SUMMARY

This report identifies the pros and cons of joining the Marin Energy Authority as a strategy to reduce community greenhouse gas emissions in Albany.

STAFF RECOMMENDATION

That the Committee make a recommendation to Council to Authorize a letter to the Marin Energy Authority requesting consideration as a member.

BACKGROUND

The Albany Climate Action Plan (CAP), adopted in 2010, identifies Community Choice Aggregation (CCA) as a key measure for reducing greenhouse gas emissions. The Sustainability Committee has been asked to explore various options for increased use of renewable energy, including CCA. Unlike a municipal utility, a CCA does not own the transmission and delivery systems, but is responsible for purchasing electricity used by residents and businesses. Joining the CCA would allow the City to reduce electricity-related GHG emissions by selecting an electricity-supply portfolio that utilizes more GHG-free energy sources than the current PG&E portfolio.

The Albany City Council’s Strategic Vision, adopted in the spring of 2013, identifies investigating a CCA as a strategic priority of the City. On March 20, 2013, Albany’s Sustainability Committee made a recommendation to the City Council to consider next steps to move toward applying to join the Marin Energy Authority.

DISCUSSION

Marin County launched the first CCA in California in May 2010. It is operated by a Joint Powers Authority called the Marin Energy Authority (MEA), which is comprised of all cities in Marin County and the City of Richmond. MEA administers the CCA program, coined Marin Clean Energy (MCE). MCE currently serves over 124,000 customers.

The mission of MEA is to address climate change by reducing energy related greenhouse gas emissions, while securing energy supply, price stability, energy efficiencies and local economic and workforce benefits. It is the intent of MEA to promote the development and use of a wide range of renewable energy sources and energy efficiency programs, including but not limited to solar and wind energy production at competitive rates for customers.

MEA is financed by the revenues received from customers based on the electricity they consume and does not utilize tax dollars. A discussion of the pros and cons of MEA’s program are outlined below.
Strengths

1. Customer Choice

Joining MEA would provide Albany residents with more electricity options and allow them to take control of how renewable their energy supply is. Residents would always have the option of staying with PG&E if they desired. The three options that would be provided to residents if Albany were to join MEA include:

- **Enroll in MCE’s Light Green Option: 50% Renewable Energy**
  The Light Green product provides electric service that has a greater penetration of California Certified renewable resources (50%) than PG&E (19%). That is more than twice the amount of renewable energy available from PG&E. MCE contends that this energy supply option is cost-competitive with PG&E’s retail rates (see rate comparisons below). If Albany joins MEA, residents will automatically receive this service unless they opt out or enroll in the Deep Green service.

- **Enroll in MCE’s Deep Green Option: 100% Renewable Energy**
  The Deep Green product allows customers to purchase all of their power from renewable sources. Deep Green is a voluntary program that provides 100% California Certified renewable resources for a $0.01 per kWh surcharge on top of the charges for the Light Green product. For the average Marin residential electric customer, the additional cost for Deep Green is $5.40 per month. Since October 2012, MCE’s Deep Green customer base has increased by 42%. Overall Deep Green enrollment is about 1.5%, but those customers represent about 3.5% of MCE’s total electricity usage because the majority of Deep Green customers are commercial accounts. One community within MCE’s service area has a Deep Green enrollment rate of 3.84%.

- **Opt Out of MCE Programs: Continue with PG&E’s 19% Renewable Energy**
  Residents in MCE’s service area may also opt out of MCE and continue to purchase PG&E’s energy supply which is 19% renewable. Three notices, with instructions for how to opt out, are mailed to customers before automatic enrollment. The first notice is sent approximately 3 months prior to enrollment. If a customer does not opt out, two additional notices are sent within the first two months after enrollment. Once a customer is enrolled they have 60 days from the start of service with MCE to opt out without any terms or conditions. If they opt out after 60 days of service with MCE, a one-time $5 (residential) or $25 (commercial) opt out fee is applied and they will not be allowed to return to MCE for one year. A customer can request to opt out at any time, but their account can only be switched to MCE (or PG&E) on their regularly scheduled monthly meter read date. New customers are automatically enrolled in MCE, provided two notices with information about opting out, and given 60 days to opt out for free.

MCE currently has a 23% opt out rate, which is evenly split between commercial and residential customers. Richmond has the lowest opt out rate, at 15%. MCE staff believes that rate is lower because of how they conducted their outreach efforts in Richmond and because customers were recently enrolled (July 2013).
2. Low-Income Options and Competitive Rates

In Marin’s model, PG&E’s special programs, such as tiered pricing, senior, low-income (CARE), and disabled programs are still available to customers. These discounts are the same for PG&E and MCE customers.

Light Green power customers are currently purchasing a cleaner product and paying rates that are similar to PG&E’s. In fact, most of MCE’s residential and commercial rates are lower than PG&E’s. However, a full cost comparison must also include PG&E’s Power Charge Indifference Adjustment (PCIA) and Franchise Fee (FF) which are added to MCE customer bills.

### 2013 Residential Electric Rate Comparison, E-1 and RES-1

<table>
<thead>
<tr>
<th></th>
<th>PG&amp;E</th>
<th>MCE Light Green 50% Renewable Energy</th>
<th>MCE Deep Green 100% Renewable Energy</th>
</tr>
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<tbody>
<tr>
<td>Generation Rate ($/kWh)</td>
<td>$0.07884</td>
<td>$0.07400</td>
<td>$0.08400</td>
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<tr>
<td>PG&amp;E Delivery Rate ($/kWh)</td>
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<tr>
<td>PG&amp;E PCIA/FF ($/kWh)</td>
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<tr>
<td>Total Electricity Cost ($/kWh)</td>
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<td>$0.21315</td>
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<tr>
<td>Average Monthly Bill ($)</td>
<td>$102.26</td>
<td>$103.17</td>
<td>$108.25</td>
</tr>
</tbody>
</table>

Rates are current as of October 15, 2013 and are based on an average monthly usage of 508 kWh. Average monthly usage in Albany is 330 kWh for single family dwellings and 230 kWh for multi-family dwellings.

### 2013 Commercial Electric Rate Comparison, A-1 and COM-1 Non-TOU

<table>
<thead>
<tr>
<th></th>
<th>PG&amp;E</th>
<th>MCE Light Green 50% Renewable Energy</th>
<th>MCE Deep Green 100% Renewable Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation Rate ($/kWh)</td>
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<td>PG&amp;E Delivery Rate ($/kWh)</td>
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<tr>
<td>PG&amp;E PCIA/FF ($/kWh)</td>
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<tr>
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<tr>
<td>Average Monthly Bill ($)</td>
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</tr>
</tbody>
</table>

Rates are current as of October 15, 2013 and are based on an average monthly usage of 1,182 kWh.
3. **Renewable Incentive Programs**

MCE has entered into 17 different contracts for power supply to-date for solar, wind, geothermal and landfill waste to energy, most of which are long term contracts of 20 years or more. All of MCE’s long-term contracts are for California-based renewable energy supply.

MCE also offers the programs outlined below:

- **Favorable Solar Net Energy Metering Rates**
  Any MCE customer with a distributed generation system of less than 1,000 kilowatts is eligible for MCE’s Net Energy Metering Program, whereby a credit is generated for excess energy produced at retail rates. This is one of the best net energy metering rates in California because of the bonuses offered by MCE. MCE credits customers the retail rate plus an additional penny per kilowatt-hour for any excess power that is generated. MCE also provides a $4 bonus credit for any month that solar generation exceeds building usage and credits never zero out. Over 2,500 customers currently participate in this program, representing 5.7 MW of local renewable generating capacity. MEA plans to increase total NEM generating capacity within the service area to 20 MW by 2021.

- **Feed-In Tariff Program**
  In order to spur the development of additional local supply of renewable energy, MEA allows owners and developers of eligible renewable energy projects located in the MCE service area to become wholesale suppliers to MEA.

  The largest solar project in Marin County, 972 kilowatts, was built last year at the San Rafael Airport under MEA’s Feed-In Tariff program.

- **Investments in Local Renewables**
  MEA is planning to add 10 MW of distributed solar photo-voltaic generation within the service area by 2021. The MEA Board of Directors approved a Deep Green Local Development Fund earlier this year allocating 50% of the revenue generated from Deep Green to the development of local renewable projects. MEA is currently looking at the Port of Richmond for the first project to be built through the Deep Green Local Development Fund. If Albany were to join MEA, there would be opportunities for initiating MCE-owned solar projects in Albany.

  MEA is also in the process of building a 1 megawatt solar-shaded parking structure in Novato, as the result of a contract with EDF Renewables.

- **Additional Solar Rebates**
  MCE offers rebates that are in addition to rebates available from PG&E or other programs. In 2011, MCE provided $10,000 in solar rebates to its customers and has allocated another $10,000 in the current budget for additional solar rebates.
4. Energy Efficiency Programs

Albany residents currently have access to a variety of energy efficiency programs through PG&E, East Bay Energy Watch (EBEW), and the Alameda County Energy Council JPA. Residents would still have access to these programs, and joining MEA would provide more substantial opportunities for energy efficiency upgrades and rebates. All of MCE’s programs, except the financing program, are available to all customers in the MCE service area (whether or not they’ve opted out of MCE). The financing program is currently only available to MCE customers.

MCE has launched a $4.1 million energy efficiency program focused on energy audits and retrofits in multifamily buildings, small commercial and residential energy efficiency, and an on-bill repayment program that will help building owners with the up-front cost of deeper energy retrofits that will produce savings long into the future.

There are three separate energy saving programs available for multifamily, small commercial and single family property owners. Key details of each program are detailed below.

- **Multifamily Programs:**
  - No cost building energy assessments
  - No cost energy and water saving product installations for tenant units
  - No cost technical assistance to develop project plan and solicit bids
  - Rebates that average 25% of project costs and as high as 60%
  - Post-project quality assurance & minimum 1 year warranty from contractors

- **Small Commercial Programs:**
  - Free no-obligation energy evaluation
  - Incentives covering up to 100% of the cost of the measure (with an average of 40%) and paid directly to contractor to help defray out-of-pocket costs
  - Negotiated discounts with qualified installation contractors
  - Free start-to-finish project management
  - Post-project quality assurance & minimum 1 year warranty from contractors

- **Single Family Programs:**
  - For single family property owners, MCE has created an interactive web tool that can be used to develop a personalized action plan for saving money and energy based on your home.

MCE also offers a ‘Green Home Loan’ program for single-family, small commercial, and multifamily property buildings to alleviate the up-front cost of any home improvement projects or HVAC appliance replacements. MCE customers can take out a loan to pay for the project and pay it off on their PG&E bill.

5. Strong Portfolio

Electric utility companies such as PG&E are mandated by the State to provide 20% renewable energy currently, and 33% by 2020. PG&E’s power generation mix is currently at 19%. CCAs are bound to these same requirements. MCE was about 60% GHG-free (which includes large hydro) in 2012. PG&E was 51% (which includes nuclear and large hydro). MCE’s total power mix was 78.7% GHG free in 2012 (when you combine Light Green and Deep Green). Please see the 2012 power generation mix below.
The renewable percentage of the Light Green mix has steadily increased since they launched, from 27% renewable in 2010, 33% in 2011, and 53% in 2012. The Deep Green mix is made up entirely of wind because it has been verified by Green-e.

6. Established Program

MCE is the only fully-operating CCA in California and has been running a successful program since 2010. It has acquired all cities in Marin as well as the City of Richmond.

While coalitions of several larger cities and special districts in the East Bay have investigated forming a CCA, their efforts have been stymied due to the financial risks associated with starting a CCA from scratch. Thus, the fate of forming a new East Bay CCA is uncertain and is certainly not an option for the foreseeable future. Joining an existing CCA is the most viable way to provide CCA services for Albany residents.
7. Expansion Policy

At its Board Retreat on September 25, 2013, MEA voted to expand services to nearby communities with populations under 40,000 (see Attachment 1). This means that small, nearby cities can be fast-tracked into the CCA after a feasibility study is completed and both the MEA Board and the City’s governing board have voted to approve CCA membership.

MEA made this decision based on an analysis indicating that careful expansion to smaller communities also helps strengthen their CCA. Benefits to MEA include:

- Greater reductions in energy-related greenhouse gas emissions through increased renewable energy development and energy efficiency programs;
- Greater scale efficiencies can reduce program costs and help reduce customer rates, with an estimated 2%-3% rate reduction from 20% load growth and a 5%-8% reduction from 100% load growth;
- Growth through expansion offsets customer attrition that might otherwise result in a cycle of slow decline; and
- Expansion can enhance MEA’s credit standing, as continuing customer/member growth signals health and competitive success.

The Cities of Albany, El Cerrito and San Pablo are poised to join the City of Richmond in becoming part of a corridor of East Bay MEA members.

8. MCE Outreach Programs

MCE offers excellent outreach programs. While rolling the program out in Richmond, they participated in about 100 community events and meetings.

9. Support of Community Programs and Projects

As a not-for-profit public agency with no shareholder profits or dividends to pay, a portion of the rates that customers pay on their MCE bill are re-directed to local projects and programs within the service area. Examples include funding for the installation of 5 electric vehicle charging stations in Marin County and support and sponsorship of other nonprofits.

10. MCE Outreach Programs

MCE offers excellent outreach programs. While rolling the program out in Richmond, they conducted an extensive community outreach plan including organizing sponsorships and presentations to Richmond’s neighborhood councils, community groups, and business organizations, convening a community leader advisory group, and launching a public information and advertising campaign featuring local residents and businesses. In the last ten months MCE has participated in more than 100 community events and meetings.

Considerations

1. Use of Renewable Energy Certificates (RECs)

When a renewable energy facility operates, it creates electricity that is delivered into a vast network of transmission wires, often referred to as “the grid.” The grid is segmented into regional power pools; in many cases these pools are not interconnected. To help facilitate the sale of renewable electricity nationally, a standard industry-wide system has been established that separates all renewable electricity generation into two parts: the electricity or electrical energy produced by a renewable generator and the
renewable “attributes” of that generation. The renewable attributes or “green” attributes may be sold separately as RECs. Only one certificate may be issued for each one megawatt-hour of renewable electricity produced. The electricity that was split from the REC is no longer considered "renewable" and cannot be counted as renewable or zero-emissions by whoever buys it.

All renewable electricity may be purchased as ‘bundled’ or ‘unbundled’. Bundled electricity includes the REC and the electricity. Unbundled electricity includes either only the electricity or only the REC.

MEA purchases unbundled RECs from specific projects to supplement their bundled purchases. MEA’s purchase of unbundled RECs helps offset conventional electricity generation in the region where the renewable generator is located and helps build a market for renewable electricity by promoting renewable project development in line with MEA’s mission. RECs, which have been endorsed by the U.S. Environmental Protection Agency, are also an integral element of affordable, voluntary green pricing programs, keeping costs competitive.

In 2011, MCE’s Light Green product included 23% unbundled RECs and the Deep Green product included 80% unbundled RECs. In 2012, 22% of all of MCE’s total power supply (Deep Green and Light Green) was unbundled RECs. They expect that to decrease just slightly to 21% in 2013. RECs allow MCE to support renewable energy development and protect the environment when green power products are not locally available. The goal is to reduce the use of RECs over time as they establish more renewable projects. It is worth noting that PG&E also uses unbundled RECs.

2. Contracts

There has been concern about MEA’s contract with Shell Energy North America (SENA) because of its association with the petroleum industry giant and its history of human right violations. SENA will also be the sole provider of power for San Francisco’s new CCA. The initial decision to contract with Shell was done thoughtfully, and MCE had been satisfied with the contract. The short-term contract with SENA served as a bridge contract to act as a broker for clean energy while new power sources could be built to serve MCE customers. The contract with SENA is currently tapering off and is scheduled to expire in 2017. As MEA prepares to transition to other suppliers, contracts with 10 other suppliers for 17 different power projects have been executed. PG&E also contracts with Shell Energy North America.

MCE also committed to a long-term natural gas contract before the price dropped, which affects their customer rates. All long term contracts are for California renewables.

3. Greenhouse Gas Emissions (GHGs)

MCE’s electric power generation mix (shown above) has more renewable power and more GHG-free sources than PG&E offers. An emissions comparison to PG&E is outlined below.

### 2011 Total CO₂ Emissions from Electricity Sales per Megawatt-Hour**

<table>
<thead>
<tr>
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<th>PG&amp;E</th>
<th>MCE Light Green</th>
<th>MCE Deep Green</th>
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<tbody>
<tr>
<td>393 pounds</td>
<td>389 pounds</td>
<td>0 pounds</td>
<td></td>
</tr>
</tbody>
</table>

**The CO₂ emission rates reflect the energy generation purchased by an energy provider. For the purposes of this chart, renewable energy, hydroelectric and nuclear resources have been considered GHG-free.
Concerns have been raised regarding MCE’s emissions factor in comparison to PG&E’s. A comparison of these two emissions factors is outlined in the attached email exchange (Attachment 2). MEA has provided an analysis of the potential greenhouse gas emissions savings for Albany, which notes that aside from a slightly reduced emissions factor, MEA also offers programs in line with CAP measures that could help reduce overall greenhouse gas emissions in Albany (see Attachment 3). The City of Richmond conducted an analysis of potential greenhouse gas reductions when choosing to join MEA. An excerpt from a Richmond staff report outlining this analysis is attached (Attachment 4).

4. Governance

It is important to determine how the City will be represented on the Marin Energy Authority’s Board and whether it will be able to represent the interests and values of our citizens among 13 other jurisdictions in Marin and Richmond. The MEA Board voted to allow expansion, but is still deciding on the ‘affiliate member’ definition and how voting will work. A subcommittee is discussing the following possibilities:

1. Affiliate members will receive full voting rights, as do all current member agencies.
2. Affiliate members will receive limited voting rights. They are considering having one board member represent all affiliate members in each county.
3. Affiliate members have no representation on the Board.

The JPA agreement allows cities to withdraw from the JPA with six months notice.

FINANCIAL IMPACT

The Marin Energy Authority JPA protects individual cities and the County from financial liability. MCE is financed by the revenues received from customers based on the electricity they consume. MCE is self-funded and does not use any tax dollars or public funds.

A load analysis of approximately $20,000 will be necessary to determine the feasibility of joining MEA. MEA will also require a contract for staff time required before Albany joins. Another $1,000 would be required to obtain load data from PG&E. The City of Richmond paid for their feasibility studies through a bond, but expects to recover the total cost within the first year of service due to the reduced commercial energy rates offered by MCE.

Albany submitted a joint grant application to the World Wildlife Fund for $30,000 ($15,000 each) with the City of El Cerrito to help pay for the membership analysis. Grants will be awarded in March 2014.

NEXT STEPS

In order to be considered for affiliate membership, the City Council needs to submit a letter to MEA. Staff will evaluate the request timing to determine if internal resources are available to consider the request. If resources are available, staff will authorize a contract with the City to conduct a membership analysis. (See Attachment 1 for a full outline of the affiliate membership process). Next steps for City staff include securing funding, obtaining load data, and working with MCE staff on outreach.

MEA has already received a letter from the County of Napa Board of Supervisors asking permission for membership and to begin the technical studies. It is likely that staff will bring this request, and any others they receive, to the Board on December 5. MCE staff estimate that it will take about 18 months from the time of initial studies to customer enrollment.
Attachments
1. MCE Expansion Policy & Affiliate Membership Process
2. GHG Email Exchange
3. MCE GHG Report
4. Richmond SR 5-15-2012 Excerpt
5. Options for Community Renewable Energy in Albany
6. CCA Staff Report 2-20-2013
7. MCE Brochure