They have to make sure they do not get to the point of losing customers because they do not know where they will be with that PCIA charge and how volatile it is. It is a constant struggle for MCE to figure out where it should be each year.

Board member Greene said as the rate structure is considered and the procurement happens, the Board can make those adjustments and during certain years they can choose other strategies, so as the rate structure and procurement happens, they can make those adjustments. While it will not be as smooth as they like, he thinks this is the purpose.

Chairperson Sears invited public comment and there were no comments.

BREAK

Chairperson Sears called for a break at 10:40 a.m. and, thereafter, reconvened the Retreat at 10:50 a.m.

4. New Community Inclusion (Discussion/Action)

Ms. Weisz provided background on the item, stating that the MCE annual Board Retreat was held September of 2013 and the MCE Board spent time discussing new community membership. The Board approved Policy 007 and it defined a process for including new communities in the MCE territory. Following approval, they implemented the policy and added new members.

After completing the enrollment this year between February and May MCE staff and Board members began to evaluate the benefits of implementation of the Policy and began to identify improvements they need to consider to the process moving forward.

On June 19, 2015 the Board established an Ad-Hoc Expansion Committee made up of Board members. They have held a couple of meetings and also meetings of staff have been held where they collected information and provided it to the Ad-Hoc Committee's discussions. The focus was to review information collected to date and develop recommendations to bring to the Technical Committee and to the Board to approve new community members.

The Ad-Hoc Committee met in July and August developing recommendations that were subsequently presented at meetings of the Technical Committee and the Executive Committee to get them to a clear recommended course of action.

Some benefits identified include:

- Reduced GHG emissions
- Increase in renewable energy use
- Rate benefits in the MCE territory
- Successful new community outreach while maintaining outreach within existing communities
- Increased regulatory and legislative abilities
- Ability to incentivize the creation of new CCAs by having choices available and examples
- New energy efficiency opportunities when moving into communities having different load shapes and different building stock
- Ability to add new and unique staff skill sets

The Ad-Hoc Committee also discussed some of the challenges they have seen with community inclusion and areas that could benefit from improvements, and some suggestions from the Committee include:

- Making some adjustments to the process of new community inclusion and to streamline a bit more and reduce repetitive tasks and Council actions
- Ensuring new community interest and commitment is determined upfront to avoid potential delays that could happen when one community is not at the same point in the process as other communities
- Information requests and making changes to the membership application to identify more upfront requirements
- As the MCE Board has grown, the efficient flow of information and level of engagement challenges can grow.
- Additional strategies build in upfront to collaborate with new communities in a more proactive way so communities are engaged in distributing information via their websites, at their counters and informational kiosks

Ms. Weisz said before getting into recommendations, she outlined the general guidelines not explicit in the Policy and after discussing them, the Ad-Hoc Committee did not believe they needed to be added to the Policy:

- MCE wants to continue to remain responsive to local government, staff, and elected officials in communities that have expressed interest in MCE service.
- MCE wants to avoid inclusion of new communities in counties where CCAs are currently serving customers. An example was Sonoma County cities.

The Committee recommended the following minor adjustments to Policy 007:

1. Allow jurisdictions with a customer base larger than 40,000 to join through the Affiliate membership process if they are already in a county served by MCE. This would assist the City of Napa.
2. An adjustment to the member designation for all perspective communities to maintain fair representation of what would be a manageable task for the Board
3. An adjustment to the Affiliate membership process to conform to strategies mentioned above
4. Making some adjustments to the membership application that requires more things to happen upfront.

Ms. Weisz explained that changes to the membership application require a few things such as looking for communities to not only give MCE the authorization to get load information from PG&E but also agree to help spread the word about the program and make sure information is posted on their websites, and making sure the new community holds their public discussion before MCE conducts their analysis. This would include approval of a resolution and ordinance to join MCE subject to the Board accepting their membership request.

MCE would also recommend asking for Assessor's data on housing stock which will help MCE in the beginning of the process to start planning for any energy efficiency services for the community.

Ms. Weisz explained that when MCE first launched service in 2010, only 8 of the communities then were members. There were 4 communities that wanted to wait and see to determine how things went. By the end of that year things were going very well and there was interest in reconsidering among those communities. Staff determined that the most efficient way to incorporate those communities would be to do it at one time so they could procure for them all at one time. Staff launched an amnesty period and invited those 4 communities to join giving them a 3-4 month window and let them know if they joined they could do it at no cost. If they wanted to join later there might be some cost because they would have to procure separately.

The amnesty program worked well and all 4 communities joined at the same time. Therefore, staff thought they might apply that same approach moving forward for communities that had expressed interest to date. It would propose a 6 month window to take care all of the things in the membership application and would include adoption of an ordinance to join MCE subject to the Board accepting their request. They would offer the inclusion period between October 1 and March 31, 2016. There would be a lot more streamlining for MCE staff in regards to procurement, outreach and analysis.

The last recommendation is the governance recommendation. Three ideas were discussed by the Ad Hoc Committee and one is being recommended by staff based on input from both Board members and from municipal legal counsel. The top recommendation from staff was that for any new members joining after January 1, 2016 MCE would allow for one representative per county and one city representative per county. This would allow cities to determine who they want their representative and alternate to be, which could be from another city or town. This structure would follow what was seen with many other bodies around the Bay Area and other parts of the state with JPAs. It would ensure fair representation and that city representative's voting share would be weighted based on the load of all cities and towns they are representing.

Ms. Weisz said during the last 6 months MCE has received letters of interest from all 5 cities and towns in the County of Napa, from Walnut Creek and Lafayette located in Contra Costa County, and from the City of Davis and Yolo County. The letters express an interest in dialoguing with MCE about processes to follow to join MCE. Board action today would facilitate next steps with some clarity and be able to move forward with a clear set of assumptions.

She asked for Board feedback, noting that given the amount of preliminary discussions and vetting, the recommendation is for the Board to vote on the matter.

Board member Bailey voiced concern with the governance recommendation and thinks that everybody should have a seat at the table. He thinks part of what MCE does is unique and is recognized by the many innovative awards. When truncating this purely for administrative purposes, it raises attention. He

suggested options to possibly hold fewer Board meetings and being more efficient by vetting by holding more or new committee meetings.

Board member Withy said he served on the Ad-Hoc Committee and would not necessarily agree that the committee was unified in proposing Option 1. The committee was presented with 3 options and discussed which would be preferable. There was a presumption from staff that there is a governance problem to solve; however, he questioned what problem needed to be solved. He believed that if there is a problem with a large group of people he suggested having a new governance structure for the whole organization which includes Marin County and re-brand themselves.

Board member Coler said she was also part of the Ad-Hoc Committee as was Board member Wagenknecht. Part of her problem is that the Board Room is not large enough and she thinks Option 1 was preferable. She feels strongly that MCE is still growing and evolving and to spin something off to an Executive Committee or hold meetings once or twice a year is not workable at this time. She thinks possibly it could happen in the future when there is not as much debate or issues with PG&E and the PCIA. She strongly believes MCE should retain the representation but given logistics, some Ad-Hoc Committee members felt Option 1 was preferable. Because Marin was the original founders, she suggested revisiting the governance problem at a later date.

Board member Wagenknecht said given MCE's maturation a lot of what has been original decision-making will and has taken less and less time. He can see the future as being some hybrid but once a member has sat and participated in meetings, it is difficult to not then participate. He said carpooling with Napa members could be an option, but he agreed the matter might be something they could change in the future.

Ms. Weisz thanked Board members for their comments and presented the 3 Options originally discussed by the Ad Hoc Committee:

One option was that there is one representative per County going forward and to not add any more City representatives. The concern with this option is that elected officials felt there is a different mentality between County and City representatives. Therefore, this option was not preferred by any member of the Ad Hoc Committee.

Option 2 was MCE continues to add a new representative for every city and every county and allow the Board to continue growing, but once they reached the point of having 20 members they would then shift to a structure where the Executive Committee is making the month to month decisions. She said they do need to meet monthly because procurement decisions and other finance decisions need to be approved. The idea with this option is that the Board would meet no less than once a year, and that the Executive Committee would take on the more routine decision-making.

She said the reason why Option 2 is not being recommended by staff is there are concerns by their municipal legal counsel on this option as far as the oversight being delegated to a committee. Another constraint is that the full Board would be required to do any budget setting and issue any debt.

She thinks it might be helpful to respond to the comment about it being an administrative problem. Personally she does not see Board growth as an administrative problem at all and they can accommodate large groups. One of the reasons MCE has been so successful to date relates to the informed engagement of board members. The topic is technical and it takes time to familiarize oneself with the subject area.

Having an efficient Board size that allows for information flow has contributed to their success in the past, and looking forward this is an important element to retain.

She said she thinks Option 2 could work but asked members to keep in mind that the large Board would have to meet annually and sometimes in between to make some fundamental decisions relating to budget and finance.

Ms. Kelley commented that finance undertakings must be taken by a vote of the Board at a regularly scheduled meeting.

Board member Butt said at least two options will have an expanded number of Board members. They talked about agendaizing more items on the Consent Calendar which could mitigate any downside to expansion. This way, there is still the Board vote on items without necessarily spending a lot of time talking about them. While he was willing to consider a hybrid model of consolidation of representation of cities and counties, it bothered him that it creates two classes of representation.

Chairperson Sears said she serves on many boards and commissions which are very large. In some ways, there are different ways to do Option 2 and accomplish concerns. On the Golden Gate Bridge Board, they have robust committees where most of the work is done. Their Board meetings have been reduced to once monthly but regardless, the Board ratifies decisions made in subcommittees, with the ability to hold discussion. She thinks it is important to treat all members equally regardless of existing or new members. For some interim period, she has mixed feelings putting things on the Consent Calendar, but as the Board gets larger they could also expand or create new committees and really streamline how they manage the Board.

She said in response to Board member Butt regarding the ratification process and the Consent Calendar process with the Bridge District, reports from committees are listed on the Consent Calendar and the chair of each committee reviews the list of items considered by that committee and their decisions. The Board can hold discussion or vote to approve that decision. Therefore, it is a hybrid.

Board members Greene said he goes back between Option 1 and Option 2, but agrees there is not a problem today. He is sympathetic to Ms. Weisz's concerns of when the Board gets too big and effectiveness and how to run an organization that has 25-30 members. He sees that once a Board gets that large, people disengage. He questioned whether going with Option 1 makes some cities more reluctant to join because they do not have a vote. He also thinks there is an argument this could be good because one issue of expansion is whether or not they are better off encouraging other cities to join us or encourage them to form their own CCAs, and he believes it is the latter. Given this, he would rather see other CCAs form as opposed to making it more attractive to join MCE.

Chairperson Sears said to her Option 1 is not a good option in suggesting one Board meeting a year, given the disengagement issue. She thinks it is important to have more frequent Board meetings or Option 2. She would want to see a revision of option 2 for more frequent Board meeting.

Board member Greene asked if part of the analysis is an assumption of unwieldiness to the size, given they have not gotten there yet. He can appreciate that anticipation but agrees with Board member Bailey and others of concern regarding having two classifications of voting authority. This goes directly to the Chair's comments about how MCE began. It began based on activism and it is continuing to grow based on the same activism. It would seem to be more fair and reasonable to be inclusive and if at some point

that inclusivity translates into not being able to move, then they might want to re-organize what their decision-making process is going to be.

Board member Coler stated Board member Haroff had to leave and asked her to comment that he feels strongly that there is no change to the governance structure and to keep adding members until such time that the membership needs to be re-considered.

Board member Quinto said this committee was developing options but they did not get to the core question of whether there is a problem and personally he did not think there was a problem to solve. He said this Board operates differently and has a different mission than most JPAs which exist and he thinks most cities are completely disengaged in the process.

Board member McCaskill said his argument for addressing the issue now is that if they wait until it is a problem Option 1 will have to be removed as an alternative because once the organization gets too big, it will be difficult to disenfranchise a representative.

Board member O'Donnell said he is sympathetic to comments by Board members Bailey and Greene. He thinks one of the things people will criticize about large public agencies is the fact that local elected representatives do not have much of a say, as agencies become very staff-driven and there is a lot of criticism in that direction and this board does not suffer from that. If they went down the path of Option 1, they would have a tremendous disengagement and he suggested coming up with a better construct such as strengthening committee structures. He thinks Board meetings could be quarterly, with committee meetings occurring between those times.

Board member O'Donnell also thinks that in relation to Option 1 and 2, if they get bigger, this becomes a large financial organization and he wondered if they should also bring on some outside energy expert as a director or a CFO type of director with specific expertise in some of the fields that an organization of this size may require. He recognized the existing talent, but said no members completely understand all dynamics in the energy and financial fields. He agrees with Board member Bailey and did not want to go down the route of Option 1.

Board member Small noted that there was not a consensus at the Technical Committee on how to move forward. She was uncomfortable with a different set of rules for the group. She asked to consider tabling this portion and looking at other changes to make and possibly a motion to adopt those changes and return on this issue with a hybrid of what was mentioned.

Board member Gabe Quinto, speaking on behalf of Board member Lyman, stated he supports Option 2 because it is the ABAG and Air Board model where there are strong committees which help streamline the Board.

Board member Calloway said this raises a communication issue for Board members to be effective or not effective. No matter which model they choose, they will need to determine how they stay in communicate amongst the layers of materials. Today is a good example of suggestions given and it seems like many Board members pay attention and make many comments. She also believes in the core value of inclusion and supported those comments. She supported coming up with a revised model based on the discussion today and postpone the decision until the next meeting.

Board member McCullough said if the result of this discussion results in deferring the ultimate decision on governance, he thinks it might be productive if Ms. Weisz could ask those communities interested in joining what their view is and whether their interest would remain even if they joined with a less representation level along the lines of Option 1. This way, it gets to Board member McCaskill's point of the effect on enthusiasm of potential members and whether it affects how they might view their role on a reduced authority level.

Board member Strawbridge said she is a new city council member and Benicia held a lot of discussion and having that representation authority was a big factor in Benicia agreeing to be part of the agency.

Board member Athas asked what PG&E's structure is for their Board because basically they are a utility. She does not think they began as MCE began with wanting to have representation and governance from each city. She completely agrees with Board member Bailey and others and does not want to de-include members and frankly does not think the cities have the voice with only one representative.

Board member Withy said in observing the discussion, the Board is lightening its subject matter. The PG&E board is very different. They are full of experts, senior industry and regulatory leaders, senior politicians, and they do not provide the same transparency. In terms of the governance structure, he is hearing the Board does not want to change anything right now other than suggestions on procedures. He said he is in 100% support of Board member O'Donnell's comments in that there needs to be a senior advisory committee of industry business experts, regulatory and possibly CPUC experts who are present and advise and monitor the overall progress of this organization that reports to this Board.

Chairperson Sears said she has learned that the PG&E Board has 12 members and asked for public comments.

Rob Davis, Mayor Pro Tem, City of Davis, introduced Mitch Sears who is their Sustainability Director. He said they have a Community Choice Energy Advisory Committee right now in Davis which examines options for their City to move forward and Jerry Braun is a member of that community. John Mont Smith is a staff member from the County of Yolo and they are thankful for the opportunity to attend this Board meeting. He related how stellar MCE staff has been to their City and County through their attendance at a well-attended community forum and just being able to describe MCE put many people at ease about what it might mean if they choose to form their own CCA or the option of joining MCE.

Mayor Davis said he appreciates the conversation the Board is holding and said it is concerning watching the evolution of MCE, and how MCE will work when they expand and add new cities. However, some of that concern is alleviated when seeing the passion here and realizing what they are participating in is actual movement. He hears comments that the reason they want everybody to stay and be engaged is because it is a movement and providing not only electricity but sustainability, which is what Davis is and aspires to be. No matter what decision they make, MCE will find them to be an extremely important ally at the State level first given they are geographically located closer to Sacramento. Also, a difference between this Board and PG&E is that this board is not reimbursed. He appreciates the Board's conversation, the spirit in which it is taken and said he could easily see himself on the Board.

Chairperson Sears said it has been said that the City of Davis would be kindred spirit and thanked Mayor Davis for his comments.

Leslie Alden said coming from the policy side in the beginnings of MCE and not the technical or advocate side, she is the only one in the room going back to 2006 that has that perspective. She said the incredible process that the task force that formed what ultimately became MCE was about participation and everyone having a voice. She thinks the question is how big MCE wants to be, can be and should be. She thinks the governance question, instead of it being function following form should not drive this. She said MCE is very much a grassroots, innovative, leading and bleeding edge organization, and to lose that would be a detriment to the movement. With the Governor's proposals, this model is a huge piece of what will make this work in California and get them to critical goals. She encouraged the Board to keep the individual jurisdiction vote concept and keep everybody engaged because this is not a rubber-stamp organization and she applauded all Board members.

Carol Weed, Walnut Creek, said she is involved in a community action group in Contra Costa County, and a speaker said at the Committee Board meeting at Contra Costa County this past week that one of the many things floated was the possibility of them requesting application to MCE of their unincorporated portions of Contra Costa. These areas have 170,000 potential users which are about the number of users MCE has now and she jokingly asked how many votes they would have.

Chairperson Sears said there have been a couple of suggestions that the Board move forward with some other revisions and table the governance issue for now.

Ms. Weisz clarified that per the recommendations in the staff report she did not hear feedback on the affiliate membership process and the inclusion period. It sounds like recommendation 2 and 3 would move forward and the other option would be tabled and that possibly they can take this up at the committee level before returning to the Board.

ACTION: It was M/S/C (Small/Withy) to approve staff recommendations except for governance changes which will be tabled for discussion at the Committee level prior to returning to the full Board of Directors. Motion carried by unanimous roll call vote: (17-0); (Absent: Haroff).

LUNCH

The Board adjourned at 12:25 p.m. to lunch and thereafter reconvened the Retreat at 1:10 p.m.

5. Board Business

A. Public Open Time (Discussion)

Chairperson Sears invited public comment and there was none.

B. Report from CEO (Discussion)

Dawn Weisz, Executive Officer invited Shalini Swaroop, Regulatory and Legislative Counsel to provide a legislative update:

Ms. Swaroop gave the following update:

- The end of the 2014/15 session will occur on October 11th when the Governor must sign or veto bills. The voting on bills ended on September 11th and she referred to the memo included in Retreat materials which expand on the following:

- AB 1110 is a 2-year Bill from Assembly member Ting from San Francisco which would have adjusted reporting requirements for GHG emissions from Load Serving Entities, including CCAs.
- SB 350, which was initiated by the Governor, would address halving petroleum use, increasing the renewable energy portfolio standard to 50%, and doubling energy efficiency in buildings by 2030. The petroleum use provisions were removed last Wednesday due to opposition from oil and gas companies. She briefly described specifics of the bill affecting CCAs.

Board member McCullough referred to the requirement that CCAs have at least 65% of their RPS procurement in long-term contracts of 10 years or more. He asked if there is a similar requirement imposed on investor-owned utilities. Ms. Swaroop said it is also imposed on investor-owned utilities.

Board member O'Donnell asked if this relates to all procurement strategies. Ms. Weisz replied that she thinks they are close to if not already in compliance with that goal. This goal will kick in sometime in 2021 and they do not see it as a problem for MCE.

C. Consent Calendar (Discussion/Action)

- C-1. 8.20.15 Board Minutes
- C-2. Resolution 2015-05 Approving Activation of Agreement with River City Bank
- C-3. Second Addendum to Fourth Agreement with Jay Marshall
- C-4. First Addendum to Second Agreement with Rincon Consultants
- C-5. First Addendum to Third Agreement with Braun, Blaising, McLaughlin & Smith PC

ACTION: It was M/S/C (McCaskill/Bailey) to approve Consent Calendar Items C.1 through C-5. Motion carried by unanimous roll call vote: 15-0 (Absent: Coler, Haroff and Wagenknecht).

D. MCE Power Content Label and Attestation (Discussion/Action)

Kirby Dusel, Technical Consultant, said this item is a formality that falls under the jurisdiction of the California Energy Commission and Power Source Disclosure Program. On the other hand, it is a more important piece of information people need to communicate with their customers regarding the power supply MCE provides to them.

He referred to the staff report and the fact that the Public Utilities Code requires all retail sellers of electric energy to disclose accurate and reliable and simple to understand information on the sources of energy that are delivered to their respective customers. The label is intended to distill down transactional detail into a simple table that articulates the proportion of supply attributable to certain fuel sources.

He stated that in the middle of the staff report is a representation of the power content label which is very prescriptive and must be distributed to customers by October 1st of each year. As a public entity, the Board must self-certify the accuracy of the information being presented to customers, which is distinct from the investor-owned utilities which must engage third party auditors in order to review all transactional information.

Mr. Dusel briefly discussed the 2014 label contents and said the Light Green customer mix included 65% GHG free supply which is very high and Deep Green is 100% renewable and GHG free. In how this compares to PG&E's mix, PG&E will soon be distributing its label to customers within the next week, but

PG&E's overall renewable content did increase year over year and they will be representing an overall renewable supply of 27%. In addition they relied on 21% nuclear deliveries, 8% hydroelectric, 24% natural gas and an additional 21% from an unspecified category, a portion of which is natural gas purchases.

All in all, the Light Green emission factor rounds out to be 334 pounds of CO2 equivalent per MW hour. The Deep Green emission factor is at zero and they expect based on information included in PG&E's disclosure that their emission factor will be around 400 pounds of CO2 per MW hour.

Mr. Dusel asked that the Board attest as to the accuracy in MCE's label. He said at the staff level there has been rigorous review of all transaction information and the program received a third party audit and he is confident information is accurate, and asked the Board to approve the accuracy of the information.

Board member Bailey asked what the level of review is that other CCA Boards give prior to certifying the content label. Mr. Dusel said the process is similar, but no third party audit is required for public entities.

Board member O'Donnell asked if information flows back on what is actually being used or is it obtained from the procurement side. Mr. Dusel said MCE's portfolio is so heavily weighted towards renewable products and MCE has renewable energy certificates or records of transactions to substantiate volumes being represented in the power content label. In addition, MCE has tagging or transaction and verification information provided to them by suppliers to substantiate the importing of hydroelectric power. So between both, they are able to do a great detailed accounting.

Board member Coler referred to the Light Green and said there is solar at <1%. She asked if this is a negative 1%, and Mr. Dusel said it is above zero but less than 1% but must be represented however small. He confirmed that under the Deep Green program and in talking with Sacramento MUD which administers the Greenergy Program where they offer a 50% and 100% renewable option. They have been working to better align their resource mix to reflect delivery patterns which are more similar to how customers use energy and they bring geothermal and biomass into the mix which tend to deliver a relatively flat profile, and solar which peaks throughout the day, and blending in resources for more diversity, and this is what MCE is considering as well.

Chairperson Sears invited public comment and there was none.

Ms. Weisz explained that the Board is looking at the 2014 power content label. For 2015, the solar number will look very different, as they have had 2-3 large projects come on line.

ACTION: It was M/S/C (Bailey/O'Donnell) to endorse the accuracy of information presented in MCE's 2014 power content label. Motion carried by unanimous roll call vote: (15-0) (Absent: Coler, Haroff and Wagenknecht).

Ms. Weisz said the presenters for the next agenda item are still in route and noted that for planning purposes, they were able to complete all business during the morning session so no items need to be carried over and so the meeting is likely to end somewhat early in the day. She suggested a break until presenters arrive.

BREAK

Chairperson Sears called for a break at 1:50 p.m. and thereafter reconvened the Retreat at 2:00 p.m. Item 6B was moved up on the agenda.

6. Emerging Technology and Innovative Programs (Discussion)

B. City of Benicia: Gray Water

Ms. Weisz introduced Alex Porteshawver, Consulting Climate Action Plan Coordinator from the City of Benicia for new community enrollments. When staff was planning the Retreat a lot of input was received from Board members on discussion topics. There was an interest in cross pollination between member agencies and learning about what is happening with green initiatives in member agencies. If this is something Board members are interested in seeing more of, staff could coordinate future topics on a quarterly basis.

Ms. Porteshawver thanked the Board for inviting her to the Retreat and provided a background on her role with helping the City of Benicia implement their Climate Action Plan. She said they implemented a variety of GHG reductions, water conservation and resilient strategies in the City. She focused on the Laundry to Landscape or "L to L Graywater Kit Program."

She gave the following overview of the program:

- Laundry to Landscape or "L to L Graywater Kit Program" was completed in 2015 and is one program it offers its water customers in assisting them in reducing water and energy consumption.
- Benicia is home to about 28,000 people. This translates to 8,500 residential water meter connections and 1,000 commercial and industrial connections.
- Over half of the City's water use comes from the residential sector and half of that is from outdoor landscaping which provides opportunities for savings.
- The Council adopted a Climate Action Plan which contains over 100 strategies to reduce GHG emissions, conserving water, preparing the City for future climate change-related impacts.
- Each year her team reviews the plan and selects 6-10 strategies they feel they can focus on implementing.
- The 2014/15 work plan selected the Residential Water Conservation Program as a priority and the grey water program was part of that program.
- They have worked with a company that completed hundreds of home water assessments. They used the data to determine where they should be focusing their energy.
- Now they are in a serious drought, this generated support from elected officials and they also had staff familiar with the program and wanted to leverage and replicate a similar program from the City of San Rosa and they worked with the same vendor called, Grey and Green.
- The City is party to a settlement agreement drafted as a result of the Good Neighbor Steering Committee who responded to a proposed improvement project and permit approval at a local refinery. The agreement set aside funds for a specific program that would result in water and GHG savings. The program cost \$10,000 and of that, they only used approximately \$4,400.
- They purchased 30 kits which are valued at about \$90 each. They also used funds to host a how-to workshop to learn how to install the kits. They also conducted marketing because the City is its own water supplier.
- The kit contains parts needed to install a simple laundry to landscape system which she displayed in a slide. One issue was that people were opposed to installing it after looking at their laundry system hookup.
- The U-Tube video is available on-line to those not able to attend the workshop. Customers also had to sign up for a no cost energy and water assessment because while landscaping

might be the highest water use, it may not be the case for individual homes. They had to follow the Building Code checklist and the California Plumbing Code.

- Lastly, was inspection and they asked a couple of businesses to assist in this process given current City resources and Raising Sun is a third party PG&E Energy Efficient 3-month program who agreed to do it but they only had 4 or 5 installations in that timeframe. The option they settled on was to allow participants to send photos of their completed installation, which is an interesting concept but hard to enforce. Not all completed the installation photos which was also a problem.
- Regarding outreach, she said the Community Sustainability Commission is active in the community. They promoted the program through websites, flyers at City Hall and farmer's markets, and the City Manager's newsletters. The local newspaper also wrote an article to promote the grey water program.
- The Benicia Community Gardens Group did a fabulous job of marketing the program and received a grant to help develop backyard food forests and also to train local individuals how to install water systems. They hosted a number of workshops and had over 100 people registered and attend workshops. They gave all of the kits away and she learned to leverage existing programs and efforts through community outreach programs.
- The pilot program only had about 30 kits available and they had kits returned to them which were distributed to others.
- She said they estimate 75,000 gallons of water had been diverted to landscape as a result of installing 5 systems, which is significant.
- Lessons learned:
 - The installment was too complicated
 - People's laundry machine was downhill from the yard
 - Some installations involved landlord approval which could not be obtained
 - Verifying that the system was installed was difficult
 - Photos were hard to enforce
 - Even with the workshop and videos applicants felt overwhelmed by the installation and they could not find a contractor to install them.
 - People were frustrated and did not want to complete another energy and water assessment within the previous year and some waited until 3 years. The City wanted to make sure the assessment was current as behaviors change, leaks occur, appliances change, etc.
 - They offered programs on all water users, and in the future they might consider utilizing the data they have to identify users in Benicia that would benefit most from a gray water system.
- On a positive note, they knew most water use was outdoors, they had everybody complete a home energy and water assessment which helped to identify members to conserve, and the Benicia Community Gardens helped them generate continuing interest in the program, and they feel they can advocate to the water agency to expand the rebate and incentives.

Ms. Porteshawver provided her contact information and the Board applauded her for her presentation.

Board member O'Donnell said he is glad the program was taken on. He asked how the system could work and asked if the program addressed certain plumbing aspects and requirements.

Ms. Porteshawver said there must be 2 inches of depth wherever the water is going. Some people create basins around a tree and the water must be absorbed for no runoff and in practice, she thinks the only time they would know it was not properly installed was if the neighbor complained about runoff or recorded it.

Board member O'Donnell asked if landscape companies were approached, and Ms. Porteshawver said the problem was that it was cost-prohibitive for homeowners.

Chairperson Sears said the County of Marin is engaged in a partnership with the City of Mill Valley non-profit organization called, Water Now. The focus thus far in grey water was to have training sessions for local contractors so they build a database of installers. She thinks it would be daunting for most homeowners and one challenge is getting the resources for training.

Board member Butt asked what the kit consists of and what would it cost. Ms. Porteshawver said they have no kits left but the company charged \$90 each for them. People could also go to a local hardware store and she discussed the various pieces and said a Benicia local shop that has all components for sale.

Board member Butt asked if the program is limited to washing machines, and Ms. Porteshawver said yes, given their limited budget and non-requirement of a building permit.

Board member Small noted that if people tried to run gray water from sinks they would run into E.coli issues.

Board member Athas asked if detergent is filtered out and Chairperson Sears said she thinks detergent would have to be changed. Ms. Porteshawver said most solvents are not as potent and also because they are using water for non-medical plants and trees and it is okay. It also depends on the groundwater situation in the community. She did not require a certain detergent be used in the program, but she did encourage people to use eco-friendly laundry detergent.

Board member Athas said it sounds as if it is directly related to how much laundry one does, and suggested that if people really want to water their yard, they may need to do more laundry. Board member O'Donnell commented that he purchased a new washing machine which uses very little water. Ms. Porteshawver commented that she has talked to people who prefer to take a bucket in the shower and use this for their watering.

Chairperson Sears thanked Ms. Porteshawver for her presentation.

A. Schneider Electric Load Control

Ms. Weisz introduced the item, stating MCE has a number of pilot programs and one program launched early this year was to shift load and how they can adjust the usage in the residential customer sector and being able to use the load when it benefits the grid and when it benefits other customers. They have entered into a relationship with Schneider Electric and they will speak today about what they do, how the system works and how the pilot has been working to date.

Mike Matthews, Schneider Electric, said they are in partnership with MCE to deliver a pilot program and to investigate the practical way in which they can go out and do some in-home demand management. He said they try to help consumers manage demand at the right times and in the right way.

Mr. Matthews said he brought some of the in-home products and said he will give a PowerPoint presentation and review the how they partnered with MCE, what they are doing in homes and how they are interacting with consumers, how they are connecting with the consumer through multiple media mechanisms, provide a clear understanding why MCE and any energy provider cares about these types of programs, talk about building a smarter grid, and talk about results.

He said Schneider Electric is a global manufacturer of hardware, manage big utility infrastructure products and projects, they manage infrastructure software platforms that help how generation and load is used by the utility and by the consumer. They have approximately 150,000 employees with the focus being on utility infrastructure and he provided different percentages of their market place. He said the ultimate goal is to deliver the cheapest KW hour they can to end customers.

Mr. Matthews brought a demonstration of how products operate in the home and customers have control over products as well as MCE. Consumers can control equipment in their homes such as electric vehicles, HVAC systems, large appliances, and other devices. He explained how their gateway devices communicate data and sending it out to their servers and they process the data with their demand response platform where they can help the consumer change their consumption pattern for the devices they have control over. Consumers have their own interface such as apps on phones or via a web stream on their computer or adding more devices in their homes.

The reason this is important to MCE, it gives consumer the ability to automate controls that are available. It is a service available to customers of MCE. The goal is to reduce operational expense as there is a lot to manage peak power consumption, wholesale prices and this platform augments many options necessary around buying excess power that is needed at peak and also on the flipside, to take advantage of bringing load onto the grid and consuming more power at times.

As MCE becomes an aggregator of energy, and MCE is able to mimic what a power plant can do by turning power off and on when demand is needed which is valuable to the environment and to customers. They want to reduce peak usage, have a measurable amount of KW hours that is valuable to the grid, and at 100 KW this is a valuable generation as a goal to increase grid efficiency. There is also the opposite where the utility has too much generation and the utility can ask consumers to use more for those moments.

This is an innovative program and the goal is to be able to turn off the load very fast. There are many initiatives about how to manage load in real time and take advantage of customer load to make that grid more efficient.

MCE partnered with them and helped them deploy a pilot program which is just starting and which allows them to monitor use in real time. Their independent system operator manages flows for all of California utilities. They monitor the availability of electrons to the market through pricing markets, which typically means there are less electrons available and the demand is higher and people will pay more. When they see pricing go out of parameters of delivering inexpensive KW hours to consumers, they automate load controls. For the pilot purpose, they will be documenting the success of how the automation and trading of electrons is working for them.

Mr. Matthews said lastly, the pilot program will become the reality for broad utility use five years from now and they are cutting edge in developing this product. On the in-home side, how they engage consumers is changing radically day to day. They have to make sure they offer products such as Nest

thermostats that consumers want and are asking for and making sure they connect to the utility side of business which is evolving, and he ran a video regarding taking control of energy for consumers. He then ran through a demonstration of an in-home display and then took questions of the Board.

Rafael Silberblatt, Program Specialist, said he is working with Schneider Electric on the pilot program. He said staff will do a de-briefing on lessons learned once they get deeper into the pilot program. MCE has sent out mailers, made phone calls in an attempt to better understand what it takes to get people enrolled and keep them from opting out through incentives and effective messaging. They triggered their first event on Tuesday as a test and the pilot will give them a sense of what to expect in terms of people opting out so when they place a bid for resources, they will be able to meet that bid and not incur penalties.

Board member McCullough asked if there is a profile of homes for the target market, as many homes in Marin do not have air conditioning and he asked if they would be optimal for this type of pilot program. Mr. Matthews said generally yes, people who do not have A/C could participate, but they were also trying to obtain an understanding around pool pumps, electric hot water heaters and furnaces for the winter, targeting medium to high energy users. They focused mailers initially on Novato and Napa and Davis.

Board member Coler asked and confirmed that they have approximately 20 installations, but he noted there was a high attrition rate from those who registered to actually getting the installation scheduled and done. The goal initially was to get 70 devices installed and saw a much lower response rate than they had experienced in other areas, given the lack of A/C loads. Therefore, they are addressing this through more education and communications with customers.

Board member O'Donnell commented that people with heating and A/C systems can turn on and off their systems when they get home. Mr. Matthews admitted that the devices are not for all consumers but the offer is that those consumers are helping MCE understand how to make the grid more efficient because program pricing could change. Their benefit is that they get automated products in their home which add convenience. If they were interested in controlling any loads remotely or from their couch, they have the ability to access those applications, as well. He also said the devices and installation were free and it was more about who was willing to adopt the technology issue.

Board member Athas asked if consumers were not paying for the technology, and Mr. Matthews said for this pilot, it was free device, free installation plus a \$50 incentive which they started putting into place after the first wave of scheduled appointments. There will not be a fee for the pilot program, but in the future if they were bidding this as a resource, they would probably split the cost of the device with the customer. He said the historical way these are paid for is that the amount of energy controlled has significant value to the systems operator and whether they can take load off of the grid on a hot summer day.

Board member Athas said because it is web-based, she asked if there is a benefit where they are able to monitor the usage of the people who have the systems so they can get a handle on whether or not it is currently working. Mr. Matthews said they typically only do it in aggregate. They look at load usage in aggregate and typically do not care about any particular user unless they are asked to care. Usually that would be over a customer service issue. Or, if they do not have as much controllable load, they would be interested in who is not participating and why.

Board member Strawbridge asked if they had contacted Benicia, noting they have a very engaged community. Mr. Silberblatt said when they first began the program, Benicia was not yet an MCE member.

They were trying to get people also in geographically close proximity so the installer could go to one place to the next.

Board member Strawbridge also asked if the pilot program was only for residential customers or small businesses as well. Mr. Silberblatt said this pilot program is only for residential; however, they have a small commercial pilot underway.

Board member O'Donnell asked if the system allows customers to charge their EV at an optimal time during the evening when rates are lowest. Mr. Matthews said yes, and he said EV charging is probably the most complicated aspect of all of this because of the risk of leaving someone with not enough charge in the morning or if they have an emergency. In the future what will likely happen is they will pull electricity back and forth from the grid from the EV's so customers could charge the electricity from their car at one point during the day and have the flow go the other direction based on pricing signals.

Chairperson Sears thanked Mr. Matthews for his presentation and Mr. Silberblatt for his comments.

Ms. Weisz announced that some Board members may have received information that the Retreat is also occurring tomorrow, but it is not.

7. Unfinished Items - None

8. Adjournment

The Board of Directors adjourned the meeting at 3:02 p.m. to the Board Retreat on October 15, 2015.


Tom Butt, Vice Chair

Attest:


Dawn Weisz, Secretary

APPROVED

OCT 15 2015

MARIN CLEAN ENERGY