BENICIA CITY COUNCIL
REGULAR MEETING AGENDA

City Council Chambers
November 04, 2014
8:00 PM

Times set forth for the agenda items are estimates.
Items may be heard before or after the times designated.

I. CALL TO ORDER (8:00 PM):

II. CLOSED SESSION:

III. CONVENE OPEN SESSION:

A. ROLL CALL.

B. PLEDGE OF ALLEGIANCE.

C. REFERENCE TO THE FUNDAMENTAL RIGHTS OF THE PUBLIC.

A plaque stating the fundamental rights of each member of the public is posted at the entrance to this meeting room per section 4.04.030 of the City of Benicia's Open Government Ordinance.

IV. ANNOUNCEMENTS/PROCLAMATIONS/APPOINTMENTS/PRESENTATIONS:

A. ANNOUNCEMENTS.

1. Announcement of action taken at Closed Session, if any.

2. Openings on Boards and Commissions:

Arts and Culture Commission
1 unexpired term
open until filled

Human Services Board
1 unexpired term
open until filled

3. **Mayor's Office Hours:**
   Mayor Patterson will maintain an open office every Monday (except holidays) in the Mayor's Office of City Hall from 6:00 p.m. to 7:00 p.m. No appointment is necessary. Other meeting times may be scheduled through the City Hall office at 746-4200.

B. PROCLAMATIONS.

1. **In Recognition of Lifetime Achievement Award in the Arts for Manuel Neri**

2. **In Recognition of Lifetime Achievement Award in the Arts for Robert Arneson**

C. APPOINTMENTS.

1. **Reappointment of John McGuire to the Parks, Recreation and Cemetery Commission for a full term ending July 31, 2018**

2. **Reappointment of Kari Birdseye to the Human Services Board for a full term ending July 31, 2018**

D. PRESENTATIONS.

V. ADOPTION OF AGENDA:

VI. OPPORTUNITY FOR PUBLIC COMMENT:

This portion of the meeting is reserved for persons wishing to address the Council on any matter not on the agenda that is within the subject matter jurisdiction of the City Council. State law prohibits the City Council from responding to or acting upon matters not listed on the agenda. Each speaker has a maximum of five minutes for public comment. If others have already expressed your position, you may simply indicate that you agree with a previous speaker. If appropriate, a spokesperson may present the views of your entire group. Speakers may not make personal attacks on council members, staff or members of the public, or make comments which are slanderous or which may invade an individual's personal privacy.

A. WRITTEN COMMENT.

B. PUBLIC COMMENT.

VII. CONSENT CALENDAR (8:15 PM):

Items listed on the Consent Calendar are considered routine and will be enacted, approved or adopted by one motion unless a request for removal or explanation is received from a Council Member, staff or member of the public. Items removed from the Consent Calendar shall be considered immediately following the adoption of the Consent Calendar.

A. APPROVAL OF THE MINUTES OF THE OCTOBER 21, 2014 CITY COUNCIL MEETING. (City Clerk)

B. ACCEPTANCE OF THE GRANT DEED FOR THE BENICIA BUS HUB PROPERTY. (City Attorney)

The acquisition of the property for the Benicia Bus Hub project is nearly complete. Unfortunately, the authorization to accept the deed and to record it was omitted from previous Council reports. This action allows the City to accept the deed and have it recorded.

Recommendation: Approving the grant deed for the Benicia Bus Hub property and authorizing the City Manager to accept the grant deed on behalf of the City and to execute all necessary documents to record the deed and complete the acquisition of the property.

C. Approval to waive the reading of all ordinances introduced and adopted pursuant to this agenda.

VIII. BUSINESS ITEMS (8:30 PM):

A. MCE MEMBERSHIP - INDEPENDENT ANALYSIS AND OPPORTUNITY TO JOIN. (Community Development Director)

On October 7, 2014, the City Council directed staff to schedule a Community Sustainability Commission (CSC) special meeting and request that the CSC make a recommendation to allocate additional Valero Good Neighbor Steering Committee Settlement Agreement funds to fund the cost of independent analyses of the Marin Clean Energy (MCE) Membership Analysis. On October 14, 2014, the CSC held a special meeting and recommended that $30,000 be allocated to cover the costs of the analyses. The analyses were completed on October 29, 2014. After reviewing the findings, staff is requesting Council determine whether they wish to take official action to join MCE by passing an ordinance approving the MCE Joint Powers Agreement and authorizing the implementation of a CCA program.

Recommendation: Review independent analysis prepared by MRW & Associates and Davis Wright Tremaine, LLP and assess the risks and benefits of joining MCE. Based on that assessment, either:
(1) (a) introduce the ordinance approving the Marin Clean Energy (MCE) Joint Powers Agreement and authorizing the implementation of a Community Choice Aggregation (CCA) program and (b) adopt the resolution, or
(2) do not authorize joining MCE, or
(3) determine additional information is needed and continue the matter to the City Council's November 18, 2014 meeting.

IX. ADJOURNMENT (9:30 PM):

Public Participation

The Benicia City Council welcomes public participation.

Pursuant to the Brown Act, each public agency must provide the public with an opportunity to speak on any matter within the subject matter jurisdiction of the agency and which is not on the agency's agenda for that meeting. The City Council allows speakers to speak on non-agendized matters under public comment, and on agendized items at the time the agenda item is addressed at the meeting. Comments are limited to no more than five minutes per speaker. By law, no action may be taken on any item raised during the public comment period although informational answers to questions may be given and matters may be referred to staff for placement on a future agenda of the City Council.

Should you have material you wish to enter into the record, please submit it to the City Manager.

Disabled Access or Special Needs

In compliance with the Americans with Disabilities Act (ADA) and to accommodate any special needs, if you need special assistance to participate in this meeting, please contact Anne Cardwell, the ADA Coordinator, at (707) 746-4211. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to the meeting.

Meeting Procedures

All items listed on this agenda are for Council discussion and/or action. In accordance with the Brown Act, each item is listed and includes, where appropriate, further description of the item and/or a recommended action. The posting of a recommended

action does not limit, or necessarily indicate, what action may be taken by the City Council.

Pursuant to Government Code Section 65009, if you challenge a decision of the City Council in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City Council at, or prior to, the public hearing. You may also be limited by the ninety (90) day statute of limitations in which to challenge in court certain administrative decisions and orders (Code of Civil Procedure 1094.6) to file and serve a petition for administrative writ of mandate challenging any final City decisions regarding planning or zoning.

The decision of the City Council is final as of the date of its decision unless judicial review is initiated pursuant to California Code of Civil Procedures Section 1094.5. Any such petition for judicial review is subject to the provisions of California Code of Civil Procedure Section 1094.6.

Public Records

The agenda packet for this meeting is available at the City Manager's Office and the Benicia Public Library during regular working hours. To the extent feasible, the packet is also available on the City's web page at www.ci.benicia.ca.us under the heading "Agendas and Minutes." Public records related to an open session agenda item that are distributed after the agenda packet is prepared are available before the meeting at the City Manager's Office located at 250 East L Street, Benicia, or at the meeting held in the Council Chambers. If you wish to submit written information on an agenda item, please submit to the City Clerk as soon as possible so that it may be distributed to the City Council. A complete proceeding of each meeting is also recorded and available through the City Clerk’s Office.

PROCLAMATION

LIFETIME ACHIEVEMENT AWARD
MANUEL NERI

WHEREAS, Manuel Neri became a resident of Benicia in 1964; and

WHEREAS, he taught sculpture and ceramics at the California School of Fine Arts from 1959–1965 and was on the faculty of the University of California, Davis, from 1965-1990; and

WHEREAS, he has created art work in many forms with his primary medium being sculpture, marble or bronze and has also written books with Mary Julia Klimenko, a poet and his model; and

WHEREAS, he is recognized as a pioneer of the 1960's San Francisco Figurative Art Movement; and

WHEREAS, he is noted for his life-size sculptures, which though clearly figurative in nature, are abstracted figures rather than realist representations; and

WHEREAS, he was a 2006 recipient of the International Sculpture Center's Lifetime Achievement in Contemporary Sculpture Award; and

WHEREAS, his works are in the Corcoran Gallery of Art, Neuberger Museum of Art, Oakland Museum of California, di Rosa, San Francisco Museum of Modern Art, Whitney Museum of American Art, R.L. Nelson Gallery at UC Davis, and the White House Rose Garden; and

WHEREAS, sculpture provides a unique, vital contribution to society and enhances and enriches the lives of all.

NOW, THEREFORE, BE IT RESOLVED THAT I, Elizabeth Patterson, Mayor of the City of Benicia on behalf of the City Council, do hereby present this Lifetime Achievement Award in the Arts to Manuel Neri in celebration of his great contribution to contemporary sculpture.

_____
Elizabeth Patterson,
November 4, 2014

PROCLAMATION

LIFETIME ACHIEVEMENT AWARD
ROBERT ARNESON

WHEREAS, Robert Arneson was born and raised in Benicia in 1930; and

WHEREAS, Arneson attended Marin Junior College and the California College of Arts and Crafts and later became a high school art teacher. It was during this period that he developed his love of ceramics and returned to Mills College, completing a master of arts degree in 1958; and

WHEREAS, his work transitioned from pottery to sculpture and in 1962, he was asked to join the faculty at the University of California at Davis, where he was named Faculty Research Lecturer at UC Davis shortly prior to his retirement in 1991; and

WHEREAS, Arneson is considered the father of the ceramic Funk Art movement, which is inspired by popular culture and uses an unlikely mixture of materials and techniques; and

WHEREAS, it was in Benicia that he developed the self-portraits, portraits, and later political work that he is internationally known for. His work consists of sculpture in clay and bronze, as well as paintings, drawings, and prints; and

WHEREAS, Arneson's fame is far-reaching, and his works can be found in public and private collections around the world, including the Museum of Modern Art, New York; Whitney Museum of Art, New York; Hirshhorn Museum of the Smithsonian Institution; and in museums across America and Internationally.

NOW, THEREFORE, BE IT RESOLVED THAT I, Elizabeth Patterson, Mayor of the City of Benicia on behalf of the City Council, do hereby present this Lifetime Achievement Award to Robert Arneson in celebration of his great contribution in the area of funk art.

_____
Elizabeth Patterson,
November 4, 2014

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BENICIA CONFIRMING THE MAYOR'S REAPPOINTMENT OF JOHN MCGUIRE TO THE BENICIA PARKS, RECREATION AND CEMETERY COMMISSION FOR A FOUR YEAR TERM ENDING JULY 31, 2018

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Benicia that the reappointment of John McGuire to the Benicia Parks, Recreation & Cemetery Commission by Mayor Patterson is hereby confirmed.

*****

The above Resolution was approved by roll call by the City Council of the City of Benicia at a regular meeting of said Council held on the 4th day of November 2014 and adopted by the following vote:

Ayes:

Noes:

Absent:

_____
Elizabeth Patterson, Mayor

Attest:

_____
Lisa Wolfe, City Clerk

_____
Date

Date Received

SEP 25 2014

CITY CLERK'S OFFICE
CITY OF BENICIA

City of Benicia Board/Commission/Committee Application

It is the intent of the City Council to have Boards, Commissions or Committees composed of people from all geographical, social, environmental and economic sectors of the community and to avoid potential conflicts of interest.

Please check the board, commission, or committee you wish to apply for:

- ☐ Arts and Culture Commission
- ☐ Benicia Housing Authority Board of Commissioners
- ☐ Board of Library Trustees
- ☐ Civil Service Commission
- ☐ Economic Development Board
- ☐ Finance, Audit & Budget Committee
- ☐ Historic Preservation Review Commission
- ☐ Human Services & Arts Board
- ☐ Open Government Commission
- ☐ Parks, Recreation & Cemetery Commission
- ☐ Planning Commission
- ☐ Sustainability Commission
- ☐ Sky Valley Open Space Committee
- ☐ Uniform Code Board of Appeals

Name: John McGuire

Address: [redacted] Lumbeck Ct

Phone: (Work) [redacted] (Home) [redacted]

(Cell) [redacted] Fax: —

Email: [redacted] Years as Benicia resident: 28

Occupation/Employer: Self

Please note your most recent community or civic volunteer experience:

PRC Commissioner for past 9 years

Please describe any applicable experience/training: 9 yrs as PRC Commission member

All applications are considered public records and will be retained in an active file for at least one year from date of receipt.

Signature: [signature] Date: 9/15/24

Parks, Recreation, and Cemetery Commission Application

In addition to completing the City of Benicia Board/Commission/Committee Application form, please respond to the following questions:

1. The Parks, Recreation, and Cemetery Commission is responsible for working closely with the Parks and Community Services Department to direct the City as effectively as possible on behalf of parks, cemeteries and recreational activities. What interests you about serving on the Parks, Recreation, and Cemetery Commission and participating in the work of the commission? Please describe your familiarity with the Commission.

   Have been a member of the commission for the past 9 years

2. Please list current and past volunteer positions.

   PRC

3. Responsibilities of being a Board member includes attending monthly Parks, Recreation, and Cemetery meetings, attending special events, and occasionally appearing at City Council meetings. Further, there are often subcommittees of the commission that will require additional meetings during the month. Do you feel you have the time and commitment to be able to consistently attend these meetings and events?

   Have been doing so for 9 yrs

4. If you could achieve one goal during your term as a Parks, Recreation, and Cemetery Commissioner, what would it be?

   improve park maintenance while working to staff & funding & water shortages

5. Is there anything else you would like to share with us regarding your qualifications and/or interests?

   —

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BENICIA CONFIRMING THE MAYOR'S REAPPOINTMENT OF KARI BIRDSEYE TO THE BENICIA HUMAN SERVICES BOARD FOR A FOUR YEAR TERM ENDING JULY 31, 2018

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Benicia that the reappointment of Kari Birdseye to the Benicia Human Services Board by Mayor Patterson is hereby confirmed.

*****

The above Resolution was approved by roll call by the City Council of the City of Benicia at a regular meeting of said Council held on the 4th day of November 2014 and adopted by the following vote:

Ayes:

Noes:

Absent:

_____
Elizabeth Patterson, Mayor

Attest:

_____
Lisa Wolfe, City Clerk

_____
Date

Date Received

SEP 2014

CITY CLERK'S OFFICE
CITY OF BENICIA

City of Benicia Board/Commission/Committee Application

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Please check the board, commission, or committee you wish to apply for:

- ☐ Arts and Culture Commission
- ☐ Benicia Housing Authority Board of Commissioners
- ☐ Board of Library Trustees
- ☐ Civil Service Commission
- ☐ Economic Development Board
- ☐ Finance, Audit & Budget Committee
- ☐ Historic Preservation Review Commission
- ☒ Human Services Board
- ☐ Open Government Commission
- ☐ Parks, Recreation & Cemetery Commission
- ☐ Planning Commission
- ☐ Sustainability Commission
- ☐ Sky Valley Open Space Committee
- ☐ Uniform Code Board of Appeals

RECEIVED
SEP 10
CITY CLERK'S OFFICE
CITY OF BENICIA

Name: Kari Birdseye

Address: [redacted] CA 94510

Phone: (Work) [redacted] (Home) [redacted]

(Cell) [redacted] Fax: —

Email: [redacted] Years as Benicia resident: 14

Occupation/Employer: not Earthjustice - Campaign Manager

Please note your most recent community or civic volunteer experience:

HSB Board, Benicia Stingrays Board President, Matthew Turner PTA Board president

Please describe any applicable experience/training: professional volunteer,

Communications professional, former journalist,

All applications are considered public records and will be retained in an active file for at least one year from date of receipt.

Signature: Kari Birdseye Date: 9.8.14

Human Services Board Application

In addition to completing the City of Benicia Board/Commission/Committee Application form, please respond to the following questions:

1. What interests you about this Board? Have you attended a Human Services Board meeting? If so, when?

I have served on this Board for the past two years, and have found the experience to be Rewarding because of the priority placed on the disadvantaged citizens of our town.

2. Participation on this Board involves annual visits to an assigned grantee and attending outreach events, as well as review of grantee quarterly reports. Do you feel you have the time and commitment to be a viable member of this Board?

I performed a site visit, wrote the Report and regularly volunteer for outreach opportunities such as the farmers market & parades.

3. Is there a particular segment of human services and/or arts that interests you more than others?

Learning more about our community and city government interests me most.

4. Why do you think human services needs to play a lead role in fortifying the quality of life in Benicia? Do you see an area of human services that needs to be expanded at this point?

Working with a talented team of Board members, I have found that thorough examination of the needs of our community has help direct Resources to where they are needed most. As needs arise, I have confidence that the HSB will make sound decisions addressing issues that would benefit from the HSB attention.

MINUTES OF THE
REGULAR MEETING – CITY COUNCIL
October 21, 2014

City Council Chambers, City Hall, 250 East L Street, complete proceedings of which are recorded on tape.

I. CALL TO ORDER:

Mayor Patterson called the Closed Session to order at 6:00 p.m.

All Council Members were present.

II. CLOSED SESSION:

A. CONFERENCE WITH LABOR NEGOTIATOR
(Government Code Section 54957.6 (a))
Agency negotiators: City Manager, Assistant City Manager and Senior Analyst
Employee organizations: Police Management and Benicia Public Service Employees Association (BPSEA) Part-time

B. CONFERENCE WITH LEGAL COUNSEL - EXISTING LITIGATION
(Subdivision (a) of Government Code Section 54956.9)
Name of Cases: Sipple v. City of Alameda

C. CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION
Significant exposure to litigation pursuant to subdivision (b) of Section 54956.9
Number of potential cases: One (1)

III. CONVENE OPEN SESSION:

Mayor Patterson called the Open Session to order at 7:09 p.m.

A. ROLL CALL

All Council Members were present.

Vice Mayor Campbell arrived at 7:10 p.m.

B. PLEDGE OF ALLEGIANCE

Mayor Patterson led the Pledge of Allegiance.

C. REFERENCE TO THE FUNDAMENTAL RIGHTS OF PUBLIC

IV. ANNOUNCEMENTS/PROCLAMATIONS/ APPOINTMENTS/PRESENTATIONS:

A. ANNOUNCEMENTS

Brad Kilger, City Manager, introduced Joseph Kreins, the City's Interim Police Chief.

1. Announcement of action taken at Closed Session, if any.

Heather McLaughlin, City Attorney, reported the following actions taken in Closed Session:

II.A - Council gave direction to Staff.

II.B - Council gave direction to Staff.

II.C - Council directed Staff to agendize for discussion whether to waive the attorney client privilege on a legal opinion on the potential bias that the Mayor may have.

2. Openings on Boards and Commissions:

Arts and Culture Commission
1 unexpired term
open until filled

3. Mayor's Office Hours:

4. Benicia Arsenal Update

Update from City Attorney

Heather McLaughlin, City Attorney, reported there was nothing new to report at this time. Staff continues to work with the property owners to come up with information requested by Department of Toxic Substance Control (DTSC).

B. PROCLAMATIONS

C. APPOINTMENTS

D. PRESENTATIONS

1. ANNUAL POTHOLE REPORT

V. ADOPTION OF AGENDA:

On motion of Council Member Schwartzman, seconded by Council Member Hughes, Council adopted the Agenda, as presented, on roll call by the following vote:

Ayes: Patterson, Schwartzman, Campbell, Hughes, Strawbridge
Noes: (None)

VI. OPPORTUNITY FOR PUBLIC COMMENT:

A. WRITTEN COMMENT

Six items were received (copies on file).

B. PUBLIC COMMENT

1. Michael Escibosa - Mr. Escibosa spoke against Measure C, and against the City paying for an analysis for Marin Clean Energy (MCE) and in support of PG&E.
2. Constance Beutel - Ms. Beutel discussed the 'Gardening in Times of Drought' workshop that will be held at the Benicia Public Library this weekend.

VII. CONSENT CALENDAR:

A. APPROVAL OF THE MINUTES OF THE OCTOBER 7, 2014 CITY COUNCIL MEETING

Mayor Patterson discussed her request to add her comments regarding Council Member Hughes' recusal on the Marin Clean Energy (MCE) item.

On motion of Council Member Strawbridge, seconded by Council Member Schwartzman, Council approved the Minutes of the October 7, 2014 City Council Meeting, as amended, on roll call by the following vote:

Ayes: Patterson, Schwartzman, Campbell, Hughes, Strawbridge
Noes: (None)

B. APPROVAL OF CONSULTANT CONTRACTS WITH CARBON LIGHTHOUSE, TEAA, GREENTRAKS AND TOUCHSTONE TO SUPPORT THE IMPLEMENTATION OF THE BUSINESS RESOURCE INCENTIVE PROGRAM PHASE 2

RESOLUTION 14-121 - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BENICIA APPROVING PROFESSIONAL SERVICE CONTRACTS WITH CARBON LIGHTHOUSE, TEAA, GREENTRAKS AND TOUCHSTONE TO SUPPORT THE IMPLEMENTATION OF BRIP 2 AND AUTHORIZING THE CITY MANAGER TO SIGN THE CONTRACT ON BEHALF OF THE CITY

C. REVIEW OF SEPTEMBER WATER REPORT

Mayor Patterson asked Staff to briefly discuss the water report.

Graham Wadsworth, Public Works Director, reviewed the staff report.

Public Comment:

None

On motion of Council Member Schwartzman, seconded by Council Member Strawbridge, Council accepted the review of the September Water Report, on roll call by the following vote:

Ayes: Patterson, Schwartzman, Campbell, Hughes, Strawbridge
Noes: (None)

D. Approval to waive the reading of all ordinances introduced and adopted pursuant to this agenda.

VIII. BUSINESS ITEMS:

A. APPROVAL OF THE DEDICATION OF 1,700 FEET OF THE BAY AREA RIDGE TRAIL IN BENICIA

RESOLUTION 14-122 - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BENICIA APPROVING THE DEDICATION OF 1,700 FEET OF BAY AREA RIDGE TRAIL IN BENICIA ON NOVEMBER 3, 2014

Mike Roberts, Principal Civil Engineer, reviewed the staff report.

Public Comment:

1. Bob Berman - Mr. Berman discussed the Bay Area Ridge Trail. He spoke

in support of tonight's proposed action.

On motion of Council Member Hughes, seconded by Council Member Schwartzman, Council adopted Resolution 14-122, on roll call by the following vote:

Ayes: Patterson, Schwartzman, Campbell, Hughes, Strawbridge
Noes: (None)

B. ACCEPT THE RECOMMENDATION BY THE ARTS AND CULTURE COMMISSION TO PLACE TWO PIECES OF ART BY JULIUS HATOFSKY IN THE LIBRARY AND AUTHORIZE THE CITY MANAGER TO SIGN THE CONTRACT ACCEPTING THE ARTWORK

RESOLUTION 14-123 - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BENICIA AUTHORIZING ACCEPTANCE OF TWO PIECES OF ARTWORK PAINTED BY JULIUS HATOFSKY TITLED "WAVE" AND "UNTITLED #139" AND AUTHORIZING THE CITY MANAGER TO SIGN A CONTRACT FOR THE LONG-TERM LOAN OF THESE PIECES

Diane Smikahl, Library Director, and Patty Gavin, Arts & Culture Commission, reviewed the staff report.

Linda Hatofsky discussed Julius Hatofsky, the artist.

Public Comment:

1. Jan Radesky - Ms. Radesky spoke in support of the Arts & Culture Commission's recommendation.

On motion of Council Member Strawbridge, seconded by Council Member Schwartzman, Council adopted Resolution 14-123, on roll call by the following vote:

Ayes: Patterson, Schwartzman, Campbell, Hughes, Strawbridge
Noes: (None)

C. THE URBAN WATERFRONT ENHANCEMENT AND MASTER PLAN AND ASSOCIATED ENVIRONMENTAL ANALYSIS

RESOLUTION 14-124 - A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BENICIA CERTIFYING THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM, AND ADOPTING THE MASTER PLAN DEVELOPED FOR THE

URBAN WATERFRONT ENHANCEMENT AND MASTER PLAN PROJECT

Council Member Strawbridge recused herself from the discussion on this item due to a conflict of interest.

Mike Dotson, Parks and Community Services Director, and Dave Early, Placeworks, reviewed the staff report and a PowerPoint presentation. They noted their suggested changes, as indicated in the staff report.

Mayor Patterson and Staff clarified the steps for adopting the Resolution.

Council Member Hughes and Staff discussed the need to see a side-by-side comparison of what it is today and what it would look like, as it would help Council and citizens visualize what is being proposed. They also discussed the 17-year overall completion schedule.

Mayor Patterson and Staff discussed the issue of financing, the seat/surge wall, and what a great effort this was by Staff. The Resolution would be amended to include the recommended changes to the Initial Study/Mitigated Negative Declaration regarding the Stormwater Pollution Prevention Plan and BCDC jurisdiction, and adoption of the environmental documentation would be placed before adoption of the Master Plan in the resolution.

Public Comment:

None

On motion of Council Member Schwartzman, seconded by Council Member Hughes, Council adopted Resolution 14-124, as amended, on roll call by the following vote:

Ayes: Patterson, Schwartzman, Campbell, Hughes
Noes: (None)

D. ACCEPT RECOMMENDATION OF THE BENICIA ARTS AND CULTURE COMMISSION TO APPROVE ARTS BENICIA AND MARK BREST VAN KEMPEN'S TEMPORARY ART INSTALLATION AT THE FIRST STREET GREEN

Diane Smikahl, Library Director, reviewed the staff report.

Mark Brest Van Kempen, Artist, reviewed a PowerPoint presentation showing the pieces of proposed art.

Mayor Patterson and Mr. Brest Van Kempen discussed how the information about the art would be presented (display, signage, etc.)

Council Member Hughes requested that the signage and information be in

laymen's terms. Council Member Hughes, Mr. Brest Van Kempen, and Staff, discussed the schedule for the pieces of art, and ensuring they do not interfere with special events that take place on the First Street Green.

Mayor Patterson and Larnie Fox, Arts Benicia, discussed how they would be publicizing the art so that citizens would know about it.

Staff discussed how the City would be using the publicity for the art as a tool for economic development and tourism.

Public Comment:

None

On motion of Council Member Hughes, seconded by Council Member Schwartzman, Council accepted, by motion, the recommendation of the Benicia Arts & Culture Commission to approve Arts Benicia and Mark Brest Van Kempen's temporary art installation at the First Street Green, on roll call by the following vote:

Ayes: Patterson, Schwartzman, Campbell, Hughes
Noes: (None)

E. APPROVAL OF LEASE AGREEMENT WITH CARTER'S BIZ CAFÉ FOR THE COMMANDING OFFICER'S QUARTERS, 1 COMMANDANT'S LANE

RESOLUTION 14-125 - A RESOLUTION APPROVING THE LEASE AGREEMENT WITH CARTER RANKIN OF CARTER'S BIZ CAFÉ COMMANDING OFFICER'S QUARTERS AT 1 COMMANDANT'S LANE AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE LEASE

Mario Giuliani, Economic Development Manager, reviewed the staff report and a PowerPoint presentation.

Carter Rankin, Carter's Biz Cafe, talked about his business, how it started, and what types of services they provide.

Council Member Schwartzman and Mr. Rankin discussed to what extent the kitchen would be used.

Mayor Patterson discussed support for the proposed Biz Cafe.

Council Member Hughes discussed previous marketing attempts for the Commanding Officers Quarters (COQ) building. He and Mr. Rankin discussed his (Mr. Rankin's) experience, and what role he would play in the business.

Council Member Strawbridge and Mr. Rankin discussed Wi-Fi accessibility at the

COQ, and how he could work and collaborate with various groups in town.

Vice Mayor Campbell, Mr. Rankin, and Staff discussed the issue of improvements, and concern about the rent/credit program.

Public Comment:

None

Mayor Patterson asked if Council needed to give direction to Staff to identify a policy for some of the maintenance needs being addressed by rent (painting, roof inspection, etc.) Staff confirmed that it was noted in the staff report and resolution that there is recognition that the City is expending approximately $16,000 annually for minimal custodial maintenance. The Parks and Community Services Department has estimated that the City would need to invest approximately $35,000 annually to have sufficient funds to cover maintenance. In closed session, Council directed Staff that some of the proceeds from the rent be dedicated for such an account.

On motion of Council Member Strawbridge, seconded by Council Member Hughes, Council adopted Resolution 14-125, on roll call by the following vote:

Ayes: Patterson, Schwartzman, Campbell, Hughes, Strawbridge
Noes: (None)

F. MAYOR PATTERSON'S REQUEST REGARDING TRAFFIC, PEDESTRIAN AND BICYCLE SAFETY COMMITTEE (TPBS)

Mayor Patterson reviewed her request.

Council Member Hughes and Staff discussed the fact that Staff was currently working on reviewing the boards and commissions. He would rather discuss a comprehensive review than do one board/commission at a time.

Vice Mayor Campbell is a member of the TPBS and talked to the TPBS Committee last week. The five members present did not think there was a problem. He didn't think anything needed to be changed.

Council Member Schwartzman stated he would rather review all boards and commissions at once.

Mayor Patterson stated she has had several people voice concerns to her regarding the issue.

Staff discussed how Benicia and other communities handle the makeup and functions of their TPBS committees.

Mayor Patterson discussed serving on the Solano Transportation Authority. She

discussed the various modes (Bicycle Advisory Committee, the Pedestrian Advisory Committee, and Sol Trans) of the committees. She does not see the ease of their actually having an interface with the existing committee. Now is the time to get information from our advisors and provide guidance to them as they serve on these committees. She discussed asking the questions at a study session.

Vice Mayor Campbell stated that until he saw some public comment/requests regarding this issue, he would not want to change anything. There didn't seem to be a problem.

Council Member Hughes discussed how successful the committee had been in the past. The committee is able to listen to issues and discussion and fix the problems. He suggested bringing the issue up at a future TPBS Committee meeting and see what the feedback is.

Public Comment:

None

Mayor Patterson stated that the next time someone approaches her and asks why there aren't any public members on the committee; she would ask them to speak to Vice Mayor Campbell.

G. Council Member Committee Reports:

1. **Mayor's Committee Meeting.(Mayor Patterson) Next Meeting Date: December 17, 2014**

2. **Association of Bay Area Governments (ABAG)http://www.abag.ca.gov/. (Mayor Patterson and Council Member Strawbridge)Next Meeting Date: TBD**

3. **Finance Committee. (Vice Mayor Campbell and Council Member Strawbridge)Next Meeting Date: October 31, 2014**

4. **League of California Cities. (Mayor Patterson and Vice Mayor Campbell) Next Meeting Date: TBD**

5. **School Liaison Committee. (Council Members Strawbridge and Council Member Hughes) Next Meeting Date: December 4, 2014**

6. **Sky Valley Open Space Committee. (Vice Mayor Campbell and Council Member Schwartzman) Next Meeting Date: TBD**

7. **Solano EDC Board of Directors. (Mayor Patterson and Council Member Strawbridge) Next Meeting Date: November 13, 2014**

8. **Solano Transportation Authority (STA). http://www.sta.ca.gov/ (Mayor Patterson and Council Member Schwartzman) Next Meeting Date: December 10, 2014**

9. **Solano Water Authority-Solano County Water Agency and Delta Committee. http://www.scwa2.com/(Mayor Patterson and Council Member Hughes) Next Meeting Date: November 13, 2014**

10. **Traffic, Pedestrian and Bicycle Safety Committee. (Vice Mayor Campbell and Council Member Schwartzman) Next Meeting Date: TBD**

11. **Tri-City and County Cooperative Planning Group. (Mayor Patterson and Council Member Strawbridge) Next Meeting Date: December 8, 2014**

12. **Valero Community Advisory Panel (CAP). (Mayor Patterson and Council Member Hughes) Next Meeting Date: TBD**

13. **Youth Action Coalition. (Mayor Patterson, Council Member Strawbridge and Council Member Hughes) Next Meeting Date: October 22, 2014**

14. **ABAG-CAL FED Task Force-Bay Area Water Forum. http://www.baywaterforum.org/ (Mayor Patterson) Next Meeting Date: TBD**

15. **SOLTRANS Joint Powers Authority (Mayor Patterson, Council Member Hughes and Council Member Schwartzman) Next Meeting Date: November 20, 2014**

IX. ADJOURNMENT:

Mayor Patterson adjourned the meeting at 9:49 p.m.

AGENDA ITEM
CITY COUNCIL MEETING DATE - NOVEMBER 4, 2014
CONSENT CALENDAR

DATE : October 28, 2014

TO : City Council

FROM : City Attorney

SUBJECT : **ACCEPTANCE OF THE GRANT DEED FOR THE BENICIA BUS HUB PROPERTY**

RECOMMENDATION:
Approving the grant deed for the Benicia Bus Hub property and authorizing the City Manager to accept the grant deed on behalf of the City and to execute all necessary documents to record the deed and complete the acquisition of the property.

EXECUTIVE SUMMARY:
The acquisition of the property for the Benicia Bus Hub project is nearly complete. Unfortunately, the authorization to accept the deed and to record it was omitted from previous Council reports. This action allows the City to accept the deed and have it recorded.

BUDGET INFORMATION:
N/A

GENERAL PLAN:
N/A

STRATEGIC PLAN:
N/A

BACKGROUND:
This is a cleanup action to allow the deed for the proposed Bus Hub to be recorded. Since the City does not have a generic resolution that allows deeds to be recorded, we must get authorization each time to record documents. This step was left out of previous reports.

Attachment:
- Resolution

RESOLUTION NO. 14 -

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BENICIA ACCEPTING A GRANT DEED FROM THE BARRAGANS FOR THE BENICIA BUS HUB PROJECT AND AUTHORIZING THE CITY MANAGER TO ACCEPT THE GRANT DEED ON BEHALF OF THE CITY AND TO EXECUTE ALL NECESSARY DOCUMENTS TO RECORD THE DEED AND COMPLETE THE ACQUISITION OF THE PROPERTY

WHEREAS, the funding for the Benicia Industrial Park Bus Hub Project has been secured; and

WHEREAS, Antonio and Graciela Barragan (Barragans) and the City through Solano Transportation Authority (STA) have agreed to the sale of the property.

NOW, THEREFORE, BE IT RESOLVED THAT the City Council of the City of Benicia hereby:

1. Accepts Assessor's Parcel No. 0080-080-720, the Bus Hub property; and
2. Authorizes the City Manager to execute all necessary documents to have the deed recorded and to complete the acquisition of the property.

*****

On motion of Council Member , seconded by Council Member, the above Resolution was introduced and passed by the City Council of the City of Benicia at a regular meeting of said Council held on the 4th day of November, 2014 and adopted by the following vote:

Ayes:

Noes:

Absent:

_____
Elizabeth Patterson, Mayor

Attest:

_____
Lisa Wolfe, City Clerk

_____
Date

AGENDA ITEM
CITY COUNCIL MEETING DATE - NOVEMBER 4, 2014
BUSINESS ITEMS

DATE : October 29, 2014

TO : City Manager

FROM : Community Development Director

SUBJECT : **MCE MEMBERSHIP - INDEPENDENT ANALYSIS AND OPPORTUNITY TO JOIN**

RECOMMENDATION:
Review independent analysis prepared by MRW & Associates and Davis Wright Tremaine, LLP and assess the risks and benefits of joining MCE. Based on that assessment, either:

(1)(a) introduce the ordinance approving the Marin Clean Energy (MCE) Joint Powers Agreement and authorizing the implementation of a Community Choice Aggregation (CCA) program and (b) adopt the resolution, or
(2) do not authorize joining MCE, or
(3) determine additional information is needed and continue the matter to the City Council's November 18, 2014 meeting.

EXECUTIVE SUMMARY:
On October 7, 2014, the City Council directed staff to schedule a Community Sustainability Commission (CSC) special meeting and request that the CSC make a recommendation to allocate additional Valero Good Neighbor Steering Committee Settlement Agreement funds to fund the cost of independent analyses of the Marin Clean Energy (MCE) Membership Analysis. On October 14, 2014, the CSC held a special meeting and recommended that $30,000 be allocated to cover the costs of the analyses. The analyses were completed on October 29, 2014. After reviewing the findings, staff is requesting Council determine whether they wish to take official action to join MCE by passing an ordinance approving the MCE Joint Powers Agreement and authorizing the implementation of a CCA program.

BUDGET INFORMATION:
Joining Marin Clean Energy (MCE) requires no additional funding. Staff time needed to assist in facilitating community outreach and implementation of the CCA program is already included in the CAP Coordinator's 2014-15 work plan. Some additional staff time will be needed to support the CAP Coordinator in responding to community questions or attending any workshops during the opt-

out phase. There will also be the need to provide staff support to Benicia's MCE board member if the City Council votes to join. It is believed that this support could be minimal if properly managed and MCE staff provides most of the needed support. Staff from the City of Richmond estimate that approximately 2 to 4 hours of staff time has been required per month once the program became fully operational.

ENVIRONMENTAL REVIEW:
The proposed action is not a project as defined by 14 California Code of Regulations 15378 (State CEQA Guidelines) and therefore CEQA is not applicable. City Staff, in consultation with the City Attorney, concluded that potential environmental impacts are speculative in nature and require no further analysis at this time.

On September 4, 2014, the City did receive a letter from the Independent Brotherhood of Electrical Workers (IBEW) Local 1245 alleging that the City is required to comply with CEQA before taking any action to join a CCA program. The letter alleged that the core purpose of joining a CCA program is to cause customers to stop purchasing electricity from Pacific Gas & Electric Company, and begin purchasing electricity from a different electricity marketer and that this action could result in changes to the environment.

The issue of the need for further CEQA review has been raised as a part of the process for the City to consider joining Marin Clean Energy (MCE). This same issue was raised during adoption of CCAs in other jurisdictions and subsequently dismissed (e.g. Napa County). The action of the City Council to join MCE is an administrative action that will not result in a direct physical change to the environment, or a reasonably foreseeable indirect change to the environment, and thus is not a project as defined by CEQA Guideline Section 15378. The instant action also does not commit the City to any action that would have a significant effect on the environment (CEQA Guideline Section 15061).

The City joining MCE will not directly change the present amount of power produced or purchased for the City, will not directly result in construction (or removal) of any power generating facility, and will, therefore, not result in a direct physical change to the environment. It is not reasonably foreseeable that the City's decision to join MCE would result in an indirect physical change to the environment.

Ultimately, decisions by MCE as to what power to purchase for an unknown number of City residents in an unknown quantity, where such power is produced, and for how long a term, is market driven decisions that occur over a period of months and years. To the extent new power supplies might be needed in the future to meet MCE's power demands, or existing facilities need to modify

their operations outside their current operating permits, such actions would be subject to further site specific CEQA evaluation.

As those potential future actions are unknowable and speculative, it is impossible to conduct any meaningful CEQA analysis about them, and CEQA does not require it. PG&E operates in the identical marketplace, and decisions made by PG&E as to their future supply power for Benicia are likewise unknowable and speculative. Forming or joining a CCA presents no foreseeable significant adverse impact to the environment over the incumbent investor owned utility (IOU) (i.e., PG&E) because California regulations such as the Renewable Portfolio Standard (RPS) and Resource Adequacy (RA) requirements (California Independent System Operator mandated planning and procurement process to ensure adequate resources to serve all customers in real time) apply equally to CCAs and IOUs. Because CCAs fall under the same environmental statutes, regulations, and standards, any argument that moving from an IOU to a CCA presents a risk to the environment, when the IOU itself is also being required to increase its renewable energy portfolio, is factually without basis.

GENERAL PLAN:
The project supports the overarching Goal of the General Plan, which is Sustainability.

STRATEGIC PLAN:
Relevant Strategic Plan Issues and Strategies:

- Strategic Issue #2: Protecting and Enhancing the Environment
  - Strategy #1: Reduce greenhouse gas emissions and energy consumption
  - Strategy #3: Pursue and adopt sustainable practices

CLIMATE ACTION PLAN:
Relevant Climate Action Plan Issues and Strategies:

- Strategy E-2.6. Community Choice Aggregation Feasibility Assessment

BACKGROUND:
Community Choice Aggregation (CCA) allows local governments to purchase and/or develop clean power on behalf of their residents, businesses, and municipal accounts. CCA is an energy supply model that works in partnership with Pacific Gas & Electric (PG&E) to deliver renewable electricity, maintain the energy grid, and provide customer service and billing.

As part of the Council approved Climate Action Plan (CAP) Coordinator Work Plan 14-15, the CAP Coordinator researched CCA programs and potential

funding sources to complete a membership analysis required by Marin Clean Energy (MCE), the only existing CCA that Benicia could join at this time. MCE's analysis assesses the City's electrical load and determines whether MCE can provide service to the City without having a negative impact on its current customers.

On June 17, 2014, the City Council allocated $18,000 in Valero Good Neighbor Steering Committee Settlement Agreement funds and authorized the City Manager to execute a contract with MCE. Council also requested that staff organize a Council Study Session so that the public and Council could learn more about CCAs in general. At the September 9, 2014 study session, Council directed staff to assess the need for further outside review of the pending MCE Membership Analysis. Staff received the completed MCE analysis on September 10, 2014, which concluded that Benicia joining MCE would have a net beneficial impact on MCE's current customers and likely reduce near term electrical energy costs for Benicia residents and businesses.

On October 7, 2014 the City Council directed staff to schedule a special Community Sustainability Commission meeting and request that the CSC allocate $30,000 from the Valero Good Neighbor Steering Committee Settlement Agreement funds to cover the cost of independent analyses prepared by MRW & Associates and Davis Wright Tremaine, LLP. The CSC did make this recommendation on October 14, 2014 and the analyses were completed on October 22 and 23. These reports are attached. Below is a brief description of the analysis requested and an overview of the main findings from each of these reports:

Legal Analysis (Davis Wright Tremaine)
The City requested review of legal and regulatory developments pertaining to MCE in particular and CCAs in general since the date of the Mill Valley assessment prepared in 2010. Below are the general findings of that analysis:

1. The risks of liability related to joining the MCE JPA are limited, but under California law, the JPA cannot and does not insulate the City from all risk.
2. AB 2145 is the only new piece of legislation introduced that impact CCAs, but it did not pass.
3. The CPUC has taken significant actions to improve the regulatory landscape for CCAs since 2010 including regulating the conduct of investor owned utilities toward CCAs.
4. The City's existing agreement for Net Energy Metering (NEM) service with PG&E for solar photovoltaic generation facilities would not be invalidated were the City to join MCE.

Benefit-Risk Analysis (MRW & Associates and SAGE Renewables)
The City requested that MRW and SAGE conduct an independent analysis of the potential benefits and risks to the City's electricity customers and to the City itself if it were to join MCE. This analysis also includes an analysis of MCE as a business entity and the Membership Analysis prepared by MCE for the City. SAGE sub-contracted with MRW to analyze the impact of MCE membership on City solar accounts. Below are the major findings from this report:

1. There are a wide range of benefits and risks to joining MCE. MRW generally concurs with the benefits of joining as stated by MCE.
2. One of the highest risks is whether MCE's rates can remain cost competitive with PG&E's over time and customer responsibility for exit fees required to be paid by MCE customers to compensate PG&E for power it has procured on their behalf.
3. The City can expect between $40,000 to $80,000 in annual excess NEM bill credit payments from MCE for the solar photovoltaic (PV) accounts.
4. MCE's policy for paying excess NEM bill credits will remain in effect for the short-term, but may change in the long-term.
5. PG&E's proposal to cap the A-6 tariff (rate the City is currently on at its solar sites) may result in a loss of value from the energy generated by the solar sites and MCE may also make similar changes to its A-6 rate to remain cost competitive with PG&E's.

The MRW report also specifically mentions a report prepared for the City of Berkeley analyzing the benefits and risks of joining or creating its own CCA. That report and staff reports from other jurisdictions that considered joining MCE are attached for reference.

The independent analysis prepared by MRW & Associates and Davis Wright Tremaine, LLP show there are many benefits and risks of varying degrees to the City, residents and businesses in joining MCE. The conclusion of the analysis shows that MCE's current rates are likely to be less than PG&Es. In staff's view this is the key risk and benefit to be considered in joining MCE. The key long term risk is that at some point in the future, MCE's cost to customers could exceed PG&E's. The key long-term benefit is the potential significant reduction in GHG emissions from MCE relative to PG&E.

The decision the City Council must make is whether this potential benefit outweighs this potential risk. If the Council concludes that implementing the City's Climate Action Plan and reducing GHG emissions outweighs the possibility that MCE rates could some day exceed PG&E's, then it should approve the Marin Clean Energy (MCE) Joint Powers Agreement and authorize the implementation of a community choice aggregation (CCA) program that will

assist the City to meet its greenhouse gas emission reduction targets adopted by Council in the Climate Action Plan.

Therefore, if the City Council is satisfied with the analyses and wishes to join MCE, it should do so by (1) introducing an ordinance approving the Marin Clean Energy (MCE) Joint Powers Agreement and authorizing the implementation of a Community Choice Aggregation (CCA) program and (2) adopting the related resolution. The second reading of the ordinance will take place on November 18, 2014 and the City's ordinance and signed JPA will be presented to MCE Board for acceptance on December 2, 2014. If the Council feels it needs more information prior to making a decision, MCE has indicated that a first reading of the ordinance on November 18th would be acceptable and allow them sufficient time to meet their procurement needs.

Attachments:

- CCA Ordinance
- CCA Resolution
- MRW & Associates Benefit and Risk Analysis Report
- Davis Wright Tremaine Legal Analysis Report
- IBEW CEQA Letter – September 9, 2014
- Community Sustainability Commission DRAFT Minutes, October 14, 2014
- Public Comments Received as of October 29, 2014
- October 7 City Council Agenda Materials
- Staff Reports Prepared by Jurisdictions on MCE

CITY OF BENICIA

ORDINANCE NO. 14-__

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF BENICIA APPROVING THE MARIN CLEAN ENERGY JOINT POWERS AGREEMENT AND AUTHORIZING THE IMPLEMENTATION OF A COMMUNITY CHOICE AGGREGATION PROGRAM

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BENICIA DOES ORDAIN as follows:

Section 1. The City of Benicia has been actively investigating options to provide electric services to constituents within its service area with the intent of achieving greater local involvement over the provision of electric services and promoting competitive and renewable energy.

Section 2. On September 24, 2002, the Governor signed into law Assembly Bill 117 (Stat. 2002, ch. 838; see California Public Utilities Code section 366.2; hereinafter referred to as the "Act"), which authorizes any California city or county, whose governing body so elects, to combine the electricity load of its residents and businesses in a community-wide electricity aggregation program known as Community Choice Aggregation (CCA).

Section 3. The Act expressly authorizes participation in a CCA program through a joint powers agency, and on December 19, 2008, Marin Clean Energy (MCE), formerly known as the Marin Energy Authority, was established as a joint power authority pursuant to a Joint Powers Agreement, as amended from time to time.

Section 4. On February 2, 2010, the California Public Utilities Commission certified the "Implementation Plan" of MCE, confirming MCE's compliance with the requirements of the Act.

Section 5. In order to become a member of MCE, the Act requires the City to individually adopt an ordinance electing to implement a Community Choice Aggregation program within its jurisdiction by and through its participation in Marin Clean Energy.

Section 6. Based upon all of the above, the Council elects to implement a Community Choice Aggregation program within the City's jurisdiction by and through the City's participation in Marin Clean Energy. The President of the Board of Directors is hereby authorized to execute the MCE Joint Powers Agreement.

Section 7. This ordinance shall take effect and be in force 30 days after its adoption, and, before the expiration of 30 days after its passage, a summary of this ordinance shall be published once with the names of the members of the Council voting

for and against the same in the Benicia Herald, a newspaper of general circulation published in the City of Benicia.

****

On motion of Council Member , seconded by Council Member , the foregoing Ordinance was introduced at a regular meeting of the City Council on the ___ day of November, 2014, and adopted at a regular meeting of the Council held on the ___ day of December, 2014, by the following vote:

Ayes:

Noes:

Absent:

Abstain:

_____
Elizabeth Patterson, Mayor

Attest:

_____
Lisa Wolfe, City Clerk

_____
Date

RESOLUTION NO. 14-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BENICIA REQUESTING MEMBERSHIP IN MARIN CLEAN ENERGY

WHEREAS, the City of Benicia has been actively investigating options to provide electric services to constituents within its service area with the intent of achieving greater local involvement over the provision of electric services and promoting competitive and renewable energy; and

WHEREAS, on September 24, 2002, the Governor signed into law Assembly Bill 117 (Stat. 2002, Ch. 838; see California Public Utilities Code section 366.2; hereinafter referred to as the "Act"), which authorizes any California city or county, whose governing body so elects, to combine the electricity load of its residents and businesses in a community-wide electricity aggregation program known as Community Choice Aggregation ("CCA"); and

WHEREAS, the Act expressly authorizes participation in a CCA program through a joint powers agency, and on December 19, 2008, Marin Clean Energy ("MCE"), formerly known as Marin Energy Authority, was established as a joint powers authority pursuant to a Joint Powers Agreement, as amended from time to time ("MCE Joint Powers Agreement"); and

WHEREAS, on February 2, 2010, the California Public Utilities Commission certified the "Implementation Plan" of the MCE, confirming MCE's compliance with the requirements of the Act; and

WHEREAS, the City Council supports the mission of MCE, which states that the purpose of MCE is to address climate change by reducing energy related greenhouse gas emissions and securing energy supply, price stability, energy efficiencies and local economic and workforce benefits. It is the intent of MCE 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; and

WHEREAS, the City Council fully supports MCE's current electricity procurement plan, which increases the amount of renewable energy available to customers; and

WHEREAS, in order to become a member of MCE, the MCE Joint Powers Agreement requires the City of Benicia to individually adopt a resolution requesting membership in MCE, and an ordinance electing to implement a CCA program within its jurisdiction.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Benicia as follows:

1. Based upon all of the above, the City Council requests that the Board of Directors of Marin Clean Energy approve the City of Benicia as a member of Marin Clean Energy.

2. The Clerk of the City is hereby directed to forward a copy of this resolution to Marin Clean Energy.

3. The City Manager is authorized to sign other documents as needed to implement this process.

*****

On motion of Council Member , and seconded by Council Member , the above Resolution was introduced and passed by the City Council of the City of Benicia at a regular meeting of said Council held on the day of November, 2014, and adopted by the following vote.

Ayes:

Noes:

Absent:

_____
Elizabeth Patterson, Mayor

Attest:

_____
Lisa Wolfe, City Clerk

_____
Date

Risk Assessment of Participation in the Marin Clean Energy Community Choice Aggregation Program

On Behalf of the City of Benicia

MRW & Associates, LLC
1814 Franklin Street, Suite 720
Oakland, CA 94612

October 29, 2014

VIII.A.11

Contents

Acronyms Used

CARE	California Alternate Rates for Energy
CCA	Community Choice Aggregation
CAISO	California Independent System Operator
CPUC	California Public Utilities Commission
CRS	Responsibility Surcharge
GHG	greenhouse gas
JPA	Joint Powers Authority
kWh	kilowatt-hour
MCE	Marin Clean Energy
MEA	Marin Energy Authority
MRW	MRW & Associates, LLC
NEM	Net Energy Metering
PCIA	Power Charge Indifference Amount
PPA	Power Purchase Agreement
PG&E	Pacific Gas & Electric
PV	Photovoltaic
RPS	Renewable Portfolio Standard
SENA	Shell Energy North America

Executive Summary

Marin Clean Energy (MCE), formerly the Marin Energy Authority (MEA), is a Joint Powers Authority (JPA) consisting of the City of Belvedere, Town of Corte Madera, Town of Fairfax, City of Larkspur, City of Mill Valley, City of Novato, City of Richmond, Town of Ross, Town of San Anselmo, City of San Rafael, City of Sausalito, Town of Tiburon, and the County of Marin. MCE is considering allowing the City of Benicia to become a member of the JPA and participate in the MCE Community Choice Aggregation (CCA) program.

Benicia retained MRW & Associates, LLC to examine the risks associated with joining MCE and review the "Marin Clean Energy Applicant Analysis for the City of Benicia" as part of its due diligence related to participation in MCE. MRW's scope of work consists of the following tasks:

Risk Assessment. MRW developed an independent assessment of the following:

- Potential risks to City electricity customers including residents and businesses if Benicia joins MCE.
- Potential risks to the City itself including, potential financial issues/obligations if it chooses to join, including but not limited to:
    a. earnings expectations and assumptions of customer base
    b. investments, debt, and reserve goals and strategies,
    c. Utility User Tax collections and remittance, and
    d. Franchise Fees collection and remittance.
    - Planned for and existing MCE service expansions.
- Status of MCE electricity generation projects and debt issued/owed associated with these projects.
- California Alternative Rates for Energy (CARE) customer issues.

Review of MCE Membership Analysis: For this task, MRW reviewed the analyses provided by MCE and assessed:

- reasonableness of assumptions and approaches used in the analysis;
- appropriateness of the analysis undertaken;
- reasonableness and completeness of the conclusions from the analysis including the revenue surplus predicted if Benicia joins; and
- the organizational capacity, stability, and long-term viability of MCE as a business/organization considering its guiding documents and financial statement, including but not limited to:
    a. earnings expectations and assumptions of customer base,
    b. ability to maintain its net metering credit payout program, and
    c. investments, debt, and reserve goals and strategies.

Assess the impact of MCE membership on City solar accounts: For this task, Sage Renewables, a subcontractor to MRW, evaluated:

- Anticipated annual electrical energy costs for transitioning the ten City electrical accounts that currently have solar PV systems from PG&E to MCE.
- MCE's evaluation indicating that approximately $60,000/year may be paid to the City under MCE's Net Energy Metering (NEM) program.
- Ability of MCE to maintain its net metering credit payout program
- Impacts to net-metering solar rates particularly as they relate to AB327.

Participation in MCE does not come without risks. However, remaining a customer of PG&E also involves risks, although those risks may be less easily identifiable. It is up to the policymakers of Benicia to determine if the benefits associated with participation in MCE justify the risks. If Benicia joins MCE, it would allow its citizens and businesses the opportunity to take commodity electric service from MCE. By law, if a customer does not make the conscious choice to opt out from the program and remain with PG&E for commodity electricity service, then they would, by default, become a customer of MCE. The opt-out requirement effectively means that despite the many opt-out notices that MCE is required to send out, some customers could become MCE customers without necessarily intending to do so. This could be a problem because different stakeholders have different values and risk preferences. For example, one customer might be extremely price-sensitive and would not tolerate higher rates for electric service, while another customer might be willing to pay more for electric service in order to obtain power from renewable energy sources.

According to MCE, participation in MCE can provide the citizens and businesses of Benicia with certain benefits. These include:

- Greater levels of power supply from renewable energy sources than offered by PG&E at competitive costs
- Reduced greenhouse gas emissions as a result of participation in MCE
- Alternative power supply opportunities for MCE customers, including self-generation of renewable energy through MCE-sponsored feed-in tariffs
- Development of local renewable resources to supply power to MCE
- Economic development benefits resulting in more jobs and tax revenues
- Rebates to encourage investments in energy efficiency improvements in homes and businesses
- Greater local control over power supply decisions and rate setting.

MRW generally concurs with these benefits, although as will be discussed at length, "competitive costs" may not always be achieved, while other elements, such as local economic development, are difficult if not impossible to quantify.

MRW has identified a wide range of potential risks that the City of Benicia, its residents and businesses (if they do not opt out of service from MCE) would face were it to join MCE. Some of these risks are more significant while others are less so. The types of risks fall into several broad categories:

- Procurement Risks: This broad category of risks relates to the ability of MCE to procure power at reasonable costs, to avoid significant under- or over-procurement, and the future success of MCE at renewing power supply agreements.
- Regulatory Risks: These risks consist of uncertainty in regulatory decisions by the California Public Utilities Commission (CPUC) that could adversely affect the costs that customers have to pay to take service from MCE, such as exit fees paid by customers and bonding requirements for MCE.
- MCE Policy Risks: While all JPA members have a voice on the MCE Board, no single city can control policy. Thus, given Benicia's differing demographic, economic, and business composition relative to Marin County and Richmond, Benicia might find that the interests of its citizens and businesses are not always well served by decisions of the MCE Board.
- Customer Cost Risks: These risks consist of the uncertainty in exit fees, whether MCE can continue to "meet or beat" PG&E's costs of service, how MCE will handle adding different tranches of customers in the future, and the uncertainty in costs that are passed through directly from the CCA's power supplier to customers. This also includes the risk that MCE may not be willing, or able, to provide low-income customers rates that will be no higher than PG&E's.
- City-Specific Risks: These risks relate to risks that Benicia might bear simply by becoming a member of MCE, separate and apart from any risks that it might bear as a customer purchasing power from MCE.

The table on the following page summarizes the risks discussed in greater detail in the body of the report. The table categorizes the risks based on the type of risk (e.g., procurement, customer costs), the entity that bears the risk (citizens or the City) as well as the relative importance of the risk in terms of the impact that it might have on customer costs or viability of the CCA.

While MRW expects that MCE will in general be able to offer competitive prices, the most significant risk is still whether MCE will ultimately be able to provide long-term power supplies at costs that are less than PG&E could provide. Thus, if the City's customers are highly price sensitive, then this risk may be of greater concern and would indicate that the City should place a premium on ensuring the its citizens and businesses are fully informed about the opt-out requirements of MCE.

Based on the legal analysis prepared by the Town of Ross and Davis Wright Tremaine, MRW does not believe that the City would have any financial liability in the event that MCE fails.

Description of Risk	Magnitude or Importance of Risk
Procurement Risks	
Volume Risk: Uncertainty in load can cause under- or over-procurement	Medium
Future Price Risk: MCE cannot procure power for incremental customers at competitive costs	Medium
Expansion of CCA: Can current contract accommodate all new customers?	low
Contract Renewal: MCE cannot procure power at competitive prices at end of current agreement	High
Regulatory and Policy Risks	
Adverse CPUC Decisions: Exit Fees and bonding costs may be higher than expected	Medium
MCE's lack of low-income ratepayer policy	Low
Benicia's interests may not always align with that of other JPA members	Medium
Customer Cost Risks	
PG&E Exit Fees: Who bears risk of changes in exit fees?	High
Uncertainty in Departing Load Fees: How much must customers pay to exit CCA after opt-out period ends?	Low
MCE Pricing Commitment: Will MCE meet or beat PG&E's rates?	High
MCE Pricing Commitment: Will MCE guarantee CARE customers won't pay more with MCE than they would have with PG&E?	High
City-Specific Risks	
Supplier Guarantees: City must provide guarantees to power suppliers	Low
New Generation Guarantees: City must provide support to obtain financing for new generation	Low
Financial liability if MCE fails	Low

With respect to the impact of MCE service on the City's solar accounts, Sage Renewables found:

- The City can expect between $40,000 to $80,000 in annual excess net energy metered (NEM) bill credit payments from MCE for the solar NEM accounts;
- While MCE's policy of paying for excess NEM bill credits will remain in place for at least the short term, it is at higher risk of change over time than other MCE rate policies; and

- The greatest short term risk to the value of solar PV generated energy is PG&E's proposal to limit its solar-friendly A-6 rate to only small commercial customers. This risk exists whether the City remains a PG&E customer or elects to transition solar PV accounts to MCE. (MCE is expected to mirror changes to PG&E's A-6 tariff with changes to its COM-6 tariff).

1. Introduction and Background

Marin Clean Energy (MCE), formerly the Marin Energy Authority (MEA) is a Joint Powers Authority (JPA) consisting of the City of Belvedere, Town of Corte Madera, Town of Fairfax, City of Larkspur, City of Mill Valley, City of Novato, City of Richmond, Town of Ross, Town of San Anselmo, City of San Rafael, City of Sausalito, Town of Tiburon, and the County of Marin. MCE is considering allowing the City of Benicia to become a member of the JPA and participate in the MCE Community Choice Aggregation (CCA) program.

The City has asked MRW & Associates, LLC (MRW) to provide an assessment of the risks and benefits inherent in joining MCE.

1.1 Background on Marin Clean Energy

MCE is a Community Choice Aggregation (CCA) program. As a CCA program, MCE provides commodity electric service and other energy-related services to its customers. MCE, the first fully functioning CCA in California, has been providing these services to a subset of the customers in its service area since May 2010. Full service throughout all its initial Marin County service area was completed by July 2012. It began service to the City of Richmond in July 2013, and projects to begin service Napa County in February 2015, and to the City of San Pablo in May 2015.

Presently, MCE offers two electric supply products:

1. The Light Green product, which provides electric service that has a greater penetration of California Certified renewable resources (50%) than does the incumbent electric utility, Pacific Gas & Electric (PG&E). MCE contends that this energy supply option is cost-competitive with PG&E's retail rates.

2. The Deep Green product, which provides 100% California Certified renewable resources for a $0.01 per kWh surcharge on top of the charges for the Light Green product.

1.2 Background on Potential MCE Membership for Benicia

After its successful expansion to the City of Richmond, a number of other cities and towns approached MCE about membership. In response, the MCE Board of Directors (MCE Board) adopted Policy 007, which laid out the requirements of new affiliate membership. These include:

1. All applicable membership criteria (listed below) are satisfied;
2. New community is located in a county that is not more than 30 miles from MCE existing jurisdiction; and
3. Customer base in new community is 40,000 or less.

In some circumstances, MCE will consider allowing a special consideration member to join if all membership criteria are met and the community is more than 30 miles from MCE's existing jurisdiction or the customer base in the new community is greater than 40,000.

MCE's membership criteria include:

- Allowing for MCE service in new community will result in a projected net rate reduction for existing customer base;
- Offering service in new community will enhance the strength of local programs, including an increase in distributed generation, and will accelerate greenhouse gas reductions on a larger scale;
- Including new community in MCE service will increase the amount of renewable energy being used in California's energy market;
- There will be an increase in opportunities to launch and operate MCE energy efficiency programs to reduce energy consumption and reliance on fossil fuels;
- New opportunities are available to deploy local solar and other distributed renewable generation through the MCE Net Energy Metering Tariff and Feed-In Tariff;
- Greater demand for jobs and economic activity is likely to result from service in new community; and
- The addition of the new community is likely to create a stronger voice for MCE at the State regulatory level.

The "Marin Clean Energy Applicant Analysis for the City of Benicia" report (MCE Applicant Analysis), dated August 29, 2014, demonstrates compliance with the first criterion. The remaining criteria are qualitative, but we have no reason to believe that Benicia's application would fail any of them.

1.3 Scope of Assignment

The office of Benicia's City Manager approached MRW to conduct an independent third-party analysis of the potential risks to Benicia associated with joining MCE. The Scope of MRW's analysis includes the following:

Risk Assessment: MRW developed an independent assessment of the following:

- Potential risks to City electricity customers including residents and businesses if Benicia joins MCE;
- Potential risks to the City itself, including potential financial issues/obligations if it chooses to join;
- Planned and existing MCE service expansions;
- Status of MCE electricity generation projects and debt issued/owed associated with these projects; and
- California Alternative Rates for Energy (CARE) customer issues.

Review of MCE Membership Analysis: For this task, MRW reviewed the analysis provided by MCE and assessed:

- Reasonableness of assumptions and approaches used in the analysis;

- Appropriateness of the analysis undertaken;
- Reasonableness and completeness of the conclusions from the analysis including the revenue surplus predicted if Benicia joins; and
- The organizational capacity, stability, and long-term viability of MCE as a business organization, considering its guiding documents and financial statement, including but not limited to:
    - Earnings expectations and assumptions of customer base;
    - Ability to maintain its net metering credit payout program; and
    - Investments, debt, and reserve goals and strategies.

In addition, attached to this report as Appendix 2 is a supplement prepared by Sage Renewables addressing the impact of changing electric energy service providers from PG&E to MCE for the ten City electricity accounts that have solar PV systems currently installed.

Appendix 1 summarizes MRW's and Sage Renewables qualifications related to this assignment.

It is important to note that this report cannot attempt to evaluate or quantify all possible benefits and risks to all possible Benicia stakeholders (e.g., residential customers, businesses, municipal accounts) or all associated benefits and risks of remaining on PG&E service. The perspectives of all that might be impacted are too diverse and unforeseeable events can occur. As such, the assessment must be viewed as being only one part of the assessment of participation by Benicia in MCE.

One additional point must be stressed: If Benicia decides to join MCE, the City is merely providing its citizens and businesses with *the opportunity* to take service from MCE: customers have the ability to opt-out from MCE and to remain customers of PG&E. However, customers must take conscious action to remain with PG&E; if they do nothing, they will become customers of MCE. MCE is required, by law, to provide at two notices prior to starting service (post-cards, flyers, etc.) to all potential MCE customers informing them of this opt-out option. After MCE begins service, customers' bills will clearly identify MCE as their power provider. Again by law, customers then have an additional 60 days to opt-out with no consequences. Once a CCA is in place, new electric customers starting service in the CCA's area are automatically enrolled in MCE service. Both PG&E and MCE notify the new customer that they are automatically an MCE customer, and informed that that have 60 days to opt-out of MCE service. Customers may opt out after 60 days of MCE service, but are subject to an MCE charge of $5 (residential) or $25 (non-residential) and cannot return to MCE service for one year.

Even with the opt-out notices, it is likely that some citizens or businesses would become MCE customers effectively without their knowledge or consent. This could be a problem for Benicia's policymakers if the potential benefits and risks of participation in MCE are not consistent with the risk preferences and other goals of the citizens and businesses that become MCE customers by default.

2. Benefits of Participation in MCE

Since its inception, and even prior to delivering its first kilowatt-hour, MEA and then MCE has outlined the benefits it sees to its members of joining MCE and taking service from MCE. This section reiterates and comments upon these benefits.

Some of the primary benefits potentially offered by MCE to Benicia include:

Greater levels of power supply from renewable energy sources than offered by PG&E at competitive costs. It is clear that MCE's policy and supply portfolio is designed to, and will likely achieve, greater renewable penetration than is projected to be achieved by PG&E. It will likely be able to do so at costs comparable to, or less than, PG&E. Currently PG&E does not offer an equivalent "deep green" option. However, it has proposed a Green Option program that would provide 100% renewable power to customers. That program has not been approved by the CPUC and the proposed participation fee will likely be higher than MCE's rates for 100% renewable electricity.

Competition between electric service providers will lead to more competitive rates and prices for Benicia residents and businesses. In theory, competition among suppliers will reduce prices to consumers and offer a wider variety of products in the marketplace. MCE, through its light-green and dark-green products, clearly is providing customers greater choice, but it is uncertain whether it will necessarily result in more competitive rates.

Reduced greenhouse gas emissions as a result of participation in MCE. Again, it is clear that MCE's policy and supply portfolio is designed to, and will likely achieve, a net reduction in greenhouse gas (GHG) emissions associated with electricity supply to its customers. This is because the average GHG emissions from the CCA would be lower than the *marginal* emissions from PG&E (i.e., the actual incremental emissions that PG&E would incur if it were serving that load). However, because PG&E has large amounts of carbon-free (but not necessarily "renewable" according to the Renewable Portfolio Standard (RPS)) generation (large hydroelectric dams and the Diablo Canyon nuclear plant), PG&E's *average* GHG emissions rate may at times be lower than MCE's average emissions, even if MCE has more qualifying "renewable" generation. Even so, as long as fossil fuel is on PG&E's generation margin, which it will be for the foreseeable future, MCE's policies would result in reduced GHG emissions.

Provision of more robust incentives to businesses and residents to sell power back to MCE and thus stimulate the local economy. Both PG&E and MCE offer net energy metering and feed-in-tariffs for small renewables generators. However, the rates paid by MCE to small renewables generators through its feed-in-tariff are greater than those offered by PG&E, and its net energy metering program is less restrictive. To the extent that MCE can maintain this price advantage over PG&E, and do so with lower transaction costs (i.e., fewer "hoops" to jump through), incremental local renewable development should occur, providing local economic stimulus.

Attraction of more green businesses to locate in Benicia and thus increase business-related revenues to the City and create jobs for residents, and the creation of more employment opportunities for Benicia residents and contractors through the CCA power procurement contracts. To the extent that MCE has local purchase preferences and green businesses are attracted to MCE's offerings, incremental economic development in Benicia may occur.

Greater local control over power supply decisions and rate setting. Given that its policies are set by MCE's Board of Directors, MCE would offer greater local control of procurement and rate-making decisions. This is in contrast to PG&E, which not only has a very large service area beyond the general Bay Area but also must comport to specific procurement orders from the CPUC. While the CPUC has some legislatively directed authority over MCE, such as setting resource adequacy or renewable standards applicable to all utilities and CCAs, the CPUC cannot dictate to MCE which power resources it can or cannot use or how to set rates. Furthermore, MCE offers more local control of the energy efficiency and distributed generation (i.e., rooftop solar) programs and policies that its member cities' residents and businesses can participate in. This can be seen, for instance, in MCE's more favorable net energy metering policies. On the other hand, since Benicia would only have a single vote on the MCE Board, it might find that the interests of the City and its residents and businesses are not always well served by Board decisions, especially in cases where Benicia's interests do not align with those of the other MCE members.

3. Risks of Participation

This section presents MRW's assessment of the major risks facing customer groups and the City as a result of participation in MCE. It then examines potential risks faced by City residents if the City joins MCE. It concludes by examining potential risks to the City itself if the City were to join MCE.

The following table summarizes the risks discussed in the following sections. The table categorizes the risks based on the type of risk (e.g., volume, procurement, customer costs), the entity that bears the risk (e.g., citizens or the City) as well as the relative importance of the risk in terms of the impact that it might have on customer costs or viability of the CCA.

Table 1 Risk Summary

Description of Risk	Magnitude or Importance of Risk
Procurement Risks	
Volume Risk: Uncertainty in load can cause under- or over-procurement	Medium
Future Price Risk: MCE cannot procure power for incremental customers at competitive costs	Medium
Expansion of CCA: Can current contract accommodate all new customers?	low
SENA Contract Expiration: MCE cannot procure power at competitive prices at end of current agreement	High
Regulatory and Policy Risks	
Adverse CPUC Decisions: Exit Fees and bonding costs may be higher than expected	Medium
MCE's lack of low-income ratepayer policy	Low
Benicia's interests may not always align with that of other JPA members	Medium
Customer Cost Risks	
PG&E Exit Fees: Who bears risk of changes in exit fees?	High
Uncertainty in Departing Load Fees: How much must customers pay to exit CCA after opt-out period ends?	Low
MCE Pricing Commitment: Will MCE meet or beat PG&E's rates?	High
MCE Pricing Commitment: Will MCE guarantee CARE customers won't pay more with MCE than they would have with PG&E?	High
City-Specific Risks	
Supplier Guarantees: City must provide guarantees to power suppliers	Low
New Generation Guarantees: City must provide support to obtain financing for new generation	Low
Financial liability if MCE fails	Low

3.1 Procurement-Related Risks

In late 2011, MRW provided an assessment of risks to the City of Richmond related to participation in MCE. At that time, MRW identified a number of risks that existed in the agreements and policies of MCE. Since then, MCE has extended its power supply agreement with Shell Energy North America (SENA), entered into numerous PPAs with renewable generating facilities to procure power to satisfy its customer load base, established a Feed-In

Tariff program to purchase power from small renewable generators located in the MCE service area, and begun to establish processes and procedures for resource acquisition after the end of the SENA agreement.[1] This section discusses the status of the major risks that MRW identified in its review for the City or Richmond (although not all are relevant anymore).

3.1.1 Background on MCE's Power Procurement Program

MCE is responsible for procuring sufficient electrical energy, capacity, ancillary services and transmission rights to meet its customers' needs. When MCE began serving customers, MCE outsourced most of these services to SENA under a 5-year agreement. Under that agreement, SENA would provide energy, capacity, ancillary services, scheduling coordination services, and other services to allow MCE to meet its customers' needs and to comply with requirements associated with the State's Renewable Portfolio Standard, the CPUC's Resource Adequacy requirements, the California Independent System Operator's (CAISO's) scheduling requirements, and other requirements. The specific agreement with SENA consisted of an overarching form agreement and a set of "confirmations" that specified the key provisions of the agreement (e.g., price of products, quantities, obligations for under- or over-procurement). The agreement was flexible in that it allowed MCE to substitute its own resources (e.g., power purchased from parties other than SENA) for products formerly purchased from SENA.

MCE's initial rollout consisted of serving a small subset of MCE's customers. After this "Phase 1," MCE expanded the number of customers being served in Marin (i.e., Phase 2a), which was also a small expansion of the load being served by MCE. With the final expansion of MCE's first set of customers (i.e., Phase 2b), MCE was serving all customers in its service territory that had not opted out. It is important to note that Phase 2b did NOT include the expansion to serve City of Richmond. With each expansion, MCE and SENA negotiated amended confirmations to its initial agreement.

Since it started serving customers, MCE has been evaluating different power supply options (consistent with its agreement with SENA). At the present time, MCE has purchase agreements with 23 different entities. These different entities provide a variety of services (e.g., renewable or non-renewable energy, capacity, renewable energy certificates[2]). Some of these arrangements are short-term (e.g., one year) and others are long-term (e.g., more than 10 years). These agreements are discussed in MCE's latest Integrated Resource Plan.[3]

[1] MCE entered into a second amended and restated confirmation with SENA on February 2, 2012. This amended and restated confirmation extended the term of SENA's energy supply obligation and scheduling coordination agreement through the end of 2017. At the same time, MCE entered into a confirmation with SENA to provide capacity through December 31, 2015. Although not mentioned in the Board package, it appears that SENA provides renewable energy through 2016 to MCE under the same confirmations. The purpose of the amended and restated confirmation for energy and scheduling coordination services appears to be to lock in low non-renewable prices through the end of 2017. It is not clear why the capacity confirmation was not extended except that it appears that MCE wanted to have separate agreements for these two services, which is consistent with industry practices. To see the source documents, click on this link.

[2] Renewable energy certificates (RECs) represent the renewable attribute associated with renewable generation. As part of meeting its RPS requirements, MCE is required to "retire" RECs. Once a REC is retired, it cannot be used again to meet RPS obligations.

[3] MCE Integrated Resource Plan, November 7, 2013, pp. 10-12.

3.1.2 Uncertainty in Amount of Power to Procure

Based on the draft confirmation approved by the MEA Board in February 2012, SENA provides full non-renewable requirements to MCE.[4] In addition, SENA provides a pre-specified quantity of renewable energy to MCE.[5] Thus, MCE had to specify the quantity of renewable energy that it would receive from the supplier. In order to ensure that it received adequate renewable energy to meet its obligations, MCE either had to establish some other mechanism whereby its renewable energy requirement would be met or be willing to have SENA purchase renewable energy on a short-term basis and face price uncertainty associated with those incremental renewable purchases. This was a concern because in the event that MCE over-procures, it has to resell its excess supplies into the market (at unknown prices) and could face significant costs (or gains) from those sales. On the other hand, if MCE under-procures, then it needs to purchase power in the future at unknown rates, which could be higher (or lower) than the fixed prices specified in its Agreement when originally signed.

MCE's average retention rate since its initial customer enrollments has been 77%.[6] However, MCE's customer retention rate has increased with the last phase of its rollout to the City of Richmond (about 85%).[7] MCE notes that once a new set of customers is enrolled, the customer base shows considerable stability. Thus, the largest uncertainty regarding participation levels appears to be linked to opt-outs during the initial enrollment period.

While there is still significant uncertainty associated with customer opt-outs[8], this uncertainty may not be as much of a risk to MCE as it was in the past. This is because the renewable portion of the SENA contract, which required specific levels of renewable purchases, is ending at the end of 2015. While MCE might enter into another agreement with SENA or another supplier, MCE notes that it is "continuing a transition from the initial full requirements contract that was used to launch MCE" and that MCE "has put into place a robust renewable energy buying program that now supplies the majority of the MCE renewable energy supplies," and that MCE "is similarly developing an independent buying program for non-renewable energy and capacity."[9] While this program is not in place for non-renewable resources as yet, MCE appears intent on developing this capability, which might give MCE somewhat more flexibility to manage opt-out risk.[10]

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[4] A "full requirements" contract obligates the seller to meet all requirements of the buyer. In the case of SENA's agreement with MCE, it appears that the full requirements obligation is for non-renewable energy. There is likely a price specified for the power supplied under this agreement. However, it is not possible to be certain about this since the key attachments to the confirmations were not included in the Board package.

[5] The quantity is redacted from the draft agreement.

[6] MCE Integrated Resource Plan, November 7, 2013, p. 7.

[7] *Ibid*.

[8] When MCE first started operations, it had assumed a 25% opt-out rate but found that its opt-out rate was actually 20%. The last tranche of customers from Richmond had an opt-out rate of 15%. Thus, while the percentage of opt-outs is decreasing, MCE is still being conservative in its assessment of opt-outs, which means that it could be over-procuring power.

[9] MCE Integrated Resource Plan, November 7, 2013, pp. 7-8.

[10] Under a full requirements agreement, MCE likely has to specify a quantity of energy that it wants to procure and a price for that energy. If its loads are higher than expected, then the supplier (e.g., SENA) would procure power on behalf of MCE and MCE would be obligated to pay market price for that extra power. Similarly, if loads are less than expected, then SENA would have to sell MCE's excess energy and MCE would be a risk for the difference between the contract price and the market price. If MCE were to have its own buying program, then MCE would likely have more flexibility to determine how much or little of its power supply it would need to hedge (i.e., how

3.1.3 MCE's Current Power Supply Agreement May Not be Able to Accommodate the City's (or Other Cities') Loads at Comparable Prices

As specified in the renegotiated contract between MCE and its power supplier (SENA), the power supplier has an obligation to serve all of MCE's non-renewable power requirements services. However, the agreement only specifies a fixed quantity of renewable energy that the power supplier must provide. Thus, there is some uncertainty as to the pricing of power for MCE if it is successful in recruiting Benicia and other cities or counties (such as El Cerrito or Albany) because the confirmation that was signed in 2012 did not anticipate MCE's expansion to other cities or counties.[11] This has not proven to be a problem for MCE, since it has procured a significant amount of renewable energy outside of the agreement with SENA.[12] In fact, MCE's most recent amended and restated confirmation with SENA is supposed to have renewable prices that are much lower than the original confirmation.

3.1.4 Term of Power Supply Agreement

The MCE agreement with SENA for non-renewable and renewable energy has been extended until 2017 and 2016, respectively. As discussed above, it does not appear that MCE plans to enter into another full requirements arrangement with a power supplier after the end of the SENA agreement. Whether or not MCE enters into another agreement with SENA or another full requirements supplier, there is still some uncertainty over the price of power that MCE will pay to supply its customers after 2017, since MCE's "Net Open"[13] position goes from 56 GWh in 2017 to 1,001 GWh in 2018 (i.e., from total energy contract coverage of 96% in 2017 to 19% in 2018).[14] If other cities or counties join MCE, then the Net Open position will be even larger in 2018. The pricing of the power needed to cover this Net Open position is unknown. Thus, there is some uncertainty regarding the ability of MCE to "meet or beat" PG&E's price when it is time to renew the MCE power purchase agreement (PPA). This is because the price for market-based non-renewable energy (which is what MCE will be purchasing to satisfy its Net Open position) is highly dependent on volatile natural gas prices. PG&E's power supply portfolio has a significant amount of generation that is not linked to natural gas prices (e.g., its hydroelectric system and its nuclear generation).

3.1.5 Approach for Providing "Green" Power

MCE uses a variety of approaches for providing a power supply that has a lower carbon footprint than PG&E. It purchases physical certified renewable power (that helps MCE meet its RPS

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much of its supply would have fixed price). Unlike with a full requirements agreement, this quantity could change over time as market conditions evolve.

[11] The confirmation was amended in February of 2012 explicitly to serve Phase 2b of MCE's load. This was several months before Richmond requested to join MCE. Thus, it is clear that the 2012 amended and restated confirmations did not anticipate the expansion of MCE.

[12] In MCE's 2013 Integrated Resource Plan, MCE had a total of 282 GWh of renewable resources, of which a total of 175 GWh were attributable to SENA. The remainder of MCE's renewables in 2013 (i.e., 107 GWh) were attributable to agreements entered into outside of the SENA agreement. By 2015, MCE projects that SENA will supply only 140 GWh out of MCE's total renewable requirements of 307 GWh.

[13] The "Net Open" position is the difference between the expected load and the amount of energy that is either under contract or to be generated by MCE. Thus, a small Net Open position means that almost all of the expected load will be served by existing agreements. Conversely, a large Net Open position means that MCE does not currently have agreements in place to serve much of its expected load.

[14] MCE Integrated Resource Plan, November 7, 2013, Appendix A, p. 23.

obligations), it purchases carbon-free power (e.g., power from large hydroelectric facilities that is not eligible to meet MCE's RPS requirements), and unbundled renewable energy certificates (RECs), which may or may not help MCE meet its RPS obligation in the long-run. This approach is reasonable. However, customers should be aware that purchasing RECs to "supply" renewable energy is not exactly the same as purchasing physical renewable energy. When MCE purchases RECs, it also must obtain "null energy," which is typically not renewable. There is nothing unusual about this approach but Benicia may wish to make this distinction clear.[15]

3.2 Regulatory and Policy Risks

This section addresses two areas. First, there are the risks to the CCA and its customers of changes in State policies, in particular the regulatory decisions made at the California Public Utilities Commission (CPUC). Second, there are the risks to the JPA member cities and their residents and businesses associated with MCE policies. We raise this second risk area because while all JPA member cities have a voice on the MCE Board, no single city can control policy. Thus, given Benicia's differing demographic, economic and business composition relative to Marin County, Benicia's needs and policy preferences might not be fully addressed in MCE Board decisions.

3.2.1 Departing Load Fee

MCE has entered into a number of long-term PPAs for renewables, and per its integrated resource plan, intends to enter into more PPAs in the next few years. Furthermore, to undertake any future construction programs, MCE will issue debt (as is typically the case for other utilities). MCE developing its own resources or entering into long-term PPAs means it would have fixed debt service obligations to pay for its renewable resources.

When MCE customers choose to leave MCE's service after the end of the opt-out period, then either the departing customers must pay a fee to MCE or the electric rates for remaining customers could increase. MCE's current fee for returning back to PG&E service is $5 for residential customers and $25 for commercial customers. This fee would be only applicable to customers who did not opt out during the four month opt-out window and then subsequently, at some later date, chose to take electric service from someone other than MCE.[16]

The current fee covers MCE's administrative costs to return the customer to PG&E service. In the future this could include fixed MCE costs that otherwise would have to be borne by the remaining MCE customers. (PG&E's exit fee charged to CCA customers covers such costs).

3.2.2 CCA Bonding Obligation

Pursuant to CPUC Decision 05-12-041, a new CCA must include in its registration packet evidence of insurance or bond that will cover such costs as potential re-entry fees, i.e., the cost to PG&E if the CCA were to suddenly fail and be forced to return all its customers back to PG&E

[15] RECs are essentially an accounting mechanism. They can either be combined with physical generation (i.e., Bundled RECs) or can be separated from the physical power and used for RPS compliance (i.e., Unbundled RECs). Under California's RPS law, MCE can only use a limited number of Unbundled RECs for RPS compliance. However, there is no limitation on the use of Unbundled RECs for other purposes (e.g., to "green" non-renewable power).

[16] Also note that if an MCE customer returns to PG&E service after the end of the opt-out period, that customer would not continue to pay Exit Fees to PG&E; they would only have to pay Departing Load Fees to MCE.

bundled service. Currently, a bond amount for CCAs is set at $100,000, which has already been met by MCE.

This $100,000 is an interim amount. In 2009, a Settlement was reached in CPUC Docket 03-10-003 between the three major California electric utilities (including PG&E), two potential CCAs (San Joaquin Valley Power Authority and the City of Victorville) and The Utility Reform Network (TURN) concerning how a bonding amount would be calculated. The settlement was vigorously opposed by MCE and San Francisco, and never adopted.

Since then, the issue of CCA bond requirements has not been revisited by the CPUC. If it is, the bonding requirement will likely follow that set for Energy Service Providers (ESPs) serving direct access customers. This ESP bond amount covers PG&E's administrative cost to reintegrate a failed ESP's customers back into bundled service, plus any positive difference between market-based costs for PG&E to serve the unexpected load and PG&E's retail generation rates. Since the ESP bonding requirement has been in place, retail rates have always exceeded wholesale market prices, and thus the ESP's bond requirement has been simply the modest administrative costs.

If the ESP bond protocol is adopted for CCAs, during normal conditions, the CCA Bond amount will not be a concern. However, during a wholesale market price spike, the MCE's bond amount could potentially increase to millions of dollars. But the high bond amount would likely be only short term, until more stable market conditions prevailed. Also it is important to note that high power prices (that would cause a high bond requirement) would also depress PG&E's exit fee and would also raise PG&E rates, which would in turn likely provide MCE sufficient headroom to handle the higher bonding requirement and keep its customers' overall costs competitive with what they would have paid had they remained with PG&E. Per Section 3.4, MCE JPA member entities would not be individually liable for any increase in the bond amount.

3.2.3 Meaning of MCE's Commitment to "Meet or Beat" PG&E Rates

MCE has stated that one of the benefits for customers is "Costs at or below PG&E."[17] In discussions with MRW, MCE has clarified that this is based on the *projected* overall costs of MCE versus forecast of PG&E's tariffed generation rate. In other words, the following inequality must occur for MCE to sign the Agreements:

MCE Power Supply Costs + Customer Exit Fees + MCE Overhead $\leq$ PG&E Gen Rate[18]

At current rates, the total MCE cost of service (including the exit fees) is less than the PG&E generation rate. However, as discussed later, this has not always been the case, nor is it guaranteed to be so in the future.

3.2.4 CARE (Low-Income) Rate Policies

To protect low-income households against escalating electricity bills, the CPUC froze rates for the California Alternate Rates for Energy (CARE) program at July 2001 levels. Currently the effective CARE discounts now range from 35% in the lowest residential rate tier up to 52% in Tier 3. While ongoing Commission action is moving to adjust its rate design to narrow this gap,

[17] E.g., MEA presentation, October 2009, p. 12.
[18] MEA Power Supply Costs, Customer Exit Fees, MEA Overheads, and PG&E Gen Rate are all forecasted values in early February 2010.

CARE customers will continue to receive significant discounts relative to other residential customers.

The CARE discounts are administered through the "Conservation Incentive Adjustment"(CIA) element of PG&E's residential tariffs. The CIA rate element is paid by all residential customers in PG&E's service area, no matter if PG&E or MCE provides their power. This means that the absolute discount amount (in ¢/kWh) is independent of whether the customer is served by MCE or PG&E. However, if MCE's residential generation rate plus the exit fee[19] rate is greater than PG&E's generation rate, the CARE customer on MCE could end up paying slightly more than they would had they taken service from PG&E. MCE can address this issue by either recouping any incremental amount from its remaining customers or use any cash reserves to ensure that CARE customers pay no more than they would have under PG&E service.

Additional CARE issues this from the customer perspective are discussed in Section 3.3.3.

3.2.5 Timing and Rates for Customers Taking Service in Later Phases of MCE's Development

MCE initially procured power for its 8,000 Phase I customers in May 2010. It has since successfully added three additional blocks of customers: 5,000 Marin County accounts were added in August, 2011; the remainder of the Marin County accounts (32,650)in July 2012, and the City of Richmond (74,000 accounts) in July 2013. This experience demonstrates that MCE can expand its customer base without adverse impacts.

Furthermore, per Board Policy 007, MCE will not accept additional memberships unless it results in lower rates for the current members. This would preclude MCE from adding members at power prices higher than its existing power cost. What this means is that the risk of higher rates from additional members is very low, but that the timing of additions is more uncertain: if a community desires to join MCE but the prevailing power markets do not allow for it to do so at a net benefit for the current MCE members, it cannot do so until power market conditions change.

3.2.6 Planned For And Existing MCE Service Expansions

In July 2013, the City of Richmond became the first municipality outside of Marin County to receive power from MCE. MCE will further expand its program to municipalities outside of Marin County in the near future, with plans to begin delivering power to Napa County in February 2015, and the City of San Pablo in May 2015. Presently, several other municipalities outside of Marin County are also considering membership in MCE. Like the City of Benicia, the City of El Cerrito has also taken formal steps to consider joining MCE's service territory in 2015.[20] The City of Albany has also taken formal steps to join MCE, and was approved to begin the membership analysis process by the MCE Board at the same time as Napa County in February of 2014.[21] However, Albany postponed its efforts to join MCE due to the possibility

[19] In PG&E's Tariff the Exit Fee is the Power Charge Indifference Amount (PCIA).
[20] Comments of Marin Clean Energy Regarding California Compliance Plan for U.S. EPA Proposed Carbon Pollution Emissions Guidelines, Marin Clean Energy, September 23, 2014, p. 2.
[21] Board of Directors Meeting Agenda, Marin Clean Energy, February 2014, p. 8.

that the county in which it resides, Alameda County, may vote to form its own CCA program, described in greater detail in the sections below.[22]

Presently, two municipalities have publicly revealed that they are in the preliminary stages of considering membership in MCE. San Mateo County, for example, has requested information from MCE on how to join Marin's program, but has not yet passed local legislation to further explore membership.[23] The City of Arcata has also expressed the possibility of joining MCE,[24] as an alternative to Humboldt County's Redwood Coast Energy Authority's potential CCA program.[25]

Municipalities That Have Decided Against Joining MCE. In recent years, the City of Berkeley and the City and County of San Francisco (CCSF), have each considered joining MCE but ultimately decided against it.

Berkeley considered enrolling in MCE after it failed to succeed in forming a CCA with Oakland and Emeryville. Efforts to form a program to include these three cities culminated in September 2008, with the publication of a business plan outlining the proposed CCA.[26] In November of 2008, the Emeryville City Council voted to terminate further CCA activities due to the high costs associated with program planning and the lack of City funds to pay for it.[27] Oakland and Berkeley Staff also recommended that their respective city councils reject further efforts to form a CCA, due to concerns regarding higher customer costs, and payment and credit guarantees for the formation of a new agency.[28] Despite Staff's recommendations, however, Berkeley and Oakland continued with the next phase of CCA studies, with the Berkeley Energy Commission (BEC) completing a study in June 2010 to inform the Berkeley City Council on the potential benefits and risks of a joint CCA between the two cities.[29] The report concluded that the CCA would face potential challenges maintaining rate parity with PG&E if attempting to offer customers electricity with a greater share of renewable generation. Increased rates may lead customers to opt-out of a CCA, making it difficult for the City to recoup its share of pre-implementation expenditures and start-up costs, ranging from $200,000 to $3.3 million. BEC found that risk associated with start-up costs would be minimal to the City if the CCA was able to retain most of its customers in the first five years.[30] Overall, however, the report noted that it was difficult to determine the extent of rate parity and financial risks in practice, because at the time of publication, MCE had just started delivering power. The report did cite MCE's success in securing a contract with SENA to supply more renewable electricity at rates equal to PG&E in its

[22] *Ibid*.
[23] Board of Directors Meeting Agenda, Marin Clean Energy, July 3, 2014, p. 16.
[24] Memorandum re: Update on Community Choice Aggregation, Arcata City Council, December 19, 2013.
[25] Comprehensive Action Plan for Energy, Humboldt County, September 2012, p. 11.
[26] East Bay Cities Community Choice Aggregation Business Plan, Prepared by Navigant Consulting, Inc., September 2008.
[27] Progress Report – December 2008, Memorandum to Mayor and City Council from City of Emeryville City Manager Patrick D. O'Keeffe, December 2008, p. 1.
[28] Memo to Berkeley Energy Commission from City of Berkeley Secretary, October 22, 2008; and Memo to Oakland Office of the City Administrator from the Public Works Agency, December 16, 2008.
[29] Potential Benefits and Risks of Implementing Community Choice Energy, City of Berkeley Energy Commission, June 28, 2010.
[30] Potential Benefits and Risks of Implementing Community Choice Energy, City of Berkeley Energy Commission, June 28, 2010, pp. 3-4.

first year of operation as an early indication that such practice was possible among CCAs.[31] The report stated that overall, the greatest financial risks of a CCA would be related to securing the debt necessary for the construction of CCA-owned electricity generation facilities.[32] Efforts for a CCA in Oakland quickly extinguished due to city council issues associated with the Great Recession taking precedent over CCA formation.[33]

Berkeley continued to consider CCA, with the City Council passing a resolution in January 2012 demonstrating Berkeley's intent to explore CCA with MCE, and East Bay Municipal Utility District (EBMUD), which provides water and/or wastewater services to several East Bay cities.[34] However, in December 2012, the EBMUD Board of Directors voted to discontinue further exploration of a CCA, due to concerns regarding EBMUD's fiscal health, credit rating, and financial reserves.[35] After EBMUD decided not to pursue CCA, Berkeley postponed efforts to join MCE or form its own program.

In February 2014 at the request of the Alameda County Board of Supervisors, the Berkeley and Oakland climate action coalitions prepared a CCA feasibility study for Alameda County.[36] In June 2014, the Alameda County Board of Supervisors approved funding ($1.3 million) for a technical study on CCA program development.[37] If Alameda County continues to pursue a CCA, Berkeley, Oakland, and Emeryville would be among the cities that would be serviced by the program.

CCSF also considered joining MCE after it initially failed to form its own CCA program. Efforts to form a San Francisco CCA began in June 2007, when the CCSF Board of Supervisors passed an ordinance adopting a CCA program, Revenue Bond Plan, and Draft Implementation Plan.[38] In December 2011, the San Francisco Public Utilities Commission (SFPUC), the agency administering the City's CCA program, CleanPowerSF, approved a PPA between CleanPowerSF and SENA to provide the program's customers with renewable energy for over 4.5 years.[39] However, at a voting meeting held in August 2013, the SFPUC voted 3-2 against approving CleanPowerSF's proposed not-to-exceed customer rates, due to their high cost.[40] In response to the SFPUC's denial of the program's not-to-exceed rates, SFPUC President Art Torres, with Commissioners Courtney and Caen, commented that CleanPowerSF was not as environmentally friendly as it could be and that there remained unresolved labor issues. He encouraged the City to explore alternatives to the program.[41]

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[31] Potential Benefits and Risks of Implementing Community Choice Energy, City of Berkeley Energy Commission, June 28, 2010, p. 26.
[32] Potential Benefits and Risks of Implementing Community Choice Energy, City of Berkeley Energy Commission, June 28, 2010, pp. 3-4.
[33] BondGraham, Darwin, When Will We Go Green?, *East Bay Express*, May 30, 2012.
[34] Resolution No. 65,586-N.S., Berkeley City Council, January 12, 2012.
[35] Meeting Minutes, EBMUD, December 11, 2012.
[36] East Bay Community Choice Energy, Berkeley Climate Action Coalition, Community Choice Working Group, Oakland Climate Action Coalition, and Clean Energy & Jobs Oakland Campaign, February 2014.
[37] Board of Directors Meeting Agenda, Marin Clean Energy, July 3, 2014, p. 16.
[38] Ordinance No. 07-0501, City and County of San Francisco Board of Supervisors, June 12, 2007.
[39] CleanPowerSF Not-to-Exceed Electric Generation Rates Staff Report and Resolution, SFPUC, August 13, 2013.
[40] Riley, Neal J., "PUC fails to set rates for CleanPowerSF," *SFGate*, August 13, 2013,
[41] Ibid.

In April 2014 San Francisco Mayor Ed Lee, who had publicly opposed CleanPowerSF, released a draft budget in which he proposed to allocate the funds set aside by the SFPUC for the CCA to GoSolarSF, a separate program supported by Lee that provided incentives for property owners to install solar panels.[42] In May 2014 the CCSF Board of Supervisors approved an ordinance to study the feasibility of implementing a CCA program in San Francisco through joining MCE.[43] The ordinance was returned unsigned by Mayor Lee shortly thereafter.[44]

3.3 Potential Risks Faced by the City's Electric Consumers

As discussed above, there were and continue to be several risks that customers of MCE face. These are discussed below.

3.3.1 MCE May Be Unable to Procure Power for its Incremental Light Green Customers at Prices that Meet or Beat PG&E

In 2010, MCE successfully procured power for its Light Green customers at costs that allow those customers to have total energy bills that are less than they would have paid had they remained PG&E customers. However, at that time, PG&E's rate design for residential customers resulted in high usage customers having very high average electric rates. Thus, MCE was able to target the specific customers in its Phase I efforts that had very high rates. MCE has not been able to use this strategy since that first phase. PG&E rate design changes in 2011 resulted in a "flattening" of PG&E's generation rate for residential customers, meaning that high usage customers no longer pay higher—sometimes much higher—generation rates than low-usage residential customers. (Note that MCE essentially competes against PG&E's generation rate.) This risk is discussed in detail in Section 4.1, below.

3.3.2 Uncertainty in Exit Fees

Assembly Bill 117, which established the CCA program in California, included a provision that states that customers that remain with the utility should be "indifferent" to the departure of customers from utility service to CCA service. This has been broadly interpreted by the CPUC to mean that the departure of customers to CCA service cannot cause the rates of the remaining utility "bundled" customers to go up. In order to maintain bundled customer rates, the CPUC has instituted an exit fee, known as the "Power Charge Indifference Amount" or "PCIA" that is charged to all CCA customers. The PCIA is intended to ensure that generation costs incurred by PG&E before a customer transitions to CCA service are not shifted to remaining PG&E bundled service customers.

Even though there is an explicit formula for calculating the PCIA, forecasting the PCIA is difficult, since many of the key inputs to the calculation are not publically available, and the results are very sensitive to these key assumptions. For PG&E, the PCIA has varied widely; for example, at one time the PCIA was negative.

[42] Lagos, Marisa, "SF board to consider deal on clean-energy plan," *SFGate*, June 12, 2014.
[43] Meeting Minutes, CCSF Board of Supervisors, May 20, 2014, p. 3.
[44] Legislation 140415, CCSF Board of Supervisors, May 29, 2014, available at: https://sfgov.legistar.com/LegislationDetail.aspx?ID=1736467&GUID=D4E08EB6-F58A-42AA-BA0D-DFE4756E26B5

MCE's current policy is that customers bear the financial risk associated with the level of exit fees they will pay to PG&E. Thus, for a customer taking MCE service to be economically better off (i.e., pay less for electricity), the sum of the MCE charges plus the PCIA must be lower than PG&E's generation rate. As noted above this has not consistently been the case for MCE residential customers.

MCE has intervened vigorously at the CPUC to minimize the size and scope of PG&E's exit fees. For example in 2009 is co-sponsored testimony in Rulemaking 07-05-025 which revised the PCIA to better account for renewable portfolio standard requirements. It has also petitioned the Commission to open a Rulemaking to reconsider all exit fees and participated the last two "ERRA" proceedings in which the annual exit fees are set. MRW expects MCE to continue to have an active presence at the CPUC, advocating for lower and more limited exit fees.

3.3.3 CARE Customer Issues

As mentioned in Section 3.2.4, current MCE policy does not ensure that CARE customers will not pay more under MCE than they would had they taken service from PG&E. The table below shows the generation rates offered by PG&E and MCE for a standard residential CARE customer. MCE's generation rate for residential customers (including those on CARE service) are 1.6¢/kWh less than PG&E's rates. However, MCE's rate does not include PCIA, a rate element that is applicable only to CCA customers. When adding in the PCIA, currently 1.1¢/kWh, the low-income customer taking service from MCE would still be paying a rate below that offered by PG&E. Thus, given current rates, low-income customers are better off with MCE. However, that has not always been the case. When MRW conducted an analogous analysis in 2011 for the City of Richmond, the rates in place at that time would have resulting in CARE customers (using 400 kWh per month) paying approximately $100 more per year on MCE service than on PG&E service. However by the time Richmond joined MCE in 2013, PG&E's generation rates were greater than MCE's rate plus exit fee, so the issue of CARE customers paying higher bills under MCE was made moot.

Given current rate trends, MRW expects CARE customers to pay less for power with MCE in 2015 than they would with PG&E. Nonetheless, given MCE's current policies, there is no guarantee this will be the case in all years.

Table 2. CARE Rate Comparison (current tariffs), ¢/kWh

	PG&E Schedule EL-1	MCE Schedule RES-1	Difference
Generation Rate	9.5	7.9	(1.6)
PCIA (Vintage 2014)	n/a	1.1	1.1
Total	9.5	9.0	(0.5)

Issue: Other Customers Subsidizing CARE Customers

If MCE changes its policy and decides to ensure that MCE's net CARE rate is no higher than PG&E's CARE rate, then in years when the MCE rate plus exit fee is greater than PG&E's generation rate, MCE would need either to marginally raise rates for the other MCE customers, or use its reserves to finance the MCE CARE customers. A question that would likely be raised would be, how willing are MCE's ratepayers in other jurisdictions to subsidize low-income customers in Benicia, and vice versa? MRW does not know the answer to this question but we believe that it could present a political and public relations challenge for Benicia officials as well as MCE.

3.3.4 Regulatory Changes Adversely Affect MCE Customers

Regulatory changes could make MCE's power costs uncompetitive with PG&E. As discussed elsewhere, the CPUC establishes exit fees that customers of MCE have to pay. Such decisions have occurred in the past (e.g., MCE and others advocated strongly in opposition to PG&E's effort to flatten its generation rate, but these efforts proved unsuccessful). Also, as discussed above, the CPUC could adopt bonding requirements that would significantly increase the cost of security bonds for MCE, which would also tend to undermine the ability of MCE to provide electricity to its customers at a rate that meets or beats PG&E's rates.

3.4 City's Potential Financial Obligations to MCE

The City, as a consumer of electricity, faces many of the risks discussed above. However, the City also may face other risks as a participant in MCE. This section discusses those potential risks.

3.4.1 Need for City to Provide Backstop Support to MCE Power Suppliers

When MCE was originally established, it needed to fund its startup activities. At that time, it had no customers and no credit rating. Thus, MCE had to borrow funds from third parties, including the County of Marin and a number of individuals. However, shortly after it began operations, MCE was able to acquire a line of credit from River Bank, which it used to consolidate its prior start-up loans. Given its successful debt management, increase in operating reserves, and ability to enter into PPAs without member backstop support (see Section 4.3), MRW does not foresee MCE needing to rely on the City's credit as a backstop future power supplies. Also, the JPA would insulate City's from having to use their credit in any transaction between MCE and a power supplier (see legal analysis prepared by Davis Wright Tremaine).

3.4.2 Lenders Requiring MCE Members to Provide Balance Sheet Guarantees for Generation Assets

During MRW's 2010 review of the risks associated with participation in (then) MEA it asked MEA staff about the potential risk of cities needing to (or being forced to) provide balance sheet support to allow construction of generation assets that are owned by MEA. At that time, MRW received assurances that such balance sheet support from MEA members would not be required. This was reiterated by Executive Director Weisz at the September 27, 2010 Novato City Council meeting, where she went on to explain that the JPA structure itself protects the JPA's members from debts incurred by the JPA.

In general, this is a legal issue and is beyond the scope of MRW's assessment. However, MRW notes that the Town of Ross's city attorney, Hadden Roth, investigated Ross's liability should it join MCE. His conclusions were:

> …that the Town's general fund will not be responsible for any financial obligations of MEA unless the Ross Town Council first specifically agrees in writing to assume the liability. This protection is provided under both the JPA agreement and State law.[45]

Therefore, MRW understands that no liability could be placed on Benicia simply by being a member of the JPA. This is consistent with the legal analysis prepared by Davis Wright Tremaine for the City of Benicia.

3.4.3 Contingency for Dissoving MCE

Chapter 11 of MCE's Revised Implementation Plan outlines a contingency for program termination. In general, MCE cannot terminate service without a majority of the Member' governing bodies (e.g., boards of supervisors or city councils) explicitly passing an ordinance or resolution to terminate MCE. The MCE Board would then vote on termination (based on the weighted voting shares described above). If the MCE Board approved termination, the Board would disband per the provisions in the JPA agreement.

If possible, MCE would provide PG&E and the CPUC one year notice that it was intending to cease service and return its customers to PG&E. Customers would receive notice six months and sixty days prior to being returned to PG&E service.

In the event of an unplanned collapse of MCE, all its customers would return to PG&E with no break in service. I.e., customers are at no risk of not having electricity due to the failure of MCE. Furthermore, consistent with the discussion in Sections 3.4.3 and 3.4.3 above, neither Benicia nor any other MCE member would be liable for any debts MCE might have upon its unexpected demise.

3.4.4 Impacts on Utility Franchise Fee and Tax Collections and Remittances

PG&E's Electric Rule 23, Section B.16 explicitly states that "CCA customers shall continue to be responsible to pay all applicable fees, surcharges and taxes as authorized by law. PG&E shall bill customers for franchise fees as set forth in Public Utilities Code Sections 6350 to 6354."

Franchise fees are payments that a public utility makes to a city of county government for the nonexclusive right to install and maintain equipment on the government's right of ways. For PG&E, this includes the right to install and maintain equipment such as power poles on city sidewalks or gas pipelines underneath city streets. Franchise fees are generally calculated as a fraction of retail sales, typically on the order of a few percent.

Since PG&E's retail sales to CCA customers does not include the generation component of rates, a special adjustment must be made to ensure that a city participating in a CCA receives its fully due franchise fees. For PG&E, this is accomplished through Electric Schedule E-FFS. This

[45] Minutes to the Special Meeting Of The Ross Town Council, January 12, 2010.

schedule adds 0.06-0.07¢/kWh, which is the equivalent Franchise Fee amount of the value of the power being provided by a CCA such as MCE. Thus, Benicia will receive the same amount of franchise fees under MCE service than it would under PG&E service.

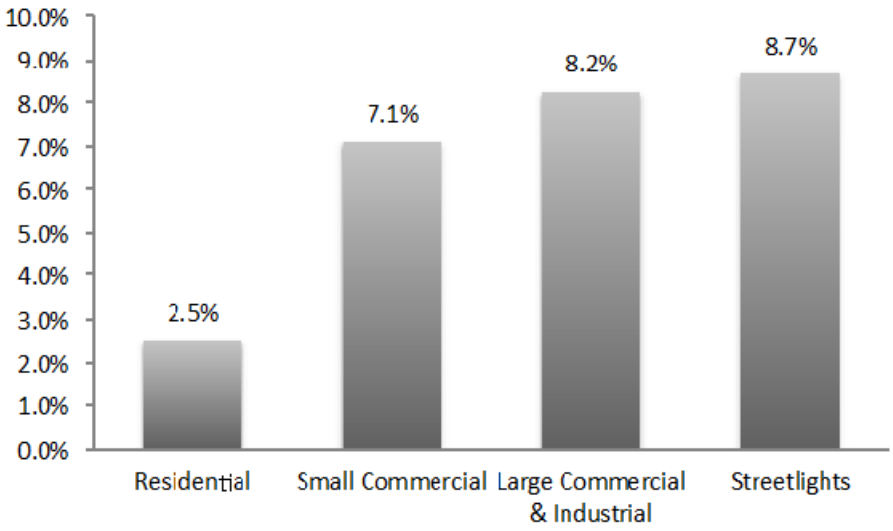
On behalf of the City, PG&E also collects a utility users tax equal to 4% of the PG&E bill, which PG&E remits directly to Benicia. Because PG&E would remain responsible for billing customers under MCE service, it would remain the responsible party for collecting and remitting Benicia's utility users taxes. This is the case for Richmond, where PG&E continues to calculate, charge customers and remit that city's utility users tax. To the extent that MCE customers' total bills are different than they would be under PG&E service, the utility users tax would also be different. For example, MCE estimated that based on current rates, Benicia's residents and businesses would save $1.6 million per year with MCE service. This would translate into a reduction in the utility users tax of $64,000. However this would be partially offset by an estimated annual savings of $42,000 from municipal electric accounts being served by the lower-cost MCE.

A potential second order financial impact on the City would be changes to its property tax revenues. Given MCE's commitment to net energy metered solar, renewable purchase from its Feed-In Tariff and locally-sourced power, MCE membership is more likely to increase property tax revenues (by increasing the tax base) than not.

4. Review of MCE Rate Comparison and Applicant Analyses

The MCE rate comparison spreadsheet analysis developed by MCE for the City estimates savings of $1.6 million for Benicia customers from joining the CCA. This amounts to 6.5% savings off the generation portion of Benicia customers' PG&E bills, with much higher levels of savings for non-residential customers (8%) than for residential customers (1.5%). Based on this analysis, nearly all customer types would be expected to benefit from joining the CCA,[46] with the largest direct benefiters being Benicia businesses, industries, and municipal accounts (Figure 1). MRW reviewed the key assumptions and methodology used in the rate comparison analysis to evaluate the reasonableness of these benefit projections.

Figure 1: Rate Savings under MCE Analysis, by Customer Class[47]



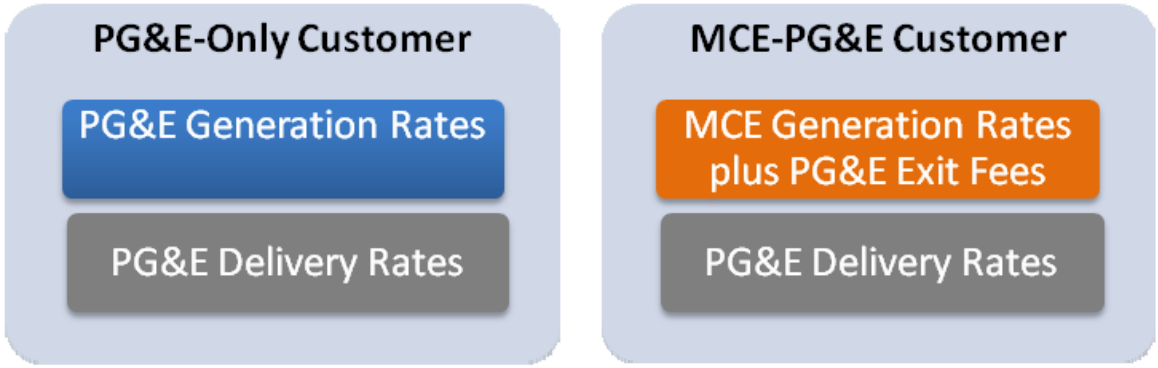
MRW additionally reviewed the MCE Applicant Analysis, dated August 29, 2014. The primary purpose of the analysis is to assess whether Benicia's membership in MCE would reduce rates for existing MCE members, as is required for membership eligibility. The analysis for the City of Benicia does make this determination, finding that the added customer base from Benicia would likely reduce MCE rates by 3%. MRW reviewed this analysis to evaluate the likelihood of such rate reductions and implications for the rate comparison analysis.

[46] Only the traffic control accounts were found to have higher rates under the CCA.
[47] Savings percentages are with respect to the generation portion of the electric bill only.

4.1 MCE Rate Comparison Analysis

MCE customers are all joint customers of both PG&E and MCE, with PG&E providing delivery services at the same rate as provided to PG&E-only customers and MCE providing generation services at its own rate. In addition to these two rate components, MCE customers must pay an exit fee to PG&E. All three components combine to make up the electricity bill for MCE customers (Figure 2).

Figure 2: Comparison of Electricity Charges for PG&E-Only Customers and for MCE-PG&E Customers



The rate comparison analysis developed by MCE provides a snapshot, high-level comparison of the annual electricity bills for Benicia residents and businesses under PG&E-only service versus under MCE-PG&E service. The comparison considers PG&E's generation rates compared to the combination of the MCE generation rates and the PG&E exit fees that are assessed on MCE customers. Since the delivery rates are the same regardless of whether the customer joins MCE, this rate component is not considered. Consideration of only the generation rates and exit fees is appropriate for this analysis.

The rate comparison was developed using average rates from August 2014 for each class of customers. For some commercial and industrial customers or residential customers on a time-of-use tariff (E-6), actual average rates vary depending on electricity usage patterns and may differ substantially from the class average rate.[48] For these customers, who represent a large share of the anticipated savings, MCE's rate comparison provides only an estimated result. Since these estimates are based on average rates specifically in MCE's service area of Marin County and the City of Richmond, they are likely, on average, to be reasonable approximations of the actual rates paid by Benicia's customers. To the extent that actual rates differ from the average rates used in the analysis, the overall level of savings could be either higher or lower than the 6.5% savings estimated by MCE but is likely to be roughly in that ballpark. Customers would need to

[48] For most residential and some small commercial customers, rates do not vary by usage pattern, and the average rates are equal to customers' actual rates. These customers comprise one-quarter of electricity usage in Benicia. For remaining customers, rates vary by usage pattern.

evaluate their own savings potential based on their particular usage patterns.

This 6.5% savings estimate is specific to August 2014 rates. The MCE rate comparison does not indicate whether August 2014 was a typical rate period or whether these savings can be anticipated going forward. This is an important consideration because PG&E's rates typically change several times a year, and MCE's rates change at least annually, so the relationship between PG&E's and MCE's rates changes frequently.

4.1.1 Key Factors

Key factors influencing PG&E's rates in the short term are the availability of water for hydroelectric generation and the costs of natural gas and renewable power. In the longer-term, a significant uncertainty with regard to PG&E's rates is the future of the Diablo Canyon nuclear plant. If the plant is shuttered when its licenses expire in 2024 and 2025 (or sooner), the nuclear power is likely to be replaced with more expensive gas-fired and renewable power. If PG&E instead pursues a 20-year license extension for the plant, PG&E will be required to complete expensive plant upgrades in order to meet compliance requirements.

On the MCE side, power procurement costs are largely driven by the costs of gas-fired and renewable power. Currently, MCE meets nearly 80% of its resource needs with conventional power, which is nearly all gas-fired power.[49] While MCE plans to reduce its dependence on natural gas-fired power over time, MCE's Integrated Resource Plan for 2013-2022 shows that this will be a slow process, with a 72% dependence on conventional power remaining at the end of the ten-year plan.[50]

MCE customers are also obligated to pay exit fees to PG&E. In the long-term, these fees should fall, as the contracts and power plants that they support are removed from the exit fee assessment. In the short-term, however, year-to-year variability in either direction should be anticipated based on the price of natural gas and other factors.

Given all of the factors that drive rate changes, it cannot be stated with certainty that the relationship between PG&E and MCE rates observed in August 2014 will continue year-to-year; however, it is reasonable to expect that MCE rates will on average remain competitive with PG&E's.

For 2015 in particular, it is reasonable to anticipate rate savings under MCE because PG&E's generation rates are slated to increase by an estimated 9% in 2015 compared to August 2014.[51] Some of this rate increase is due to the California drought, which has severely constrained the availability of water for PG&E's hydroelectric plants. While MCE relies on some hydroelectric

[49] MCE's power mix is made up of about 80% conventional power and also 50% renewable power. This adds up to 130% because about 30% of power deliveries are made up of conventional power that has been assigned Renewable Energy Certificates. These power deliveries are classified by MCE as renewable but they do not reduce MCE's dependence on conventional resources. (Renewable Energy Certificates link the renewable attribute of renewable resources that are typically outside of California and not connected to the California electricity grid to physical power deliveries that are made to MCE customers, typically from conventional resources.)

[50] Marin Clean Energy. Integrated Resource Plan Annual Update, November 2013, page 23.

[51] PG&E's average generation rate in August 2014 was 9.185 cents per kWh, and PG&E's current estimate of its January 2015 generation rate is 9.992 cents per kWh. PG&E Advice Letter 4450-E-A, July 22, 2014, Attachment 2A and Advice Letter 4484-E, August 29, 2014, Table 3.

plants for its power, we do not expect MCE's rates to be affected by the drought to the same extent as PG&E because MCE has most of its resources under fixed-price contracts through 2017.[52]

In subsequent years, the availability of rate savings will likely be driven by water availability, the price of natural gas, and the prices of renewable contracts entered into by MCE compared to those entered into by PG&E. MCE's rates are likely to generally remain competitive with PG&E's, but there are risks of higher costs under MCE in some circumstances. For example, while the Diablo Canyon plant is operational and exit fees are still high, an unexpected spike in natural gas prices could increase MCE's rates above PG&E's rates. There is little risk of this through 2017 because MCE has contracts in place to supply about 95% of its gas-fired power requirements at fixed prices through this time.[53]

The longer-term risk depends on MCE's procurement choices after termination of its contract with SENA. According to MCE's Integrated Resource Plan, MCE will typically enter into contracts for conventional power and for natural gas that are either short term or medium term, meaning terms of less than five years.[54] Medium-term fixed-price contracts would provide security against short-term spikes in natural gas prices; however, MCE's Integrated Resource Plan does not specify the extent to which it will pursue such contracts and does not mention plans for financial hedging or other mechanisms to cushion rates from potential medium-term or long-term natural gas price increases. Since MCE's current contract with SENA is a fixed-price contract, it is reasonable to anticipate that MCE is sensitive to gas price variability and will develop plans to cushion rates from this variability; however, this cannot be determined with certainty because MCE's procurement plans for the period following expiration of the SENA contract in 2017 are still under development. In addition, it would not be reasonable to expect MCE to fully hedge against a long-term sharp increase in natural gas prices. This situation, which is not currently anticipated in the coming decades given shale gas supply estimates, would put more upward pressure on MCE rates than on PG&E rates.

MCE appears to have a long-term strategy to reduce this risk by increasing its procurement of renewable resources and reducing its dependence on natural gas-fired power. However, unless MCE significantly ramps up its procurement of renewable resources and/or Diablo Canyon is retired early, MCE is likely to remain more heavily dependent than PG&E on natural gas for the next few decades. This does place additional price risk on MCE, which, in the event of an extended period of high natural gas prices, could mean that MCE's rates will be higher than PG&E's. This risk is counterbalanced to some extent by the risk to PG&E from low water years and from nuclear plant outages, and, should MCE choose to do so, it could be partially managed through contractual choices. Moreover, the risk of higher costs under MCE declines over time as exit fees fall off. In the long run, with exit fees reduced to zero and Diablo Canyon retired, it is reasonable to expect that electricity bills through MCE will generally be lower than under PG&E.

[52] Renewable energy certificates are excluded from this assessment as they typically cost just a small percent of the cost of physical power and therefore pose much less price risk than physical power requirements.
[53] Marin Clean Energy. Integrated Resource Plan Annual Update, November 2013, page 16.
[54] Ibid, page 20.

4.1.2 Rate Comparison Conclusions

The MCE rate comparison provides a reasonable estimate of rate savings under August 2014 rates, but it does not provide a good indication of how rates under MCE will compare with rates under PG&E going forward. MCE rates, PG&E rates, and exit fees will increase and decrease in the coming years at different rates, driven by different factors, so it cannot be determined whether MCE will continue to provide a rate benefit to Benicia customers in all years. However, given the current estimate of a 6.5% benefit under MCE, and considering the various pressures influencing PG&E and MCE rates as well as the long-term exit fee trends, it is reasonable to anticipate that MCE rates will generally remain competitive with PG&E's in the long-term, though not necessarily in each and every year and not necessarily at the same rate identified in the MCE rate comparison.

The MCE rate comparison was developed assuming full participation by all Benicia customers in the CCA. MRW additionally tested the results under scenarios with high levels of opt-outs. MRW found that applying a 50% opt-out rate to non-residential accounts reduces the Benicia-wide savings rate from 6.5% to 5.6% and that applying a 50% out-out rate to residential customers increases the Benicia-wide savings to 7.1%. MRW also found that should the city's largest customer choose to opt out of the CCA, substantial savings (5.5%) are still anticipated for remaining customers. Given these results, MRW concludes that while opt-outs could either increase or decrease the average savings for remaining customers, depending on which customers opt out, average savings are likely to remain robust for remaining CCA customers even if significant numbers of opt-outs occur.

4.2 MCE Applicant Analysis

The MCE Applicant Analysis found that MCE's rates would likely fall by 3% with the addition of Benicia customers to the CCA. If this rate decrease does occur, the rate savings for Benicia customers will increase by more than estimated in the rate comparison, all else being equal. MRW evaluated the Applicant Analysis to determine whether these rate savings should be anticipated.

The MCE Applicant Analysis is based on an estimate of the revenues from Benicia customers compared to the costs to serve these customers during the fiscal year that begins April 2015. The key assumptions are as follows:

1. **Benicia load served by** MCE: The analysis assumes a 20% opt-out rate, which is a reasonably conservative assumption. The analysis appropriately takes into account that first year loads will be lower because of the gradual transfer of accounts to MCE service over the course of April 2015 and assumes that 76% of the total electricity usage in Benicia will be served by MCE in this year.

2. **Revenue from Benicia customers**: The MCE rate comparison analysis was based on MCE's serving 100% of Benicia's electricity usage. The MCE Applicant Analysis finds that the revenue from serving 76% of Benicia's electricity usage will be 74% of the revenue identified in the rate comparison analysis. This appears reasonably conservative.

3. **Costs to serve Benicia customers**: The MCE report identifies two cost components: (i) power supply costs of $12.5 million and (ii) billing and other costs of $330,000. The

power supply cost estimate is equivalent to $60.50 per Megawatt-hour, which is a reasonable estimate given current market prices. The billing and other costs are equivalent to $26 per customer to cover customer billing, customer service support, and PG&E service fees. MEA's financial statement for 2014 shows the equivalent of less than $14 per customer for Staff Compensation,[55] which likely covers customer service support and other functions. The financial statement additionally shows nearly $50 per customer for General and Administration and for Contract Services. These costs cover some cost categories that are likely to increase with each new customer, such as PG&E billing fees of $0.44 - $1.05 per account,[56] but more substantial costs that are not likely to grow on a one-to-one basis with the added customer base, such as costs for power solicitations and contract negotiations, for representation at the California Public Utilities Commission and in Sacramento, and for account auditing, legal counsel, office space, and communication and information technology equipment. Using reasonably conservative estimates of 20% of these costs and 100% of the staff compensation costs increasing on a one-to-one basis for each new customer yields an incremental cost of $24 per new customer. MCE's estimate of $26 per customer therefore appears to be reasonable.

MCE's analysis excludes one-time costs associated with the Benicia expansion, which are estimated at less than $350,000.[57] Had these costs been included, the analysis results would not have materially changed.

Based on these assumptions, MCE calculated revenue of $16.6 million from Benicia customers and a cost of $12.8 million to serve these customers, providing a net surplus to MCE of $3.8 million. MCE concludes that this surplus will allow MCE rates to be 3% lower than they would be without Benicia customers. This conclusion is reasonable given MCE's current revenue base. It should be noted, however, that, to MRW's knowledge, while for the purpose of the analysis MCE assumes that this revenue surplus would be used to reduce MCE's overall rates, MCE is not obligated to use this revenue surplus to reduce rates and has not committed to doing so.[58] MCE could instead use the funds to expand services, increase MCE staff salaries, or for other uses. As a result, while MRW finds this analysis to be reasonable, MRW does not feel it is appropriate to rely on these savings in estimating bill impacts from joining MCE.

4.3 Organizational Soundness (Long-Term Viability)

In considering the organizational soundness and long term viability, MRW examined how the JPA was structured (do members have an appropriate voice in governance?), MCE's operational management, MCE's finances to date (including debt), and MCE's projected revenues and costs.

[55] Marin Clean Energy. Financial Statements: Years Ended March 31, 2014 and 2013 with Report of Independent Auditors, page 7.
[56] PG&E Electric Schedule E-CCA, October 2014, Sheet 6.
[57] These are predominately MCE costs. The PG&E-related fees are $8,000 for a single mass enrollment with a 20% opt-out rate, plus $4,000 for each additional enrollment. PG&E Electric Schedule E-CCA, October 2014, Sheet 2.
[58] MCE's Applicant Analysis appears to take care to avoid making such a commitment. For example, the report states, "The surplus is assumed to offset a share of MCE's fixed costs and can be used to reduce overall MCE rates" (p. 5). It does not state that the surplus will (or would) be used to reduce overall MCE rates.

4.3.1 The Marin Clean Energy Joint Powers Agreement

The MCE JPA stipulates that MCE be governed by a Board of Directors. Each member town, city or county to the JPA appoints one director to the Board. Thus, Board Members of the original MCE members have no more inherent power than those of members added later, such as Benicia. The Operating Rules and Regulations specify the reasons for which an individual Director can be removed, but only for cause. The member that appoints a director has the right to remove him/her at any time, and has the responsibility to fill any vacancy within 90 days. Thus if Benicia joins MCE, it will need to determine how it will select a MCE director and make that selection in a timely manner. The appointing city is also responsible for compensating a director for their work. A majority of the directors appointed to the MCE Board are required to be present for a vote to take place. The Board has the authority to conduct all of the business and activities of MCE in accordance with the rules of the organization. The Board also elects a chair and vice-chair from amongst themselves.

When voting on matters relating to the CCA Agreement, each member's voting share is determined as follows:

- Each director has a pro rata voting share equivalent to [1/total number of directors] x 50%
- A director has an Annual Energy Use voting share equal to [the appointing party's Annual Energy Use/Total Annual Energy Use] x 50%
    - For the first 5 years following the Effective Date of the formation of MCE, a party's Annual Energy Use is the total kilowatt-hours (kWh) used within the respective party's jurisdiction.
    - After the 5th anniversary of the Effective Date, a party's Annual Energy use is the total kWh used by accounts within a Party's respective jurisdiction that are served by MCE.
    - The Total Annual Energy Use is the sum of all party's Annual Energy Use

Adding Benicia's 2013 Annual Energy Use of 272,731,094 kWh to MCE's existing 2,368,744,329 kWh Total Annual Energy Use would result in approximately a 5.2% Annual Energy Use voting share and approximately a 3.1% pro rata voting share, for a total voting share of roughly 8.3%.

To reach an affirmative decision, all directors voting in the affirmative have a total voting share exceeding 50% of the total voting share, unless a higher threshold is specified. If a vote requires a higher threshold, than at least two directors must vote in the negative to disapprove the matter.

When voting on general administrative matters and programs not involving the CCA, each director has one vote, unless otherwise specified. When voting on programs not involving the CCA that require financial contributions, the program shall be approved only by a majority vote of the full membership of the Board. Parties who vote against the program have the right to opt-out of the program. The Board will provide written notice to all members 45 days prior to considering the program that require financial contributions in a board meeting.

4.3.2 Marin Clean Energy Management Structure

The MCE Board's primary duties are to establish program policies, set rates, and provide policy direction to the Executive Officer. The MCE Executive Officer has the general responsibility for program operations.

The current Executive Officer is Dawn Weisz. Ms. Weisz has been the Executive Officer since MCE was formed and in fact was involved in the establishment of MEA, going back to as early as 2004. Answering to the Executive Officer are Directors of six departments: Public Affairs, Electric Supply, Energy Efficiency, Legal and Regularly, and Internal Operations.

Through its prior reviews of MEA and MCE and through its experience in California electricity regulation and market analysis, MRW has found that the key personnel at MCE to be more than competent. First, Ms. Weisz, as Executive Officer, not only successfully ushered MCE into existence but also led the organization as it expanded beyond its initial membership. MRW has also found Ms. Elizabeth Kelly, the Legal Director, to be a knowledgeable and proactive advocate for MCE at the CPUC. Mr. John Dalessi, a consultant to MCE, successfully negotiated the initial contracts with SENA and continues to administer MCE's competitive solicitations for power supply and renewable energy. The fact that since 2012 MCE has had lower costs than PG&E is at least partially attributable to Mr. Dalessi.

4.3.3 Current Financial Position of Marin Clean Energy

MRW reviewed the last 3 years of MCE's audited financial statements along with MCE's 21014 Revised CCA Implementation Plan[59] and Addendum No. 1 to that plan.[60] Per the audited financial statements, MCE's net position (total assets minus total liabilities) has improved each of the past three years. The change in net position is summarized in the table below:

Table 3. MCE Net Position

Fiscal Year	Net Position ($)
2011	318,838
2012	3,917,925
2013	7,912,874
2014	9,558,036

Furthermore, MCE has expanded service each year, which has resulted in an increase in cash and receivables, as well as trade liabilities. In July 2013, MCE expanded into the City of Richmond, and grew its customer base from 90,000 to 125,000. This resulted in higher accounts receivables, but has also led to more spending on energy procurement. Net accounts receivables and accrued revenues increased from 2013 to 2014, as did accounts payables, accrued cost of electricity and user taxes/energy surcharges from other governments.

[59] To account for the addition of Napa County, dated July 18, 2014.
[60] To account for the addition of the City of San Pablo, dated September 16, 2014.

MCE incurred no new debt in Fiscal Year 2014[61] and continued paying down its existing debt. The total notes payable to banks decreased from $3,083,746 to $2,024,308.

One issue identified in the financial statements is that the operating margins have been decreasing as the company expands. The past three years of operating revenues, expenses, income and margins are summarized in the table below.

Table 4. MCE Operating Income (Fiscal Year)

	2014	2013	2012
Operating Revenues ($)	85,561,759	52,579,310	22,918,843
Operating Expenses ($)	83,731,036	48,429,076	19,210,349
Operating Income ($)	1,830,723	4,150,234	3,708,494
Operating Margin	2.14%	7.89%	16.18%

It should be noted that actual revenues in the table above are for the 12 months ending on March 31st of the year indicated, and projections as provided in the Updated MCE Implementation Plan are for calendar years. Therefore, while MCE only increased its Net Position by $1.83 million between April 1, 2013 and March 31, 2014, MCE's latest projection indicates that they expect to increase its net position by $5.27 million during the 2014 calendar year.[62]

There are two reasons why MCE's operating margin dropped in FY 2014 and why it is reasonable to expect MCE's financial performance to improve over the rest of the 2014 calendar year. Both are related to the City of Richmond joining MCE in August 2013. First, there is a one to two month lag between when MCE receives payments from customers after when it has pays its procurement amounts. The expansion of service to Richmond required MCE to use additional working capital to account for this lag. Second, adding Richmond to MCE increased commercial sales by 50%.Commercial sales are subject to seasonal rates, with higher rates from May through October and lower rates from November through April. However, procurement costs are not seasonal. Therefore, MCE must procure electricity to supply Richmond at "full cost" for 5 winter months (November through March) while charging commercial customers lower winter rates. Had Richmond been a customer for an entire 12 months, this factor would have balanced out.

4.3.4 Projections

The MCE financial projections in its Updated Implementation Plan Addendum reflect costs and loads through 2019 or 2021 (depending upon the table) and include only the additional load associated with Napa Country and the City of San Pablo. The loads associated with these two new members are not on the same scale as the City of Richmond. The MCE's total energy requirements grew by 93% between the 2012 and 2013 calendar years, from 603 GWh to 1,166 GWh, most of which is attributable to Richmond joining MCE.

From 2013 to 2021 MCE projects the total energy requirements to grow by 47% total, increasing

[61] April 2013 through March 2014.
[62] September 14, 2014 Implementation Plan Addendum, p. 10.

to 1,714 GWh (See Table 5, below).[63] This increase occurs in the first two years when service begins for Napa and San Pablo. In 2016 and beyond, no increase in retail sales is projected, and in fact due to distributed generation and energy efficiency, MCE projects net decreases in total load requirement. This is not unreasonable, as retail demand has been relatively flat in California over the past decade, and MCE intends to aggressively pursue both solar distributed generation and energy efficiency.

Table 5

Marin Clean Energy
Energy Requirements
(GWH)
2010 to 2019

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MCE Energy Requirements (GWh)										
Retail Demand	91	185	570	1,110	1,294	1,592	1,658	1,658	1,658	1,658
Distributed Generation	0	-1	-1	-5	-12	-16	-22	-24	-26	-26
Energy Efficiency	0	0	0	-6	-6	-4	-8	-11	-15	-15
Losses and UFE	5	11	34	66	77	94	98	97	97	97
Total Load Requirement	96	196	603	1,166	1,353	1,666	1,726	1,721	1,714	1,714

Table 6, below, shows MCE's historic (2013) and projected (2014-2021) annual revenues and costs.[64] Consistent with its load projections, revenues and costs both grow markedly from expansion from 2013 through 2016. After 2016, MCE is projecting no changes to revenues (indicating no change in rates or perhaps a very slight increase to account for slightly lower net loads resulting from energy efficiency and solar installations). Administrative and General costs, which constitute less than 10% of MCE's overall cost of operations, are projected to increase with expansion (although not at the same rate as the cost of energy), and then grow at 1.7% (approximately inflation).

In 2017 MCE projects a 0.4% decrease in the cost of energy and a more significant decrease, 5.75% ($ 7 million), in 2018. The only explanation for the significant drop in 2018 is the end of the SENA procurement contract. Thus, MCE is implicitly assuming that it will be able to replace the SENA power at prices that are on average approximately 5% less than that provided by SENA. While this drop is not explained in its current Integrated Resource Plan (See Section 3.1), MRW understands that an updated Integrated Resource Plan will soon be available (i.e., November 2014) which may explain the drop. Even if MCE can replace the SENA power at the same price (and not a discount) and the cost of energy to MCE remains flat at the 2017 level, net surpluses would still persist.

[63] Per September 14, 2014 Implementation Plan Addendum, p. 7.
[64] September 14, 2014 Implementation Plan Addendum, p. 10.

Table 6

Marin Clean Energy
Summary of CCA Program Phase-In
(January 2013 through December 2021)

CATEGORY	2013	2014	2015	2016	2017	2018	2019	2020	2021
I. REVENUES FROM OPERATIONS ($)									
ELECTRIC SALES REVENUE	79,097,747	100,075,912	128,617,779	134,185,719	134,185,719	134,185,719	134,185,719	134,185,719	134,185,719
LESS UNCOLLECTIBLE ACCOUNTS	(395,489)	(500,380)	(643,089)	(670,929)	(670,929)	(670,929)	(670,929)	(670,929)	(670,929)
TOTAL REVENUES	78,702,259	99,575,532	127,974,690	133,514,790	133,514,790	133,514,790	133,514,790	133,514,790	133,514,790
II. COST OF OPERATIONS ($)									
(A) ADMINISTRATIVE AND GENERAL (A&G)									
STAFFING	1,386,303	1,825,000	1,993,875	2,053,691	2,115,302	2,178,761	2,244,124	2,311,448	2,380,791
CONTRACT SERVICES	4,457,964	4,611,420	5,020,551	5,161,916	5,205,681	5,250,760	5,297,190	5,345,014	5,394,272
IOU FEES (INCLUDING BILLING)	584,729	660,114	790,328	815,506	839,971	865,170	891,125	917,859	945,394
OTHER A&G	302,806	373,125	398,084	409,388	421,030	433,022	445,374	458,096	471,200
SUBTOTAL A&G	6,731,802	7,469,659	8,202,838	8,440,500	8,581,984	8,727,713	8,877,813	9,032,416	9,191,658
(B) COST OF ENERGY	69,284,393	85,644,745	114,772,479	120,618,621	120,116,426	113,197,511	115,189,890	117,238,282	119,307,184
(C) DEBT SERVICE	1,195,162	1,195,162	1,151,494	671,149	447,432	-	-	-	-
TOTAL COST OF OPERATION	77,211,357	94,309,566	124,126,812	129,730,270	129,145,842	121,925,224	124,067,703	126,270,698	128,498,842
CCA PROGRAM SURPLUS/(DEFICIT)	1,490,902	5,265,966	3,847,878	3,784,520	4,368,948	11,589,566	9,447,087	7,244,092	5,015,948

MRW is also skeptical that the cost of energy to MCE would experience no net increase from 2016 to 2021 (albeit with some year-to-year decreases and increases). Nonetheless, in considering these projections, one must keep in mind the following:

1. MCE has rate setting authority. Thus, if in a particular year the cost of energy increases, the Board may either change rates so as to collect those costs or fall back onto its reserves.
2. MCE's rates must be ***comparable*** to PG&E's ***in the long term***. If the cost of energy to MCE increases markedly due to say an increase in gas prices, then PG&E would also experience a similar increase in its cost of energy. This would allow MCE to increase its rates without necessarily harming its price position relative to PG&E.
3. Similarly, as seen in its early years (2010 and 2011), MCE need not beat PG&E's prices at all times. A short period where MCE's prices are marginally above PG&E (i.e., a few percent) would not likely result in a detrimental loss of load from customers migrating back to PG&E service.

The incremental load from Benicia joining MCE would increase both the revenues and cost of energy proportionally. Assuming that MCE could serve the Benicia load at the same average cost as it serves its already established load (a condition for Benicia's membership in MCE), then the positive operating surplus should be maintained.

4.3.5 MCE Debt

MCE's debt comes from 3 major sources. Prior to the 2010-11 fiscal year, MCE received $540,000 in interest free loans from Marin County and $750,000 from three individuals at a

5.75% interest rate. This was to be paid back by August 1, 2011, which it was. In April 2010 MCE received a $1.45 million from the River City Bank, with interest computed at the greater of 2% plus the Base Commercial Loan Rate (3.25% at date of agreement) or 5% per year. In January 2011 MCE took out a new $2.3 million loan from River City Bank, at a 5.25% interest rate. This loan also retired the previous loan from the bank. In July 2012 MCE received another $3 million loan from River City Bank, repayable by October 2017 at a 4.5% interest rate. MCE currently owes $3.093 million of principal, and $3.326 million total.

4.3.6 Conclusions Concerning Long-Term Viability

MRW finds the governance structure of the MCE JPA to be reasonable. All member entities are represented on the Board, with key voting provisions reflecting both the number of members and the size of each member. The current management is experienced and competent.

The finances of MCE are, to date, sound. Quickly after startup, MCE was able to acquire a line of credit so as to consolidate its private startup debt. It has consistently increased its net position and operating reserves. While its cost of power beyond 2017 may be optimistic, given the positive operating margins shown in its projections as well as the Board's ratemaking authority, MRW sees no red flags in its financial projections.

5. Conclusions

MRW has identified various benefits and risks associated with the City's participation in MCE. The most significant benefit is local control over ratemaking, power procurement and energy efficiency/solar policies. The most significant risk is whether MCE will ultimately be able to provide long-term power supplies at costs that are less than PG&E generation rates. Thus, even though MRW believes that MCE will be able to offer competitive rates, if the City's customers are highly price sensitive, then this risk may be of concern On the other hand, if the City's residents and businesses are more concerned about local control and the level of renewable resources used to generate their electric supply, then such an assessment is less important.

MRW found the MCE Member Analysis to be accurate but limited as it was based on a snapshot of current MCE and PG&E rates and did not attempt to project either into the future.

With respect to solar issues, Sage Renewables found:

- The City can expect between $40,000 to $80,000 in annual excess net energy metered (NEM) bill credit payments from MCE for the solar NEM accounts;
- While MCE's policy of paying for excess NEM bill credits will remain in place for at least the short term, it is at higher risk of change over time than other MCE rate policies; and
- The greatest short term risk to the value of solar PV generated energy is PG&E's proposal to limit its solar-friendly A-6 rate to only small commercial customers. This risk exists whether the City remains a PG&E customer or elects to transition solar PV accounts to MCE. (MCE is expected to mirror changes to PG&E's A-6 tariff with changes to its COM-6 tariff).

It is beyond the scope of this assessment to quantitatively assign either potential costs or probability of occurrence to the risks identified here. In addition, this assessment does not identify or attempt to quantify all potential benefits associated with participation in MCE. Benicia's policymakers will need to weigh and balance the potential risks and benefits of participation in MCE given the risk and policy preferences of Benicia's citizens and businesses.

Appendix 1: MRW and Sage Qualifications

MRW & Associates

Established in Oakland, California in 1986, MRW early on built a solid reputation for delivering local insights on power and fuel markets in the western United States as well as intervening successfully in legislative and regulatory proceedings on clients' behalf. Today, MRW continues to deliver high-quality market insights, analysis, and client support on a national and international level. The company has undertaken engagements in more than twenty different states, including nearly every state in the western U.S. The company maintains a strong focus on California markets and regulatory structures. The location of the company office in Oakland, California, facilitates our active participation in proceedings at the CPUC, the California Energy Commission, and the CAISO.

MRW's client base includes major financial institutions, private power developers, consumer advocates, power marketers, municipalities, Fortune 500 industrial companies, commercial end-users, natural gas pipelines and storage service providers, regulatory agencies, and other strategic players in the energy sector. MRW's team of professionals include specialists in renewable energy, power market modeling, financial analysis, regulatory processes, utility rate design, legislative analysis, commodity procurement, energy use analysis, contract negotiations, transmission planning and pricing, and strategic planning.

On related CCA matters, in the spring of 2005, Navigant Consulting, pursuant to a California Energy Commission grant, issued a series of CCA feasibility studies for the County of Marin and the cities of Berkeley, Oakland and Emeryville. A similar report was issued for the Kings River Conservation District a few months later. The basic reports were nearly identical, differing only in how the customer and load characteristics of each jurisdiction affected the various data tables. MRW, along with JBS Energy, provided an independent third-party review of these studies on behalf of the studies' recipients. The reviews focused on the reasonableness of the analytical approach and assumptions used by the reports' authors, identifying areas that were either unreasonable or would need updating if a particular jurisdiction were to investigate CCA formation in greater detail. The review also identified key risks that would have to be addressed, including such factors as regulatory risk (i.e., impact of changes to PG&E rate design) and environmental compliance costs. As a result of these third-party assessments, Navigant ultimately made significant changes to the preliminary feasibility studies.

In late 2008, MRW conducted an independent review of the reports and documents associated with Marin County's Community Choice Aggregation efforts. This review focused on the "Marin CCA Business Plan" (April 2008), PG&E's comments on the Plan, and responses to Marcus' and PG&E's comments. MRW's review concentrated on two main areas: the factors that were most important making a CCA financially viable and the major risk factors that would affect potential participants in the CCA. These included:

- the reasonableness of the power procurement strategy proposed in the Plan;
- the reasonableness of the procured power costs forecast in the Plan;
- hedging and risk management activities proposed in the Plan;
- underlying natural gas and wholesale power price projections;

- the consistency of rate and procurement costs with those underlying gas price projections;
- the reasonableness of the Plan's estimates of the non-bypassable charges including the CCA Cost Responsibility Surcharge (CRS);
- the depth and appropriateness of any sensitivity analysis; and
- the forecasts of utility rates (and rate designs) against which the CCA's rates would compete, including the consistency of assumptions underlying the utility rate projection and the CCA rate projection.

In late 2009, the County and City/Town Managers again retained MRW to review the draft service agreements that MEA was proposing to enter into with Shell Energy North America. This review concentrated on identifying the risks to MEA, the Cities, Towns, and the County that were not sufficiently addressed in the MEA-Shell agreement, and provided suggested changes and amendments to the agreements to mitigate those risks. Many of MRW's suggestions were subsequently incorporated in the final contract. The primary authors of this assessment are Mark Fulmer, William Monsen, and Laura Norin.

In late 2010, the office of Richmond's City Manager retained MRW to conduct an independent third-party analysis of the risks associated for Richmond to join the MEA. The Scope of MRW's analysis included:

- Determining potential risks to City residents and businesses if Richmond joins the MEA, in particular, the rate risk to the community
- Determining potential risks to the City itself if it chooses to join the MEA
- Commenting upon the Dalessi Management Consulting load and resource requirement analysis
- Provide qualitative comments on any materials MEA provides to Richmond

MRW presented its at a Richmond City Council meeting and where Mr. Fulmer and Mr. Monsen responded to questions from City staff and Council members.

Mark Fulmer is a Principal at MRW & Associates, LLC, with over twenty years of experience in the energy industry. Much of this work has been in the regulatory arena, advising customers, trade groups, municipalities, utilities and state public utility commissions on resource planning, energy efficiency and rate matters. He has submitted testimony before FERC and utility commissions in Arizona, California, Hawaii, New Mexico, Pennsylvania, Rhode Island and Washington, as well as supporting testimony in ten other states and Canadian provinces.

With respect to CCA matters, Mr. Fulmer was the lead author of a CCA feasibility assessment in Southern California Edison's service area and contributed to the peer reviews of the CCA feasibility studies for Marin, Berkeley, Oakland, Emeryville and the Kings River Conservation District. He also served as an expert witness before the California PUC on behalf of the City and County of San Francisco on CCA matters, including the rules under which CCA would operate and the fees that PG&E would be allowed to charge CCAs for the various services the utility would have to provide. In 2009, Mr. Fulmer was one of three witnesses sponsored jointly by the Marin Energy Authority, the City and County of San Francisco, and the Direct Access parties in the CPUC proceeding addressing the correct calculation of the Cost Responsibility Surcharge for departing load (CCA and DA) customers.

Mr. Fulmer holds a Master's Degree in Engineering from Princeton University, where he

conducted graduate research at the Center for Energy and Environmental Studies, and a Bachelors' Degree in Engineering from the University of California, Irvine.

William A. Monsen, a Principal with MRW & Associates, LLC, has been providing technical and economic analysis for the energy industry for more than 30 years. He is an expert in utility resource planning, retail power procurement, power market evaluations, due diligence for power generation projects, and independent power issues. He has helped municipalities and other end-users understand present and future consumption needs and reduce energy costs through competitive commodity procurement and efficiency improvements.

With respect to CCA matters, Mr. Monsen was the Principal in Charge for detailed peer reviews of the CCA feasibility studies forRichmond, Marin, Berkeley, Oakland, Emeryville and the Kings River Conservation District. He also led MRW's work in reviewing Marin Energy Authority's business plan and draft service agreements that MEA was proposing to enter into with Shell Energy North America. He also provided professional review on behalf of the City and County of San Francisco of the proposed contracts between the city and a potential (but eventually rejected) supplier for their proposed CCA and was a co-author of the Southern California CCA feasibility study MRW conducted in 2008.

Mr. Monsen holds a Master's degree in Mechanical Engineering from the Solar Energy Laboratory at the University of Wisconsin-Madison and a Bachelor's degree in Engineering Physics from the University of California at Berkeley.

Sage Renewables

Sage Renewables is an independent renewable energy consulting and project development firm that provides expert, customized professional consulting services across the public and private sectors. Sage recently completed a comprehensive evaluation of City of Benicia's solar PV systems under contract to the California Energy Commission (CEC) through the Energy Partnership Program. The evaluation included site analysis to verify that all PV systems were built to contract, were performing as designed and that workmanship is appropriate. Sage also worked with the City to evaluate and model existing and expected financial performance of the PV systems, and to identify an appropriate Operations and Maintenance (O&M) contractor to provide necessary ongoing system support. Sage also performed PG&E tariff modeling to confirm that the Pool and Pump Station 2 accounts were configured with the correct PG&E tariff. Through this work, Sage gained an intimate knowledge of the City's solar PV systems and formed a strong working relationship with City staff.

Sage has developed custom modeling tools to evaluate financing, renewable resources, and project sizing and design, and we own industry standard equipment and software for assessing resources in the field.

Sage's key personnel are our three founding Principals. Each Principal has extensive experience working with public agencies from small rural special districts, to large, multi-campus CA K-12 public school districts, to city and county governments. We work as a team to provide expert energy efficiency services, site evaluations, production, financial and environmental analyses, and renewable energy project development and asset management services.

Tom Williard is Principal and CEO of Sage Renewable Energy Consulting and has worked in the renewable energy industry since 2001. Prior to founding Sage, Tom was a Principal at energy consulting firms Sustainergy Systems and System Design. In 2005, Tom co-founded Solmetric, Inc., where he was Director of Research and Development for the initial SunEye product. Tom has expertise in modeling tool development, renewable energy finance, hardware and software engineering and growing engineering organizations and early stage companies. Previously, Tom spent twenty years in the electronics industry as a management consultant, senior technologist, and senior hardware and software engineer for a number of imaging and communications companies, most recently as Director of Software Engineering at Ascend Communications, establishing and managing engineering centers around the world. Tom takes an active role in his community, having served on several boards and foundations in Marin County, CA, and as an elected Trustee of a CA public school district for seven years.

Brent Johnson, PE, LEED AP, is Principal and co-founder of Sage Renewable Energy Consulting. Brent has 15 years of experience as a Civil-Environmental Engineer, with five years in the renewable energy sector. During his time at Sage, he has developed custom financial and energy modeling tools and managed all aspects of renewable generation projects including feasibility studies, system design, project bids and construction, commissioning, and environmental credits management. Brent has worked on over 100MW of renewable projects encompassing a number of technologies such as solar PV, solar thermal, wind, fuel cells, and hydropower. His previous experience, both in the US and overseas, has included design of large municipal facilities, computer modeling, construction management, operational support, and CEQA permitting. Through this experience, he has overseen all aspects of project development, from concept to commissioned facilities, including serving as a construction manager on a complex, $170M multi-year linear project.

Brent holds an M.S. in Civil-Environmental Engineering from UC Berkeley, is a registered Professional Engineer (PE) in California and has his LEED certification from the US Green

Building Council. He currently services as a director for his local water and fire district.

David Williard, LEED, Principal and co-founder of Sage Renewable Energy Consulting, David has nine years of experience in the energy and green building industries. David's work has included commercial and residential energy auditing, energy code compliance, green materials specification, renewable energy system design and implementation, greenhouse gas emissions inventory and monitoring, greenhouse gas emissions reduction plans, environmental site assessment, renewable resource assessment, and renewable energy project management. Additionally, David has participated in extensive field projects with an emphasis on environmental assessment and GIS mapping utilizing GPS systems. He has experience coordinating with city and county government agencies and other organizations through his work. In February 2005, David founded Sustainergy Systems Consulting & Design, which became Sage Renewables in August 2009.

David holds a B.S. in Civil Energy Management and Design from Sonoma State University and has his LEED certification from the US Green Building Council.

Appendix 2: Sage Renewables Assessment of the Risks to the City's Net Energy Metered Solar Accounts

Task 3 Executive Summary

Project Overview

Sage Renewables, as subcontractor to MRW & Associates, evaluated the impact of changing electrical energy service providers from PG&E to MCE for the ten City electricity accounts that have solar PV systems currently installed. City of Benicia's contract with MRW, Task 3, listed the follow evaluations to be performed:

- Anticipated changes in annual electrical energy costs and credits;
- MCE's evaluation indicating that approximately $60,000/year may be paid to the City under MCE's Net Energy Metering (NEM) program;
- Ability of MCE to maintain its net metering credit payout program;
- Impacts to net-metering solar rates particularly as they relate to AB327.

To perform this evaluation Sage reviewed City of Benicia's PG&E historical electricity usage source data for PV system sites and MCE's Rate Comparison spreadsheet for accuracy and completeness. Sage performed tariff analysis modeling on four separate PV system electrical accounts to confirm MCE modeling and determine the impact of switching to MCE on overall electricity cost including the purchase of residual energy. This modeling was based on tariff information from MCE[1] and PG&E[2], in addition to historical electricity usage information for the sites.

Sage also evaluated AB-327, the CPUC Proposed Decision R.12-11-005 concerning NEM grandfathering, and PG&E's 2014 General Rate Case II that is currently being litigated at the CPUC. Sage spoke with representatives of MCE, City of Benicia, PG&E and Crossborder Energy (lead consultants for SEIA in the PG&E 2014 General Rate Case Phase II litigation) in the course of researching these issues.

High Level Findings

1. City of Benicia can expect between $40,000 to $80,000 in annual excess NEM bill credit payments from MCE for the solar PV NEM accounts given current usage patterns and tariff rates. PG&E does not pay for annual excess bill credits.
2. MCE's policy of paying for excess NEM bill credits will remain in place for at least the short term, but is at higher risk of change over time than other MCE rate policies.
3. The greatest short term risk to the value of solar PV generated energy is PG&E's proposal to cap the A-6 tariff to 75kW peak demand proposed in their 2014 General Rate Case (GRC) Phase II. This risk exists whether the City remains a PG&E customer or elects to transition solar PV accounts to MCE. MCE is expected to mirror changes to PG&E 2014 General Rate Case (GRC) Phase II6 tariff.
4. City of Benicia should be able to change energy providers from PG&E to MCE and vice versa without jeopardizing the 20-year NEM 1.0 transition (grandfathering) period of existing systems.

Findings are discussed in detail in the next section.

[1] MCE tariff information: http://www.mcecleanenergy.org/wp-content/uploads/MCE%20Commercial%20Rates.pdf
[2] PG&E tariff information: http://www.pge.com/tariffs/tm2/pdf/ELEC_SCHEDS_A-6.pdf

Task 3 Findings

1. **Anticipated changes in annual electrical energy costs and credits to solar PV accounts with MCE:**

   MCE's tariffs closely mirror PG&E tariffs in structure and pricing. This is done to allow for ease of billing, to comply with CPUC requirements and to allow easy comparison of MCE vs. PG&E electricity rates. MCE endeavors to provide energy with higher renewable content below the cost of similar tariffs from PG&E. Because the tariffs are very close, anticipated annual electrical energy costs between MCE and PG&E will be similar.

   MCE diverges significantly from PG&E in offering to monetize excess NEM bill credits at the end of each 12-month true up period, and by providing a $0.01/kWh premium for excess solar PV energy exported to the grid**3**. PG&E does not monetize excess NEM bill credits or pay a premium for exported energy; any excess bill credits are lost at the end of the true up period. Excess bill credits from City of Benicia's solar PV NEM accounts are the primary source of energy cost savings from MCE vs. PG&E. PG&E's slightly higher A-6 generation rates can provide greater value for solar PV produced energy if the PV systems are nearly offsetting the annual electrical bill with no annual excess bill credits. The analysis performed on 2013-2014 usage data showed that three of the ten City PV accounts did not have excess bill credits at the end of the year. Two of those accounts would save money vs. MCE, but one of the accounts, the Pool, would cost more vs.MCE due to the lower annual offset. The relatively higher cost of PG&E energy at the Pool offset savings at the other two sites.

2. **MCE's evaluation indicating that approximately $60,000/year may be paid to the City under MCE's Net Energy Metering (NEM) program:**

   MCE's modeling is correct for the PG&E data that was available to MCE. Sage recovered missing PG&E data for the analysis period and confirmed MCE's modeling using proprietary tariff modeling tools. Sage also ran the models with two years (~2013 and 2014) of PG&E data for Pump Station 3 to find the impact of significantly less usage at that site in 2014. Note that changes in usage for Pump Station 3 were largely associated with ongoing drought conditions. We anticipate that Pump Station 3 usage would be similar to 2013 in years with normal or above precipitation. Calculated NEM excess bill credit payments are as follows:

   - MCE annual NEM bill credit payment (2013 usage data): $59,743
   - Sage annual NEM bill credit payment (2013 usage data): $58,574
   - Sage annual NEM bill credit payment (2014 usage, Pump Station 3): $81,665

   See Appendix A, B and C for detailed modeling results.

3. **Ability of MCE to maintain its net metering credit payout program:**

   The main risk to MCE's policy of NEM excess bill credit monetization is potential cost to other MCE ratepayers. MCE has a stated goal of providing energy costs at less than PG&E's rates with greater renewable content. If MCE is no longer able to meet that goal due to changes in

[3] See Premium Benefits section: http://www.mcecleanenergy.org/business-solar/

legislation, energy procurement and/or management costs, the NEM excess bill credit monetization policy could be at risk. A related risk is that as MCE's NEM customer base grows, monetization of excess bill credits may at some time become a significant cost, causing changes to the policy. Given that the $0.01 per kWh of excess generation policy is not found in MCE's NEM tariff and that their NEM bill credit cash out is a significant departure from PG&E policy, there is a higher risk of change compared to other MCE pricing policies.

According to MCE staff, there are no plans to modify MCE's monetization of excess bill credits policy. Given that MCE is reasonably solid financially, and that their current policy explicitly limits the size of PV systems that can be installed relative to past load, there is little short term risk of this policy changing.

4. Recent and anticipated legislation affecting NEM and solar tariffs:

a. AB-327 (2013/Perea)

AB-327[4], signed into law in October, 2013, directed the CPUC to create a new NEM tariff/policy (NEM 2.0) that replaces the current NEM 1.0 tariff/policy and removes the limitation on NEM aggregate size of NEM accounts. NEM 2.0 policy is to be finalized by the CPUC by December 31, 2015 and implemented on January 1, 2017 at the latest. The CPUC has not issued any proposed rulings or guidance concerning NEM 2.0, but they have issued a Preliminary Ruling that addresses grandfathering of existing NEM 1.0 customers, discussed in Finding 4.b.

b. CPUC Proposed Decision R.12-11-005

CPUC Proposed Decision R.12-11-005[5] states that existing NEM 1.0 customers will be allowed to maintain NEM 1.0 tariff policy for 20 years following interconnection and permission to operate (PTO) the energy generating system. This grandfathering policy is referred to as the NEM transition period. How this policy would be affected by transition from PG&E to MCE is discussed below in Finding 5.

c. PG&E 2014 General Rate Case Phase II

In PG&E's 2014 GRC Phase II[6], PG&E proposed capping the solar-friendly A-6 tariff to maximum customer demand of 75kW. This change would lower the current A-6 demand cap from 499kW and would result in many small and medium scale PG&E commercial NEM customers with solar PV systems becoming ineligible for the A-6 tariff, forcing those accounts to move to A-10 or E-19 tariffs. The result would be significant loss of value from the energy generated by the solar PV systems affected as the A-10 and E-19 tariffs both would add demand charges and offer lower time of use energy charges compared to the A-6 tariff. This change would impact approximately seven of the ten solar PV installations owned by City of Benicia. Note that this risk exists whether the City remains a PG&E customer or elects to transition solar PV accounts to MCE.

[4] AB-327 (2013-Perea, chaptered): https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB327
[5] CPUC Proposed Decision 12-11-005, NEM grandfathering: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M089/K245/89245777.PDF
[6] https://www.pge.com/regulation/GRC2014-Ph-II/Testimony/PGE/2013/GRC2014-Ph-II_Test_PGE_20130816_284307.pdf

The issue of A-6 tariff demand cap is currently being litigated at the CPUC. Hearings are being held in October, 2014 and briefs should be available in November, 2014. A Proposed Decision on the issue is anticipated in early-mid Q1 2015, with a Final Decision late Q1 2015.

At this time it is unclear how this will be resolved, but there is significant risk that the value of solar PV generated energy for accounts using PG&E's A-6 tariff will be diminished somewhat.

Sage spoke with Justin Kudo, Manger of Account Services at MCE, about this scenario to determine MCE's response to future changes in PG&E's A-6 tariff. MCE, while supportive of the solar-friendly A-6 tariff, would likely follow PG&E's lead by matching significant changes to A-6 such as capping eligibility at 75kW peak demand with changes to their COM-6 tariff.

5. **Impacts to net-metering solar rates particularly as they relate to AB327:**

An important consideration is whether changing City of Benicia's solar PV accounts from PG&E to MCE or vice versa during the NEM transition (grandfathered) period will affect eligibility for grandfathering of NEM 1.0 accounts. Changing energy providers will not affect NEM 1.0 grandfathering for two reasons:

a. City of Benicia's solar PV accounts would remain PG&E accounts. If City of Benicia selects MCE to provide electricity, the accounts remain PG&E accounts. PG&E continues to manage and bill the accounts, but the energy (called generation) portion of the electrical bill will be routed to MCE.

b. CPUC Proposed Decision 12-11-005, Section 5.3.2, Transferability of Transitional Treatment – Conclusion, states[7]:

> "…systems that qualify to remain on their pre-existing NEM tariff for the transition period will remain eligible for the complete transition period if transferred to a new owner, operator, or utility account at the original location."

Task 3 Appendices

Appendix A: MCE Annual NEM Excess Bill Credit Payment Estimates

Appendix B: Sage Annual MCE Excess Bill Credit Payment Estimates

Appendix C: Sage Annual MCE Excess Bill Credit Payment Estimates, 2014 Pump Station 3

[7] See Section 5.3: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M089/K245/89245777.PDF

Appendix A:

Detailed MCE Annual NEM Excess Bill Credit Payment Estimates

Rate Comparison Summary

MCE Approx. Annual Solar Refund to Benicia : $59,742.81

Summary		
Location	Annual Total	Total Credit
City Hall	-$816.68	$816.68
Community Center	-$5,824.95	$5,824.95
Community Park	-$3,572.78	$3,572.78
Corporation Yard	-$6,827.35	$6,827.35
Fire Station	-$155.92	$155.92
Pump Station 1	$879.77	$0.00
Pump Station 2	$8,802.49	$0.00
Pump Station 3	-$17,572.85	$17,572.85
Swimming Pool	$12,851.72	$0.00
Water Treatment Plant	-$25,073.12	$25,073.12

Appendix B:

Sage Annual MCE Excess Bill Credit Payment Estimates

Rate Comparison Summary

SAGE Annual MCE Bill Credit Payment : $58,573.64

Summary		
Location	Annual Total	Total Credit
City Hall	-$916.98	$916.98
Community Center	-$5,824.95	$5,824.95
Community Park	-$4,985.09	$4,985.09
Corporation Yard	-$6,827.35	$6,827.35
Fire Station	-$155.92	$155.92
Pump Station 1	$879.77	$0.00
Pump Station 2	$8,802.48	$0.00
Pump Station 3	-$17,572.85	$17,572.85
Swimming Pool	$12,851.72	$0.00
Water Treatment Plant	-$22,611.62	$22,611.62

Appendix C:

Sage Annual MCE Excess Bill Credit Payment Estimates, 2014 Pump Station 3

Rate Comparison Summary

SAGE Annual MCE Bill Credit Payment : $81,665.17

Summary		
Location	Annual Total	Total Credit
City Hall	-$915.98	$915.98
Community Center	-$5,624.95	$5,624.95
Community Park	-$4,985.09	$4,985.09
Corporation Yard	-$6,827.35	$6,827.35
Fire Station	-$155.92	$155.92
Pump Station 1	$879.77	$0.00
Pump Station 2	$8,802.48	$0.00
Pump Station 3	-$40,664.36	$40,664.36
Swimming Pool	$12,851.72	$0.00
Water Treatment Plant	-$22,611.62	$22,611.62

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October 22, 2014

Ms. Heather McLaughlin
City Attorney
City of Benicia
250 East L Street
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RE: City of Benicia's Possible Participation in the Marin Clean Energy Joint Powers Authority and Community Choice Aggregator Electric Service Program

Dear Ms. McLaughlin:

This letter is in response to your request to us to assist the City of Benicia (the "City") in evaluating its potential participation as a member in the community choice aggregation ("CCA") electric service program (the "Program") of Marin Clean Energy ("MCE"),[1] a joint powers authority ("JPA"). In particular, the City has reviewed the May 17, 2010 Independent Assessment of Potential Risks and Liabilities Associated with [the City of Mill Valley's] Participation in Marin Clean Energy (the "Assessment") prepared by Edward O'Neill when he was a partner of Davis Wright Tremaine LLP. [2]

You have asked us to perform a limited review of legal and regulatory developments pertaining to MCE in particular and CCAs in general since the date of the Assessment by performing the following tasks:

1) Review the current form of the Marin Clean Energy Joint Powers Authority agreement, dated December 19, 2008 and most recently amended on September 4, 2014;[3]

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[1] The MCE JPA was formerly known as the "Marin Energy Authority." In 2013 the JPA changed its name to Marin Clean Energy, which is also the name of the JPA's CCA program. *See* MCE Board of Directors Resolution No. 2013-11, dated December 5, 2013.

[2] On May 13, 2014, Mr. O'Neill was appointed by Governor Brown to serve as a senior advisor on California Public Utilities Commission modernization and reform. He did not participate in the preparation of this letter.

[3] Referred to as the "MCE JPA Agreement." A copy is accessible online at http://marincleanenergy.org/sites/default/files/key-documents/Amended_MCE_JPA_Agreement-San%20Pablo%26_Napa%209.15.14.pdf.

2) Review any new/amended statutes effective after issuance of the Assessment, regarding the rules, policies and procedures governing CCA;

3) Review any orders, rulings and/or decisions issued by the California Public Utilities Commission ("CPUC") after the issuance of the Assessment regarding the rules, policies and procedures governing CCA; and

4) Assess the likelihood that the City's existing interconnection agreements for Net Energy Metering ("NEM") with Pacific Gas and Electric Company ("PG&E") will be invalidated if the City were to join MCE and the likelihood of existing NEM service being transitioned to NEM 2.0 in mid-2017 when NEM 1.0 is set to sunset.

The results of our review of each of your requests are as follows:

1) The current form of the Marin Clean Energy Joint Powers Authority Agreement

MCE's foundational document is the MCE JPA Agreement. It created MCE and sets forth MCE's powers and governance rules. The Assessment considered, under the terms of the MCE JPA Agreement and under California law, whether members of MCE could held liable for the debts and actions of MCE. While the MCE JPA Agreement has been amended since the Assessment, none of the amendments affect the Assessment's analysis of the JPA. As indicated in the Assessment, the risks of liability related to joining the MCE JPA are limited, but under California law, the JPA cannot and does not insulate the City from all risk.

Joint powers authority agreements are authorized by the "Joint Exercise of Powers Act," (the "Act")[4] The Act provides that governmental entities "by agreement may jointly exercise any power common to the contracting parties." [5] Parties to a Joint Powers Agreement may form a separate entity to exercise those powers. [6] Those parties are liable for the "debts, liabilities, and obligations" of the newly-created entity "unless the agreement specifies otherwise", and "[a] party to the agreement may separately contract for, or assume responsibility for, specific debts, liabilities, or obligations of the agency."[7]

The MCE JPA Agreement currently provides that the "debts, liabilities or obligations" of MCE are not debts of members unless the "governing board of a [member] agrees in writing to assume any of the debts, liabilities or obligations of the Authority."[8] This limitation of liability tracks the language of section 6508.1 of the Government Code and is permitted and enforceable

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[4] Gov't Code § 6500 *et. seq.*
[5] Gov't Code § 6502.
[6] *Id.* §§ 6506, 6507.
[7] *Id.* § 6508.1
[8] MCE JPA Agreement § 2.3, "Formation."

under that section. Where JPA agreements include such provisions, California courts have upheld the limitation on the liability of individual members of JPAs.[9]

However, section 895.2 of the Government Code limits the effect of this limitation of liability to non-tort actions: "Whenever any public entities enter into an agreement, they are jointly and severally liable upon any liability which is imposed by any law [upon any JPA member or the entity created by the JPA] agreement for injury caused by a negligent or wrongful act or omission occurring in the performance of such agreement." Non-contract claims based on section 895.2 have been upheld by California courts.[10]

Similarly, the City could also potentially be held liable for debts, liabilities and obligations of MCE under the "alter ego" doctrine. The doctrine developed in the context of "sham" corporate entities which operated as nothing more than "alter egos" of the shareholders. Because joint powers authorities are legitimate statutorily authorized entities, the California Court of Appeal has rejected the argument that JPAs are inherently the alter egos of the member entities.[11]

For the alter ego doctrine to make individual JPA members subject to liability for the liabilities of the JPA, the usual elements of the doctrine must be shown: (i) there must be a unity of interests and ownership between the JPA and its individual members such that the separate personalities of the JPA and its members do not really exist, and (ii) there must be an inequitable result if the acts in question are treated as those of the JPA alone.[12] This is a high standard, and requires that the JPA members fail to treat the JPA as a discrete entity, such as by undercapitalizing the JPA, commingling funds, and failing to observe formalities such as conducting board meetings.[13] We do not consider there to be any significant risk of liability to the City under this doctrine.

Another factor bearing on the risk of the City joining MCE is MCE's indemnification obligation to its members. The MCE JPA Agreement indemnifies members and their officers, agents, and employees from liability "arising directly or indirectly" from the conduct of MCE.[14] MCE is obligated to obtain an insurance policy to effect this indemnification. We have no knowledge whether MCE has obtained such an insurance policy, or the terms of any such

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[9] *Tucker Land Co. v. State of California*, 94 Cal. App.4th 1191, 1193 (2nd App. Dist. 2001). *Tucker* concluded that under section 6508.2, the constituent members of a JPA created by a joint powers agreement were not liable for the contractual obligations of the JPA when the JPA failed to pay a judgment. In particular, the court found that the constituent members were not liable for the contractual obligations of the JPA where the joint powers agreement specified that they were not, and it also did not impose liability on any entity other than the JPA itself.

[10] *See e.g. D.K. ex rel. G.M. v. Solano Cnty. Office of Educ.*, 667 F. Supp. 2d 1184, 1192 (E.D. Cal. 2009) (denying a motion to dismiss a complaint which related to student services the defendant school district provided); *see also Tucker Land Co.* 94 Cal. App.4th at 1198-99 (§ 895.2 only applies to tort claims).

[11] *See Tucker Land Co.* 94 Cal. App.4th at 1201 (rejecting the alter ego theory when plaintiff failed to show any of the usual elements of the alter ego doctrine).

[12] *Id.*

[13] *Toho-Towa Co. v. Morgan Creek Prods., Inc.,* 217 Cal. App. 4th 1096, 1107 (2nd App. Dist. 2013).

[14] MCE JPE Agreement § 8.3, "Indemnification of Parties."

insurance policy, such as the scope of the policy, any applicable retention or deductible, and coverage limits. The existence of such an insurance policy should serve to reduce the City's risk exposure, though a risk always remains that an insurer would deny coverage or that the policy is prematurely exhausted.

In addition to risks of MCE members, as with any governing board, there is the risk that a plaintiff may choose to name MCE's Board of Directors in a lawsuit. While a discussion of available defenses to such a lawsuit is beyond the scope of this letter, we note that the MCE JPA Agreement also provides for the indemnification and defense of its directors and officers for any "acts or omissions in the scope of their employment or duties."[15] We do not know if MCE has an insurance policy which insures its directors and officers.

2) New/amended statutes effective after issuance of the Assessment, regarding the rules, policies and procedures governing Community Choice Aggregators

We have identified no new or amended statutes governing CCAs. Currently, CCAs are governed by sections 331.1 and 366.2 of the California Public Utilities Code. Recent attempts to limit the ability of CCAs to operate have failed. In 2010, voters rejected Proposition 16, sponsored in large part by PG&E. Proposition 16 would have required a two-thirds vote of the voters within the boundaries of a proposed CCA for approval of the proposed CCA. In 2014, Assembly Bill 2145 proposed to limit the abilities of CCAs to expand and operate, such as by restricting the operation of CCAs to three contiguous counties, but it did not pass. Of course, there may be future political efforts to modify the status of CCAs.

3) Orders, rulings and/or decisions issued by the California Public Utilities Commission after the issuance of the Assessment, regarding the rules, policies and procedures governing Community Choice Aggregators

The CPUC has taken significant actions to improve the regulatory landscape for CCAs since the issuance of the Assessment. The CPUC regulatory action involving CCAs after the date of the Assessment has principally been directed at supervision of the conduct of utilities in dealing with CCAs and does not affect the conclusions of the Assessment.[16] For example, the CPUC has regulated the conduct of public utilities in competing or transacting with CCAs, and improved privacy protections of CCA customers.

Shortly after the date of the Assessment, the CPUC (i) prohibited utilities from making untrue or misleading statements about CCA service and provided CCAs a complaint remedy; and (ii) gave CCAs control over the opt-out mechanism for CCA customers.[17]

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[15] MCE JPA Agreement, § 8.2 "Liability of Directors, Officers, and Employees."

[16] Since CCAs are governmental entities, the CPUC exercises just limited jurisdiction over them. *See, e.g.*, CPUC Decision ("D.") 05-12-041, mimeo at 60 (Conclusions of Laws 1 and 2) (December 15, 2005).

[17] *See* D.10-05-050 (May 20, 2010), *rehearing denied,* D.12-07-023 (July 12, 2012).

In 2012, the CPUC adopted a "Code of Conduct" for utilities with respect to their relationships with CCAs. It includes certain internal organizational requirements for the utilities, and provides for audits of compliance by utilities with the Code of Conduct.[18] Later in 2012, the CPUC extended privacy protections to customers of CCAs and other entities, similar to the privacy protections already enjoyed by utility customers.[19]

The overall effect of the foregoing actions by the CPUC is to level the competitive playing field and enhance the ability of CCAs to compete with the utilities for customers.

4) Assess the likelihood that the City's existing interconnection agreements for NEM with Pacific Gas and Electric Company will be invalidated if the City were to join MCE and the likelihood of existing NEM service being transitioned to NEM 2.0 in mid-2017 when NEM 1.0 is set to sunset

The City's existing interconnection agreements for NEM service with PG&E for solar photovoltaic generation facilities would not be invalidated were the City to join MCE. Upon the City joining MCE and the Program, PG&E would continue to supply transmission and distribution service to the City and MCE would supply generation service.

MCE has its own NEM tariff.[20] The CPUC requires PG&E to offer CCA customer generators the same NEM service it offers its own customers, with PG&E providing the transmission and distribution credits to eligible CCA NEM customers and the applicable CCA offering the generation credit to eligible CCA NEM customers.[21] MCE would report its NEM generation credit to PG&E for inclusion in the PG&E bill to the City.[22]

The CPUC has established a 20 year transition period for existing projects, such as the City's, beginning with the year in which interconnection occurred. During the transition period, existing projects continue to take service on existing NEM tariffs (sometimes referred to as NEM 1.0).[23] At the end of the transition period, the existing projects would transition to service under the NEM successor tariff being developed (sometimes referred to as NEM 2.0).[24]

We consider that the CPUC in establishing the transition period acted reasonably pursuant to its statutory authority.[25] Although Decision 14-03-041 does not specifically mention the situation in which a PG&E NEM customer joins a CCA during the transition period, we have not identified any reason to believe that joining a CCA would terminate or otherwise impact the

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[18] *See* D.12-12-036 (December 20, 2012).
[19] D.12-08-045 (August 23, 2012).
[20] *See* Electric Schedule NEM – Net Energy Metering Service.
[21] D.08-02-002, mimeo at 6 (February 14, 2008). *See* PG&E's Electric Rule 23, § G.2.
[22] *See* PG&E's Electric Rate Schedule NEM, Applicability, Sheet 5, Rates.
[23] D.14-03-041, mimeo at 2, 5, 20, 22-23, 38 (Ordering Para. 1) (March 27, 2014). *See* PG&E's Electric Schedule NEM, Applicability, Sheet 2, A. NEM Transition Provisions.
[24] *Id.*, mimeo at 38-39 (Ordering Para. 2).
[25] Pub. Util. Code § 2827.1(b)(6).

duration of the 20 year transition period chosen by the CPUC as a reasonable period for realization of payback of project investment.

We note that the City's interconnection agreements for NEM are subject to termination by PG&E, if there a change in law or regulation which "materially alters or otherwise affects" PG&E's ability or obligation to perform under the interconnection agreement.[26] PG&E may also unilaterally file an application to terminate an interconnection agreement with the CPUC.[27] The agreements are also subject to change or modification by CPUC action and by approved changes to PG&E's tariffs, which are incorporated by reference.[28]

This concludes our comments. Please let me know if you have any comments about the foregoing.

Very truly yours,

Davis Wright Tremaine LLP

Steven F. Greenwald

[26] Interconnection Agreement for Net Energy Metering of Solar or Wind Electric Generating Facilities of 1,000 Kilowatts or Less, Other Than Facilities of 30 Kilowatts or Less ("Interconnection Agreement"), § 5.2.
[27] *Id.* §5.3.
[28] *Id.* at §§ 15.2, 15.3.

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September 4, 2014

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Re: Environmental Compliance Requirements Regarding a City Action to Join a Community Choice Aggregation Program

Dear Mayor Patterson and Council Members:

We write on behalf of the International Brotherhood of Electrical Workers Local 1245, to advise the City of its obligation to comply with the California Environmental Quality Act ("CEQA")[1] before taking any action to join a Community Choice Aggregation ("CCA") program. The core purpose of joining a CCA program is to change the source of electricity generation for Benicia customers. Specifically, by joining a CCA program, the City would cause customers to stop purchasing electricity from Pacific Gas & Electric Company, and begin purchasing electricity from a different electricity marketer, such as Shell Energy North America.

Given the core purpose of joining a CCA program, it is not at all surprising that this action could result in changes to the environment. These changes would include increased operation and related increases in air pollutant emissions from certain existing electric generation plants that use fossil fuels. These changes could result in significant localized impacts to air quality and public health. As explained in this letter, based on current information it is unlikely that joining a CCA

[1] Pub. Resources Code, §§ 21000 et seq.

program would lead to increased construction or operation of renewable energy plants. However, if this were to happen, these activities could also result in adverse environmental impacts.

Changing the sources of electricity generation that supply a given geographic area requires environmental review. The California Public Utilities Commission has previously found this same type of action to cause potentially significant impacts on the environment. The City is required to consider the environmental impacts of joining a CCA program pursuant to CEQA before it can approve such action. We object to the City taking action to join a CCA without first preparing, considering and certifying an Environmental Impact Report ("EIR").

We understand that it would be natural to assume that a governmental action intended to ***increase*** the use of renewable energy should ***reduce*** environmental impacts. But, as we explain in this letter, such action will change the operation of electric generation plants that currently supply Benicia customers and the operation of power plants burning fossil fuels used to supply these same customers under a new program. As a result, while air pollutant emissions may go down in some places, they are likely to go ***up*** in other places. The resultant increases in air pollutant emissions may result in significant localized impacts to air quality and public health. CEQA requires the City to analyze those impacts in an EIR and adopt feasible mitigation measures or alternatives to reduce those impacts to a less than significant level.

Our analysis was prepared with the assistance of technical expert David Marcus. Mr. Marcus's analyses and curriculum vitae are attached to this letter.[2]

I. CHANGING THE SOURCES OF ELECTRICITY GENERATION THAT SUPPLY CUSTOMERS IS A "PROJECT"

CEQA's primary purpose is to require public agency decision makers to document and consider the environmental implications of their actions.[3] CEQA applies to "all governmental agencies at all levels" in California, including local agencies, regional agencies, and state agencies, boards and commissions.[4] With

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[2] *See* **Attachment 1**, Letter from David Marcus to Elizabeth Klebaner regarding the potential environmental impacts of the Marin Clean Energy Authority Program (Marcus MCE Letter), at pp. 1-2.

[3] *See* Pub. Resources Code, § 21000, 21001; *see also Friends of Mammoth v. Board of Supervisors* (1972) 13 Cal. 3d 68, 73-75.

[4] Pub. Resources Code, §§ 2100 subd. (g), 21001 subds. (f), (g); Cal. Code. Regs., tit.14 §§ 15002, subd. (b), 15020, 1536, 15368, 15379, 15383 (CEQA Guidelines).

limited exceptions, CEQA requires that "***discretionary projects proposed to be carried out or approved by public agencies***" are subject to environmental review ***before*** they are approved.[5] The Act defines "project" as:

> An activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment . . . [including] [a]n activity directly undertaken by any public agency.[6]

Governmental actions that may change the physical environment, and are therefore subject to CEQA, include preliminary planning decisions, zoning changes and financing assistance.[7] Governmental actions which authorize a change in the source of electricity generation that serves a geographic area cause obvious changes in the physical environment by altering the generation patterns of existing power plants. Such actions have been understood to be subject to CEQA review for more than two decades. In at least two instances, it was determined that this exact type of action may result in potentially significant impacts to the environment.

In 1988, the California Public Utilities Commission prepared an EIR to evaluate the impacts on air quality in the Los Angeles Air Basin from a proposed merger of Southern California Edison Company and San Diego Gas & Electric Company.[8] The Commission determined that reasonably foreseeable changes in patterns of generation from existing power plants could result in potentially significant localized air quality impacts.[9] Approximately one decade later, the Bonneville Power Administration ("BPA") determined that its action to enter into a long-term contract for peaking capacity required preparation of an Environmental Impact Statement ("EIS") under the National Environmental Policy Act.[10] The EIS evaluated the environmental impacts caused by changes in operation of ***existing*** thermal resources.[11]

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[5] *See* Pub. Resources Code, § 21080 subd. (a), emphasis added.
[6] Pub. Resources Code, § 21065.
[7] *See, e.g., Save Tara v. City of West Hollywood* (2008) 45 Cal.4th 116; *Bozung v. Local Agency Formation Commission of Ventura* County (1975) 13 Cal.3d 263; *Sustainable Transportation Advocates of Santa Barbara v. Santa Barbara County Association of Governments* (2010) 179 Cal.App.4th 113; *City of Carmel-By-the-Sea v. Board of Supervisors of Monterey County* (1986) 183 Cal.App.3d 229; *See, generally,* California Public Utilities Commission Docket A.88-10-055.
[8] *See* California Public Utilities Commission Docket A.88-10-055, *available at* http://delaps1.cpuc.ca.gov/CPUCProceedingLookup/f?p=401:57:32116475656525::NO.
[9] *See ibid.*
[10] 42 U.S.C. §§ 4321 et seq.
[11] U.S. Department of Energy, PacifiCorp Capacity Power Sale Contract, Final EIS, at p. 25 of 202 of .pdf, *available at* http://energy.gov/nepa/downloads/eis-0171-final-environmental-impact-statement.

The BPA EIS provides a good example of what such an analysis could look like. The EIS considered the contract provisions that could result in reasonably foreseeable changes in the types of resources that would be used to satisfy contractual obligations.[12] The EIS then evaluated the environmental impacts that could result from these changes, including new impacts to air quality from the changed operation of existing conventional power plants and new impacts to water and biological resources from the changed operation of existing hydroelectric plants.[13]

Just as in the cases of an agency's proposed approval of a merger of electrical utilities, or an agency's decision to commit to a long-term contract to provide peaking capacity from existing resources, joining a CCA program will, by design, change the source of generation that supplies Benicia customers. As fully documented by David Marcus in his written analyses, and summarized, below, joining a CCA program would cause a change in the operation of existing power plants that burn fossil fuels.

David Marcus's analysis considers the Marin Clean Energy CCA program ("MCE"). Mr. Marcus's analysis demonstrates that the City's action to join the program would cause certain existing plants burning fossil fuels to increase operations. David Marcus also demonstrated in his analysis that the program is not likely to result in the increased construction or operation of renewable energy plants.

The City's action to approve joining a CCA program may cause direct, or reasonably foreseeable indirect, physical changes in the environment. The changed operation of existing fossil fuel generation, and the construction and increased operation of renewable energy plants will result in various environmental impacts. These include, but are not limited to, increased emissions of air pollutants and toxic air contaminants. The City is required to comply with CEQA before it approves joining a CCA program.

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[12] *See, e. g., id.,* at p. 28 of 202 of .pdf and attached as **Attachment 2.**
[13] *See ibid.*
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A. Joining MCE Will Cause Existing Electricity Generating Plants Burning Fossil Fuel to Increase Operations to Meet the City's Demand for Electricity.

Substantial evidence shows that joining MCE will cause certain existing electricity generating plants burning fossil fuel to increase operations. As demonstrated by David Marcus, the City's action to join a CCA program will transfer customers from the City's current electricity supplier to a prospective electricity supplier.[14] In the case of MCE, that supplier is Shell Energy North America. As a result, MCE's electricity demand will increase in order to serve their new customers.[15] That additional electricity supply has to come from somewhere.

David Marcus demonstrated in his comments that with MCE, the new electricity demand will be met by the increased operation of existing electricity generating plants burning ***fossil fuel***.[16] David Marcus also demonstrated that the increase in the operation of certain existing plants burning fossil fuels could be substantial. In 2012, up to 83 percent of MCE's electricity sales, or 429 gigawatt hours (Gwh), came from the increased operation of existing fossil fuel generation.[17]

Indeed, joining MCE would cause increased operation of existing plants burning fossil fuels even if each program succeeds in causing new renewable generation to be built. This is because MCE will use fossil fuel generation for the majority of their power supply. As demonstrated by David Marcus, in 2012, 83 percent of MCE's power supply came from conventional, fossil fuel generation.[18] According to MCE's November 2013 Integrated Resource Plan Annual Update, in 2014 more than 75 percent of MCE's electricity is expected to come from conventional generation.[19,20] That amount is expected to increase to 78 percent in 2015.[21,22]

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[14] Marcus MCE Letter, at pp. 1-2.
[15] *Ibid.*
[16] *Ibid.*
[17] Marcus MCE Letter, at p. 2.
[18] Marcus MCE Letter, at p. 2.
[19] *See* MCE, Integrated Resource Plan Annual Update, Nov. 2013, at Appendix A, *Load and Resource Tables, available at* http://marincleanenergy.org/sites/default/files/key-documents/Integrated_Resource_Plan_2013_Update.pdf.
[20] "Total Energy Requirement" for 2014 is 1,328 Gwh; "Conventional Energy Requirements (including energy w/ unbundled RECs)" for 2014 is 1,034 Gwh. 1034/1328 = 0.778.
[21] *See* MCE, Integrated Resource Plan Annual Update, Nov. 2013, at Appendix A, *Load and Resource Tables, available at* http://marincleanenergy.org/sites/default/files/key-documents/Integrated_Resource_Plan_2013_Update.pdf.

As a result, joining MCE would, contrary to the City's goals, increase operation of certain fossil fuel-burning plants and cause new significant adverse localized air quality and public health impacts from those plants.

B. Joining MCE is Unlikely to Cause Increased Operation or Construction of Renewable Energy Plants, But if it Did, There Would Be Environmental Impacts.

David Marcus has also shown that joining MCE is unlikely to increase the operation or construction of renewable energy plants. In particular, David Marcus has shown that the majority of the energy purchases made the program will go to the fossil fuel plant industry.[23] In particular, MCE plans to acquire at least 540 Gwh of new conventional resources per year.[24] This amount dwarfs planned renewable energy purchases, which are estimated at just 89 Gwh per year.[25]

David Marcus has also shown that the miniscule amount of renewable generation purchases that would be made under the program would have occurred anyway.[26] In other words, those renewable plants will find a buyer with or without MCE. However, even if MCE succeeds in adding new renewable generation to the grid, the construction or increased operation of renewable energy plants would result in distinct impacts to the environment. We discuss these, and other environmental impacts of a City action to join a CCA program in the following sections.

II. JOINING A CCA PROGRAM WILL CAUSE CHANGES TO THE PHYSICAL ENVIRONMENT

As described above, the City's decision to join MCE involves changing the operation of existing conventional generation, causing increased operation of certain fossil fuel-burning plants. These activities will result in increased localized emissions of criteria air pollutants, toxic air contaminants, and greenhouse gases. While it is unlikely that the City's decision to join a new electricity service will cause the increased consumption or construction of renewable generation, these activities would also result in changes to the physical environment.

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[22] Total Energy Requirement" for 2015 is 1,309 Gwh; "Conventional Energy Requirements (including energy w/ unbundled RECs)" for 2015 is 1,023 Gwh. 1023/1309 = 0.781.
[23] *See* Marcus MCE Letter, at p. 3;
[24] Marcus MCE Letter, at pp. 2-3.
[25] *Ibid.*
[26] *Ibid.*
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The full spectrum of potential environmental impacts caused by the City choosing to join MCE or any other CCA program is not reviewed here. This analysis should be conducted in an EIR, and the EIR should be provided for review to decision makers and the public ***before*** the City considers joining a CCA program.[27] However, even with limited available information, it is clear that changing the pattern of generation from existing plants burning fossil fuel would cause impacts on the physical environment.

A. Increased Operation of Electricity Generating Plants Burning Fossil Fuel Causes Increased Emissions of Criteria Air Pollutants.

Fossil fuel generation, such as natural gas facilities, emit criteria air pollutants when generating electricity, and increased power production activities generally result in increased criteria pollutant emissions.[28] Criteria air pollutants include: particulate matter, sulfur dioxide, carbon monoxide, lead, ozone, and volatile organic compounds ("VOCs") and oxides of nitrogen ("NOx") which are ozone precursor pollutants.[29] Increased criteria pollutant emissions from an existing fossil fuel plant may result in localized and regional impacts, depending on the rate of emissions, ambient air quality and the plant's proximity to residential populations and sensitive receptors, such as schools.

Criteria air pollutants cause smog and are a public health concern. Short-term exposure to ozone can irritate the eyes and cause constriction of the airways and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.[30] Carbon monoxide can reduce the oxygen-carrying capacity of the blood, and short-term exposure can cause angina in persons suffering from heart disease.[31] Particulate matter regulated under state and federal law includes dust-sized particles and fine particulates that are 2.5 microns or less in diameter. Exposure to these particulates is linked with increases in asthma attacks, and acute

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[27] See discussion *infra*, Section III, regarding the need for an EIR.
[28] *See, e. g.*, Application for Certification for the Cogentrix Quail Brush Generation Project, August 2011, at p. 4.7-8 ("worst-case" criteria pollutant emissions assumed when generators are operated at 100 percent load), excerpts attached as **Attachment 3**.
[29] U.S Environmental Protection Agency, *Six Common Air Pollutants, available at* http://www.epa.gov/air/urbanair/.
[30] U.S. Environmental Protection Agency, *Health Effects of Ozone in the General Population, available at* http://www.epa.gov/apti/ozonehealth/population.html, attached as **Attachment 4.**
[31] U.S. Environmental Protection Agency, *Carbon Monoxide: Health, available at* http://www.epa.gov/airquality/carbonmonoxide/health.html, attached as **Attachment 5**.

and chronic health effects.[32] Sulfur dioxide and oxides of nitrogen are products of fuel combustion. These pollutants can affect regional visibility and short-term exposure to these pollutants is associated with increased risk of acute and chronic respiratory diseases.[33]

Given the wide array of pollutants with known, documented adverse effects on public health, increased emissions of these pollutants caused by increased operation of electricity generation plants burning fossil fuels is likely to cause significant adverse impacts to air quality and public health.

B. Increased Operation of Electricity Generating Plants Burning Fossil Fuel Causes Increased Emissions of Toxic Air Contaminants.

Electricity generating plants burning fossil fuel, such as natural gas facilities, emit numerous carcinogens and harmful air contaminants when they generate electricity.[34] These contaminants include ammonia, VOCs, diesel particulate matter, acrolein and polycyclic aromatic hydrocarbons.[35] Increased power production activities generally result in increased emissions of toxic air contaminants.[36] Increased emissions of toxic air contaminants may impact persons living and working in the vicinity of the fossil fuel plant, depending on the rate of emission of these contaminants, the extent to which nearby communities are already burdened by cancer risks from other emissions sources, and other factors.[37]

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[32] U.S. Environmental Protection Agency, *Particulate Matter: Health, available at* http://www.epa.gov/pm/health.html, attached as **Attachment 6**.
[33] U.S. Environmental Protection Agency, *Sulfur Dioxide: Health, available at* http://www.epa.gov/airquality/sulfurdioxide/health.html, attached as **Attachment 7**; U.S. Environmental Protection Agency, *Nitrogen Dioxide: Health, available at* http://www.epa.gov/oaqps001/nitrogenoxides/health.html, attached as **Attachment 8**.
[34] *See, e. g.*, Application for Certification for the Cogentrix Quail Brush Generation Project, August 2011, at pp. 4.8-5 -10 ("worst-case" criteria pollutant emissions assumed when generators are operated at 100 percent load), excerpts attached as **Attachment 8**.
[35] *Ibid.*
[36] *See, e. g.*, Application for Certification for the Cogentrix Quail Brush Generation Project, August 2011, at p. 4.7-8 ("worst-case" criteria pollutant emissions assumed when generators are operated at 100 percent load) and *id.* at Appendix F-4 (assumes 100 percent operations to evaluate public health impacts from toxic air contaminants), excerpts attached as **Attachment 8**.
[37] *See ibid.*

C. Increased Operation of Electricity Generating Plants Burning Fossil Fuel Causes Increased Emissions of Greenhouse Gases.

Increased operation of fossil fuel generation results in increased emissions of greenhouse gases. Incremental emissions of greenhouse gases contribute cumulatively to global climate change.[38] However, communities impacted by greenhouse gas emitting facilities may also consider greenhouse gas emissions a local problem, due to environmental justice concerns.[39]

D. The Construction and Operation of Renewable Energy Plants Also Results in Changes to the Physical Environment.

As discussed above, it is unlikely that joining MCE will cause the construction or increased operation of renewable energy plants. Increased reliance on renewable generation avoids greenhouse gas emissions and is beneficial for society in a number of other important respects. However, the construction and operation of renewable generation is not benign. Such plants, like all industrial development, result in adverse environmental impacts and may result in potentially significant impacts to the environment. We review some of these impacts below.

1. Constructing new renewable energy plants causes short-term emissions of criteria air pollutants.

Constructing a new power plant causes short-term air quality impacts from dust generated by earth disturbance and off-road vehicles. Construction activities also cause emissions of diesel particulates and ozone precursors from off-road vehicles, delivery trucks, and from workers commuting to and from the project site. For example, the City of Adelanto recently concluded that a 27 megawatt (MW) photovoltaic facility located in San Bernardino County would require mitigation measures to reduce construction emissions of particulate matter to a less than significant level.[40]

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[38] *See, e. g.*, California Energy Commission, Final Staff Assessment for the Pio Pico Energy Center, May 2012, at p. 105, excerpts attached as **Attachment 9**.
[39] *See* Draft Environmental Impact Report for the Chevron Refinery Modernization Project, March 2014, at pp. 4.8-39-41, excerpts attached as **Attachment 10**.
[40] *See* City of Adelanto Initial Study Environmental Checklist for LDP 13-05 and CUP 13-04, at p. 7, excerpts attached as **Attachment 11**.

2. Constructing new renewable energy plants may cause conversion of California farmland resources.

The development of new renewable plants often results in conversion of agricultural lands to industrial use. For example, an 18 MW photovoltaic facility proposed in the Central Valley would have converted 160 acres of Farmland of Statewide Importance to industrial use.[41] In western Fresno County alone, hundreds of acres of farmland have been removed from agricultural leases in order to construct new solar facilities.[42]

3. Constructing and operating new renewable energy plants may impact biological resources.

Constructing and operating renewable energy plants impacts special status species. In the Central Valley, solar energy development has eliminated hundreds of acres of habitat for the endangered San Joaquin kit fox, the State-listed threatened Swainson's hawks, and other protected species.[43] Renewable development in the Mojave Desert has resulted in direct take and elimination of habitat for the endangered Desert tortoise and many other special status species.[44] Geothermal resource development in the Eastern Sierra impacts mule deer migration and may impact species that depend on thermal resources, such as the federally-listed endangered Owens tui chub.[45]

4. Constructing new renewable energy plants may expose workers and nearby communities to serious health risks.

Constructing renewable plants can pose serious health risks to workers and nearby communities. *C. immitis* is a soil fungus, native to the San Joaquin Valley and other parts of California, which causes Coccidiodomycosis, commonly known as

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[41] *See* County of Fresno, Initial Study and Environmental Checklist for the Gestamp Asetym Solar Project, at p. 18, excerpts attached as **Attachment 12**.
[42] *See* Kurtis Alexander, The Fresno Bee, *PG&E solar projects concern Fresno County leaders; PG&E undoes contracts to use ag lands for alt energy.*, attached as **Attachment 13**.
[43] *See* San Bernardino County Initial Study Environmental Checklist Form for the Marathon Solar Project, excerpts attached as **Attachment 14**; San Bernardino County Initial Study Environmental Checklist Form for the Agincourt Solar LLC Project, excerpts attached as **Attachment 14**; County of Fresno Evaluation of Environmental Impacts for the Gestamp Asetym Solar Project, excerpts attached as **Attachment 14**.
[44] *See* California Energy Commission, Final Staff Assessment-Part A for the Blyth Solar Power Project, Sept. 2013, excerpts attached as **Attachment 15**.
[45] *See* County of Mono, Mammoth Pacific I Replacement Project, Final Environmental Impact Report, September 2012, excerpts attached as **Attachment 16**.

"Valley Fever."[46] Valley Fever is typically transmitted by inhaling airborne spores of *C. immitis*, which grow in soil during the wet season. These particles can be disturbed in project site soils during earthmoving activities.

In most cases, the primary infection is in the lungs.[47] In 35-40% of cases, infection leads to mild influenza 1 to 4 weeks after exposure, although some persons develop severe pneumonia.[48] If left untreated, in 1% of cases Valley Fever can spread beyond the lungs and can be fatal.[49]

Last year, the Los Angeles Times reported an outbreak of Valley Fever at two large solar-power construction sites in San Luis Obispo County where 28 workers developed the disease.[50] The Times reported that the threat of acquiring the respiratory illness extends to residents living near the power plant construction sites.[51]

5. Operating new renewable energy plants may increase consumption of limited water resources.

Imperial County is a major producer of geothermal power.[52] The U.S. Department of Agriculture also recently designated Imperial County a natural disaster area due to drought.[53] The Imperial Irrigation District (IID) has put in place interim water supply management policies to allocate limited water supplies between competing uses.[54] IID estimates that up to 50,000 acre feet per year (AFY) of water could be requested by non-agricultural projects over the next two decades.[55]

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[46] Duane R Hospenthal, MD, PhD et al., Coccidioidomycosis, Dec. 8, 2011, attached as **Attachment 17**.
[47] *Ibid.*
[48] *Ibid.*
[49] *Ibid.*
[50] Julie Cart, Los Angeles Times, *28 solar workers sickened by valley fever in San Luis Obispo County*, May 1, 2013, attached as **Attachment 18**.
[51] *Ibid.*
[52] California Energy Commission, Geothermal Energy in California, *available at* http://www.energy.ca.gov/geothermal/background.html.
[53] USDA, *USDA Designates Imperial County in California as a Primary Natural Disaster Area With Assistance to Producers in Arizona*, http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=edn&newstype=ednewsrel&type=detail&item=ed_20140410_rel_0055.html.
[54] *See* Imperial Irrigation District, IID Interim Water Supply Policy for Non-Agricultural Projects, *available at* http://www.iid.com/Modules/ShowDocument.aspx?documentid=5395, attached as **Attachment 19**.
[55] *Ibid.*

According to IID, a 49.9 MW dual flash geothermal plant under development in Imperial Valley utilizes approximately 750 AFY of water.[56] However, several binary geothermal facilities that consume as much as 6,600 AFY of water to generate the same amount of electricity have been proposed in the County.[57] One of these plants has already been constructed.[58] Geothermal power production can be water intensive, taxing limited water resources and potentially diverting water away from ecological and competing industrial uses.

III. AN EIR IS REQUIRED TO EVALUATE THE ENVIRONMENTAL IMPACTS OF A CITY ACTION TO JOIN A COMMUNITY CHOICE AGGREGATION PROGRAM

CEQA's purpose and goals must be met by preparing an EIR, except in certain limited circumstances.[59] CEQA contains a strong presumption in favor of requiring a lead agency to prepare an EIR. This presumption is reflected in the "fair argument" standard. Under that standard, a lead agency ***must prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.***[60] The fair argument standard creates a "low threshold" favoring environmental review through an EIR.[61] An agency's decision ***not*** to require an EIR can be upheld only when there is no credible evidence to the contrary.[62]

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[56] *See* IID, Imperial Integrated Regional Water Management Plan, Appendix L, IID Power Plant Water Use Evaluation, p. 4, attached as **Attachment 20**.
[57] *See id.* at p. 7.
[58] *See* Ormat Technologies, Inc., *Ormat Technologies, Inc. Provides Operational Update on North Brawley Power Plant, available* at www.ormat.com and attached as **Attachment 21.**
[59] *See* Pub. Resources Code, § 21100.
[60] Pub. Resources Code § 21082.2; CEQA Guidelines § 15064(f), (h); *Laurel Heights Improvement Ass'n v. Regents of the University of California* (1993) (*"Laurel Heights II"*) 6 Cal. 4th 1112, 1123; *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal. 3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens Foundation, Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-1602.
[61] *Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754.
[62] *Sierra Club v. County of Sonoma,* (1992) 6 Cal.App.4th, 1307, 1318; *see also Friends of "B" Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 1002 ["If there was substantial evidence that the proposed project might have a significant environmental impact, evidence to the contrary is not sufficient to support a decision to dispense with preparation of an [environmental impact report] and adopt a negative declaration, because it could be 'fairly argued' that the project might have a significant environmental impact"].
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CEQA defines "substantial evidence" as "fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact."[63] The California Natural Resources Agency regulations further define "substantial evidence" as:

> Enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached.[64]

"If the local agency has failed to study an area of possible environmental impact, a fair argument may be based on the limited facts in the record. Deficiencies in the record may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences."[65]

Substantial evidence shows that the City's action to join a CCA program may result in significant environmental impacts. As described above, joining MCE would cause increased operations of certain existing electricity generating plants burning fossil fuels. This increased burning of fossil fuels would cause potentially significant environmental impacts. Even a temporary increase in the operation of a fossil fuel generating plant can result in potentially significant impacts to air quality and public health.

The South Coast Air Quality Management District ("SCAQMD") determined that any stationary source, such as a power plant, that emits fine particulate matter at a rate of 55 pounds per day ("lbs/day") would cause a potentially significant air quality impact.[66] The hybrid solar thermal and combined cycle natural gas Victorville 2 Hybrid Power Plant is located in San Bernardino County, within SCAQMD jurisdiction. The Victorville 2 plant was designed to include two natural gas-fired combustion turbine-generators rated at 154 MW each.[67] The Victorville 2 plant is much more efficient than the older natural gas plants serving California's load, so the following example likely underestimates the impacts that would be caused by a City's action to join MCE.

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[63] Pub. Resources Code, § 21080 subd. (e)(1).
[64] CEQA Guidelines, § 15384, subd. (a).
[65] *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311.
[66] *See* South Coast Air Quality Management District, Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, at p. 8, *available at* http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html and excerpts attached as **Attachment 22**.
[67] California Energy Commission, Final Staff Assessment for the Victorville 2 Hybrid Power Project, March 2008, at p. 1-2, excerpts attached as **Attachment 23**.

The California Energy Commission staff concluded that when operated at its maximum potential hourly, daily and annual operations of 8,760 hours per year, the Victorville 2 plant would emit fine particulate matter at a rate of 117 tons per year and 864 lbs/day.[68] Accordingly, just two hours of maximum operation in any one day would cause the plant to emit 72 lbs of fine particulate matter.[69] Under SCAQMD's significance thresholds, this rate of emissions would result in a potentially significant impact to air quality under CEQA.

The environmental impacts of the Victorville 2 plant's operations are representative of the plants that will be supplying the City's load after the City joins a CCA program. Existing fossil fuel burning plants,[70] and those fossil fuel burning plants that are planned,[71] in California are located in areas where people would be exposed to air pollutants and toxic air contaminants that are emitted from these plants. Many of these facilities are located within a couple of miles of residential neighborhoods.[72] All but one of these facilities are located in areas that are designated in non-attainment of federal and state air quality standards,[73] where

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[68] *See id.* at pp. 4.1-8, 4.1-9, Table 4, excerpts attached as **Attachment 23**.
[69] 864 lbs/day/ 24 = 36 lbs/hr.
[70] The 429 MW Russell City Energy Center, located in Hayward California, http://www.calpine.com/power/plants.asp; the 600 MW Metcalf Energy Center, located in South San Jose, http://www.calpine.com/power/plant.asp?plant=183; the 950 MW Encina Power Station, located in Carlsbad, California, http://www.nrgenergy.com/about/assets.html; the 510 MW Otay Mesa Generating Station, located in Eastern San Diego in the community of Otay Mesa, http://www.calpine.com/power/plant.asp?plant=247; 11529 MW Dynegy Moss Landing Power Plant, located in Monterey County, http://www.dynegy.com/downloads/Dynegy_Facilities.pdf; and the 95 MW Hanford Combined Cycle Power Plant, located in Hanford, Kings County.
[71] Victorville 2, located in the City of Victorville, http://www.energy.ca.gov/sitingcases/victorville2/; Avenal Energy Power Plant, located in the City of Avenal, http://www.energy.ca.gov/sitingcases/avenal/; the Watson Cogeneration Project, located in City of Carson, http://www.energy.ca.gov/sitingcases/watson/; Pio Pico Energy Center, located in Otay Mesa, California, http://www.energy.ca.gov/sitingcases/piopico/.
[72] For example, the Metcalf Energy Center is located within one mile of a residential neighborhood. *See* https://www.google.com/maps/place/Metcalf+Energy+Center/@37.219871,-121.744587,17z/data=!3m1!4b1!4m2!3m1!1s0x808e2f6866720c67:0x8bc587f3f011e26f. The Russell City Energy Center is located in Hayward within two miles of the Mount Eden neighborhood.
[73] Russell City and Metcalf Energy Center are located within Bay Area Air Quality Management District (BAAQMD) jurisdiction. *See* http://www.baaqmd.gov/The-Air-District/Jurisdiction.aspx. The Bay Area is designated in nonattainment of state and federal ozone and fine particulate matter standards. *See* http://hank.baaqmd.gov/pln/air_quality/ambient_air_quality.htm. The Encina Power Station, the Otay Mesa Generating Station and the Pio Pico Power Plant Project are located within the jurisdiction of the San Diego Air Pollution Control District (SDAPCD). The San Diego Air Basin is designated in nonattainment of federal and state ozone standards and state standards for particulate matter. *See* http://www.epa.gov/oaqps001/greenbk/ancl.html; http://www.arb.ca.gov/pm/pmmeasures/pmch05/sd05.pdf. The Hanford facility and the Avenal Power Plant Project are located in Kings County, within the jurisdiction of the San Joaquin Valley

a relatively minor increase in emissions results in a potentially significant impact to air quality.[74]

Substantial evidence supports a fair argument that joining MCE may have a significant effect on the environment. The City's action to join MCE would cause existing plants burning fossil fuel to increase their operation. Even a temporary increase in the operation of such a plant could result in a significant impact. The Victorville 2 plant, which is more efficient than many natural gas plants serving California's load, would result in significant air quality impacts if operated at maximum capacity for just two hours in one day. This evidence is just one example of a potentially significant environmental impact that City approval of joining MCE or another CCA program, could cause. The City is required to prepare an EIR before approving such action.

The EIR should identify the City's goals in joining a CCA program, state how the proposed action may achieve these goals and analyze the environmental impacts that may result from the proposed action.[75] The EIR is also required to analyze a reasonable range of alternatives to the proposed action, including a no action alternative, and to identify the environmentally preferred alternative.[76] Only in this way can the City document and consider the environmental consequences of its action, as required under state law.

IV. CONCLUSION

Before the City takes any action to join a CCA program, it must comply with CEQA. Joining a CCA program may result in potentially significant impacts on the

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Air Pollution Control District. *See* Health & Saf. Code § 40600. Kings County is designated in nonattainment of federal and state ozone and particulate matter standards. *See* http://www.epa.gov/oaqps001/greenbk/ancl.html; http://www.arb.ca.gov/regact/2013/area13/area13fro.pdf. The Watson Cogeneration Project and the Victorville 2 Project are located within Los Angeles County and San Bernardino County, respectively, within the jurisdiction of SCAQMD. *See* http://www.aqmd.gov/. Los Angeles County is designated in nonattainment of federal standards for ozone and particulate matter. *See* http://www.epa.gov/oaqps001/greenbk/ancl.html. San Bernardino County is designated in nonattainment and unclassified for state standards for fine particulate matter and in nonattainment of federal standards for ozone. *See* http://www.arb.ca.gov/regact/2013/area13/area13fro.pdf; http://www.epa.gov/oaqps001/greenbk/ancl.html.

[74] *See* SCAQMD CEQA Air Quality Handbook (1993), at pp. 6-1-6-4 (discussing the relevance of nonattainment status to a significance finding for the purpose of CEQA and setting varying quantitative emissions thresholds for areas with different attainment designations), attached as **Attachment 24.**

[75] *See* CEQA Guidelines, §§ 15122-15126.4.

[76] *See* CEQA Guidelines, § 15126.6.

physical environment, including significant impacts to air quality and public health. An analysis of the MCE Program shows that joining the program may result in significant impacts to air quality and public health from increased operation of existing fossil fuel generation. Accordingly, CEQA requires the City to prepare an EIR prior to approving Benicia's membership in the program.

Thank you for your attention to this matter.

Sincerely,

Jamie L. Mauldin

JLM:clv

Attach.

1011-950cv

DRAFT

BENICIA COMMUNITY SUSTAINABILITY COMMISSION

CITY HALL COMMISSION ROOM

SPECIAL MEETING MINUTES

Tuesday, October 14, 2014
5:30 P.M.

I. OPENING OF MEETING

A. Pledge of Allegiance
B. Roll Call of Commissioners

Present: Commissioners Kerridge, Raj, Subramanyam, and Chair Beutel
Absent: Commissioner Barrow, Maher, and Shannon

Present: None

Absent: Ex-Officio Members Adams, Bardet, Muehlbauer, and Scott

Staff Present: Brad Kilger, City Manager
Alex Porteshawver, CAP Coordinator
Gina Eleccion, Management Analyst/Recording Secretary

C. Reference to Fundamental Rights of

II. OPPORTUNITY FOR PUBLIC COMMENT

A. WRITTEN COMMENT - None
B. PUBLIC COMMENT - None

III. AGENDA ITEM

A. MARIN CLEAN ENERGY/COMMUNITY CHOICE AGGREGATION

At its October 7 meeting, City Council reviewed the results of the Marin Clean Energy (MCE) Membership Analysis and independent assessments prepared for the City of Richmond and City of Mill Valley, and discussed authorizing the City Manager to enter into a contract with MRW & Associates and Davis Wright Tremaine LLP to conduct additional independent analysis funded from salary and benefit savings from General Fund Community Development department and the City Attorney department, and schedule Tuesday November 4, 2104 as the meeting date to review the additional information and make a determination regarding joining MCE. City Council directed the Community Sustainability Commission to make a recommendation on the allocation of Valero/Good Neighbor Steering Committee Settlement Agreement funds for this purpose. Paragraph H of the Settlement Agreement calls for a Community Sustainability Commission recommendation regarding use of these funds.

Recommendation: Make a recommendation to the City Council regarding allocation of $30,000 from the Valero/Good Neighbor Steering Committee Settlement Agreement fund to conduct additional independent analysis of Marin Clean Energy.

On motion of Commissioner Kerridge, seconded by Commissioner Subramanyam, CSC recommended that City Council allocate $30,000 from the Valero/Good Neighbor Steering Committee Settlement Funds as a supplemental expense to the Community Choice Aggregation grant application submitted by the CSC. These funds are for the purpose of an independent analysis of Marin Clean Energy. Further, the Commission finds that the use of these funds would provide a greater value than any water reduction projects currently proposed for use of fund monies and is sustainable or energy efficient and supports the City's Climate Action Plan.

The above motion was carried, by the following vote:

Ayes:	Commissioners Kerridge, Raj, Subramanyam, and Chair Beutel
Noes:	None
Absent:	Commissioners Barrow, Maher, and Shannon

IV. ADJOURNMENT

Chair Beutel adjourned the meeting at 5:41 p.m.

Kate Gibbs - PERRY: Fwd: I support Marin Clean Energy

From: Kate Gibbs
To: Anne Cardwell
Subject: PERRY: Fwd: I support Marin Clean Energy

>>> David Perry <davidperrystudio@gmail.com> 10/28/2014 9:49 AM >>>
Dear Reader,

I support using Marin Clean Energy in Benicia. Let's be the future.
Also, NO CRUDE BY RAIL.

Sincerely,

David, Heather and August Perry
30 La Cruz Ave
Benicia, CA 94510

Kate Gibbs - Re: Fwd: MCE

From: Kate Gibbs
To: Anne Cardwell
Subject: Re: Fwd: MCE

>>> Grant Cooke <grantcooke11@gmail.com> 10/28/2014 12:43 PM >>>
Anne,
I would like to support and recommend that the City Council approve joining Marin Clean Energy.
Regards,
Grant

Grant Cooke
CEO
Sustainable Energy Associates
925-989-7117
Skype ID: grant.cooke19
gcooke@sustainableenergyassc.com
www.sustainableenergyassc.com

The Green Industrial Revolution: Energy, Engineering and Economics by Clark and Cooke and published by Reed/Elsevier is available from Amazon.

Kate Gibbs - Fwd: Marin Clean Energy

From: Anne Cardwell
To: Kate Gibbs
Date: 10/28/2014 3:37 PM
Subject: Fwd: Marin Clean Energy
CC: Alex Porteshawver

>>> Bob <bob@bobrentfro.com> 10/28/2014 3:24 PM >>>
I recently read the following statement. "Those with solar get more from Marin Clean Energy than PG&E for energy they produce." If this is true, I fully support our signing up to participate. I spent over $10,000 for solar panels, and my bills are still too high.

Bob Rentfro
109 Woodstock Court
Benicia, CA 94510

Kate Gibbs - Re: Fwd: Marin Clean Energy

From: Kate Gibbs
To: Anne Cardwell
Subject: Re: Fwd: Marin Clean Energy

From: "Sierra Reinertson <soleik9@yahoo.com>" <soleik9@yahoo.com>
Date: October 28, 2014 at 3:50:34 PM PDT
To: "Anne Cardwell" <acardwell@ci.benicia.ca.us>, "Alan Schwartzman" <ASchwartzman@ci.benicia.ca.us>, "Christina Strawbridge" <CStrawbridge@ci.benicia.ca.us>, "Elizabeth Patterson" <EPatterson@ci.benicia.ca.us>, "Tom Campbell" <TCampbell@ci.benicia.ca.us>, "Sierra Reinertson" <soleik9@yahoo.com>
Subject: Marin Clean Energy

Dear Council members,

I am sending this email to show my full support of switching from PG&E to the more environmentally and economically sustainable company, Marin Clean Energy.

Sincerely,

Sierra Reinertson

Kate Gibbs - Re: Fwd: Marin Clean Energy

From: Kate Gibbs
To: Anne Cardwell
Subject: Re: Fwd: Marin Clean Energy

From: "Megan Vaneck <megan_vaneck@yahoo.com>" <megan_vaneck@yahoo.com>
Date: October 28, 2014 at 9:52:08 PM PDT
To: "Anne Cardwell" <acardwell@ci.benicia.ca.us>
Subject: Marin Clean Energy

Dear Council Member Anne Cardwell,

I just wanted to take a short moment of your time to express my support for Marin Clean Energy. I think PG&E should finally have a little competition incentive to make their energy cleaner and prices lower anyways. It sounds like just the kind of forward thinking I'd like to see my city come together and embrace. Please, please vote *FOR* Marin Clean Energy =)

Thank you so much for your time and consideration,

Megan Vaneck
1037 East 5th St

Sent on the new Sprint Network from my Samsung Galaxy S®4.

Kate Gibbs - URBAN: Marin Clean Energy

From: Kate Gibbs
To: Anne Cardwell
Subject: URBAN: Marin Clean Energy

I wanted to let you know that I am a big supporter for the City of Benicia to join the Marin Clean Energy co-op.

I intend to be at the Council meeting on Nov 4 to show my support.

Thank You

Andrew Urban

707-738-7545

REALTOR
CalBRE# 01752023
707-750-5801 Fax

Coldwell Banker Solano Pacific
900 First St.
Benicia CA 94510

Community Development Department

MEMORANDUM

Date: September 25, 2014
To: Brad Kilger
From: Alex Porteshawver, Consulting Climate Action Plan Coordinator
Re: Community Choice Aggregation (CCA) - Background

Community Choice Aggregation (CCA) agencies purchase and/or develop renewable energy (electricity only) on behalf of residents, businesses, and municipal accounts in member jurisdictions. CCA is an energy supply model that works in partnership with Pacific Gas & Electric (PG&E). CCA programs generate and procure their own clean electricity and rely on PG&E to deliver electricity through its transmission and distribution system. PG&E continues to provide meter reading, billing, maintenance, and outage response services to customers within its territory.

Existing CCAs

As part of the Council approved CAP Coordinator Work Plan 14-15, the CAP Coordinator researched California CCA programs. Within PG&E's territory there are two active CCAs: Marin Clean Energy (MCE) and Sonoma Clean Power. Currently, MCE is the only CCA that Benicia can join since Sonoma Clean Power is only offering service to customers in Sonoma County.

MCE was launched in 2010 as California's first CCA and is a Joint Powers Authority (JPA) consisting of all jurisdictions in Marin County and the City of Richmond. Currently, MCE's Light Green (51% renewable electricity) rates are slightly less than PG&E and it provides at least 51% renewable electricity to Light Green Customers and 100% renewable electricity to Deep Green customers as compared to PG&E's 22% renewable energy. PG&E expects to offer a Green Option to its customers in the first half of 2015 pending California Public Utilities Commission (CPUC) approval (expected in 2014). PG&E's program will allow customers to enroll and pay a surcharge (amount to be set by the CPUC) for 100% renewable electricity.

The primary goals of the MCE program are 1) to decrease greenhouse gas emissions and 2) to increase the amount of renewable energy power sources. Marin local governments determined that the MCE program was the most cost effective GHG reduction measure that local governments could implement to

meet their respective greenhouse gas reduction goals. The long term programmatic goal of the MCE program is to provide 100% renewable energy to all electric service customers. This goal far exceeds the State of California's Renewable Portfolio Standard that requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33% of total procurement by 2020.

Power Mix in California

PG&E and MCE procure enough electricity to meet their customers' electricity use needs. They may get this electricity from a number of different sources including renewable energy sources and non-renewable sources (see explanation below). In 2002, the State of California made a commitment to increasing the amount of renewable energy generated in the state and passed the California Renewable Portfolio Standard (RPS) that requires investor owned utility companies (i.e. PG&E), electric service providers, and CCAs (i.e. MCE) to increase electricity procurement from "eligible renewable energy sources" to 33% of total procurement by 2020. The following are considered eligible renewable energy sources:

- Biomass & Biowaste
- Geothermal
- Eligible hydroelectric
- Solar electric
- Wind

Other sources of energy include:

- Coal
- Large hydroelectric
- Natural gas
- Nuclear
- Unspecified sources of power.
  Unspecified means electricity from transactions that are not traceable to specific generation sources.

Each year, both MCE and PG&E are required to report their electric power content, including percentage of renewable energy, to the California Energy Commission (CEC) and the CPUC. The 2013 Power Mix Comparison is attached to this report. Keep in mind that MCE voluntarily purchases renewable energy in excess of the RPS requirements (33% by 2020) in order to meet MCE's overall renewable energy content (> 50%) in providing the Light Green and Deep Green products to MCE customers. These requirements are generally met with

short term purchases of unbundled Green-e Energy[1] certified Renewable Energy Credits (RECs).

A REC represents the environmental and renewable attributes of renewable electricity. A REC can be sold either "bundled" with the underlying energy or "unbundled", as a separate commodity from the energy itself, into a separate REC trading market. When MCE buys unbundled RECs, it is only buying the environmental benefit of the electricity produced elsewhere and those environmental benefits cannot be claimed by anyone else.

Delivering Renewable Electricity

Both MCE and PG&E procure renewable electricity by entering into short and long term contracts with a variety of power suppliers to meet the needs of their customers. To ensure that each entity is actually procuring the amount of renewable electricity they claim to be, the CPUC and CEC require annually reporting so that they may verify the amount of renewable energy procured for customers.

The renewable electricity procured by both MCE and PG&E is generated and then distributed via the electricity grid; it does not go directly to any one customer's home. However, by procuring additional renewable electricity, less dirty, non-renewable resources are used to satisfy customers' electricity needs.

1 Green-e Energy is an independent certification and verification program for renewable energy. Green-e Marketplace is a program that allows companies to display its logo when they have purchased a qualifying amount of renewable energy and passed its verification standards.

AGENDA ITEM
CITY COUNCIL MEETING DATE - OCTOBER 7, 2014
BUSINESS ITEMS

DATE : September 29, 2014

TO : City Council

FROM : City Manager

SUBJECT : **MARIN CLEAN ENERGY (MCE) - MEMBERSHIP ANALYSIS**

RECOMMENDATION:
1) Review results of Marin Clean Energy (MCE) Membership Analysis and independent assessments prepared for the City of Richmond and City of Mill Valley;
2) Direct the City Manager, by motion, to enter into a contract with MRW & Associates and Davis Wright Tremaine LLP to conduct additional independent analysis, utilizing General Fund salary/benefit savings to fund the analysis; and
3) Schedule Tuesday November 4, 2014 at 8:00 p.m. as the meeting date/time to review the additional information and make a determination regarding joining MCE.

EXECUTIVE SUMMARY:
CCA allows local governments to purchase and/or develop clean power on behalf of their residents, businesses, and municipal accounts. CCA is an energy supply model that works in partnership with Pacific Gas & Electric (PG&E) to deliver renewable electricity, maintain the energy grid, and provide customer service and billing. On June 17, 2014, the City Council allocated $18,000 in Valero Good Neighbor Steering Committee Settlement Agreement funds and authorized the City Manager to execute a contract with Marin Clean Energy (MCE). Council also held a study session on September 9, 2014 so that the public and Council could learn more about CCAs in general. At the conclusion of the study session, Council directed staff to assess the need for further outside review of the pending MCE Membership analysis. Staff received the completed analysis on September 10, 2014, which concluded that Benicia joining MCE would have a net beneficial impact on MCE's current customers and likely reduce near term electrical energy costs for Benicia residents and businesses.

BUDGET INFORMATION:
Independent analyses of the financial and legal risks are estimated to cost $25,000 to $30,000 depending on the regulatory and policy changes that have occurred since the Richmond reports were prepared. These funds could either come from 1) estimated General Fund salary and benefit savings, or 2) Valero

Good Neighbor Steering Committee Settlement Agreement funds. If option 1 is selected, funds will come from the City Attorney's department budget to cover the legal analysis and the Community Development Department for the remainder of the risk analysis. If Option 2 is selected, it will take approximately three months to secure funding since the Community Sustainability Commission does not meet again until November. Even if the Council requested a special CSC meeting to expedite the funding recommendation, it would not be possible to have the funding approved in less than four to six weeks and the City would not be able to accommodate MCE's deadline. In order to try and meet the deadline, staff is recommending that the Council direct the City Manager to fund the analysis through Option 1.

ENVIRONMENTAL REVIEW:
State CEQA Guidelines Section 15378(b)(5) states that a project does not include "Organization or administrative activities of governments that will not result in direct or indirect physical changes in the environment." As there is no action proposed at this time, no CEQA determination or action is required.

GENERAL PLAN:
The project supports the overarching Goal of the General Plan, which is Sustainability.

STRATEGIC PLAN:
Relevant Strategic Plan Issues and Strategies:

- Strategic Issue #2: Protecting and Enhancing the Environment
  - Strategy #1: Reduce greenhouse gas emissions and energy consumption
  - Strategy #3: Pursue and adopt sustainable practices

CLIMATE ACTION PLAN:
Relevant Climate Action Plan Issues and Strategies:

- Strategy E-2.6. Community Choice Aggregation Feasibility Assessment

BACKGROUND:
Community Choice Aggregation (CCA) allows local governments to purchase and/or develop clean power on behalf of their residents, businesses, and municipal accounts. CCA is an energy supply model that works in partnership with Pacific Gas & Electric (PG&E) to deliver renewable electricity, maintain the energy grid, and provide customer service and billing. As part of the Council approved Climate Action Plan (CAP) Coordinator Work Plan 14-15, the CAP Coordinator researched CCA programs and potential funding sources to complete a membership analysis required by Marin Clean Energy (MCE), the only existing CCA that Benicia could join at this time. MCE's analysis assesses the

City's electrical load and determines whether MCE can provide service to the City without having a negative impact on its current customers. On June 17, 2014, the City Council allocated $18,000 in Valero Good Neighbor Steering Committee Settlement Agreement funds and authorized the City Manager to execute a contract with MCE. Council also requested that staff organize a Council Study session so that the public and Council could learn more about CCAs in general. At the September 9, 2014 study session, Council directed staff to assess the need for further outside review of the pending MCE Membership Analysis. Staff received the completed analysis on September 10, 2014, which concluded that Benicia joining MCE would have a net beneficial impact on MCE's current customers and likely reduce near term electrical energy costs for Benicia residents and businesses.

Independent reviews commissioned by other cities when considering joining MCE are also attached to this report. Staff is recommending that Council direct the City Manager to update these independent evaluations and provide direction to staff as to what additional questions it would like answers to prior to considering joining MCE. MCE has indicated to staff that in order for it to acquire the energy it needs to accommodate Benicia, it needs Benicia to commit to joining by December 2, 2014. The MCE Board has already pre-approved Benicia joining within that schedule, should its analysis show – as it has – that it would have a neutral or positive impact on existing MCE customers. In order to join, the Council must adopt an ordinance (first and second reading) and sign the Joint Powers Authority (JPA) agreement as a new member. Should the Council direct the City Manager to complete the additional analysis suggested by staff, staff believes it can be completed fairly quickly thereby allowing the council to move forward with a decision about joining in November that would meet MCE's deadline.

PROCESS FOR BECOMING A MEMBER OF MCE

The following steps are needed in Benicia joining MCE.

1. Assess feasibility. Council has already authorized the first step in joining MCE, a technical study assessing the ability of MCE to provide electrical service to Benicia and its existing customers without having a negative impact on existing customers and while still meeting MCE's goals for greenhouse gas (GHG) reduction. That analysis, presented with this report, concluded that there would be net benefits to both existing and potential Benicia customers from Benicia joining MCE.
2. Additional Information. The question before the Council tonight is whether it would like to proceed to consider joining MCE, and if so, what additional information the Council needs prior to making a decision about joining MCE.
3. Pass ordinance to join MCE. Assuming the Council approves proceeding

to further consideration of membership, and assuming the Council gets the information it needs and decides to join, then it must adopt an ordinance (first and second reading) to join MCE. The City Council must also execute a Joint Power Agreement as a new member. While MCE must sign off on these documents, the MCE Board has already pre-approved Benicia's membership, assuming that it passed the feasibility assessment, which it has.

4. MCE will procure enough renewable electricity to meet the demand in Benicia and MCE and the City will begin community outreach and education and provide customers an opportunity to opt out of MCE.

MCE has indicated that if the City wishes to join MCE, it needs to adopt the appropriate ordinances and sign the JPA agreement by December 2. These deadlines relate to MCE procurement deadlines since they procure power to satisfy its load roughly twice per year. They plan to do one additional procurement cycle this year and will not do another until mid-2015. At that time, MCE is not certain that it will be able to extend an offer of membership to Benicia since other communities currently are also considering becoming an MCE member and those communities may offer different or better rate and emissions reductions benefits to MCE and its customer base. Moreover, MCE may wish to take a "time-out" to absorb new members before it offers membership to others.

REVIEW OF MCE MEMBERSHIP ANALYSIS

On September 10, 2014, Staff received the completed MCE Membership Analysis. Overall, the analysis is favorable indicating that if Benicia were to join MCE, it will result in a rate reduction for existing and prospective MCE customers, a reduction in greenhouse gas (GHG) emissions, and financial savings to the City and Benicia residents. A more detailed staff analysis is attached to this report.

RISK/BENEFITS OF JOINING MCE

At the September 30, 2014 City Council study session, the Council expressed a desire to have more information on the potential benefits and risks of joining MCE. To assist with this analysis, staff has provided examples of independent reviews commissioned by other cities when considering whether they should join MCE.

The City of Richmond hired MRW & Associates (Oakland, CA) to conduct a Risk Assessment of Participation in MCE and Dalessi Management Consulting (now Pacific Energy Advisors, El Dorado Hills, CA) to conduct a Financial Impacts Analysis (review of MCE's membership study). Both of these reports, completed in 2011, are attached. In addition, Richmond relied on a legal analysis completed by Davis Wright Tremaine, LLP (San Francisco, CA) for the City of Mill Valley when it was considering joining MCE in 2010; it is also attached. Below is

a summary of these reports. Although they were prepared for other jurisdictions and are a few years old, many of the risks and benefits apply to Benicia as well.

MRW & Associates

MRW's scope of work consisted of four tasks:

- Assess potential risks and benefits to City residents and businesses if Richmond joins the MCE; in particular, the rate risk to the community.
- Assess potential risks and benefits to the City itself if it chooses to join MCE.
- Provide comments on the Dalessi Management Consulting load and resource requirement analysis.
- Provide qualitative comments on any materials MCE provided to Richmond.

The types of risks fall into broad categories: procurement, regulatory, policy, customer cost, and city-specific. MRW created a table outlining these risks and the relative importance of the risk based on potential impact(s) (page VI of MRW report). The MRW report, while providing a good overview of the types of risk involved in joining MCE, was prepared in 2011, when MCE was still in its infancy. MCE is still quite young, and while the benefits MRW identified are essentially the same, some of the risks MRW evaluated in 2011 related to issues associated with MCE starting up and growing. Those same risks may still exist, but the analysis of those risks may lead to different conclusions or concerns now that MCE has more of a track record and its customer base is considerably larger than it was when the report was prepared in 2011.

Dalessi Management Consulting

Dalessi conducted an analysis of the potential City of Richmond electric loads, resource requirements (amount of energy needed to satisfy customer load), and cost of service associated with providing electrical services to the City. This is a quantitative analysis that used historical electric usage data to forecast future electrical demand and assess the economic impact of joining MCE. The analysis assessed whether the:

- Addition of the Richmond load is beneficial to the existing customer base,
- Expansion would result in acceleration of GHG reductions in California, and
- Expansion would allow for increases in the amount of renewable energy being used in California's energy market.

This report took a second look at MCE's analysis and determined whether its conclusions were accurate. Today, MCE subcontracts with Pacific Energy Advisors (formerly Dalessi Management Consulting) to conduct this same analysis for potential new members. At the time the Richmond report was prepared, Dalessi was not working directly with MCE.

Davis Wright Tremaine (DWT)

DWT was hired by the City of Mill Valley in 2010 to conduct an independent assessment of potential risks and liabilities associated with the City's participation in MCE. The assessment primarily focuses on:

- City's potential risks and liabilities as a retail customer of MCE[1] including: future retail rates, exit fees if the City chose to opt out of MCE, future regulatory risks, and whether MCE customers would be liable for a MCE organizational failure.
- City's potential risks and liabilities as a member of the MCE Joint Powers Authority (JPA) including: liability for MCE's legal obligations, how the opt out rate my affect the economic viability of MCE, risk of future MCE investments, and liability for the $100,000 bond posted by MCE to the CPUC.

This qualitative analysis does not assess energy market conditions, future energy costs, and is not an economic analysis. DWT concluded that electricity markets, costs, and rates are volatile and affected by numerous factors. The City of Richmond relied on this legal assessment when it joined MCE. No other member city or potential member city has conducted independent legal review.

Goal of independent review

Independent review(s) provides an opportunity for a third and neutral party to assess the risks and benefits of joining MCE and allows the City Council to have a second opinion on the conclusions in the MCE membership analysis and the structure of the JPA agreement. As indicated in the MRW report, while risks can be identified, there is no simple "bottom line" conclusion to its assessment, and staff does not expect a different conclusion from an updated report. There can be no certainty as to how joining MCE will affect customers in the long run relative to staying with PG&E. Policy makers must weigh risks and benefits and make a decision as to whether the benefits of joining MCE outweigh the risks. As also noted in the MRW report, even if a community chooses to join MCE, individual customers can opt to stay with PG&E with no penalty if they make that decision at the outset, and with a relatively small "penalty" should they leave MCE at a later date. It is also true that MCE offers an "opt-out" option, and that despite the extensive MCE and City outreach efforts (including legally required

[1] Edward W. O'Neal, Davis Wright Tremaine LLP, Independent Assessment of Potential Risks and Liabilities Associated with City's Participation in Marin Clean Energy, p. 3-4 (May 17, 2010). MEA stands for Marin Energy Authority. Originally, Marin Energy Authority (MEA) was the Joint Powers Authority (JPA) that operated the Marin Clean Energy (MCE) program. Now, MCE is used to refer to both the JPA and the program offerings.

direct mailings)to inform potential customers about an upcoming change, some customers who are not paying attention will effectively become MCE customers without their knowledge or consent.

BENICIA-SPECIFIC RISK/BENEFIT ANALYSIS

As noted earlier the attached reports were prepared for Richmond and Mill Valley in 2010 and 2011, fairly early-on in MCE's existence. MCE has a longer track record and its customer base has grown considerably since these reports were completed, and staff therefore recommends that the City Council authorize the completion of new report(s), including:

- Update policy and regulatory risks since they may have changed since 2010.
- Expand assessment of MCE as an organization and its potential for success and failure.
- Expand assessment of MCE financial viabilities, including but not limited to:
    - Earnings expectations and assumptions of customer base,
    - Ability to maintain its net metering credit payout program, and
    - Investments, debt, and reserve goals and strategies.
- Evaluate possible impacts to City of Benicia's revenues and expenditures; including but not limited to:
    - Utility User Tax collections and remittance,
    - Franchise Fees collection and remittance,
    - City's 10 solar sites including rate impacts and other financial risks and benefits, and
    - Expected impact to City electric bills

Anticipating that the Council might direct staff to proceed with the additional analysis, and in order to try and meet MCE's timeline for a decision, Staff spoke with three consultants to obtain cost estimates for this work. Those conversations confirmed that MRW & Associates has the necessary background and familiarity with CCAs and therefore is uniquely suited to update its 2011 analysis. Staff also consulted SAGE Renewables, a company the City previously worked with through a California Energy Commission (CEC) program to assist it with analyzing the City's solar site production and developing an operations and maintenance plan. Because SAGE is intimately familiar with the solar sites, it would be prudent to have them subcontract with MRW and assess the financial impacts to the City's solar accounts.

If the City Council wishes to proceed with this additional analysis, it can be complete by October 21, 2014 for a not to exceed amount of $15,000.

Staff also consulted the City Attorney about the need to update the legal

analysis prepared by DWT. She concluded that the report would need to be updated to reflect any changes in statutory or regulatory matters affecting MCE and the JPA as well as specific changes to the joint powers agreement. DWT could provide this update for a not to exceed amount of $15,000 but likely less since DWT does not anticipate many legal/regulatory changes have occurred or that the JPA agreement has changed significantly since 2010.

As noted under the budget discussion, two potential sources for paying for this work have been identified. These funds could either come from 1) salary and benefit savings from General Fund Community Development Department and the City Attorney's department or 2) Valero Good Neighbor Steering Committee Settlement Agreement funds. If option 2 is selected, it will take approximately three months to secure funding since a recommendation for the use of the funds is required and the Community Sustainability Commission (CSC) does not meet again until November. Even if the Council requests a special CSC meeting to expedite the funding request, it would not be possible to have the funding approved in less than four to six weeks and the City would not be able to accommodate MCE's deadline. In order to try and meet MCE's deadline, staff is recommending this work be funded through salary savings.

CONCLUSION

According to the analysis conducted by MCE, the City of Benicia satisfied its membership criteria and will result in both rate and GHG reductions. This report has outlined the analysis conducted by MCE for the City. It also provides a brief overview of additional, independent analyses completed by other MCE-member cities in an attempt to assess risks and benefits of joining MCE. If Council believes the analysis already available is sufficient, staff is prepared to come back with an ordinance and official request to join MCE on October 21, 2014. If Council directs the City Manager to conduct additional independent review, staff believes it can come back to Council on November 4, 2014.

Attachments:

- CCA Background – Memo to City Manager
- MCE Membership Analysis – Memo to City Manager
- Marin Clean Energy Applicant Analysis for the City of Benicia - August 29, 2014 (received September 10, 2014)
- PG&E and MCE 2013 Power Mix Comparison
- Dalessi Management Consulting, MEA Evaluation of the Potential Extension of MCE Service to the City of Richmond - October 20, 2011
- MRW & Associates, Risk Assessment of Participation in the Marin Clean Energy Community Choice Aggregation Program On Behalf of the City of Richmond - October 20, 2011

- Davis Wright Tremaine LLP, Independent Assessment of Potential Risks and Liabilities Associated with City's (Mill Valley) Participation in Marin Clean Energy - May 17, 2010

Community Development Department

MEMORANDUM

Date: September 25, 2014

To: Brad Kilger

From: Alex Porteshawver, Consulting Climate Action Plan Coordinator

Re: Review of MCE Membership Analysis

On September 10, 2014, Staff received the completed MCE membership analysis. Below is an overview of that report.

Rate Comparison

On September 9, 2014 (City Council Study Session), MCE staff presented a current rate comparison for a typical residential and commercial customer in MCE's service territory (see tables below) vs. PG&E's territory. These rate comparisons are subject to change as PG&E or MCE implement rate increases or decreases. MCE rates are typically adjusted once per year while PG&E can implement several rate changes per year. MCE attempts to sets rates to be competitive with PG&E.

Electric utility bills are typically structured in three categories:

- Generation, and
- Transmission and Distribution, and
- Fees and taxes approved by the California Public Utilities Commission.

Under the MCE program, customers continue to receive one monthly bill from PG&E, but costs for the generation of electricity are returned to MCE. The

Transmission and Distribution of electricity is administered by PG&E and will remain unchanged regardless of the customer's participation in the MCE program. The two new fees included in the utility bill under CCA programs are the PG&E Franchise Fee and the Power Charge Indifference Adjustment (PCIA) commonly referred to as the "exit fee."

Franchise Fee

Customers who receive their electric supply from a third-party provider are billed a franchise fee that is normally collected directly from PG&E bundled customers in rates but it is itemized separately for customers of third-party providers, such as CCA customers. The money collected through the FFS is paid to municipalities for the purpose of supporting vital local services. CCAs do not bill customers for the franchise fee. Instead, PG&E collects the fee and returns these revenues to local governments. This fee structure and the distribution of those fees back to Benicia will not change if Benicia joins MCE.

PCIA Fee (Exit Fee)

MCE customers must also pay a PG&E PCIA fee. The fee is intended to make PG&E "whole" again since they already procured and paid for power based on its customer load, including Benicia. If Benicia joins MCE, than that load will be reduced and they will have paid for power they no longer need. However, after Benicia joins, PG&E will no longer plan for or procure power for that load and so, the fee depreciates over time as its financial obligations related to power agreements lessen. The CPUC determines what this fee is by using a formula that looks at the market price of power and then assesses outstanding contract obligations in PG&E's portfolio and departing customers pay a percentage of those contracts based on total electricity consumption of kilowatt hours; the fee ranges from $5 - $6. Households that consume less than the average Benicia account will be accessed a lower PCIA fee; conversely, households that consume more energy than the average household will be accessed a higher PCIA fee.

Figure 1 – Residential E-1 rate

	PG&E 22%	MCE Light Green 50%	MCE Deep Green 100%	MCE Local Solar 100%
Delivery	$39.70	$39.70	$39.70	$39.70
Generation	$46.74	$40.13	$45.21	$72.14
PG&E Fees	-	$5.91	$5.91	$5.91
Total Cost	**$86.44**	**$85.75**	**$90.83**	**$117.75**

Figure 2 – Commercial A-1 rate

	PG&E 22%	MCE Light Green 50%	MCE Deep Green 100%	MCE Local Solar 100%
Delivery	$137.42	$137.42	$137.42	$137.42
Generation	$135.55	$111.00	$125.05	$199.51
PG&E Fees	-	$14.49	$14.49	$14.49
Total Cost	**$272.97**	**$262.90**	**$276.95**	**$351.42**

Cost Savings

In addition to the membership analysis, staff requested that MCE evaluate the financial impact of joining MCE. MCE Staff used monthly and annual energy use (provided by PG&E) for the sectors listed below and conducted a rate comparison using existing MCE and PG&E rates (energy use x MCE rate vs. energy use x PG&E rate). The estimated cost savings are outlined below:

City Accounts

$42,344

Positive Impact to Net Energy Metered (NEM) Solar Sites, $59,742.81per year – check issued to City each year

MCE offers the following NEM program:

- Premium rates for excess electricity, crediting customers at an extra $0.01/kWh compared to PG&E;
- Excess credits roll over month after month and never zero out; and
- Excess credits over $100 can be cashed out annually for their full retail value, rather than PG&E's wholesale compensation rate.

PG&E purchases large amounts of power on the wholesale market at cheaper rates than what the retail customer is ultimately charged; MCE credits customers at the higher retail rate. In addition, PG&E does not allow solar customers to cash out their bill credits unless they are a surplus generator; MCE allows customers to receive a check if they have $100 or more of credits regardless if they are surplus generators.

NEM rates in the future

Both PG&E and MCE NEM rates are subject to change. The state recently passed legislation that has been described as "locking in" NEM rates for an extended period of time, which applies to utilities like PG&E, SCE, and SDG&E. Utilities are required to maintain the structure of NEM and crediting itself until 2017 (NEM 1.0), but are not obligated to maintain rates as they are now. That means that NEM rates are still subject to change if approved by regulatory entities.

Staff is still investigating if transitioning the City's solar accounts to MCE would alter its existing NEM agreements with PG&E, which lock-in the NEM 1.0 tariff and extend beyond the NEM 1.0 sunset estimated in mid-2017.

Community – Residential and Commercial

$1,555,043

Of that amount roughly $870,000 is attributed to large industrial/commercial accounts (including Valero that may or may not chose to participate in MCE should the City decide to join as a member). In addition, these cost savings are based on MCE's estimate that 20% of Benicia electricity customers will opt out of MCE. If more or less customers opt out, the savings may decrease or increase.

Greenhouse gas (GHG) reduction

The membership analysis indicates that by joining MCE, the community could see a 15,000,000 lb (6,804 MT) of CO_2 reduction annually. MCE calculated this reduction using the following formula:

206,238Mwh annually (80% participation rate)

X 72lbs/Mwh (difference between PG&E and MCE's 2012 reported emissions factors)

= 14,849,136 lbs of CO_2 avoided per year or 6,735 MT (rounded up to get 15,000,000lbs)

Based on the 2010 GHG Inventory report, the City needs to reduce between 104,000 – 179,000MTCO2e annually to meet its 2020 goal.1 So, joining MCE would achieve between 6.5% and 3.8% of the need reductions.

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[1] The CAP Coordinator team estimated reductions from strategies/programs found in other City plans that may or may not be implemented between now and 2020. Because the team was uncertain about what particular programs would be implemented and to what extent, the team created a range of implementation and corresponding reductions. Therefore, what is left to be reduced to meet the 2020 goal could be on the low end if more non-CAP strategies are implemented or on the high end if less are implemented.

GHG reductions will change over time as MCE and PG&E's power mixes change. GHG reduction is also dependent on level of participation in MCE. For example, these reduction estimates could go up or down depending on what type of customers (commercial vs. residential) opt out of MCE and the number of customers that enroll in the Deep Green (100% renewable electricity) program.

Marin Clean Energy Applicant Analysis for the City of Benicia

August 29, 2014

SUMMARY

MCE's currently effective policy regarding new membership requires the completion of a quantitative analysis as part of the preliminary evaluative process. The primary focus of the quantitative analysis is to determine the anticipated net rate impacts that would affect MCE's existing customer base following the addition of the prospective new community – in particular, the quantitative analysis must demonstrate that the addition of the prospective new community will result in a projected net rate reduction for MCE's existing customer base; this is a threshold requirement that must be met before proceeding with further membership activities. In addition, the quantitative analysis addresses the projected environmental impacts that would result from offering CCA service to the prospective new community. More specifically, the analysis prospectively determines whether or not the new community will accelerate greenhouse gas (GHG) reductions (beyond those reductions already achieved by MCE's existing membership) while increasing the amount of renewable energy being used within California's energy market.

MCE has been in discussion with the city of Benicia periodically since October of 2012. In the summer of 2014, MCE received a formal letter from the city of Benicia requesting consideration as a member of MCE. The electric accounts to be considered as part of this membership request include all accounts located within the city of Benicia. On July 3, 2013, the MCE Board of Directors authorized completion of a quantitative membership analysis related to Benicia's membership request. This analysis has been completed and the results are discussed below in this summary report.

In general, the quantitative analysis indicated that rate benefits would likely accrue to existing MCE customers following the addition of prospective CCA accounts located within the city of Benicia. The additional customer base within Benicia would likely result in an approximate 3% rate reduction for MCE customers, including all existing and prospective accounts. The analysis also indicated that including Benicia in MCE's membership would increase the amount of renewable energy being used in California's energy market by approximately 55 thousand MWh per year while reducing GHG emissions by an estimated 15 million pounds of carbon dioxide equivalent per year.[1]

ANALYSIS

MCE conducted an analysis of the potential new electric customers to estimate the revenues and costs associated with extending MCE service to Benicia. The analysis incorporated historical monthly electric usage data provided by PG&E for all current electric customers located within the city of Benicia. The

[1] GHG emission reduction estimates are based on MCE's actual 2012 emission factor of 373 lbs CO2e/MWh and PG&E's reported 2012 emission factor of 445 lbs CO2e/MWh, as released in June 2014: http://www.pgecurrents.com/2014/02/06/new-numbers-confirm-pge%E2%80%99s-energy-among-the-cleanest-in-nation/. The projected GHG savings of 72 lbs CO2e/MWh (based on the difference between MCE's emission factor and PG&E's emission factor) was multiplied by the projected increase in MCE's annual sales volume resulting from the addition of CCA customers located within Benicia, a volume approximating 206,000 MWh/year. Note that these projections are subject to change.

data indicate the potential for over 13,000 new MCE customers with a potential increase in annual electricity sales approximating 273,000 MWh per year. The aggregate peak demand of these customers is estimated at 48 MW.[2]

Table 1: 2013 Benicia Electricity Data

Classification	Accounts	Annual Energy (MWh)	Monthly Per Account (KWh)
Residential	11,363	66,756	587
Small Commercial	1,499	32,268	2,153
Medium Commercial	146	28,388	19,444
Large Commercial & Industrial	47	144,402	310,542
Agricultural and Pumping	0	0	0
Street Lighting	51	918	1,809
Total	13,105	272,731	334,535
Peak Demand (MW)			48

[2] These figures are for all electric customers of PG&E within the City. These figures are unadjusted for expected customer participation rates.

As compared to the current MCE customer base shown in Table 2 below, Benicia includes proportionately fewer residential and agricultural accounts. The large commercial and industrial sector accounts for more than half of Benicia's power consumption. All account types have a larger average kWh per account than the current MCE service area.

Table2: 2013 MCE Electricity Data

Classification	Accounts	Annual Energy (MWh)	Monthly Per Account (KWh)
Residential	106,762	618,385	483
Small Commercial	11,755	195,505	1,386
Medium Commercial	884	155,315	14,642
Large Commercial	329	188,289	47,694
Industrial	<20	121,391	633,830
Agricultural and Pumping	99	3,880	3,266
Street Lighting	850	14,929	1,464
Total	120,695	1,297,694	896
Peak Demand (MW)			221

In regards to seasonal consumption patterns, Benicia electric usage peaks during the summer months, whereas the current MCE load tends to peak during the colder winter months of December and January. These differences can be seen in comparing Figure 1 and Figure 2 below. The seasonal load diversity can help contribute to a flatter overall load profile for MCE, which provides benefits in resource planning and supply management.

Figure 1: Benicia Hourly Load Profile (KW)

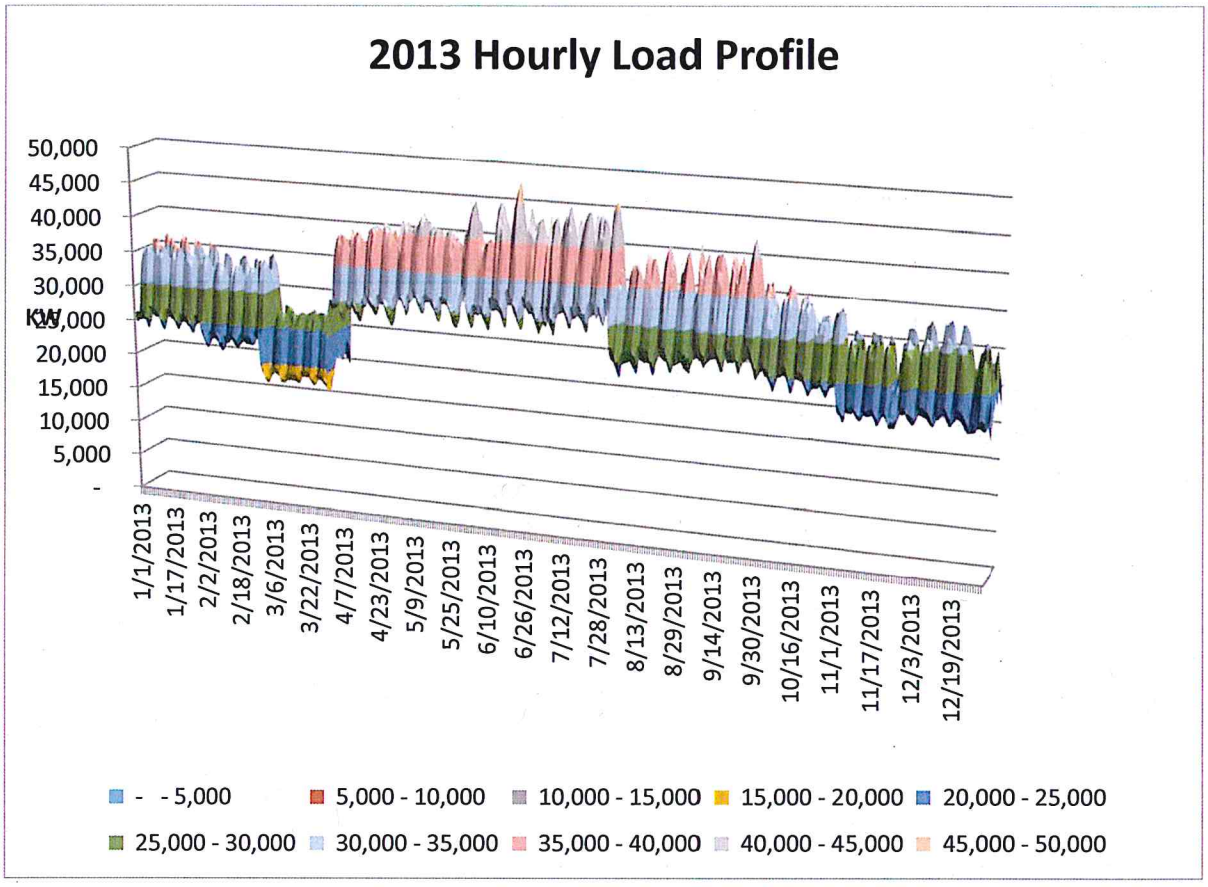
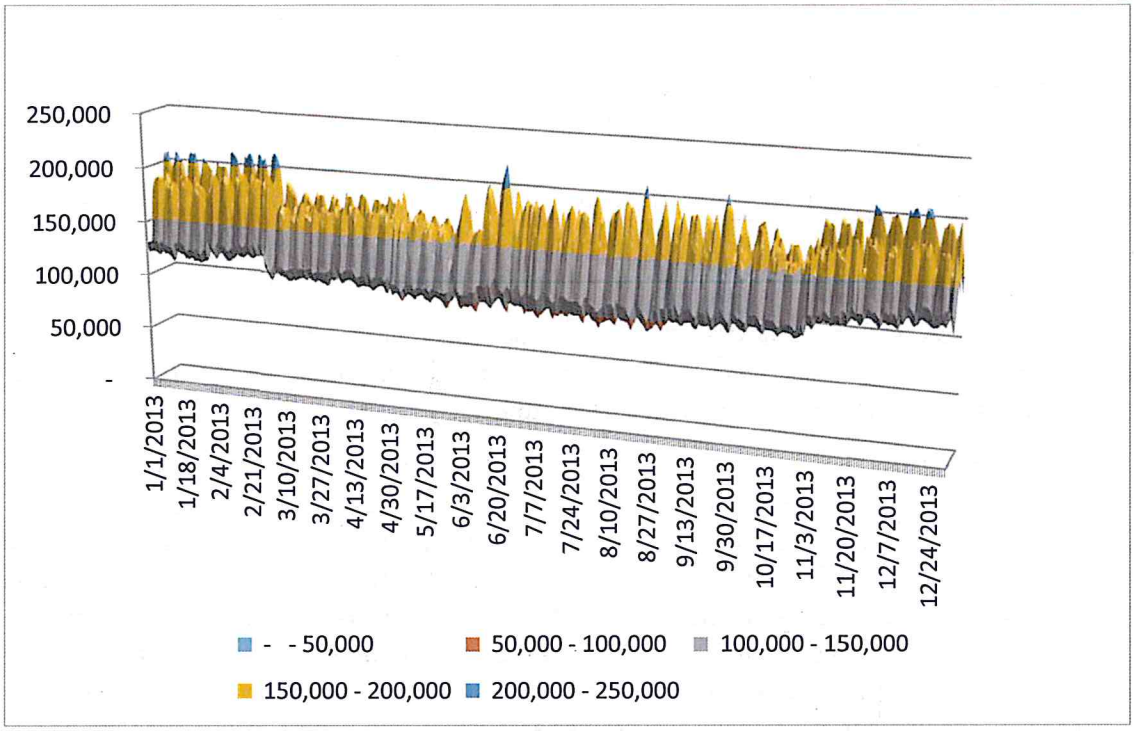


Figure 2: MCE Hourly Load Profile (KW)



RATE IMPACTS

For purposes of the rate impact analysis, it was assumed that service would be initiated to Benicia customers in April, 2015 and that 80% of customers who would be offered CCA service would elect to participate in the MCE program. This would equate to an increase in annual MCE electricity sales of 206,238 MWh or approximately 16%. The rate impact was examined beginning with the 2015/2016 fiscal year, with the new service accounts switched to MCE service during the month of April (April 1st through April 30th, depending on each customer's scheduled meter reading schedule).[3]

Incremental revenues and costs were quantified for the additional Benicia customers, and the revenue surplus (based on the difference between projected revenues and costs directly related to the addition of Benicia customers) was also calculated for the year. The surplus is assumed to offset a share of MCE's fixed costs and can be used to reduce overall MCE rates. The incremental cost analysis accounts for ongoing costs related to additional power supplies, customer billing, customer service support (call center), and PG&E service fees associated with the additional customers. One-time costs associated with the expansion of MCE to Benicia are not included in these figures and are discussed below. Table 3 presents the estimated rate impact for the 2015/2016 fiscal year.

Table 3: FY2015/2016 MCE Rate Impact from Benicia

Volume (MWh)	206,238

[3] During the first year, the increase in annual sales volume is slightly lower, estimated at 206,238 MWh, due to the gradual transfer of accounts to MCE service during the first month.

Revenue	$ 16,573,296
Costs	
Power Supply Cost	$ 12,487,830
Billing and Other Costs	$ 328,225
Total Cost	$ 12,816,055
Rate Benefit	$ 3,757,240
MCE Rate Impact	3%

The rate impact analysis indicates that the addition of Benicia customers to MCE's total customer base would provide benefits to MCE ratepayers; it is estimated that expanding MCE service to Benicia would allow for MCE rates to be 3% lower than without such customers.

Additional costs related to the expansion would be incurred prior to initiation of service to the new customers. These costs would be incurred for regulatory, resource planning and procurement activities that would be necessary to incorporate the new member community and its customers into MCE as well as for communication and outreach to the new customers. The projected implementation costs related to a Benicia expansion are expected to be less than the $350,000 expended in preparation for the expansion to Richmond. This appears to be a reasonable assumption because existing staff (previously added to support the Richmond expansion) and technical resources can be leveraged to support the Benicia expansion; the number of prospective customer accounts within Benicia is also less than half of the prospective customer base that was transitioned to MCE service during the Richmond expansion. It should also be noted that the regulatory, resource planning and procurement costs would not be entirely attributable to Benicia if there are other new members brought into MCE at the same time. To the extent that other municipalities are contemporaneously added, such activities could be performed jointly rather than at separate times for each new member.

RENEWABLE ENERGY IMPACTS

Renewable energy requirements were calculated for Benicia to ensure compliance with the statewide Renewables Portfolio Standard (RPS) as well as the more aggressive MCE renewable energy content standards adopted by MCE. The total renewable energy requirement associated with prospective expansion to Benicia would be approximately 109 thousand MWh annually. This renewable energy volume is equivalent to the energy produced by 12 MW of geothermal capacity (or a similar baseload renewable generating technology using a fuel source such as biomass or landfill gas) or approximately 42 MW to 62 MW of solar generating capacity, depending upon location and technology. Including Benicia's electric customers in MCE service will increase the amount of renewable energy being used in California's energy market by approximately 55 thousand MWh annually based on the increased renewable energy procurement targets voluntarily adopted by MCE's governing Board relative to California's then-current RPS mandate (which must be followed by PG&E).

GHG IMPACTS

With regard to projected GHG emission reductions that would result from the expansion of MCE service to Benicia, estimates were derived by comparing the most current, validated emission statistics related

to the MCE and PG&E electric supply portfolios. With regard to these statistics, PG&E and MCE both recently reported their respective emission statistics for the 2012 calendar year. Due to typical timelines affecting the availability of such information, PG&E's current statistics (focused on the 2012 calendar year) will generally reference data related to utility operations occurring 12 to 24 months prior to the current calendar year. This waiting period is necessary to facilitate the compilation of final electric energy statistics (e.g., customer energy use and renewable energy deliveries) and to allow sufficient time for data computation, review and third-party audit before releasing such information to the public. As noted by PG&E, its 2012 emission factor was determined to be 445 lbs CO2/MWh. By comparison, MCE's aggregate portfolio emission factor for the 2012 calendar year was determined to be 373 lbs CO2e/MWh, a difference of 19%.

MCE's 2012 emission factor was derived by using publicly available emission statistics determined by the California Air Resources Board (CARB) for certain unspecified electricity purchases included within the MCE supply portfolio as well as assumed zero carbon emission rates for various renewable energy purchases and deliveries from non-polluting power sources, such as hydroelectric generators. With regard to electricity purchases from unspecified sources, or "system power," as reported on a California retail electricity seller's annual Power Content Label, CARB has assigned an emissions rate of 943.58 lbs CO2e/MWh. This emission rate can be referenced in section 95111(b)(1) of CARB's February 2014 update to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions: http://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/mrr-2013-clean.pdf. PG&E appears to have applied a similar factor when calculating emissions associated with unspecified generating sources.

In 2012, MCE's supply portfolio was heavily weighted towards non-carbon emitting resources. In fact, over 60% of MCE's energy supply was attributable to various renewable energy and hydroelectric purchases, which do not emit GHGs (MCE's 2013 and 2014 procurement percentages reflect similar ratios). When determining MCE's aggregate portfolio emission factor, the aforementioned CARB statistic of 943.58 lbs CO2e/MWh was applied to MCE's system energy purchases, which totaled 225,593 MWh during the 2012 calendar year. All other non-emitting resources were assigned an emission factor of zero. As such, MCE's portfolio emissions for the 2012 calendar year totaled approximately 213 million pounds. This emission total was divided by MCE's aggregate sales volume of 570,144 MWhs, resulting in an MCE portfolio emissions rate of 373 lbs/MWh, for the 2012 calendar year. The following table provides additional detail regarding these emissions computations for MCE's 2012 supply portfolio.

Table 4: MCE 2012 Greenhouse Gas Emissions

2012 Calendar Year	MWh Purchased/Sold	% Total	Emission Rate (lbs CO2e/MWh)	Total Emissions (lbs)
Total Renewable Energy	304,551	53.4%	0	0
RPS – Eligible	166,522	29.2%	0	0
Non-RPS Eligible Renewable	138,029	24.2%	0	0
Zero Carbon	40,000	7.0%	0	0
System Power	225,593	39.6%	944	212,864,133
Totals	570,144	100%	373	212,864,133

To estimate the projected GHG emissions reductions that would likely result from the addition of prospective CCA customers located within the city of Benicia, MCE calculated the difference between its own emission factor (373 lbs CO2e/MWh) and the related metric reported by PG&E (445 lbs CO2/MWh): 72 lbs CO2/MWh. This difference was multiplied by the projected increase in annual electricity sales that would result from the addition of Benicia's CCA customers (206,238 MWh), resulting in a projected GHG emissions savings related to the transition of Benicia's customers to MCE's cleaner electricity supply. The projected emissions savings/reduction related to this service transition (from PG&E to MCE) was determined to be approximately 15 million pounds of carbon dioxide equivalent per year. It is noteworthy that the future emission factors reported by MCE and PG&E will likely differ from the statistics applied in this analysis – this is due to a variety of factors, including planned/unplanned changes in renewable energy procurement (including planned increases in California's RPS procurement requirements), variations in hydroelectric power production (which may change substantially from year to year based on prevailing regional hydrological conditions) and changes/adjustments in the general procurement policies of each service provider as well as many other factors. Also note that MCE has committed to assembling a power supply portfolio that not only exceeds the renewable energy content offered by PG&E but also provides customers with a "cleaner" energy alternative, as measured by a comparison of the portfolio GHG emission rate (or emission factor) published by each organization. As such, MCE plans to continue procuring electricity from non-GHG emitting resources in sufficient quantities to maintain an emission rate that is continually lower than PG&E's.

CITY OF SAN PABLO
City of New Directions

City of San Pablo

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Legislation Text

File #: #14-0430, **Version:** 1

PREPARED BY: Jen Jackson **DATE OF MEETING:** 09/15/14

SUBJECT:
SECOND READING OF AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SAN PABLO APPROVING THE MARIN CLEAN ENERGY JOINT POWERS AGREEMENT AND AUTHORIZING THE IMPLEMENTATION OF A COMMUNITY CHOICE AGGREGATION PROGRAM

RECOMMENDATION
Waive second reading; adopt Ordinance

COUNCIL PRIORITY WORKPLAN
The exploration of membership to a Community Choice Aggregation electric energy program is part of ongoing implementation of AB32 - Climate Action Plan, adopted under the Policy Area: *Infrastructure* in the FY 2013-2014 Council Priority Workplan adopted on July 1, 2013. Further actions by the City Council include the following:

- April 21, 2014 - City Council passed Resolution 2014-057 to conduct a MCE membership feasibility analysis. The membership analysis indicated that MCE could meet San Pablo load demands without negatively impacting MCE rates and that joining would reduce greenhouse gas emissions by 5.5 million pounds per year (assuming a 15% opt-out rate).
- August 4, 2014 - City Council passed Resolution 2014-0356 to request membership into MCE.
- August 5, 2014 - The City filed a CEQA Notice of Exemption for Resolution 2014-0356 with the Contra Costa County Clerk.

CEQA Compliance Statement
The action of the Council to join MCE is an administrative action that will not result in "a direct physical change to the environment or a reasonably foreseeable indirect change to the environment," and thus is not a project as defined by CEQA Guidelines Section 15378. The instant action also does not commit the City to any action that would have a significant effect on the environment (CEQA Guidelines Section 15061) and therefore CEQA is not applicable.

The City joining MCE will not directly change the present amount of power produced or purchased for the city, will not directly result in construction (or removal) of any power generating facility, and will, therefore, not result in a direct physical change to the environment. Furthermore, CEQA Guidelines Section 15378(b)(5) states that a project does not include "Organization or administrative activities of governments that will not result in direct or indirect physical changes in the environment."

Ultimately, decisions by MCE as to what power to purchase for an unknown number of City residents in an unknown quantity, where such power is produced, and for how long a term, are market driven decisions that occur over a period of months and years. To the extent new power supplies might be needed in the future to meet MCE's power demands, or existing facilities need to modify their operations outside their current operating permits, such actions would be subject to further site

specific CEQA evaluation. As those potential future actions are unknowable and speculative, it is impossible to conduct any meaningful CEQA analysis about them, and CEQA does not require it.

PG&E operates in the identical marketplace, and decisions made by PG&E as to their future supply power for the City of San Pablo are likewise unknowable and speculative. Forming or joining a CCA presents no foreseeable significant adverse impact to the environment over PG&E because California regulations such as the Renewable Portfolio Standard (RPS) and Resource Adequacy (RA) requirements apply equally to CCAs as they do Investor-Owned Utilities. Because CCAs fall under the same environmental statutes, regulations, and standards, any argument that moving from an IOU to a CCA presents a risk to the environment, when the IOU itself is also being required to increase its renewable energy portfolio, is factually without basis.

The City received a letter from Adams Broadwell on behalf of International Brotherhood of Electrical Workers (IBEW) contending that joining a CCA requires completion of an Environmental Impact Report. Following adoption of the City's resolution on August 4, 2014, the City filed a Notice of Exemption with the Contra Costa County Clerk. The filing of a Notice of Exemption starts a 35-day statute of limitations period on legal challenges to the agency's decision that the project is exempt from CEQA. The 35-day period has passed without any legal challenge to the City or MCE. Upon adoption of the ordinance, staff will refile the notice of exemption as a cautionary measure.

BACKGROUND

In 2006, the California Legislature passed Assembly Bill 32, which mandates reductions in overall greenhouse gas emissions statewide. As part of AB 32, the California Air Resources Board (ARB) was tasked with enforcing regulations for local governments to reduce their GHG emissions by 15% below current levels by 2020.

In 2012, the City of San Pablo adopted a Climate Action Plan (CAP) with an overall greenhouse gas reduction goal of 18% below 2005 levels by the year 2020. To achieve this goal, the City identified numerous objectives, including an increase in renewable energy use of 15% and an energy use reduction objective of 20% in existing buildings. The CAP identifies membership in a CCA as a possible way to achieve these objectives.

In 2002, the California Legislature passed Assembly Bill 112, which allows local governments to procure electricity for its community members through Community Choice Aggregation (CCA) programs. Marin Clean Energy (MCE) was the first jurisdiction in California to develop a CCA program

The mission of MCE 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 MCE 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. MCE provides service to all of Marin County, the City of Richmond, and most recently Napa County, and offers the choice of 50% or 100% renewable energy service. The Cities of El Cerrito and Albany are currently investigating membership in MCE as well.

As noted previously, on April 21, 2014, Council directed staff to work with MCE to conduct a membership feasibility analysis. Staff and MCE procured PG&E electricity demand/load data and

completed an analysis with the following findings:

- MCE can procure electricity on behalf of San Pablo ratepayers at an overall rate reduction of 1% over current MCE rates, which are already currently less than PG&E rates.
- By joining MCE, San Pablo would reduce greenhouse gas emissions by 5.5 million pounds of carbon dioxide.
- By joining MCE, San Pablo could increase renewable energy production by as much as 20,000 MWh.

If San Pablo joins Marin Clean Energy, San Pablo electricity ratepayers will have the choice of participating in the MCE program. By State law, CCA programs are "opt-out" programs, which means that electric customers are automatically enrolled in the program unless they choose to continue with PG&E. MCE sends five notices (one more than the minimum of four notices required by State law) to customers that they may opt out of the program and remain with PG&E. All MCE customers will continue to receive a regular PG&E bill, but it will contain a line-item *that replaces* PG&E's electricity generation charges with MCE electricity generation charges. Currently, as shown in the graphics below that compare PG&E rates with MCE rates, customers will enjoy lower rates than PG&E offers.

Sample Residential Cost Comparison for average San Pablo residential customer
(349 kWh E-1/Res-1)

	PG&E 19%	MCE Light Green 50%	MCE Deep Green 100%	MCE Local Solar 100%
Delivery	$21.00	$21.00	$21.00	$21.00
Generation	$32.11	$27.57	$31.06	$49.56
PG&E Fees	-	$4.06	$4.06	$4.06
Total Cost	**$53.11**	**$52.63**	**$56.12**	**$74.62**

Sample Commercial Cost Comparison for average San Pablo commercial customer
(1,405 kWh A-1/Com-1)

	PG&E 19%*	MCE Light Green 50%	MCE Deep Green 100%	MCE Local Solar 100%
Delivery	$137.97	$137.97	$137.97	$137.97
Generation	$135.55	$111.00	$125.05	$199.51
PG&E Fees	-	$14.49	$14.49	$14.49
Total Cost	**$273.52**	**$263.46**	**$277.51**	**$351.97**

In addition, customers will be able to access additional rebates and incentives for energy efficiency and solar installations. Furthermore, MCE offers a more generous rate for Net Energy Metering customers and for its Feed-In Tariff program than PG&E.

After an initial five month period, customers may choose to opt out of the MCE program at any time to PG&E for a $5 fee of residential customers and $25 for commercial customers.

Per Council Environmental Quality Committee's recommendation, Staff have conducted the following outreach activities since the introduction of the ordinance to join Marin Clean Energy on August 4, 2014. Public interest and reception in joining Marin Clean Energy has generally been interested and positive. A few residents have expressed that they will opt to remain with PG&E if the City decides to join MCE.

Date	Outreach Activity
8/11/14	Table at Library lunchtime reading with Ms. San Pablo
8/16/14	Table at Farmer's Market
8/18/14	City E-News announcement about community workshop
8/19/14	Brief announcement and discussion at San Pablo Merchants Association Meeting, handed out flyer about community workshop
8/21/14	One-on-one outreach at EDC lunchtime mixer, handed out community workshop flyer
8/25/14	City E-News announcement about community workshop
8/26/14	Workshop postcard sent to all San Pablo residents and businesses
8/27/14	Rotary lunchtime presentation
9/2/14	Senior Center newsletter article
9/2/14	City E-news about community workshop
9/3/14	Short presentation at Senior Center
9/9/14	City E-news about community workshop
9/9/14	Presentation to 2121 Vale St neighborhood watch group (planned but not confirmed)

9/10/14	Community Workshop
August	Facebook posting
September	City of San Pablo Fall Magazine article

FISCAL IMPACT

There is no direct fiscal impact to the City of San Pablo by taking this action. In the future, the City may enjoy reduced electricity rates over those available through PG&E. It is also possible that future MCE rates could be higher than those through PG&E. Should this arise, the City of San Pablo may return to PG&E to be its electricity provider.

NEXT STEPS

Upon adoption of the ordinance, the following will occur.

1. Staff will refile NOE under CEQA.
2. Mayor will sign the Joint Powers Authority agreement.
3. Council will determine which Council member will represent San Pablo on the MCE Board of Directors.
4. Staff and MCE will continue to conduct public outreach about MCE.
5. MCE will file for approval with the CPUC.
5. MCE will initiate its procurement process for San Pablo electricity load.
6. MCE will send up to five notices to any ratepayer who has not already opted out of the MCE program notifying the ratepayer of the choice to opt out and remain a PG&E customer for electricity.
7. MCE service to San Pablo customers would begin in the spring.
8. MCE would continue to conduct public outreach about its incentive programs, solar rebates, and the option to select "Dark Green" and "Solar Shares" service options.

ATTACHMENTS

1. Ordinance
2. Joint Powers Agreement
3. Signature page for JPA

THE CITY OF EL CERRITO

AGENDA BILL

Agenda Item No.

Date: July 15, 2014

To: El Cerrito City Council

From: Maria Sanders, Environmental Analyst
Melanie Mintz, Interim Community Development Director

Subject: Study to explore potential membership in the Community Choice Aggregation Programs provided by the Marin Clean Energy

ACTION REQUESTED

Adopt a resolution for the following:

1. Authorize the Mayor to submit a letter to Marin Clean Energy requesting that they conduct an analysis of the impact of El Cerrito joining its Community Choice Aggregation programs; and

2. Authorize the City Manager to execute a contract with Marin Clean Energy in an amount not to exceed $18,000, as well as other necessary documents, to conduct a Membership Analysis for El Cerrito; and

3. Accept a grant of $15,000 from the World Wildlife Fund for the purpose of investigating the feasibility of joining MCE.

BACKGROUND

The City of El Cerrito's *Climate Action Plan* (CAP), adopted May 2013, contains a strategy to "Explore opportunities for instituting or joining a regional Community Choice Aggregation (CCA) effort" (Strategy EW-3.2). This strategy is identified in the CAP as one of the most cost-effective ways to reduce greenhouse gas emissions in El Cerrito, yielding an estimated 4,200 - 6,700 annual tons of CO2 reductions by 2020 with relatively little investment.

In 2002, passage of Community Choice Aggregation (AB 117, Migden) allowed CCAs to operate in California. This legislation enables California cities, counties, public agencies, and joint powers agencies to aggregate the electricity demand of its constituents and to procure electricity that meets their desired electricity supply portfolio, while still having the local utility provide transmission and distribution services.

For CCAs in PG&E territory, energy transmission, distribution, repair, customer service, and billing would continue to be administered by PG&E. Customers would have a choice to continue to purchase power from PG&E by opting out of the CCA. CCA

participation rates are high due to the opt-out approach, allowing CCA agencies to fairly compete for competitive energy contracts in California's monopoly-dominated energy markets. In addition to the programs provided by the CCA, customers who receive electricity from a CCA are still entitled to access the programs and services offered by PG&E.

In 2010, Marin Clean Energy (MCE) launched California's first CCA. MCE is a joint powers agency (JPA) consisting of all jurisdictions in Marin County and the City of Richmond. The mission of MCE 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. Currently, MCE's electricity rates are slightly less than those of PG&E. MCE sources energy from 51% renewable sources, compared to PG&E's 22% renewable energy portfolio.

Given the success of Marin Clean Energy to procure renewable supplies of electricity at competitive rates, many communities throughout California are taking a fresh look at instituting CCAs. Sonoma County launched their county-wide CCA this year. The counties of Alameda, Monterey, San Francisco, San Luis Opisbo, Santa Cruz, and Yolo are also exploring CCAs as an option. Closer to home, the City of Richmond successfully joined Marin Clean Energy. Eight-five percent of eligible electricity customers in the City of Richmond are now MCE customers. The cities of Albany and San Pablo and the County of Napa are currently in the process of analyzing the feasibility of joining the Marin Clean Energy.

The City of El Cerrito has taken the following steps to investigate the various CCA options potentially available to the City. On October 2, 2012, City Council heard a presentation by Marin Clean Energy and the City of Richmond regarding CCA, their membership process, and their program offerings. During the spring of 2014, the El Cerrito Environmental Quality Committee (EQC) hosted several presentations from various groups involved in CCAs in the Bay Area. Agreeing that joining MCE represented the least cost, lowest risk, and most time-efficient option currently available in Contra Costa County, the EQC passed a unanimous motion at its June 2014 meeting requesting that the City Council consider a resolution requesting that Marin Clean Energy conduct a membership analysis for El Cerrito. Finally, Community Development staff, in partnership with the City of Albany, successfully applied for a small grant ($15,000 per city) from the World Wildlife Fund to investigate the feasibility of joining a CCA.

ANALYSIS

MCE Membership Analysis Process: At its September 25, 2013 meeting, MCE's Board of Directors approved a process and set of criteria, as outlined in Attachment 2 (MCE Affiliate Membership Process), by which communities could become a member. As a first step, MCE requires a letter from the City Council requesting consideration as a member in order for them to initiate an exploratory "Membership Analysis." See Attachment 2 for the draft letter of request. The scope of work for the Analysis includes procuring energy load data from PG&E, conducting the analysis, and participating in El

Cerrito related meetings. The contract with MCE will be in the form of the City's approved professional services agreement. Associated costs will be El Cerrito's responsibility and are capped at $18,000.

The primary focus of the Membership Analysis is to estimate the net rate impacts that would affect MCE's existing customer base following the addition of the prospective new community. This analysis must demonstrate that the addition of the new community will result in a net rate reduction for MCE's existing customer base. In addition, this analysis addresses the projected environmental benefits (such as additional reductions in greenhouse gas emissions and increases in renewable energy being used in California's energy market) that would result from offering CCA services to the new community.

Since the analysis assumes the addition of the new community's customer base in calculating the net rate impacts and environmental benefits, the results would also pertain to the new community. For instance, if the analysis found that addition of the new community resulted in a 1% reduction in electricity rates, that rate reduction would also accrue to the new community if it became a member.

Next Steps after the Membership Analysis: The proposed actions only pertain to initiating a MCE Membership Analysis. These actions do not obligate the City to become a MCE member. If the Analysis demonstrates that MCE's criteria are met, then MCE will automatically approve El Cerrito completing the membership process. If City Council found MCE membership to be beneficial, next steps would include a community engagement process, and then Council consideration of a resolution requesting membership, an ordinance authorizing CCA service through MCE, and signing onto the MCE Joint Powers Agency agreement as a party.

Upon completion of the membership process, MCE would begin procuring additional electricity supplies and begin the community outreach process to provide El Cerrito customers the option of remaining with PG&E service. The community outreach process takes several months and includes the mailing of five notices and other community meetings as needed. Costs of community outreach at that point are borne by MCE.

Benefits of Joining MCE: If the City were to join MCE, the following services and programs would accrue to El Cerrito electricity rate payers.

- **Consumer Choice:** Joining MCE would provide El Cerrito residents and businesses with more choice in both their energy provider and the degree to which their energy comes from renewable sources.
- **Competitive Electricity Rates:** MCE customers are currently receiving cleaner electricity at rates that are slightly lower than PG&E's.
- **Renewable Incentive Programs:** MCE offers solar rebates and a solar net energy metering program that provides better returns than comparable PG&E programs.
- **Access to PG&E Programs:** All MCE customers will have access to programs provided by PG&E.

- **Support of Community Programs and Projects:** As a non-profit public agency, MCE allocates a portion of revenues to local projects and programs within its service area.

Potential Impacts of AB 2145: On June 2, 2014 City Council approved sending a letter opposing AB 2145 (Bradford) to the author and the Senate Utility, Energy and Communications Committee. This legislation would have changed the "opt out" provisions of the original CCA legislation to an "opt in" basis, thereby gutting a new CCA of its ability to enter the monopoly-dominated energy market place with any certainty. Although the Bill passed out of the Senate Committee on June 23, 2014, the central "opt in" requirement was struck from the bill and replaced with a geographic limit of three contiguous counties for any CCA. In its current form, AB 2145 poses no obstacles to El Cerrito joining MCE since communities in Contra Costa County such as Richmond are currently members of MCE. The bill is scheduled to be heard at the Senate Appropriations Committee next. Staff will continue to monitor the legislation as it is amended to verify it continues to provide no obstacles if City Council chooses to move forward.

World Wildlife Fund (WWF) Grant: As part of its Earth Hour programs, the WWF launched its City Challenge Climate Leader Grants. This grant program seeks to provide resources to US cities around a different critical sustainability issue each year. For the 2013 cycle, WWF made available $30,000 per application to support programs that helped communities transition towards renewable energy, with a preference given to cities pursuing CCA.

El Cerrito jointly submitted a grant application with the City of Albany for both cities to investigate the feasibility of joining MCE. Our application was one of 3 nationwide that were awarded. WWF has allowed the two cities to split the award into two separate $15,000 contracts for ease of administration and reporting.

The grant term is from April 1, 2014 through October 15, 2015, with the final deliverable being the Membership Analysis with Marin Clean Energy. This grant covers 83% of the cost of conducting the membership analysis, leaving a small gap of $3,000. This will be covered by the Professional Services budget in the Community Development Department.

STRATEGIC PLAN CONSIDERATIONS

Goal F, "Foster environmental sustainability citywide," of the El Cerrito Strategic Plan contains an objective to implement the City's *Climate Action Plan* by facilitating "energy and water efficiency and greater adoption of clean energy." Because CCAs in the Bay Area are being formed to procure electricity from renewable energy sources, joining a CCA is identified in the CAP as one of the more powerful strategies for reducing greenhouse gas emissions in El Cerrito. Were the City to join MCE, the CAP estimates that the City could reduce community greenhouse gas emissions by an estimated 4,200 - 6,700 annual tons of CO2 by 2020.

Additionally, if the City becomes an MCE customer, potential energy cost savings for the City are consistent with Strategic Plan Goal B, "Achieve long-term financial sustainability." First, MCE's favorable Net Energy Metering rates would provide better financial returns for all the City's solar projects than currently provided by PG&E Net Energy Metering program. In addition, municipalities that have joined MCE are currently enjoying lower energy costs for their facilities, as MCE's commercial energy rates are currently 3.5% lower than that of PG&E. It's important to note that energy rates change every year for both MCE and PG&E and consistently lower rates than PG&E cannot be guaranteed in any given procurement cycle. However, MCE does provide greater rate stability than PG&E in that it sets rates once per year while PG&E sets rates multiple times per year.

ENVIRONMENTAL CONSIDERATIONS

There is no direct environmental impact in conducting a membership analysis with MCE or in accepting the World Wildlife Fund grant. The proposed actions are not a project as defined by 14 California Code of Regulations 15378 (State CEQA Guidelines) and therefore CEQA is not applicable.

If El Cerrito did ultimately join MCE, one of the main benefits would be greater reductions in GHG emissions from community energy use. MCE sources energy from 51% renewable, non-nuclear sources, compared to PG&E's 22% renewable energy portfolio. GHG emissions reductions are estimated to be 4,200 tons of CO2e in the first year of full enrollment – providing an additional 3 percentage points towards the City's 2020 15% emissions reduction target. By 2020 this reduction is likely to increase. PG&E is mandated to increase its renewable energy portfolio to 33% by 2020. MCE plans to continue procuring electricity from non-GHG emitting sources in sufficient quantities to maintain an emissions rate that is continually lower than PG&E's.

FINANCIAL CONSIDERATIONS

The proposed actions are to (1) submit a letter to MCE requesting it conduct a Membership Analysis for El Cerrito;(2) authorize the City Manager to execute a contract with MCE in an amount not to exceed $18,000 for the purposes of conducting the analysis; and (3) accept a $15,000 grant from the World Wildlife Fund;. The $15,000 grant from WWF will cover the majority of costs associated with the Membership Analysis, leaving a small gap of $3,000, which can be covered by the Professional Services budget in the Community Development Department. The adopted FY15 for the Community Development Department includes both the grant funds and the membership analysis costs.

If the results of the Membership Analysis meet MCE criteria for adding new members and the City Council wishes to further pursue MCE membership, no additional outside expenses are anticipated. The cost of community outreach would be borne by MCE. However, there may be internal expenses related to legal review of the JPA agreement and other related documents.

LEGAL CONSIDERATIONS

The City Attorney has reviewed the associated contract documents. Other than the contract obligations in conducting the membership analysis with MCE or in accepting the World Wildlife Fund grant, there are no other legal obligations associated with the proposed actions.

Reviewed by:

_____

Scott Hanin, City Manager

Attachments:

1. Resolution
2. MCE Affiliate Membership Process
3. Letter requesting consideration as an MCE member
4. Electricity Rate Comparison
5. PG&E CCA Declaration Form

Attachment 1: MCE Affiliate Membership Process

Recommendation

Director of Public Works requests approval of the following:

1. Adoption of a resolution requesting membership in Marin Clean Energy (MCE);
2. First reading and intention to adopt an Ordinance approving entry into the MCE Joint Powers Authority and authorizing the implementation of a Community Choice Aggregation (CCA) Program for unincorporated Napa County, and
3. Authorize the Chair of the Board of Supervisors to sign any subsequent and related documents.

Executive Summary

Marin Clean Energy (MCE) is a Community Choice Aggregation (CCA) program, formed in 2008 and providing services to customers since 2010. A CCA acts as an alternative energy provider to PG&E, providing consumers with an option to purchase energy that is 50%-100% generated from renewable energy sources such as solar, wind, water, and biopower. The role of the CCA is to allow consumers to choose where to purchase power from, and to create a mix of energy sources that meets the mission of the CCA program, which is to maximize the purchase of clean energy, while providing customers with a stable and competitive price. Other aspects of PG&E services (such as power transmission, billing, etc.) continue with PG&E for all customers. Once a jurisdiction chooses to join a CCA, all customers will be transferred over to the CCA, unless they choose to "opt out". Consumers who are not interested in purchasing electricity with the CCA by choosing to opt out continue to use PG&E as before with no changes whatsoever.

MCE presented its program at the four County joint meeting held in Napa in June, 2013, and subsequently your Board voiced an interest in investigating such a program for the unincorporated County. The financial and time requirements needed to create a Napa specific CCA are beyond the capability of Napa County at this time given its many other demands, thus direction was provided to investigate existing programs. Sonoma County is currently just beginning launch of their CCA. Membership in their CCA, should it ever be offered, would be some years off. MCE represents the County of Marin and each of its cities. MCE also recently expanded by accepting the City of Richmond into its program indicating an ability to expand beyond its county borders. A similar arrangement could allow unincorporated Napa County to launch into a CCA program for citizens in a timely and cost effective manner.

On January 28, 2014, the Board authorized entering into an agreement with MCE to formally study whether Napa and MCE would be a good "fit". The study has been completed, and is attached. The study indicated that MCE would be in a position to purchase power to suit the needs of the unincorporated county customers and would be able to do so at a price approximately 3% below current PG&E rates.

In addition to the Board meetings at which the CCA was discussed, outreach activities, including meetings with such groups as the Napa Chamber of Commerce, Sustainable Napa County, the Napa Valley Vintners, and an open public forum at Trefethen Winery on May 20th, have been conducted. Some of the topics raised at those meetings are discussed in the background section

that follows.

Today's action would approve a resolution formally requesting entry into MCE, authorize the Chair of the Board of Supervisors to sign subsequent documents, and accomplish the first reading and intent to adopt an ordinance joining the MCE Joint Powers Authority and authorizing establishment of the CCA, pending expected action by the MCE Board on June 4.

PROCEDURAL REQUIREMENTS

1. Open Public Hearing.
2. Staff reports.
3. Public comments.
4. Close Public Hearing.
5. Clerk reads the Ordinance Title.
6. Motion, second, discussion and vote to waive the balance of the reading of the ordinance.
7. Motion, second, discussion and vote on the Resolution, authorization for the Chair of the Board of Supervisors to sign subsequent documents, and intention to adopt the ordinance.

Background

Marin Clean Energy (MCE) is a fully operating Community Choice Aggregation (CCA) program. A CCA acts as an alternative energy provider to PG&E, providing consumers with an option to purchase energy that is 50%-100% generated from renewable energy sources such as solar, wind, water, and biopower. The role of the CCA is to choose where to purchase power from, and to create a mix that meets the goals of the program, providing clean energy while ensuring customers a stable and competitive price. Other aspects of PG&E services (such as power transmission, billing, etc.) continue for all customers. Consumers who are not interested in dealing with the CCA may still opt out and continue to use PG&E as before with no changes whatsoever.

MCE presented its program at the four County joint meeting in June, 2013, and subsequently your Board voiced an interest in investigating such a program. MCE represents the County of Marin, and each of its cities. MCE also recently expanded by accepting the City of Richmond into its program indicating an ability to expand beyond its county borders. A similar arrangement could allow Napa County to launch into a CCA program for citizens in a more timely and cost effective manner than by establishing our own local program.

In addition to providing a highly renewable power mix, MCE also offers energy efficiency programs that could work in parallel with programs offered locally to provide additional financing and rebate options to consumers wishing to undertake energy efficiency projects. One particularly attractive program offers on-bill financing. MCE also works to encourage development of new, local, power sources, as they have done with a large solar project located at the San Rafael airport. MCE would likely benefit programs in Napa such as a proposed bioenergy plant at the Clover Flat Landfill and a proposed solar array at the former American Canyon Landfill (preliminary discussions with the Napa Vallejo Waste Management Authority Board members have occurred regarding this project). For property owners with installed solar

systems that are large enough to produce more power than is needed on the site, MCE also offers net energy metering and "feed-in tariff" programs to allow the property owner to be paid for the excess power generated, at rates that exceed what PG&E currently pays.

MCE offers two programs, a "light green" option, which is the default program, and a "deep green" option, which customers can choose if they want to pay extra for an even higher percentage of renewable power. The Table below provides 2013 data on the mix of renewable power (expressed as a percent of total power) provided to customers from each program (PG&E, and MCE's Light Green and Deep Green options).

	PG&E	Light Green	Deep Green
Biomass	4	6	0
Geothermal	5	0	0
Small Hydro	2	12	0
Solar	5	<1	0
Wind	6	33	100
Sub-total Renewable	**22**	**51**	**100**
Large Hydro	10	10	0
Gas	28	0	0
Nuclear	22	0	0
Unspecified*	18	39	0
Total	**100**	**100**	**100**

* "Unspecified" power is power purchased off the grid for load balancing and in peak periods. As this power cannot be specifically tied to any one source, it is considered nonrenewable.

The data above shows that PG&E currently purchases 22% of their power from sources that are considered renewable. By contrast, MCE's light green program is 51% renewable sources, and their deep green program is 100%. MCE currently purchases power under 25 different contracts (representing 12 different power suppliers) with providers in California, Oregon, Washington, and Nevada. Specific provider names and locations can be found on MCE's web site (www.mcecleanenergy.com). The contracts have rolling expiration dates to guard against being overly reliant on one provider and to minimize rate fluctuations from any one contract provider. They have 56MW of local new power sources in their portfolio and under development, including 52MW of solar and 4MW of biomass.

It is important to note that while MCE has a much higher "renewable" percentage, the carbon emissions from both PG&E and the MCE light green program are almost identical (about 390 pounds of carbon/MW Hr generated in both programs). Two major sources of PG&E power, large hydro (10%), and nuclear (22%) are carbon free, though not considered renewable under California law, due to their other environmental impacts. The deep green program is a zero emitter of carbon.

On January 28, 2014, the Board approved a contract with MCE to conduct a rate study to determine whether Napa, was a good "fit" for the MCE program. The study was completed on March 31, and is attached. The study concluded that, based on the number of expected customers and their power needs, and based on market prices at the time of the study, that MCE should be able to offer power to Napa's unincorporated customers at an overall rate 3% lower than current PG&E rates. Of course, power pricing changes over time, and PG&E is able to change their pricing as well, so this 3% differential will change over time. However, over MCE's history they have always been able to provide power at a rate that was competitive with or better than PG&E's. Of note for Napa, partly because of our weather and partly because of our agriculture nature, we require a higher power level in the summer, whereas Marin and Richmond, because of their cooler climate and more urban nature, require more power in the winter. This helps equalize the power needs across all seasons ("flatten the power curve"), which is very beneficial when purchasing power. In this case, the differences between the member communities are in fact a benefit.

While staff recommends moving forward with MCE based on previous Board direction and our investigation of MCE's attributes, the Board may want to consider this decision in the context of other options available.

- Local Option: Dedicate local staff and funds to develop a Napa specific program. This is not recommended due to the many other commitments that Napa County has already established as higher priority goals.
- Wait for PG&E: PG&E will improve its power mix over time, as they are legally mandated to be using 33% renewable power by 2020. They are also in the process of developing a greener, opt in program for their customers who want to pay a premium for cleaner power. It remains unclear if, and when such a program would launch, and what the details of it would be. Also, joining MCE would not prevent a customer from joining this PG&E program later, should it become available.
- Wait for Sonoma: While detailed discussions have not taken place, Sonoma officials have verbally stated that there may be an option for Napa to join their program, after a year or two of operations. This possibility would be about 2 years off.
- Do not participate: Make a decision that joining a CCA is not a priority for the Board. Staff would cease all efforts in this area and focus on other Board priorities.

As mentioned earlier, in addition to multiple Board meetings, information about MCE and CCAs has been presented and discussed in several other forums. Some of the topics discussed during this outreach include the following:

- Union concerns: At a previous Board meeting regarding CCAs, union representatives voiced concerns that union jobs were more prevalent and protected under the current PG&E model, and therefore opposed the MCE program. MCE has produced a response to that concern, which is attached.
- Governance: Napa County would represent one of 14 members on the MCE Board. Because voting strength is weighted based on the amount of power used, Napa's voting power would be approximately 20%. Concern has been raised that Napa would run the risk of not being able to control it's own fate in this situation. It is factually true that Napa

would not having a controlling vote, though it is also true of any other member, and that Napa participates in many other similar regional JPA arrangements.

- Failure: While MCE's track record to date is excellent, there is no guarantee of success in the future. For instance, and for reasons too detailed to go into here, San Francisco has been attempting to launch a CCA for some time now and has not been successful in doing so. Also, power pricing could move such that MCE could no longer provide competitive pricing compared to PG&E, or other unforeseen events could occur. While this is not expected, it is nonetheless a possibility. While the County is entering into a long term agreement with MCE, all customers would be protected from harm in any scenario, as customers always have the right to "opt out" and return to PG&E.
- Cost: There is no mandated future cost to the County in joining this program, though it can be expected that some staff time will be invested in the outreach and ongoing marketing of the program. It is expected that these costs can be absorbed in current staffing and budgets, and thus no financial impact is expected. The Natural Resources Conservation division of Public Works would add MCE to the range of programs they are already educating the public on. These programs include BayRen (energy efficiency rebates and audit programs), PACE (both CaliforniaFirst and HERO), various water resources (rain barrels, rain gardens, appliance rebates), and solid and household hazardous waste recycling programs.
- City participation: MCE has chosen to invite unincorporated Napa County, but not its cities and town, to join MCE at this time. This is based on MCE's analysis of their capabilities to absorb new customers in an orderly and financially sound way. It is reasonable to assume (and since Napa will be a significant member of the Board of MCE, will have influence over this decision), that the cities will be invited to join at some future date when business conditions are ripe. This, however, is not guaranteed.
- Napa Valley Vintner's questions: Some NVV members voiced concerns regarding the program, while others were supportive. Supervisor Luce responded to those concerns in writing (see attached letter), and in a subsequent meeting attended by Supervisor Wagenknecht those members indicated their acceptance of the program as presented. To be clear, the NVV Board has not taken a formal position on MCE, but the County appreciates NVV's efforts in facilitating discussions with its members, who are some of the largest renewable energy producers in the County.

Should the Board choose to move forward, the following steps will occur:

- MCE Board Action to accept Napa County into the JPA (June 4, 2014);
- MCE will conduct a public procurement process to purchase power to serve Napa County's needs;
- Public Outreach to Napa rate payers will occur, including multiple discussions of the "opt out" provision so that all rate payers are fully informed of this option;
- Launch of the program could occur as early as January 1, 2015, but most likely will occur in March of 2015, consistent with the end of MCE's fiscal Year (March 31).

Staff welcomes the Board's input and direction.

CITY OF ALBANY
CITY COUNCIL AGENDA
STAFF REPORT

Agenda Date: November 18, 2013
Reviewed by: Pat O

SUBJECT: Discussion of Community Choice Aggregation and Recommendation to Join the Marin Energy Authority

REPORT BY: Claire Griffing, Sustainability & Transportation Coordinator
Jeff Bond, Community Development Director

SUMMARY

This report provides a discussion of community choice aggregation (CCA) and identifies the pros and cons of joining the Marin Energy Authority as a strategy to reduce community greenhouse gas (GHG) emissions in Albany. Investigating joining a CCA is identified as a goal of the City Council Strategic Plan to "Inspire Community Climate Action."

SUSTAINABILITY COMMITTEE RECOMMENDATION

That the Council authorize submittal of a letter to the Marin Energy Authority requesting consideration as a member.

STAFF RECOMMENDATION

That the Council approve the Sustainability Committee recommendation.

BACKGROUND

In 2002, the California Legislature passed Assembly Bill 117, legalizing Community Choice Aggregation (CCA). This allows California cities, counties, public agencies, and joint powers agencies to purchase electricity on behalf of customers within their borders. 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. A CCA may or may not own electric generating facilities.

With CCA, energy transmission, distribution, repair, customer service, and billing would continue to be administered by PG&E. Customers would have a choice to continue to purchase power directly from PG&E by opting out of the CCA. CCA participation rates are high (approximately 80% for customers given the option) due to the opt-out approach. Customers who receive electricity from a CCA are still entitled to PG&E's programs and rebates.

Energy consumption in Albany's residential, commercial, and industrial buildings generates almost two-thirds of the City's GHG emissions. The Albany Climate Action Plan (CAP),

adopted in 2010, identifies purchasing a higher percentage of clean energy through a CCA as a key measure for reducing greenhouse gas emissions (GHGs). Joining the CCA efforts of other Bay Area cities would allow Albany to pool the electricity demand of residential, business, and municipal accounts and select an electricity-supply portfolio that utilizes more renewable and GHG-free energy sources than the current PG&E portfolio.

The City Council's Strategic Vision, adopted in the spring of 2013, identifies investigating CCA as a strategic priority. Initially, City staff worked with the East Bay Municipal Utility District (EBMUD). The EBMUD Board of Directors, however, voted not to proceed with the study.

The Sustainability Committee has explored various options for increased use of renewable energy, including researching the feasibility of CCA (see Attachment 1 for analysis of options for community renewable energy and Attachment 2 for a discussion of CCA options). On March 20, 2013, the Sustainability Committee received a presentation from the only operating CCA in the state, Marin Clean Energy (MCE), and made a preliminary recommendation to move toward applying to join following further analysis by staff. Upon approval of the expansion policy by the Board of Directors, the Sustainability Committee made a recommendation to the City Council on October 16, 2013 to authorize a letter to the Marin Energy Authority requesting consideration as a member (Attachment 3).

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 11 cities in Marin County, a County representative, and the City of Richmond. MEA administers the CCA program, coined Marin Clean Energy (MCE). MCE's mission is to reduce GHG emissions while keeping rates low. MCE currently serves over 124,000 customers. MCE is financed by the revenues received from customers based on the electricity they consume and does not utilize tax dollars. MCE is regulated by the California Public Utilities Commission.
In summary, the advantages of joining MCE include providing Albany residents with energy that comes from sources that generate less GHG, and more energy efficiency and renewable incentive programs. It is important to note, however, that MCE meets its GHG targets in part with the purchase of Renewable Energy Credits (RECs) rather than in direct generation of low GHG energy sources. In addition, as a member of the JPA, City staff and Council member time would be required. A detailed discussion of these pros and cons is outlined below.

Strengths

1. Customer Choice

Joining MCE would provide Albany residents with more electricity options and allow them to take greater 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 MCE 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%). MCE contends that

this energy supply option is cost-competitive with PG&E's retail rates (see rate comparisons below). If Albany joins MCE, residents will automatically receive the Light Green service unless they opt out or enroll in the Deep Green option.

- **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 MCE residential electric customer, the additional cost for Deep Green is $5.40 per month. 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 currently is 19% renewable. Three notices, with instructions for how to opt out, are mailed to customers before automatic enrollment. 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. 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.

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

	PG&E	MCE Light Green 50% Renewable Energy	MCE Deep Green 100% Renewable Energy
Generation Rate ($/kWh)	$0.07884	$0.07400	$0.08400
PG&E Delivery Rate ($/kWh)	$0.12251	$0.12251	$0.12251
PG&E PCIA/FF ($/kWh)	N/A	$0.00664	$0.00664
Total Electricity Cost ($/kWh)	$0.20135	$0.20315	$0.21315
Average Monthly Bill ($)	$102.26	$103.17	$108.25

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

	PG&E	MCE Light Green 50% Renewable Energy	MCE Deep Green 100% Renewable Energy
Generation Rate ($/kWh)	$0.08366	$0.07405	$0.08405
PG&E Delivery Rate ($/kWh)	$0.11006	$0.11006	$0.11006
PG&E PCIA/FF ($/kWh)	N/A	$0.00547	$0.00547
Total Electricity Cost ($/kWh)	$0.19372	$0.18958	$0.19958
Average Monthly Bill ($)	$229.06	$224.17	$235.99

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 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. MCE 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, MCE allows owners and developers of eligible renewable energy projects located in the MCE service area to become wholesale suppliers to MCE.

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

- **Investments in Local Renewables**

MCE is planning to add 10 MW of distributed solar photovoltaic generation within the service area by 2021. MCE is currently looking at the Port of Richmond for the first project to be built through the Deep Green Local Development Fund. MCE 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. Joining MCE would provide additional programs for energy efficiency upgrades and rebates, most of which are available to all customers in the MCE service area whether or not they have opted into MCE.

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.

- **Multifamily Programs:**
  - No cost building energy assessments
  - No cost energy and water saving product installations for tent ant 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.

For customers that opt into MCE, a 'Green Home Loan' program for single-family, small commercial, and multifamily property buildings is available to alleviate the up-front cost of 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 monthly bill.

5. Energy Portfolio

Electric utility companies such as PG&E are mandated by the State to provide 33% renewable energy by 2020. PG&E's power generation mix is currently at 19%. CCAs are bound to these

same requirements. 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.

2012 Electric Power Generation Mix*

Specific Purchases	Percent of Total Retail Sales (kWh)		
	PG&E	MCE Light Green	MCE Deep Green
Renewable	**19%**	**53%**	**100%**
• Biomass & Biowaste	4%	12%	0%
• Geothermal	5%	0%	0%
• Eligible hydroelectric	2%	2%	0%
• Solar electric	2%	1%	0%
• Wind	6%	38%	100%
Coal	**0%**	**0%**	**0%**
Large hydroelectric	**11%**	**7%**	**0%**
Natural Gas	**27%**	**0%**	**0%**
Nuclear	**21%**	**0%**	**0%**
Other	**0%**	**0%**	**0%**
Unspecified Power	**21%**	**40%**	**0%**
TOTAL	**100%**	**100%**	**100%**

*2012 data is from the "Annual Report to the California Energy Commission: Power Source Disclosure Program." PG&E data is subject to an independent audit and verification that will not be completed until October 1, 2013.

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. 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 electric vehicle charging stations in Marin County and support and sponsorship of other nonprofits.

7. MCE Outreach Programs

While rolling the program out in Richmond, MCE 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)

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 produced by a renewable generator and the renewable "attributes" of that generation. All renewable electricity may be purchased as 'bundled' or 'unbundled'. Bundled electricity includes the "Renewable Energy Certificate" (REC) and the electricity. Unbundled electricity includes either only the electricity or only the REC. (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.)

The use of RECs allows buyers to support renewable energy development and protect the environment when green power products are not locally available. MCE purchases unbundled RECs from specific projects to supplement their portfolio. 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.

MCE's goal is to reduce the use of RECs over time as they establish more renewable projects. 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. It is worth noting that PG&E also uses unbundled RECs.

2. Contracts

There has been concern about MCE's contract with Shell Energy North America (SENA). The short-term contract with SENA served as a bridge contract to act as a broker for clean energy while new power sources are built to serve MCE customers. The contract with SENA is currently tapering off and is scheduled to expire in 2017. As MCE 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.

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 CO_2 Emissions from Electricity Sales per Megawatt-Hour**

PG&E	MCE Light Green	MCE Deep Green
393 pounds	389 pounds	0 pounds

**The CO_2 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 not being significantly lower than PG&E's. The reason the emissions factors are similar despite the difference in renewable energy is that MCE chooses to use renewable energy sources such as solar, wind, and small hydro and purchase system power from unspecified sources for the remainder of their Light Green portfolio. PG&E's portfolio includes large amounts of nuclear energy and large hydro, which do not emit GHGs. A comparison of these two emissions factors is outlined in the attached email exchange (Attachment 5) using the MCE emissions factor stated by MCE staff during the presentation to the Sustainability Committee. Although the MCE Light Green emission factor is only 1 percent lower than the PG&E emission factor, substantial GHG emission reductions are achieved because large numbers of people participate and because even a small (2% average) participation in the Deep Green option yields meaningful reductions. MCE has provided an analysis of the potential greenhouse gas emissions savings for Albany, which notes that aside from a slightly reduced emissions factor, MCE also offers programs in line with CAP measures that could help reduce overall greenhouse gas emissions in Albany (see Attachment 6). MCE staff writes, "Deep Green provides the City of Albany government buildings an immediate pathway zero-carbon buildings leading to 373 Metric Tons of Co2e reductions over the 2004 baseline." It is important to note that this emissions factor is a snapshot in time and MCE's mission is to reduce GHGs to the greatest extent possible while keeping competitive rates.

The City of Richmond conducted an analysis of potential greenhouse gas reductions when considering MCE membership. An excerpt from a Richmond staff report outlining this analysis is attached (Attachment 7).

MCE will analyze potential GHG reductions for Albany as part of the membership analysis required to join. In addition to direct GHG reductions from a cleaner energy portfolio, the analysis will also include the projected GHG reduction impact of MCE's renewable incentive and energy efficiency programs.

4. Governance

The Marin Energy Authority is a separate public entity from the member agencies with no debt, liability, or obligation of the Authority constituting a debt, liability or obligation of any of the member agencies. MCE is self-funded and does not use any tax dollars or public funds. It consists of 13 other jurisdictions in Marin and Richmond. The Board voted to allow expansion to 'affiliate members' who will receive full voting rights, as do all current member agencies. Board membership consists of one member of the governing body of each of the member agencies. A simple majority of the proposed Council's members shall be required for all actions, and votes are weighted by energy use. The Authority is subject to the Brown Act with meetings open to the public and minutes prepared. Withdrawal from the Authority would require notice at least six months in advance.

FINANCIAL IMPACT

There is no financial impact of authorizing the letter of interest. If the Board decides to initiate a membership analysis, they will execute a contract with the City. Based on Richmond's study, MCE estimates that their membership analysis will cost approximately $20,000. MCE 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. 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.

The City of Richmond paid for their feasibility studies through a bond measure, but expects to recover the total cost within the first year of service due to the reduced commercial energy rates offered by MCE.

Staff time will be required to support the analysis. If Albany joins, staff time will be required to coordinate MCE's outreach efforts, especially during the program rollout.

NEXT STEPS

In order to be considered for affiliate membership, the City Council needs to submit a letter to MCE requesting consideration to join. MCE will draft a contract for City Council approval to conduct a membership analysis. (See Attachment 4 for a full outline of the affiliate membership process). City staff time would be required to support the membership analysis, including securing funding, obtaining load data, and working with MCE staff on outreach.

The Cities of El Cerrito and San Pablo are exploring becoming MCE members as well. MCE has already received a letter from the County of Napa Board of Supervisors asking permission for membership and to begin the technical studies. MCE 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. Options for Community Renewable Energy in Albany 2-20-2013
2. CCA Staff Report 2-20-2013
3. Draft Letter to MCE
4. MCE Affiliate Membership Process & Expansion Policy
5. GHG Email Exchange
6. MCE GHG Report 4-11-2013
7. Richmond CCA Staff Report 5-15-2012 Excerpt

Potential Benefits and Risks of Implementing Community Choice Energy

City of Berkeley Energy Commission Final Report

Principal Authors: Scott Murtishaw, Kirsten Schwind, Pepper Yelton, Kay Hutchison, Gerry Abrams, and Jane Bergen

June 28, 2010

Contents

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List of Acronyms

CAES	compressed air energy storage
CARB	California Air Resources Board
CCA	Community Choice Aggregation
CEC	California Energy Commission
CHP	combined heat and power
CPUC	California Public Utilities Commission
CEC	California Energy Commission
CRS	cost responsibility surcharge
EBPA	East Bay Power Authority
GHG	greenhouse gas
IOU	investor-owned utility
LSE	load-serving entity
MEA	Marin Energy Authority
MW	megawatt
MWh	megawatt-hour
PG&E	Pacific Gas and Electric Company
POU	publicly-owned utility
PV	photovoltaic
RPS	renewable portfolio standard
SJVPA	San Joaquin Valley Power Authority

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Summary of Key Conclusions

- This report was written to inform the Berkeley City Council regarding the decision about whether to form an East Bay Power Authority (EBPA) to implement a Community Choice Aggregation program. The Berkeley Energy Commission suggests that the City Council use the following five criteria to guide its choice about whether to form an EBPA or retain electrical service with Pacific Gas and Electric (PG&E): environmental performance, maintaining relative rate parity, financial risks to the City of Berkeley, local green job promotion, and local participation in setting electricity policy priorities. Below, we provide our evaluation of the risks, challenges and potential benefits of forming an EBPA using these five criteria.

- Environmental performance: It is possible that the EBPA could achieve more energy efficiency than PG&E, but this is uncertain. The EBPA is likely to be able to use a greater share of renewable energy than PG&E. Ultimately, the implementation of a state or federal cap and trade system may impact whether the additional renewable energy reduces overall greenhouse gas emissions.

- Rate parity: Maintaining relative rate parity with a higher share of renewable energy will be challenging. Natural gas prices have fallen sharply from recent highs, reducing the cost of non-renewable energy. In the long run, factors such as renewable technology costs, expiration of federal renewable tax credits, natural gas prices, and greenhouse gas compliance costs will influence the ability to maintain rate parity. While these factors cannot be predicted with great confidence, the EBPA would benefit from a significant financial advantage to the extent that it invests in its own generation resources, particularly if and when renewable tax credits for private developers expire. Before launching an EBPA, the participating cities should explore a variety of supply portfolios using different cost assumptions for the above factors to determine the likelihood of maintaining rate parity while offering a larger share of renewable energy.

- Financial risk: If the EBPA fails to maintain relative rate parity, a large number of customers may opt out, jeopardizing the EBPA's ability to repay any money loaned or guaranteed by the participating cities. According to the EBPA business plan, Berkeley's share of money at risk may range from $200 thousand to $3.3 million. The probability of losing this money appears to be quite low. However, the business plan did not account for any loan guarantees that investors may require from the cities before lending the much larger sums of money needed for the EBPA to construct its own generation facilities. It is unknown whether this would be necessary or how much money the cities would need to guarantee.

- Local green jobs: By "local," we mean jobs created in Berkeley or Oakland. We estimate, with a high degree of uncertainty, that aggressive targets for efficiency and local solar energy could produce approximately 100 to 120 additional local full-time jobs over the next several years. It is unknown how many more jobs this represents compared to retaining service with PG&E.

- Local participation: PG&E's rates and policy priorities are determined largely by the California Public Utilities Commission. The governing structure of the EBPA will need to be determined by the participating cities, but the EBPA Board is likely to be composed of the mayors and/or city council members of Berkeley and Oakland. Given the more local and directly elected nature of the EBPA Board members, residents and businesses of the EBPA cities should be able to more easily influence EBPA rates and priorities than they can influence PG&E's rates and priorities.

Executive Summary

Community choice aggregation (CCA), also known as community choice energy, is a provision of California law that allows cities, counties or joint powers agencies to purchase electricity and other necessary electrical services on behalf of the customers in their territories. CCAs differ from municipal utility districts in that the investor-owned utility (IOU), in this case Pacific Gas and Electric (PG&E), continues to own the electricity distribution infrastructure and to provide electricity transmission, distribution, billing, and related customer services. However, CCAs are able to determine their own energy supply mixes and rate structures.

For several years now, the cities of Berkeley and Oakland have been considering whether to form an East Bay Power Authority (EBPA), which would serve as a CCA for both cities.[1] The Berkeley Energy Commission (Commission) has produced this report to help the Berkeley City Council understand the costs, benefits and risks involved with forming the EBPA. The Commission proposes five criteria for the City Council's consideration, which are described below.

Environmental Performance: Efficiency, Renewables and Greenhouse Gases

We break "environmental performance" into three related components: energy efficiency, renewable energy development, and greenhouse gas reductions. In theory, EBPA-managed energy efficiency programs could benefit from better knowledge about local conditions and the ability to focus on a more homogenous climate and customer base. However, PG&E already funds several local energy efficiency programs, and the state legislature and the California Public Utilities Commission (CPUC) have authorized large increases in IOU efficiency spending in recent years and to meet extremely ambitious goals they have set for the state's utilities. Nonetheless, the EBPA may achieve more energy efficiency savings than PG&E, but estimating the likelihood of this occurring or the magnitude of additional savings is difficult to determine.

The EBPA could also include a larger share of renewable energy in its portfolio than PG&E, but because the California Air Resources Board (CARB) is in the process of finalizing a 33% minimum renewable electricity standard for all utilities, the incremental difference will be less than under the existing 20% requirement. Two factors may render higher renewable targets more difficult in the future: competition for the locations with better, lower-cost renewable resources and the

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[1] The business plan prepared by Navigant Consulting analyzed the costs, benefits and risks of a CCA comprised of Berkeley, Emeryville and Oakland. Emeryville has decided not to participate, and Oakland's participation is not certain. However, we use the model of an EBPA for this report because it is the assumption the Navigant analysis is based on. If Oakland decides not to form an EBPA with Berkeley, Berkeley might be able join the CCA of a non-adjacent jurisdiction such as Marin County or San Francisco by paying an entry fee to compensate them for implementation costs incurred prior to Berkeley's accession.

grid's total capacity to handle additional renewable generation. The renewable energy sources capable of providing large amounts of new energy in the near-term (wind and solar) are intermittent, and the supply and demand of electricity must be balanced in real-time to maintain grid stability. Over the next ten to twenty years, California's electrical grid will need to undergo a substantial shift in order to handle larger volumes of renewable energy, both in terms of new transmission lines to major renewable resources, and the technology to balance more intermittent generation.

Another significant factor that may affect a CCA's environmental performance compared to PG&E is whether a greenhouse gas (GHG) cap and trade program is implemented at either the state or federal level. Under cap and trade programs, GHG reductions are achieved collectively rather than individually. In other words, by issuing a fixed and declining number of pollution allowances from year to year, the government ensures reductions occur even though it is not possible to know exactly where or how they will occur. Thus, total GHGs would not be reduced by the EBPA under cap and trade unless a "set-aside" of allowances is created by which the government pulls allowances out of circulation (thereby reducing the allowable pollution levels) on behalf of entities that "overcomply" with the cap and trade by, for example, using voluntary renewable energy that is above any mandated levels. Currently, CARB is in the process of developing a cap and trade program, with an expected launch in 2012, and CARB is considering a set-aside mechanism in the design of the program. None of the federal cap and trade bills proposed over the past several years have included a voluntary renewable set-aside.

The EBPA's actions would also contribute to emission reduction if either the state or federal governments does not enact cap and trade programs in the foreseeable future. This is a distinct possibility in California's current political climate. A proposition that has qualified for the November ballot would delay implementation of California's program indefinitely if it passes. Additionally, one of the candidates for the Governor's office, Megan Whitman, has made a campaign promise to roll back the CARB cap and trade program. At the federal level, the U.S. House of Representatives passed a cap and trade bill in 2009, but passage by the Senate is highly uncertain.

Rate Parity

The ability of a CCA to maintain rate parity is governed by a number of factors, chief of which are the sources of energy used to supply customers with electricity. Offering multiple products allows a CCA to meet different goals, depending on what customers want. A tiered approach that allows CCA customers to choose a rate parity product or a higher percentage renewable product could help the EBPA maintain rate parity. In this approach, customers would be enrolled in a "medium-green" program by default but would be allowed to opt for either a "light green/rate parity" product or a "deep green" 100% renewable product.

Because renewable energy sources tend to be more expensive than other sources of generation, maintaining rate parity will be challenging if a key goal of the CCA program is to ensure that EBPA customers receive a larger share of renewable energy than PG&E customers. In the near term, the EBPA will have to buy most of its power from the wholesale market. Natural gas prices have fallen sharply from their recent highs, and the U.S. Energy Information Administration does not project significant increases until after 2020. This means that prices of generic wholesale power have also fallen, which increases the price gap between renewable energy and conventional energy. By foregoing the relatively low prices of generic power in favor of renewables, the EBPA will find it more difficult to maintain rate parity.

In the longer term, there are four primary factors that influence the ability of the EBPA to maintain rate parity while offering more renewable energy: 1) the capital costs of renewable energy technologies, 2) the cost advantages a CCA may have when financing generation facilities compared to PG&E or independent developers, 3) the cost of natural gas, and 4) the cost of GHG compliance (whether due to cap and trade or a carbon tax). The future path of these factors is difficult to predict. As renewable energy technologies improve, their costs should continue to fall relative to conventional energy sources, but it is uncertain how far and how fast those costs will fall. To incorporate more renewable energy while maintaining rate parity, the EBPA would need to build its own generation facilities at lower cost than PG&E or independent power producers. Normally, public agencies have a significant advantage when financing electricity generation facilities, but federal renewable tax credits have leveled the playing field between public and private financing for many renewable technologies. Most of the renewable tax credits are set to expire at the end of 2012 or 2013. If Congress fails to reauthorize them, the EBPA may then have a financial advantage compared to private developers of renewable energy.

Because gas-fired power provides the vast majority of generic power available in wholesale power markets in the western U.S. and Canada, whatever share of the EBPA's portfolio is not composed of renewable energy owned by or under contract to the EBPA will be composed almost entirely of gas-fired power. PG&E's portfolio consisted of approximately 47% gas-fired power in 2009. If that share remains fairly constant over the next several years, the EBPA will be more exposed to the risks of volatility and sustained increases in the price of natural gas until its portfolio consists of 50% or more renewable energy. PG&E is largely unexposed to the risk of high GHG compliance costs because nuclear energy, hydropower and, increasingly, other renewable energy sources, none of which emit GHGs when they generate, comprise a large share of PG&E's energy mix. Because the EBPA will have to rely on gas-fired power for most of its power needs, the EBPA's GHG compliance costs exposure is similar to its gas price exposure. Likewise, the EBPA would have to generate 50% or more of its energy from renewable sources to reduce its GHG compliance cost exposure to the level of PG&E's. GHG compliance costs would add

to the EBPA's difficulty in maintaining rate parity until the EBPA can build or procure a large proportion of renewable energy. [2]

Financial Risk to the City of Berkeley

It is important for the City Council to consider that there is some risk associated with forming a CCA. Financial risk to the participating cities arises if the CCA dissolves and if there are any funds spent by the cities to implement the EBPA or any loans provided by the cities to the EBPA that have not yet been repaid.

If the EBPA is unable to maintain rates at or near PG&E's rates, increasing numbers of customers may opt out of EBPA service and return to PG&E. Customer attrition could theoretically result in a downward spiral in which higher cost resources built or under long-term contract to the EBPA are spread over an increasingly smaller number of customers until the EBPA is forced to dissolve.

In the memo to the Berkeley Energy Commission recommending that Berkeley not pursue CCA implementation, Berkeley staff estimated that the financial risk to Berkeley ranges from $200 thousand to approximately $3.3 million. This risk stems from Berkeley's share of pre-implementation expenditures and start-up costs. In the EBPA business plan, the Navigant consultants' report estimates that the start-up costs could be recovered through rates within five years. As long as the EBPA retains most of its customers in the first five years, start-up cost exposure to the cities would be minimal.

Of greater concern are the much larger financial commitments the EBPA would make to construct its own electricity generation facilities. While establishing a financial firewall between the EBPA and the city is possible, it is not clear that creditors will be willing to lend the large sums of money needed to develop generating facilities knowing that the EBPA's customer base is not absolutely secure. Bond markets may react by either requiring a higher rate of interest than a traditional publicly-owned utility would enjoy, because their customers cannot opt out, or by requiring the member cities to guarantee the debt. If the EBPA constructs its own generation facilities, the facilities themselves are significant sources of collateral. Thus, the cities might not have to guarantee the entire value of the bonds but only the difference between the resale value of the asset and the outstanding debt. If the cities agree to such an arrangement, they may only have to guarantee a fraction of the total bond value, but the Commission does not have enough information to estimate how large a guarantee would be required.

Local Green Jobs

For purposes of this report, we define "local" jobs as jobs created in the cities of Berkeley or Oakland. Most of the increase in local jobs would happen as a result of

[2] Hedging strategies could help protect the EBPA from volatility but would be less effective at shielding it from a sustained rise in gas prices or GHG costs.

increased expenditures on energy efficiency and local solar photovoltaic panels in the participating cities.

Determining the effect of implementing the EBPA on local job creation is challenging because it is difficult to estimate how many additional local jobs a CCA would create above those that already exist and will exist in the future due to PG&E practices and operations. Another consideration is that while the jobs created will be performed in the EBPA cities, they will not necessarily result in employment of EBPA residents unless the EBPA includes local hire requirements or preferences in its solicitations for efficiency and solar panel installation services. Such requirements necessarily limit the number of firms that compete to offer these services and may therefore increase costs to the EBPA.

To estimate a plausible scenario for local energy investments the EBPA may make, we used the resource portfolio proposed in San Francisco's CCA Draft Implementation Plan and reduced it by half to account for the EBPA's smaller load. San Francisco aims to achieve 107 megawatts (MW) of energy efficiency and 31 MW of in-city solar capacity by 2017; therefore, we used 53.5 MW of energy efficiency and 15.5 MW of solar capacity. Using published values of direct jobs created per megawatt of efficiency and solar capacity, we estimate that the EBPA's investments in these resources would create roughly 100 to 120 full-time jobs. In order to determine the incremental number of local jobs resulting from the CCA investments, the number of jobs added under business-as-usual PG&E service should be subtracted from the estimate above. Since this number would depend on very rough estimates, the 100 to 120 range can be considered an upper estimate.

Local Participation

A final consideration is the potential for CCA to increase local participation in decision-making related to electricity rates, resources and priorities. This criterion was included to reflect both the civic value of participation per se as well as the greater influence that Berkeley residents may have on other decisions such as rate design and energy efficiency program priorities.[3]

PG&E's rates and policy priorities are determined largely by the CPUC, whose members are appointed by the Governor and confirmed by the state Senate. The governing structure of the EBPA will need to be determined by the participating cities, but the EBPA Board is likely to be composed of the mayors and/or city council members of Berkeley and Oakland. Given the more local and directly elected nature of the EBPA Board members, residents and businesses of the EBPA cities should be able to more easily influence EBPA rates and policies than they can influence PG&E's rates and policies by participating in the CPUC's regulatory processes.

[3] To the extent that Berkeley residents desire superior environmental performance, rates comparable to PG&E's, and local job creation those values are captured by the previous listed criteria.

Conclusions

Numerous factors govern the costs of generating electricity from renewable and non-renewable resources. These factors, such as natural gas prices, the cost of renewable energy technologies, the extension of federal renewable energy tax credits and possible future GHG compliance costs are impossible to predict with much certainty. Given current natural gas prices and renewable energy costs, it will be challenging for a CCA to quickly achieve the ambitious renewable energy goals envisioned in the EBPA business plan while maintaining rates comparable to PG&E's rates.

Before committing to the formation of a CCA, Berkeley and Oakland should perform an analysis of the long term performance of the CCA based on the cost of a variety of energy supply scenarios using different assumptions for the factors listed above. A realistic evaluation of the likelihood of meeting ambitious renewable energy goals while maintaining rate parity is essential. Based on this analysis, the EBPA should set renewable portfolio goals that seem achievable.

Over the long run, the financial advantages that the EBPA may enjoy as a public agency imply that the EBPA will likely be able to offer electricity, even with a higher share of renewable energy, at or below PG&E's rates. However, it will be critical for the EBPA to retain its customers during the first several years of its existence, a period during which renewable energy is likely to cost much more than prevailing market prices of electricity.

A final factor that would favor forming a CCA is that it could allow Berkeley to remain committed to its environmental goals despite any backsliding at the state or federal level. The state legislature and state agencies have committed to an array of ambitious environmental goals in the electricity sector. These policies and programs reduce the scope for additional improvements to environmental performance in providing electric service. For example, if the minimum renewable energy requirement rises to 33%, then the EBPA would have only 17% more renewable energy than PG&E in its portfolio rather than 30% more if the requirement remains at 20%. But state policies and programs are subject to change. Ballot measures or a change in administration could prevent the implementation of state-level policies currently underway. By forming or joining a CCA, Berkeley can help to ensure that its environmental goals are met, regardless of what occurs at the state or federal level.

Overall, CCA formation offers the potential to reduce environmental impact, increase public involvement in energy policy, and produce local green jobs. However, it is a difficult undertaking, requiring a large effort and entailing some risk. The City Council should evaluate whether the benefits outweigh the amount of effort needed. The progress of the CCAs in Marin and San Francisco over the next few years will help to shed light on this question.

1 Introduction

Community choice aggregation (CCA), also known as community choice energy, is a provision of California law that allows cities, counties or joint powers agencies to purchase electricity and other necessary electrical services on behalf of the customers in their territories. CCAs are able to determine their own energy supply mixes and rate structures. CCAs differ from municipal utility districts because the investor-owned utility (IOU), in this case Pacific Gas and Electric (PG&E), continues to own the electricity distribution infrastructure and to provide electricity transmission, distribution, billing, and related customer services.

The City of Berkeley, in conjunction with the cities of Oakland and Emeryville, has been considering whether to implement a CCA for several years.[4] This is an important issue for the City Council because it would affect every resident and business in Berkeley. While a CCA could create significant community benefits, it also entails a start-up investment of staff time, money and resources. The Berkeley Energy Commission (Commission) offers this report to the City Council in order to inform the Council's decision on this issue.

Four central motives for creating an East Bay Power Authority (EBPA) to act as a CCA have emerged from the Commission's internal deliberations and the public comments we have received. One of the main motives cited is the opportunity for CCA to reduce the environmental impact of consuming electricity. Berkeley's Measure G, which passed in 2006 with 81% of the vote, commits Berkeley to a goal of reducing greenhouse gases (GHGs) by 80% by 2050. As part of its Climate Action Plan, the City developed an interim target of a 33% reduction below 2000 levels by 2020 (City of Berkeley, 2009). The Climate Action Plan identifies CCA as one policy mechanism that may help reach this goal by increasing access to renewable energy and energy efficiency services beyond the level offered by PG&E, thereby reducing the GHG emissions of Berkeley's energy portfolio.

The second motive for implementing CCA is to offer electricity at rates equal to, if not below, PG&E's while achieving better environmental performance. Both the San Francisco and Marin County CCA efforts include rate parity with PG&E as a goal. Because Marin Clean Energy was the only operational CCA at the time this report was finalized, and it had just begun delivering electricity to customers, we do not yet have much evidence of how easily rate parity can be achieved. There may be significant challenges to meeting this goal, which are discussed in Section 5 of this report.

[4] The business plan prepared by Navigant Consulting analyzed the costs, benefits and risks of a CCA comprised of Berkeley, Emeryville and Oakland. Emeryville has decided not to participate, and Oakland's participation is not certain. However, we use the model of an EBPA for this report because it is the assumption the Navigant analysis is based on. If Oakland also decides not to form an EBPA with Berkeley, Berkeley might be able join the CCA of a non-adjacent jurisdiction such as Marin County or San Francisco by paying an entry fee to compensate them for implementation costs incurred prior to Berkeley's accession.

A third motive is the potential to generate local green jobs. This may occur if the EBPA directs more ratepayer funds to energy efficiency measures or distributed generation within the EBPA cities than PG&E would.[5] It is important to note that implementing CCA does not significantly affect jobs that already exist within PG&E, as the utility continues to provide the labor-intensive services of maintaining transmission and distribution infrastructure and other services.

Finally, implementing a CCA may allow EBPA customers to have more influence in the decisions related to their electricity service such as the energy mix and rate structure. Both Berkeley and Oakland have passed ordinances committing to climate action goals that are stronger than those passed at the state level. With a CCA, Berkeley would have significantly more control over the energy mix used by its residents.

2 Background on CCAs and California's Electricity Market Structure

2.1 Enabling Statute and Regulatory Decisions

The statute that enables local governments to form community choice energy programs was passed by the legislature as AB 117 in 2002.[6] This statute allows a local government or group of local governments "to combine the loads of its residents, businesses, and municipal facilities, in a community-wide electricity buyers' program." In order to form a CCA, the bill requires jurisdictions to submit an implementation plan to the California Public Utilities Commission (CPUC) that provides information on the proposed CCA's organizational structure, rate setting procedures, and a description of the financial and technical capabilities of any third parties that will supply power to the CCA.

AB 117 further stipulates that the CPUC shall ensure that no costs are shifted to the remaining customers of the incumbent utility as a result of the CCA customers' departure from the load served by the utility. Examples of such "stranded" costs include expenses related to the electricity crisis of 2001 (primarily the bond payments and energy expenditures of the Department of Water Resources for contracts negotiated during the crisis on behalf of the IOUs) and other contracts previously negotiated by the incumbent utility on behalf of the departing customers.

The CPUC has established the methodology for determining how stranded costs will be calculated (CPUC, 2005). This CPUC decision instituted a Cost Responsibility Surcharge (CRS) that CCAs must pay to incumbent utilities until stranded costs are paid off. The CRS potentially affects the cost-competitiveness of CCAs because a high CRS must be recovered in the CCA's rates. However, Navigant estimates that

[5] Distributed generation refers to electric generation resources either located on a customer site (such as a residential solar photovoltaic system) or connected at distribution voltage.
[6] California Public Utilities Code § 331.1(a)

the CRS is among the least significant factors affecting CCA rate parity (Navigant, 2008, p. 83).

2.2 CCA Activity in Other California Jurisdictions

SAN JOAQUIN VALLEY POWER AUTHORITY

In 2007, the San Joaquin Valley Power Authority (SJVPA) became the first jurisdiction to submit a CCA Implementation Plan to the CPUC. The SJVPA consists of the unincorporated areas of Kings County and the municipalities of Clovis, Corcoran, Dinuba, Kerman, Kingsburg, Lemoore, Hanford, Parlier, Reedley, Selma, and Sanger. However, the SJVPA Board of Directors voted to temporarily suspend implementation activities in June 2009. The reasons given for suspending the program were: (1) tightness in the credit market and the volatility of energy prices; (2) concerns about uncertainty with California's energy regulations including the possibility that the state would increase utilities' minimum renewable energy requirements from 20% to 33%; and (3) the need to contract for additional energy to meet resource adequacy requirements (Community Choice, 2009).[7] In addition, in a June 2009 response to the CPUC in connection with the CPUC's consideration of San Francisco's community choice program, SJVPA declared that " based largely on PG&E's unending assaults, SJVPA's Board of Directors suspended the implementation of SJVPA's CCA program" (SJVPA, 2010).

MARIN CLEAN ENERGY

The Marin Energy Authority (MEA) is the not-for-profit public agency that was created in December 2008 to implement the Marin Clean Energy CCA program. The members of the Marin Clean Energy service territory are Belvedere, Fairfax, Mill Valley, San Anselmo, San Rafael, Sausalito, Tiburon, and the unincorporated areas of Marin County. As stated in the MEA's mission statement:

> It is the intent of the 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, 2009).

On February 4, 2010, the MEA board unanimously approved a five-year contract with Shell Energy North America to supply it with electricity. MEA states that it will offer 25% renewable energy for the same price that PG&E is charging, and, for an additional 7% charge, residential customers will be able to buy electricity generated from 100% renewable sources (MEA, 2010a). MEA began deliveries to its first customers on May 7, 2010. The content of Marin Clean Energy's electricity portfolio

[7] The resource adequacy program requires all electricity providers to have enough generating capacity owned or under contract to meet their peak energy demands.

is outlined in its April 21, 2010 press release:

> ...Marin Clean Energy will get 9 percent of its power content from landfill gas in Oregon, 8 percent from wind in Washington and another 5 percent from biomass, also from Washington. Another 9 percent will come from a variety of smaller energy sources that are either certified renewable or eligible for certification. The remainder of power will come from the state power system. Marin Clean Energy's renewable energy mix also includes 3 percent renewable energy credits backed by a solar project operated by the South San Joaquin Irrigation District (MEA, 2010b).

SAN FRANCISCO - CLEANPOWERSF

In 2007, San Francisco adopted a CCA program, known as CleanPowerSF. The program's goal is to provide electric energy to San Franciscans that is significantly greener than what PG&E currently delivers, at competitive rates. To achieve this, CleanPowerSF intends to use voter-approved bonds to finance a substantial increase in solar, wind and other renewable energy resources in and outside the city. CleanPowerSF has a goal of supplying at least half of its power from renewable resources and energy efficiency within ten years of commencing operations (CleanPowerSF, 2010).

On November 5, 2009, the San Francisco Public Utilities Commission released its Request for Proposals for Electrical Supply Services. The Request states the following energy targets: (1) 51% of electric energy should be from renewable sources by 2017; (2) 40% of energy needs should be met from a combination of local and renewable sources by 2012; and (3) rates must be competitive with PG&E (SFPUC, 2009). San Francisco spent several months negotiating a contract with its first choice bidder, Power Choice LLC, to provide the electricity supply services. However, the *San Francisco Chronicle* reported that negotiations between the two parties have "collapsed" and that San Francisco will look for a new partner to help run their CCA. The *Chronicle* reported that San Francisco would not accept a request by Power Choice to secure the loans needed to start up the program (Baker, 2010).

San Francisco is actively addressing efforts by PG&E to thwart implementation of its CCA. On January 11, 2010, the City and County of San Francisco petitioned the CPUC to modify the Commission's December 2005 decision implementing CCA for the following reason:

> This petition is necessary because one of the Decision's key assumptions – that the utilities were neutral (or even supportive) toward community choice aggregation ("CCA") programs – is no longer true, as evidenced by the very public reversal by at least one utility, Pacific Gas & Electric ("PG&E"),

from a stance of support to staunch opposition to CCA programs." (City and County of San Francisco, 2010, p. 1)

In its petition before the CPUC, San Francisco specifically calls for the Commission to "prohibit the utilities from engaging in any conduct that is designed to impede or frustrate the investigation, pursuit, or implementation of a CCA program or programs" (City and County of San Francisco, 2010, p. 11). On May 3, 2010, the Executive Director of the CPUC sent a letter to PG&E declaring that its attempts to interfere with CCA implementation activities violate state law and CPUC orders. The letter directs PG&E to cease its efforts to solicit opt outs from Marin's CCA and to comply with other various provisions of AB 117 and CPUC regulations (Clanon, 2010).

PROPOSITION 16

On June 8, 2010 California voters rejected Proposition 16, in which PG&E attempted to impose a two-thirds vote requirement on communities trying to implement CCA or expand a publicly-owned utility (POU). PG&E spent approximately $46 million on this effort to change the state constitution to erect barriers to implementation of CCA. It is significant that most Bay Area counties rejected Proposition 16 by more than a 60% majority.

2.3 Summary of the Navigant Business Plan and City Manager Report

In September, 2008, Navigant Consulting released its final proposed business plan for the EBPA (Navigant, 2008). The business plan proposed that:

- The Authority could gradually increase its renewable energy procurement until it procures at least one half of its electric supply from renewable resources, such as wind, solar, geothermal and biomass within seven years.
- The Authority could promote additional energy efficiency and energy conservation efforts within its jurisdiction, as envisioned by AB 117.
- The business plan anticipated rates 3% higher than PG&E's for the first four years of EBPA operation, followed by comparable rates in the future, with an estimated range of 10% lower to 6% higher.
- Through implementation of the proposed CCA, the cities would cause a reduction in greenhouse gas emissions of approximately 325,000 metric tons per year within seven years, as the renewable resources procured and developed by the Authority would displace production from natural gas

fueled power plants.[8]

The Secretary of the Berkeley Energy Commission delivered a joint City Managers' response at the October 2008 meeting of the Commission. In the report, staff recommended that the City of Berkeley not move forward with implementing the EBPA. Several reasons were cited, including:

- the CCA may not be able to maintain rate parity with PG&E, with a risk that rates may be as much as 6% higher;
- the city could be liable for start up expenses ranging from $0.2 million to nearly $3.3 million for which cost recovery could not be guaranteed;
- the regulations governing CCAs are uncertain and potentially expensive; and
- the environmental benefits of the program would be diminished if the state increased the renewable energy requirement for all utilities from 20% to 33% (DeSnoo, 2008).

In response, the Commission decided to form a CCA subcommittee to discuss the staff report and provide the Commission with a recommendation on whether to approve the report. At the December 2008 meeting of the Commission, the subcommittee reported back that it was premature to reject CCA and that in light of CCA activity in other jurisdictions, the issue warranted further consideration (BEC, 2008).

2.4 Structure of California's Electricity Market

In discussing the merits of CCA relative to continuing service with PG&E, it is important to keep in mind the implications of the restructuring of California's electricity sector that occurred in 1996 under AB 1890. The restructuring of the IOUs created a competitive market for the wholesale generation of electricity. PG&E and the other large IOUs were incentivized to sell the majority of their generation assets, particularly those facilities (generally fossil-fired) that determine prices in a competitive market.[9] Under utility restructuring, California's IOUs play two main roles: 1) building and maintaining the transmission and distribution infrastructure in their service territories and 2) buying electricity from other utilities or independent ("merchant") power producers in wholesale markets on behalf of their customers.

PG&E's profit is set at a fixed rate of return based on its investments in transmission and distribution infrastructure. Thus, PG&E does not earn a profit on the sale of

[8] This estimate assumes that the statewide renewable energy requirement remains at 20%.
[9] Because nuclear and hydro facilities have physical constraints to their dispatch and because they have very low operating costs, the IOUs were not incentivized to sell their hydro and nuclear facilities.

electricity. PG&E purchases power from the wholesale market on behalf of its customers and these costs are passed through to customers. The costs of operating and maintaining the transmission and distribution system are determined separately, and this portion of customers' bills is not affected by changes in the wholesale price of power. Whether a customer is served by PG&E or a CCA, PG&E will make virtually the same profit for its shareholders.

Because PG&E's profits do not depend on the volume of electricity sold, PG&E and the other California IOUs do not face a disincentive to implementing energy efficiency programs. This has been the case in California even before the restructuring of 1996 because California was a pioneer in a type of utility rate reform known as "decoupling," so called because profits are decoupled from sales. This approach to utility rate setting guarantees the utility a fixed rate of return on its capital assets while treating other costs (such as fuel costs or power purchased from other generators) as pass-through costs on which the utility does not earn a profit. If the utility sells more electricity in one period than was projected, excess revenues are returned to ratepayers in the following period. California first implemented decoupling in 1981 (NARUC, 2007).

3 Proposed Criteria for Choosing to Implement CCA

The City Council should articulate a set of criteria to evaluate whether forming a CCA is preferable to continuing service with PG&E. The Commission recommends the following five criteria for the Council's consideration: environmental performance, maintaining relative rate parity, financial risks to the City of Berkeley, promoting local green jobs, and local participation in setting electricity policy priorities. The criteria are largely drawn from the motives described in Section 1. Financial risk is an additional criterion that represents the extent to which forming or joining a CCA may entail financial risks to the City of Berkeley. Below, we provide a brief description of each criterion. Each criterion, with the exception of "local participation," receives a more thorough analysis in a subsequent section.

3.1 Environmental Performance

One of the goals most often cited by proponents of CCA is the opportunity to reduce the environmental impact of providing electrical service. We break down this criterion into three of its most salient components: energy efficiency, renewable energy, and GHG reduction.

3.1.1 Energy Efficiency

A CCA has the potential to increase energy efficiency within its service area, but doing so may be difficult. In the wake of utility restructuring in the late 1990s, energy efficiency spending by California's IOUs fell sharply. In the past few years, the IOUs, under direction of the state legislature and the CPUC, have more than doubled annual spending on energy efficiency programs (Martinez, Wang and Chou,

2010). Efficiency program spending may continue to grow as the CPUC has a stated goal of achieving all cost-effective energy efficiency. However, a CCA could potentially spend more per customer on energy efficiency programs, or spend comparable amounts more effectively.

3.1.2 Share of Renewable Energy

This subcriterion concerns whether the EBPA can deliver a higher share of renewable energy than PG&E. PG&E is currently required by statute to use a minimum of 20% renewable energy in its power mix. The California Air Resources Board (CARB) is developing a regulation that would require all California load-serving entities (LSEs) to use a minimum of 33% renewable energy by 2020.[10] Section 4.2 explores the possible advantages that a CCA might have in providing a greater share of renewable energy to its customers compared to PG&E.

3.1.3 Greenhouse Gas Reduction

A final metric of environmental performance that is important to Berkeley's residents is the reduction of GHG emissions. While Measure G commits Berkeley to a long-term goal of reducing GHGs by 80% by 2050, the City developed an interim target of 33% reductions below 2000 levels by 2020 as part of its Climate Action Plan (City of Berkeley, 2009).

The City's ability to influence total emissions could be greatly affected by the implementation of cap and trade systems at the state or federal level. This is due to a fundamental characteristic of cap and trade systems, that under cap and trade the allowable level of pollution is decided in advance. This allowable level acts as both a ceiling (pollution levels may not exceed the limit) and a floor (emission reductions by one entity free up allowances that may be used elsewhere by another regulated source). Further discussion of cap and trade and options to structure cap and trade programs to facilitate emission reductions beyond the level of the cap in recognition of voluntary actions is provided below in Section 4.3.

3.2 Rate Parity

One important criterion that the City Council should consider is whether a CCA will be able to maintain comparable rates but with a higher share of renewable energy in the portfolio. It is vital that the CCA maintain relative rate parity with PG&E because if the CCA's rates significantly exceed PG&E's, many customers, particularly business customers, may choose to opt-out of CCA service.

There is a natural tension between this criterion and the desire to increase the share of renewable energy. The cost of renewable energy is generally higher than the cost of fossil-fired electricity with today's technologies, government incentives and lack

[10] "Load serving entity" refers to any retail electricity supplier: investor-owned utilities, publicly-owned utilities, CCAs, and direct access electric service providers.

of a price on GHG pollution. The greater the share of renewable energy in the portfolio, the harder it will be to maintain parity with PG&E's rates. If a CCA benefits from advantages in financing the construction of generation assets, the lower financing costs may help to offset any higher costs from offering a larger proportion of renewable energy. These factors are analyzed in detail in Section 5. Additionally, if the CCA can outperform PG&E's energy efficiency programs, it may be possible to provide matching, or slightly higher rates, but charge lower bills than PG&E because EBPA customers would consume less energy than under PG&E service.

3.3 Financial Risk to the City of Berkeley

While the other criteria reflect desired outcomes from implementing CCA, this criterion reflects the potential risks. These risks are related to various forms of start-up costs and long-term financial obligations that may not be fully recovered by the city if the CCA fails to retain a large and stable customer base. Financial risks are described in more detail in Section 6.

3.4 Local Green Jobs

A CCA may choose to spend its revenues in ways that promote more local employment. We define "local" in this context to mean jobs created within the territory of the EBPA. Note that investment in additional renewable energy or energy efficiency would need to be deliberately structured to lead to higher local employment. A discussion of the opportunities for a CCA to increase local green jobs and an estimate of the number of jobs that may be created is provided in Section 7.

3.5 Local Participation

An additional criterion is that forming a CCA will give Berkeley residents and businesses more control over the decisions of their electricity supplier. There is some overlap with this criterion and those listed above because to the extent that Berkeley residents want superior environmental performance, rates below or on par with PG&E's, and local job creation those values are captured by the previous criteria. This criterion was included to reflect both the civic value of participation per se as well as the greater influence that Berkeley residents and businesses can have on other decisions such as rate design and energy efficiency program priorities.

PG&E's rates and policy priorities are determined largely by the CPUC, whose members are appointed by the Governor and confirmed by the state senate. The governing structure of the EBPA will need to be determined by the participating cities, but the EBPA Board is likely to be composed of the mayors and/or city council members of Berkeley and Oakland. Given the more local and directly elected nature of the EBPA Board members, residents and businesses of the EBPA cities should be

able to more easily influence EBPA rates and policies than they can influence PG&E's rates and policies.

4 CCA Opportunities to Improve the Environmental Performance of Berkeley's Electricity

The impact that a load serving entity (LSE) has on the environment may be thought of as a function of the number of customers it serves, the average consumption per customer (which depends on factors such as the shares of residential, commercial, and industrial customers it serves; local climate; and the level and efficacy of energy efficiency spending), and the average environmental impact per megawatt-hour (MWh) of its energy mix. Thus, for a given customer base, an LSE may reduce its environmental impact by helping its customers to use less energy and/or by using more environmentally benign energy sources in its mix. This section addresses both opportunities and explores the impact that cap and trade programs have on reducing GHG emissions.

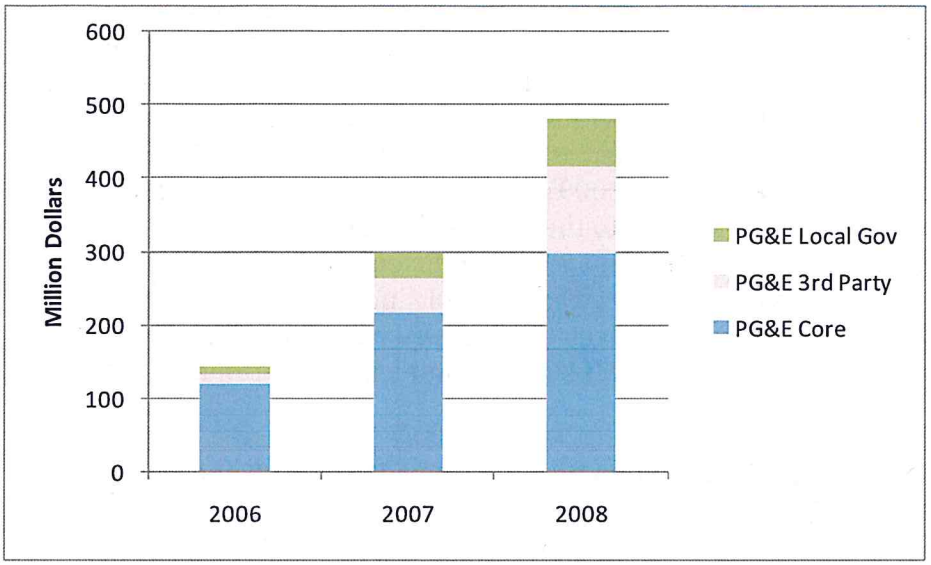
4.1 Opportunities to Achieve Greater Energy Savings

A central question to the CCA decision is whether a CCA would achieve greater energy savings than PG&E. Currently, all electricity customers in California pay surcharges on their electricity and gas bills to fund energy research and energy efficiency programs. When local jurisdictions form a CCA, PG&E would continue to collect those surcharges and serve as the default provider of energy efficiency programs for the CCA's customers. AB 117 specifically gives CCAs and other third parties the right to apply to the CPUC to administer energy efficiency programs. The CPUC does allow local governments and other third parties to submit applications to receive program funding; however, no rules that apply specifically to CCAs have yet been issued by the CPUC. The CPUC has stipulated, pursuant to requirements in AB 117, that should a CCA form and it is *not* the program administrator for its customers, the incumbent utility must allocate approximately a "proportional share" of energy efficiency program funds to the CCA's service territory (CPUC, 2003). In other words, the statute and subsequent CPUC decision prevent the incumbent IOUs from retaliating against CCAs by directing the revenues from their energy efficiency surcharges elsewhere.

PG&E, under direction of the CPUC, administers a variety of energy efficiency programs in its service territory. PG&E designs and implements only some of these programs. Many are actually run by firms that specialize in program implementation while others are conducted as partnerships with local governments. In 2008 PG&E spent nearly $482 million on energy efficiency programs, 62% of which was spent by PG&E on its "core" programs, while 13% was spent in partnership with local governments and 25% was directed to non-government third parties (Tagnipes, 2010). This represents an increase in the share of spending on local government programs from 6% in 2006 (see Figure 1). Due to the success of existing local government programs in the EBPA cities in attracting funding, it is

unclear whether a proportional allocation would result in a net gain compared to what they currently receive from PG&E.

Figure 1. PG&E Expenditures on Energy Efficiency Programs, 2006 to 2008



Source: Tagnipes, 2010

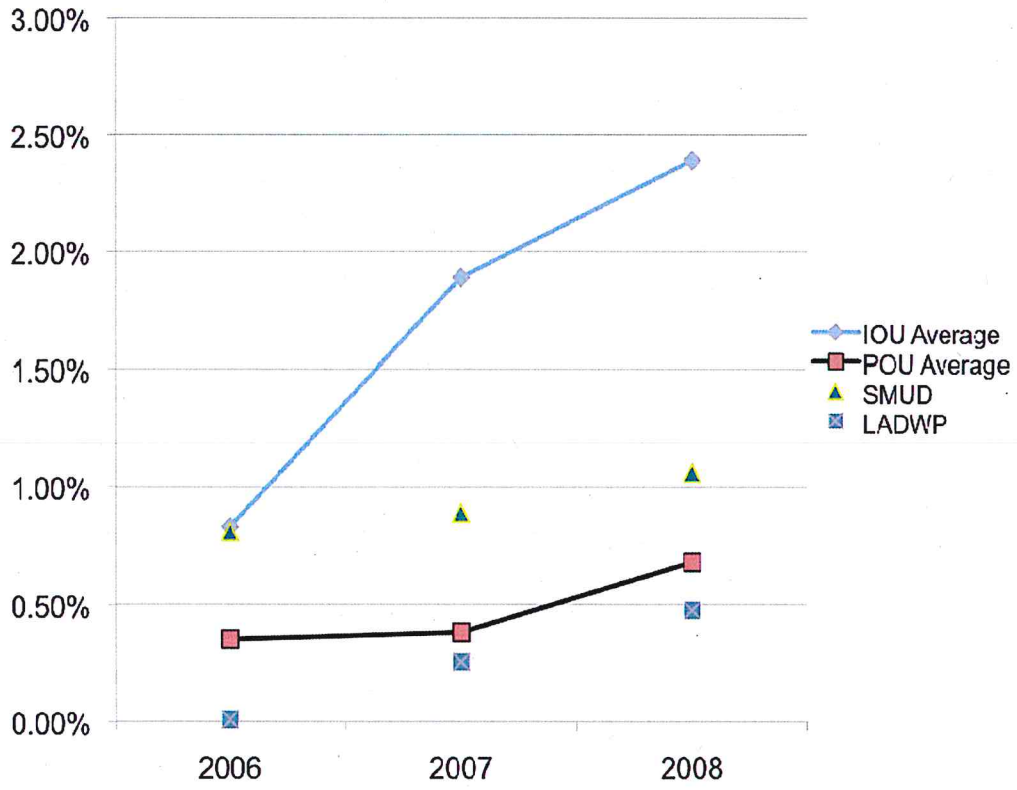
Fundamentally, a CCA could achieve greater energy savings than PG&E in one of two ways: spending more money per customer than PG&E or spending a similar amount of money per customer more effectively than PG&E. To meet the first goal, a CCA would be able to levy energy efficiency surcharges in excess of the levels the CPUC requires of the IOUs. The legislature and the CPUC have set ambitious goals for the state's POUs and IOUs, and the CPUC has authorized substantial increases in efficiency spending to reach those goals. As Figure 1 shows, energy efficiency spending by PG&E (and the other IOUs) is scaling up rapidly in response to direction from the CPUC. State policy directs utilities to achieve all possible cost-effective energy efficiency going forward. The spending levels envisioned over the next few years may already be pushing against the institutional capacity of the IOUs and implementation firms to spend the program funds effectively. Given recent trends, the EBPA would have to collect an unprecedented amount of money as a share of revenues to outspend PG&E.

Alternatively, a CCA could spend energy efficiency funds more effectively than PG&E. As explained in Section 2.4, PG&E does not face a disincentive to increase energy efficiency because PG&E's profits depend mostly on the fixed rate of return it receives on its transmission and distribution assets. The CPUC, and Public Utilities Commissions of other states, have experimented with a variety of shareholder incentive mechanisms to encourage energy efficiency. In a couple of recent CPUC Decisions, the CPUC adopted a "risk/reward incentive mechanism" that penalizes or rewards the shareholders of IOUs depending on whether the IOUs efficiency programs fell below or exceeded certain thresholds. The program has not been

without controversy, and critics have alleged the IOUs were rewarded without merit (Bowe, 2009).

Whether a CCA will outperform PG&E (and the third parties it helps fund) in achieving energy savings at lower cost is unclear. In theory, a public agency such as the EBPA would not need a monetary incentive to maximize efficiency. However, most publicly owned utilities (POUs) in California have not historically developed very aggressive energy efficiency programs and, according to the California Energy Commission (CEC), have not performed as well as the IOUs in attaining energy savings in recent years (Lewis et al., 2009). Figure 2 shows that from 2006 to 2008, the IOUs saved more energy relative to their loads than POUs. However, the POUs have developed ambitious plans to expand their efficiency programs, and the past performance of the POUs does not serve as a reliable indicator of the EBPA's expected performance, particularly given the high priority afforded to environmental responsibility by the citizens and municipal governments of Berkeley and Oakland.

Figure 2. Avoided Energy Consumption Resulting from Recent IOU and POU Energy Efficiency Programs as a Share of Annual Load



Source: Lewis et al., 2009

Perhaps the clearest argument for CCA administration of efficiency programs is that they would have better information about local conditions. Greater local

participation and input may help tailor efficiency programs to local needs. Additionally, a CCA would serve a more homogenous customer base in a more homogenous climate relative to PG&E, which may facilitate more effective program design and outreach. On the other hand, PG&E's programs may benefit from greater economies of scale and an ability to implement programs aimed at promoting energy efficient products at stores throughout northern California.

While IOUs have been given incentives to effectively administer their energy efficiency programs, CPUC staff has significant criticisms of their methods. A recent CPUC review of PG&E's proposed energy efficiency measures for 2010 to 2012 indicates that the CPUC does not agree with many of PG&E's estimates of the energy likely to be saved (CPUC, 2009a). In particular, they cite the lack of market baseline data that could be used to evaluate program effectiveness and the emphasis on the promotion of compact fluorescent lights, which are near market saturation in California. In general, the CPUC found a number of flaws in most of PG&E's planned programs, often related to the lack of baseline data, performance metrics, and the transparency of assumptions. A CCA could potentially improve upon this performance.

A final consideration in forming a CCA is whether local governments believe that PG&E's energy efficiency performance is adequate, or is otherwise motivated to design and run their own efficiency programs. The CPUC already requires PG&E to allocate some funds to local government programs. Local governments also have the option of using tax revenues to fund a municipal or regional efficiency office to supplement any funding received from PG&E. In order for an organization of this sort to be effective, it would have to cover a large service area to take advantage of economies of scale, which would probably necessitate creating an entity at the county or regional level.

4.2 Increasing the Share of Renewable Energy

4.2.1 Background on Grid Reliability and Renewable Energy Technologies

To provide reliable electricity service, the supply and demand on electricity grids must be carefully balanced in real time. Any deviation from matching generation to load threatens the reliability of the system because system balance is necessary to maintain the desired frequency and voltage. Excess generation increases frequency and voltage, which leads to higher losses of electricity on the transmission and distribution system[11] and can damage sensitive equipment. Insufficient generation causes voltage to drop, which produces brown-outs or, in more extreme cases, black-outs (Meier, 2006).

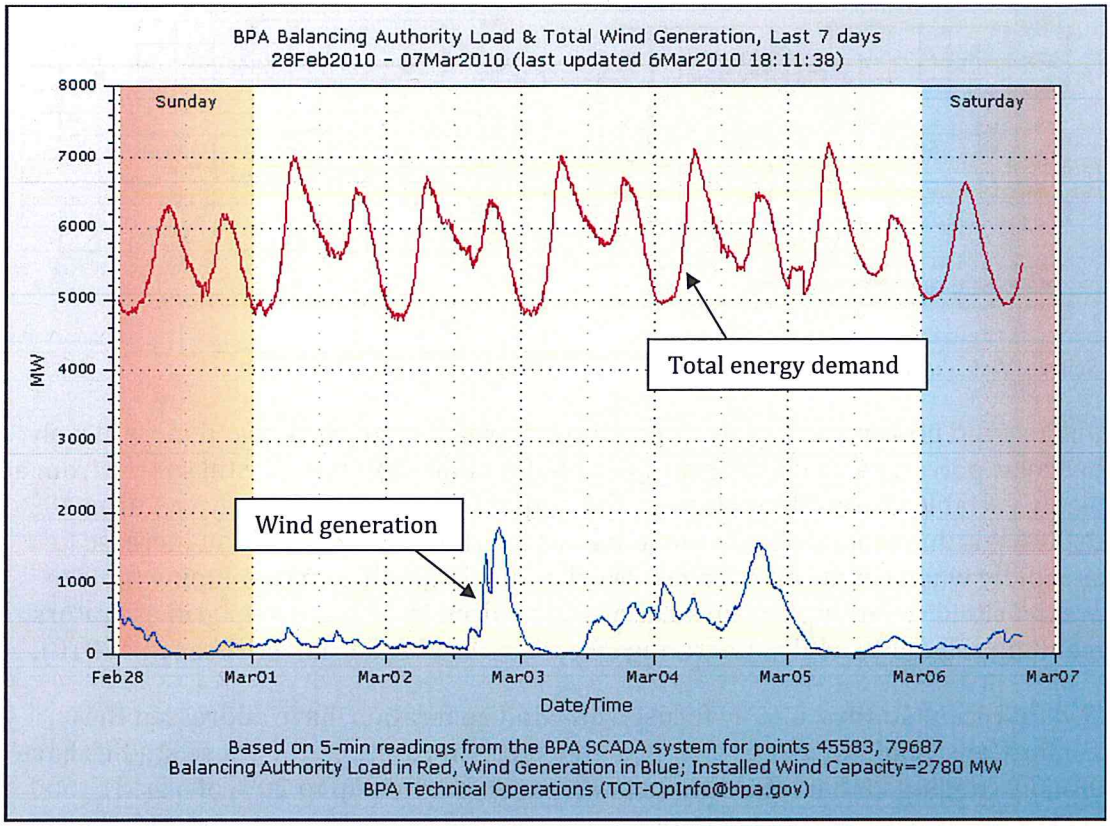
[11] "Transmission" refers to the transport of electricity over long distances on high voltage lines. "Distribution" means the delivery of electricity to customers on lower voltage lines.

Unfortunately, many sources of renewable energy are intermittent in nature, particularly wind and solar which have the most near-term potential for significant growth.[12] A large share of intermittent resources on a grid affects reliability over two time frames. First, the output of solar and wind facilities can swing dramatically within minutes. This necessitates having additional resources on the grid that can ramp up or ramp down production quickly to maintain supply and demand balance (Porter, 2007). Other than hydro power, the only resources capable of providing this agility are gas-fired generating units, particularly combustion turbines. While compensating for intermittency may require relatively little actual energy over the course of a year, it does impose additional costs.

Intermittent sources may also not generate much energy over several days or weeks. Solar output drops considerably in the winter, and during certain periods of the year many wind resource locations experience prolonged low-wind conditions. Figure 3, which shows the output of wind power in the Pacific Northwest (specifically in the control area of the federal Bonneville Power Authority) during one week in March, illustrates a striking example of wind's intermittency. As the chart shows, wind farms in Bonneville's control area produced very little generation for the first two days of the week, output spiked on the evenings of March 2nd and March 4th, and output again fell to almost zero over the subsequent two days. In order to produce the energy demanded by customers, resources that do not rely on as-available energy inputs such as wind and sunlight must be also available.

[12] In electricity planning and operations, a distinction is made between dispatchable resources, which can be called upon when needed, and non-dispatchable resources like wind and solar, which cannot.

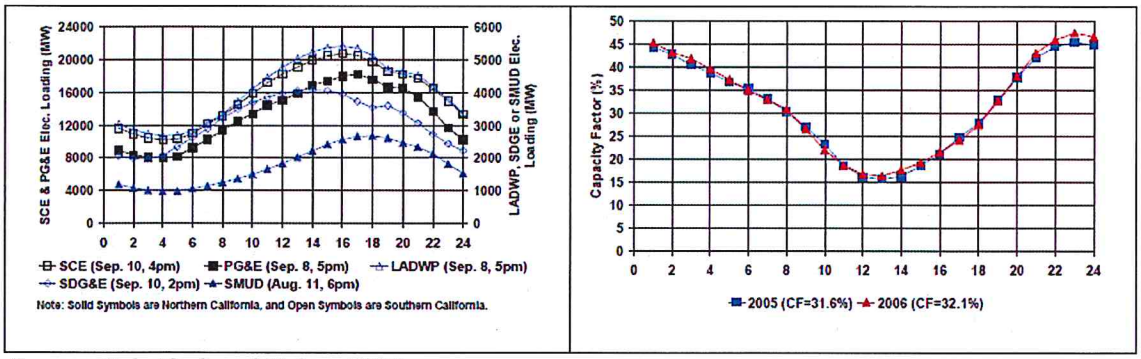
Figure 3. Wind Power Production in the Pacific Northwest



Source: BPA, 2010

In addition to the intermittency of wind power, the output from wind farms in many wind resource areas does not fit well with patterns of demand. With the exception of a few areas of the country, demand for electricity follows a standard pattern of climbing from low levels of demand at night to a peak demand in the early to mid-afternoon. The increase in daytime load is driven largely by lighting and air-conditioning in schools, offices, retail stores, and other commercial and government buildings. Figure 4 compares the average hourly output of a wind farm located in Altamont Pass, one of the three major wind resource zones in California, to the demand of the major California utilities on their peak days. As the right-hand chart indicates, wind generation at Altamont peaks between 8 pm and 4 am and falls to its lowest levels between 10 am and 4 pm. The left-hand chart shows that demand peaks between 2 pm and 8 pm and falls to its minimum around 4 am. The major wind resource areas in southern California are characterized by a flatter generation profile that is somewhat more desirable for providing power when it is needed (Vick, Clark and Mehos, 2008).

Figure 4. Comparison of PG&E Load Profile and Altamont Pass Wind Output



Source: Vick, Clark and Mehos, 2008

Unlike wind power, solar power's generation profile matches demand more closely, but solar power, particularly from solar photovoltaic (PV) panels, still suffers from a highly variable intermittent output. The output from a solar PV array can drop 40% to 80% within seconds when a cloud passes overhead, and output can increase just as rapidly when cloud cover leaves. Work is just beginning on developing tools to predict cloud cover impacts on solar electric output in order to help grid operators maintain reliability while integrating larger shares of solar power (Graham, 2010).

Several recent studies, mostly focused on wind generation, have addressed the implications of adding larger shares of intermittent resources.[13] These studies have broadly concluded that intermittent sources can provide up to 20% of a grid's total energy needs with relatively minor impacts on grid reliability and modest balancing costs (e.g., increasing use of combustion turbines to provide quickly rampable power to match wind's fluctuating output). At penetration levels much beyond that, significant transmission upgrades and changes to grid operating procedures may be needed. The California Independent System Operator, the entity that manages the grids owned by California's three largest IOUs, is expected to release its assessment of the challenges of meeting the 33% renewable target this year, but it was not available at the time this report was completed.

Two factors would help facilitate the integration of more intermittent renewable energy. Electricity storage could help solve both the intra-hour and intra-day reliability problems, but that necessarily adds to the cost of developing renewable energy. Moreover, electricity storage results in significant losses, on the order of 20% or more, as the energy is converted from one form to another. Pumped hydro storage is the only large-scale affordable electricity storage technology that currently exists. Pumped hydro facilities pump water into a reservoir at night and then release it during the day in order to generate power when it's more valuable. This resource requires the damming of a large area to form a reservoir capable of providing the required energy storage and production. Given the environmental

[13] The Utility Wind Integration Group's Wind Integration Library provides links to several studies on this topic. See http://www.uwig.org/opimpactsdocs.html

constraints to building new dams in California, there may be little additional pumped hydro potential.[14] Besides storage, the adoption of more electric vehicles, which are likely to be charged at night when electricity prices are lower (for customers on time-differentiated tariffs), would provide an additional source of demand for off-peak output from wind farms. Technology allowing grid operators to remotely control vehicle charging would further enhance the grid's ability to cope with wind's variable output.

4.2.2 Current Renewable Electricity Requirements and PG&E Performance

One of the primary reasons for supporting CCA that residents of Berkeley have expressed to the Commission is the desire to increase the share of renewable electricity used to serve Berkeley customers.[15] The current renewable portfolio standard (RPS) statute requires LSEs' shares of renewable energy to be 20% by 2010 and every year thereafter.[16] Gov. Schwarzenegger called for increasing the requirement to 33% by 2020 in a 2008 Executive Order (EO S-14-08). A 2009 bill would have codified the order in statute, but Gov. Schwarzenegger vetoed it due to its complexity and discrimination against out-of-state renewable energy. Instead, the Governor issued a new Executive Order directing CARB to adopt a 33% renewable energy standard by July 31, 2010.[17]

PG&E has been criticized for failing to develop enough renewable energy to meet the 20% by 2010 target. PG&E's share of renewable energy was 14% for 2009 (PG&E, 2010a), and the share will not reach 20% by the end of this year.[18] However, it is important to understand the underlying reasons that PG&E, and the other LSEs subject to the RPS, are presently behind in meeting the 2010 goal.

The California legislature first passed an RPS in 2002 under Senate Bill (SB) 1078. That statute required LSEs to serve 20% of their retail loads with eligible renewable sources by 2017. Under SB 1078, California LSEs would have had 15 years to gradually increase the share of renewable energy in their portfolios to meet the

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[14] Another promising storage option is compressed air energy storage (CAES). Currently, there are only three operational CAES facilities in the world. The CPUC recently approved funding to match a grant from the Dept. of Energy for PG&E to conduct a CAES feasibility study at a site in Kern County (Westervelt, 2010).

[15] By "renewable" we generally mean those technologies the California Energy Commission determines to be eligible for the statewide Renewable Portfolio Standard. Large hydro facilities (from dams with greater than 30 megawatt capacity) are excluded from eligibility (CEC, 2008).

[16] The 20% RPS requirement does not apply to POUs. They are required to set a target, but they have the latitude to define their own targets, set their own deadlines, and are allowed to count sources (such as large hydro) that do not count as "eligible" resources for the IOUs.

[17] See Executive Order S-21-09 and the accompanying press release at http://gov.ca.gov/press-release/13273/.

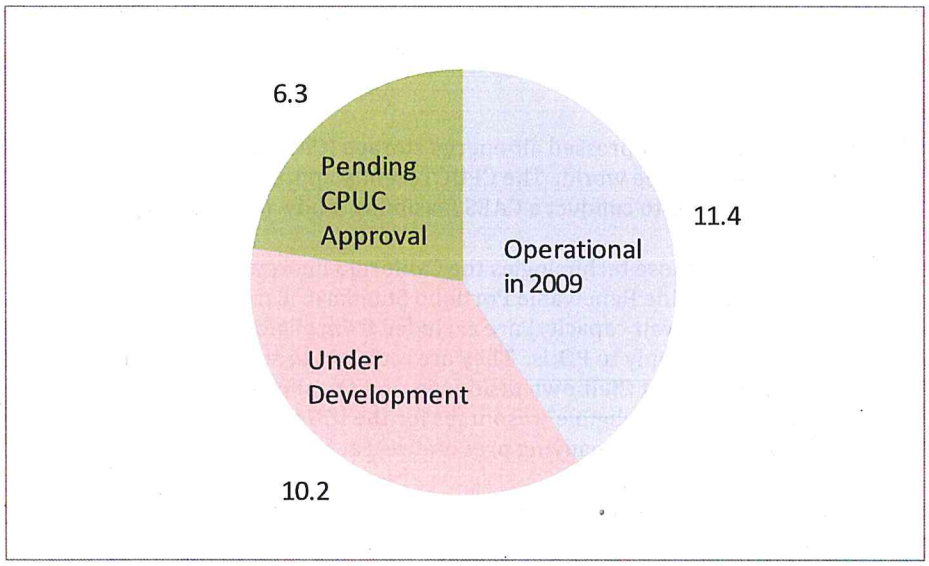
[18] For comparison, the fifteen largest POUs in California averaged 12% renewable energy in their portfolios, but only 8% "eligible" renewable energy because many of the POUs counted large hydro and other ineligible resources (Woodward and Pryor, 2009).

20% goal. In 2006, the legislature passed SB 107, which accelerated the 20% target to 2010, giving LSEs and renewable developers only four years to issue bids, signs contracts, obtain financing, site new renewable facilities, obtain permits and build any new transmission capacity necessary to deliver electricity from renewable resource areas to load centers. It is not surprising that the accelerated targets have not been met.

Every quarter the CPUC delivers an RPS progress report to the legislature. The most recent report was released in February 2010. This report only covered performance by the three big IOUs: PG&E, Southern California Edison, and San Diego Gas & Electric. The Quarterly Report shows that while new renewables came online slowly in the early years (as would be expected under the requirements of the original RPS bill), new capacity has come online in much larger quantities in the last couple of years. In fact, more new renewable capacity was added in 2008 (352 megawatts, or MW) than in all previous years of the RPS program combined (2002 to 2007). Another 357 MW came online in 2009 (CPUC, 2010a). With the recent boom in completed construction and the capacity of facilities that are currently in development or pending CPUC approval, the CPUC projects that the IOUs will meet the 20% goal sometime in the 2013 to 2014 timeframe (CPUC, 2009b).

Figure 5 below offers a sense of the scale of renewable development currently underway to serve PG&E's retail load. In 2009, the output of renewable facilities owned or under contract to PG&E equaled more than 11.4 million MWh. The expected annual output of projects under development would nearly double the amount of existing renewable generation. Adding the expected output from all facilities whose contracts with PG&E are pending approval by the CPUC would increase the quantity of PG&E's renewable energy by over 140%.

Figure 5. Annual Output of Existing and Expected Renewable Energy Sources Serving PG&E at End of 2009, in Millions of Megawatt-Hours



Sources: CPUC, 2010b; PG&E, 2010a

4.2.3 Local Energy

In addition to investing in large-scale renewable energy projects, a CCA could also produce a greater share of renewable energy than PG&E by facilitating the development of more local energy. By "local" we mean energy generated within the jurisdictions of the cities forming the EBPA. Local energy would most likely occur in one of two forms: either gas-fired combined heat and power (CHP) units located at industrial or commercial facilities or electricity from solar PV modules. Using CHP technology efficiently usually requires placing it in a facility with a relatively large and constant heating requirement. Assessing the untapped potential for CHP in the three EBPA cities is a complex task, beyond the Commission's capability. Regardless, the legislature and the CPUC have initiated process reforms to facilitate the ability of smaller CHP units to connect to the IOUs systems and receive fixed, guaranteed payments under a feed-in tariff.[19] Due to the complexity of ascertaining local CHP potential and the limited potential for a CCA to incentivize CHP beyond programs under development, we focus on solar PV potential in this section.[20]

A recent estimate of the structurally unshaded roof space in Berkeley indicates that there may be approximately 3.6 million meters (39 million square feet) of space potentially available for solar development (DeSnoo, 2010). "Structurally" unshaded space does not account for shading from trees, the presence of rooftop air-conditioning units or roof space that is otherwise unusable or unsuitable for solar panels. City of Berkeley staff recommended decreasing the estimate of structurally unshaded space by half as a rough approximation of what may actually be available for housing solar PV arrays (DeSnoo, 2010).

Using an estimate of 100 watts (alternating current) of maximum output per square meter yields a peak production potential of 180 MW.[21] While the Commission is unaware of unshaded roof space estimates for Oakland, its land area, excluding water area, is nearly 5.5 times the land area of Berkeley.[22] Assuming the proportion of unshaded roof space to total land area is comparable to Berkeley's, total solar PV potential in a Berkeley-Oakland EBPA may equal roughly 1,200 MW. This capacity is nearly three times the estimated peak loads for the entire EBPA (including Emeryville) of approximately 430 MW in the early years of its operation (Navigant, 2008).

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[19] For documents related to this Rulemaking see http://docs.cpuc.ca.gov/proceedings/R0806024_doc.htm

[20] When the grid is served by a large share of renewable, zero-GHG electricity, gas-fired CHP, particularly smaller, less efficient systems, could potentially increase GHG emissions compared to separate heat and power.

[21] The figure of 100 watts per square meter is based on a range of likely output provided by Yun Lee, an engineer with Sun Light & Power.

[22] Land area values taken from Wikipedia.

The above estimates concern solar PV capacity but not the actual output. Fixed-axis solar panels produce much less power during the early morning and late afternoon, leaving only a five-hour "solar day" that a panel can operate near its maximum rating. Solar PV panels in PG&E's service territory installed under the California Solar Initiative have averaged about an 18% capacity factor relative to their AC rated maximum output (Itron Inc., 2010). This means that panels in this area produce 18% of the power they could theoretically produce if the sun shone on them from directly overhead every hour of the year. This indicates that the maximum potential output of solar panels in the EBPA territory would amount to approximately 1.8 million MWh per year. According to the EBPA business plan, total annual load in the EBPA cities is currently about 2.5 to 2.6 million MWh (Navigant, 2008).

These calculations indicate that based on maximum technical potential, local distributed solar PV could theoretically supply a large share of the entire EBPA load. Of course, it is infeasible that all property owners in the EBPA cities will install solar panels on their roofs in the foreseeable future, much less the maximum capacity. Additionally, there are technical limits to the amount of intermittent generation that distribution systems can handle.

Large fluctuations in solar PV output that result from passing cloud cover put strains on the distribution system that it is not designed to handle. In a recent analysis for California's Renewable Energy Transmission Initiative, E3 and Black & Veatch suggest that the capacity of solar PV systems should not exceed 30% of the capacity on any given feeder or substation (E3 and Black & Veatch, 2009). This limitation could greatly reduce the actual potential for solar PV. For example, E3 and Black & Veatch estimate that the potential to develop solar PV on all large and small rooftops in PG&E's entire service territory is approximately 1700 MW, only 500 MW more than our rough estimate of the technical potential in Berkeley and Oakland (E3 and Black & Veatch, 2009). This comparison indicates that the true potential for solar PV capacity in Berkeley and Oakland may be considerably less than 1200 MW.

4.2.4 CCA Potential to Exceed PG&E's Share of Renewable Electricity

The EBPA could build or procure more renewable energy than PG&E as long as it is willing to pay the expenditures necessary to build or buy it. Historically, the main factor that has impeded the development of renewable energy is simply its cost. In general, renewable energy sources produce electricity at a higher cost than more conventional sources of power. This is why their uptake has required significant federal, and often state, incentives and RPS laws that require LSEs to use a certain share of renewable energy.

One early indication of the ability of a CCA to provide more renewable energy is the contract that Shell Energy recently signed with MEA to provide electricity to Marin's CCA. The contract requires that Shell provide a "Light Green" product with a

minimum of 25% renewable energy to all customers and an option for customers to choose a "Deep Green" 100% renewable energy product.[23] In addition to the initial levels of renewable energy provided by Shell Energy, MEA reserves the right to invest in its own renewable energy resources to further increase the share of renewable energy (MEA, 2010a). MEA aims to make the "Light Green" base product 50% renewable energy within five years of commencing operation (MEA, 2010c).

While a CCA the size of MEA might be able to provide 50% or more renewable energy to its customers in the near term, such a goal is not currently feasible for a utility the size of PG&E. One reason is simply the scale of renewable development needed. The annual load of the jurisdictions served by MEA is less than 1 million MWh. In contrast, the load served by PG&E in 2007 was over 85 million MWh (CEC, 2009a). This means that PG&E requires nearly 30 times as much renewable energy to meet a 33% RPS target than MEA does to be 100% renewable. Moreover, while MEA could meet 100% of its load with renewable energy with very little, if any, new transmission capacity, PG&E could not. Another reason is related to the reliability concerns explained above in Section 4.2.1. If MEA manages to achieve a renewable share of 50% or more by 2020, it will only be possible because the jurisdictions it serves comprise a relatively small load in a much larger power pool with dispatchable resources. For a large utility, much less the entire state, to operate the grid with 50% or more renewable energy (assuming that most of it will be provided by wind and solar), substantial developments and investment in storage and other technologies that facilitate the integration of renewable energy will probably be necessary.

4.3 Reduction of Greenhouse Gases

4.3.1 Overview of Cap and Trade and Status of Federal and State Implementation

"Cap and trade" is a regulatory approach to reducing various types of pollution. The basic principles are fairly simple:

1. total annual (or seasonal) emission limits are established that generally decline over time,

2. the agency overseeing the program issues allowances, whether through free distribution or auctioning, that permit a regulated entity to emit a certain amount of the pollutant (for example, one metric ton of CO_2),

3. the number of allowances issued for a given year is equal to the quantity of emissions allowed for that year,

[23] Note that the contract does not require the additional renewable energy for the "Deep Green" product to be procured from "eligible" renewable resources, meaning that the 75% additional renewable energy could come from large hydro or other sources ineligible to meet IOU RPS goals.

4. regulated entities must hold and retire enough allowances to cover their emissions, and

5. regulated entities are fined for each unit of pollution they emit that is not covered by an allowance.

Regulated entities are able to buy (from an auction or from other regulated entities or brokers in a secondary market) or sell allowances in order to obtain the amount they need. Because only a limited number of allowances are issued, they are scarce and regulated entities are willing to pay for them to continue emitting GHGs into the atmosphere. The cost of the measures necessary to meet the annual targets determines the price of the allowances. This "carbon price" propagates throughout the economy affecting the price of all goods and services. The more carbon intensive a good is to manufacture, the more its price increases. In this way, all producers and users of energy are incentivized to use less energy and find lower-carbon sources of energy. Cap and trade programs and pollution taxes therefore function very similarly in that both approaches reduce pollution by putting a price on it. Because cap and trade programs provide much greater flexibility than more traditional "command and control" programs (such as programs that mandate the use of specific pollution-control technologies), they offer the potential to save substantial amounts of money to achieve a given compliance target. Cap and trade systems have proven effective at reducing acid rain and nitrogen oxide pollution in the United States over the last fifteen years.[24]

Cap and trade programs for GHGs have only recently been implemented in two regions: the Regional Greenhouse Gas Initiative in the northeastern U.S., which caps emissions from power plants and went into effect in 2009, and the European Union Emission Trading Scheme, whose pilot phase went into effect in 2005. Both programs issued a number of allowances that exceeded actual emission levels at the start of their respective programs, although the European program has largely corrected this problem in its second phase (a period covering 2008 to 2012) by having collected better data and by reforming the allowance budget setting process.

An important difference between GHG cap and trade programs and the federal acid rain and nitrogen oxide programs is the provision GHG programs generally include for the use of offsets. Because a large degree of uncertainty is inherent in the measurement of emissions reduced via most offset projects, the use of offsets may threaten the environmental integrity of cap and trade programs.

In the U.S., a GHG cap and trade bill was passed by the House of Representatives in 2009, but the Senate has not yet, at the time this report was written, moved their version of a cap and trade bill to a floor vote. CARB is in the process of designing a GHG cap and trade program to meet the AB 32 goal of reducing statewide GHG

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[24] See http://www.epa.gov/captrade/ and http://www.sightline.org/research/energy/res_pubs/cap-and-trade-101 for a good repository of introductory documents on cap and trade.

emissions to 1990 levels by 2020. The program is set to begin in 2012 and will eventually cover approximately 85% of the state's GHG emissions by regulating (i) large stationary sources that emit 25,000 metric tons of CO_2 or more per year, (ii) natural gas distribution companies for the portion of natural gas delivered to users that emit less than 25,000 metric tons of CO_2, and (iii) the upstream suppliers of transportation fuels. A preliminary draft version of the regulation was released in late 2009 (CARB, 2009). [25]

4.3.2 Implications of Cap and Trade Programs on Individual GHG Reductions

Under cap and trade programs, GHG reductions are achieved collectively rather than individually. In other words, the actions of individuals and organizations do not reduce or increase emissions because the cap acts as both a ceiling and a floor for emission levels. For example, under the federal Acid Rain Program, efforts to conserve energy do not reduce sulfur dioxide emissions because the allowable level of emissions has already been set by the EPA, and the number of allowances issued does not change. Similarly, Berkeley's efforts to reduce GHG emissions covered by the cap[26] will not reduce absolute emissions under a traditional state or federal GHG cap and trade program.

A CCA will only reduce total GHG emissions under cap and trade if CARB adopts a renewable energy set-aside (or if California's cap and trade regulations are suspended). Set-asides are an administrative mechanism by which CARB would retire allowances on behalf of purchases of renewable energy that are beyond those required by law. With a voluntary renewable set-aside in place, a CCA's purchases of eligible renewable energy that are in addition to the applicable RPS requirement would result in CARB retiring allowances and thereby reducing total emissions. CARB is considering a voluntary renewable set-aside, but its cap and trade rules will not be finalized until the end of 2010 (CARB, 2009). A set-aside has been adopted by nine of the ten states participating in the Regional Greenhouse Gas Initiative. However, none of the federal cap and trade bills that have been introduced to date include a provision for a voluntary renewable set-aside.[27]

5 Maintaining Rate Parity

A central question concerning the long-term viability of the EBPA is the ability of the EBPA to maintain rate parity with PG&E. In this section we identify the most important factors that may affect the EBPA's ability to maintain rate parity if it strives to offer a significantly higher share of renewable energy than PG&E. Some

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[25] CARB's cap and trade regulation faces two potential threats. A measure that has qualified for the November ballot would, if passed, suspend AB 32 until the unemployment rate falls to 5.5% or less. Additionally, both Republican candidates for governor have expressed that if elected, they may use their authority to suspend AB 32 indefinitely.

[26] Emission sources that are difficult to quantify, such as nitrous oxide emissions from agricultural soils or methane emissions from landfills, are generally not covered by cap and trade programs.

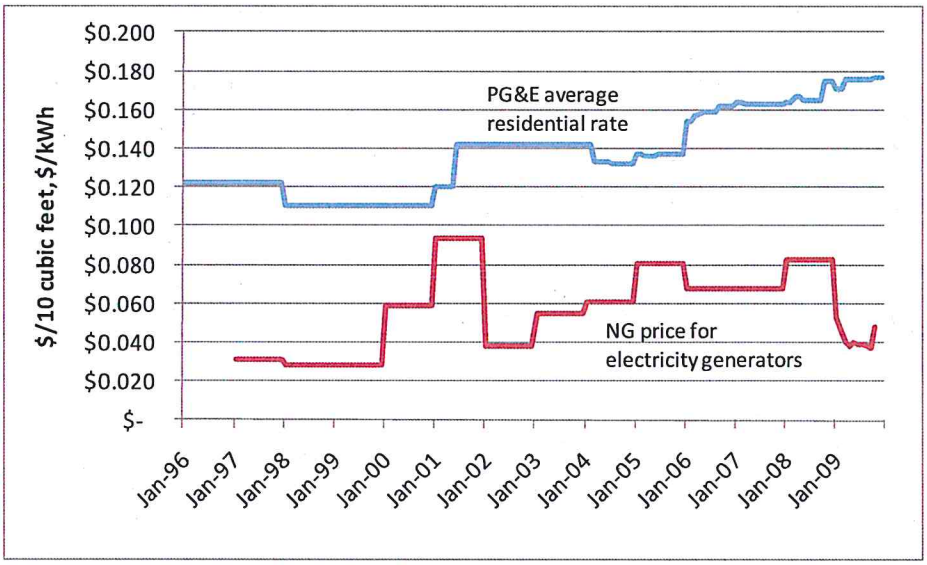
[27] For more information on voluntary renewable energy set-asides, see WCI, 2010.

aspects of the analysis in this section would not apply to an electricity product that contains the same share of renewable energy as PG&E's portfolio, an option that we discuss in Section 6. First, we provide some background on PG&E's rates and the factors that have led to relatively high rates for California's IOUs.

5.1 Background on PG&E's Rates

Before delving into the factors affecting the ability of a CCA to match PG&E's rates in the future, we review the recent history of PG&E's rates. PG&E's average residential rate in 1996, the year that the California legislature enacted the restructuring of the IOUs, was 12.2 cents per kWh. By 2009, the average residential rate had climbed to 17.7 cents per kWh (PG&E, 2010b). This amounts to an average annual increase of approximately 2.8% per year. For comparison, the consumer price index rose at an average annual rate of 2.4% over the same time period (BLS, 2010). The historical trend in residential rates is shown in Figure 6.

Figure 6. PG&E Residential Rates and California Natural Gas Prices for Electricity Generators



Sources: PG&E, 2010b; EIA, 2010a; EIA 2010b

PG&E's rate increases since 1996 have been driven largely by two factors: 1) costs related to the 2001 electricity crisis, and 2) the increasing price of natural gas. California's IOUs rely on a large share of natural gas fired generation when compared to most POUs in California and utilities in other states. This reliance on gas-fired power exposes IOUs to the volatility of the natural gas markets. Figure 6 also depicts the prices that California electricity generators have paid for natural gas since 1997. Between 1997 and 2008, natural gas prices increased at an average annual rate of over 9%. However, they have fallen dramatically since late 2008 (EIA, 2010a; EIA, 2010b).

The electric rates of California's IOUs, including PG&E, are significantly higher than the national average and higher than the rates of many California POUs. There are several underlying reasons for these differences. As explained above, PG&E relies largely on gas-fired electricity whereas most POUs in Southern California have large shares of cheap coal-fired power in their portfolios and many Northern California POUs own their own hydroelectric facilities or receive significant amounts of at-cost hydro generation from federal dams (Dame, 2010).[28] PG&E's 2009 resource mix consisted of approximately 2% coal-fired power and 16% large hydro. In contrast, the Los Angeles Department of Water and Power used 44% coal, Anaheim Public Utilities used 68% coal, and Turlock Irrigation District used 20% coal and 22% large hydro. PG&E also uses a higher share of renewable energy than most publicly-owned utilities (PG&E, 2009; LADWP, 2009; Anaheim Public Utilities, 2009; TID, 2010; Woodward and Pryor, 2009).

5.2 Assessment of Factors Affecting Rate Parity

In order for a CCA to offer rates lower than PG&E's, or alternatively to maintain rate parity while using a larger share of higher cost renewable energy, a CCA must invest in its own generation facilities. Otherwise, the CCA will simply purchase energy from the same market as the IOUs (Stoner and Dalessi, 2009). This section evaluates the cost advantages that a CCA may enjoy compared to IOUs or independent power producers and explores other factors that will affect a CCA's ability to maintain rate parity with PG&E.

The EBPA business plan evaluates costs and rates using a scenario in which renewable energy would comprise 50% of the EBPA's energy mix within eight years of commencing operations (Navigant, 2008). The MEA and San Francisco PUC have supported similar or higher renewable energy goals for their CCAs. Given the relatively ambitious renewable energy goals stated by these CCA programs, the ability of these CCAs to maintain relative rate parity will depend on the near-term and long-term costs of renewable and conventional energy sources. In turn, the relative costs of renewable and conventional energy depend largely on four factors:

1. the near-term and long-term costs of renewable technologies compared to conventional technologies,

2. the cost advantages that a CCA may have when financing electricity generating facilities relative to IOUs or independent power producers,

3. the long-run cost of natural gas,[29]

4. the long-run cost of GHG allowances (or carbon taxes).

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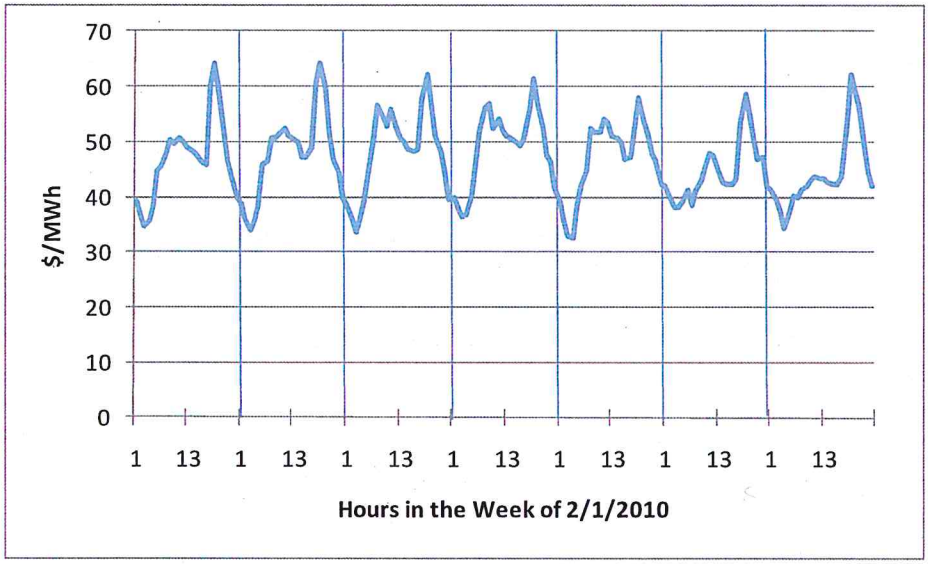
[28] None of these resources would be available to a CCA.

[29] The future price of natural gas is important because gas-fired power will provide nearly all of the EBPA's non-renewable energy and because gas-fired power is the only non-renewable energy source likely to provide new electricity capacity in California.

5.2.1 Near-Term Costs of Energy and Potential CCA Cost Advantages

First we examine the near-term cost of renewable and non-renewable energy. Maintaining rate parity while developing or purchasing the shares of renewable energy in the short time frames proposed in the EBPA business plan will be exceedingly challenging because renewable energy is much more expensive than current market prices of generic wholesale power. Figure 7 below shows a week's worth of hourly wholesale electricity prices in the PG&E service area during the first week of February 2010. The chart illustrates that wholesale spot market prices, which are largely set by gas-fired generators, during this week ranged mostly between $40 per MWh and $50 per MWh with prices spiking a few hours of each day to around $60 per MWh.

Figure 7. Average Hourly Wholesale Electricity Prices in the PG&E Service Area during the Week of 2/1/2010



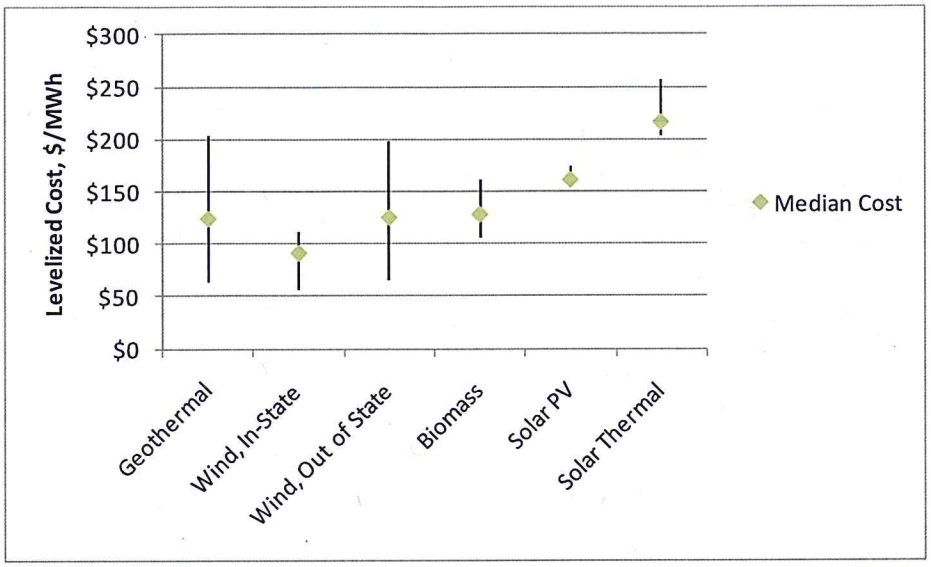
Source: Helman, 2010

In order to compare the generation costs of different technologies, it is necessary to use levelized costs that convert all costs, including tax credits and other incentives, into net present costs. This allows a comparison of technologies with relatively low capital costs but high operating costs (for example, a gas-fired power plant) to technologies with high initial costs but low operating costs (a wind or solar facility).

As part of the Renewable Energy Transmission Initiative, Black & Veatch has prepared estimates of the levelized cost of new renewable energy projects disaggregated by location and technology type. These estimates are listed in a spreadsheet available on the CEC website (Black & Veatch, 2010). Figure 8 depicts the high, low and median estimated costs of renewable energy in several renewable

resource zones scattered across the western grid of North America.[30] The median value for every technology, with the exception of wind built in California, is well over $100 per MWh.[31, 32, 33]

Figure 8. Estimated Ranges and Median Costs of Energy from Large Scale, New Renewable Energy Projects in the Western U.S. and Canada



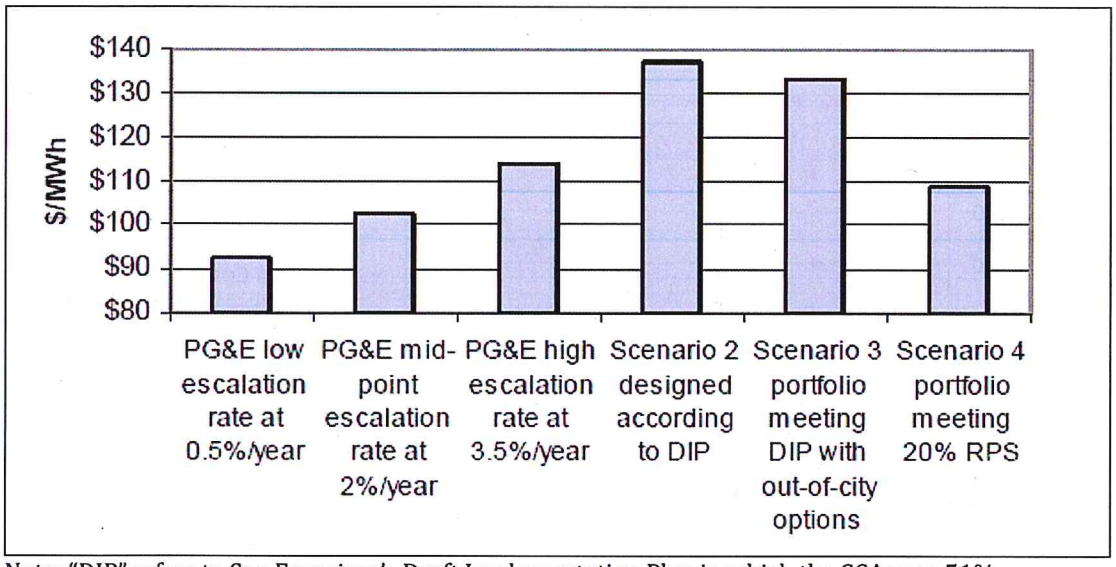
Note: The costs shown do not include the costs of the transmission needed to deliver the energy.
Source: Black & Veatch, 2010

A report commissioned by the San Francisco PUC to inform its decision regarding whether to proceed with a CCA for San Francisco corroborates the intuitive conclusion that maintaining rate parity will be difficult while using more expensive sources of energy. This report compares three different PG&E rate escalation scenarios to three different CCA generation portfolios. The report finds that in either scenario in which the SF CCA reaches its goal of using 51% renewable energy, its costs will significantly exceed PG&E's even under the most pessimistic scenario for PG&E's costs. Of the scenarios examined, only the combination of the San Francicso CCA meeting the minimum 20% renewable requirement and the highest

[30] These values include federal tax incentives available for projects constructed in the U.S. but do not include transmission costs or costs related to integrating intermittent resources.
[31] While wind is a comparatively cheap source of renewable energy, the power it produces is not very valuable due to wind's variable output and the tendency for wind to produce mostly during off-peak hours. Refer to the discussion in Section 4.2.1.
[32] The cost range shown for solar PV applies to utility-scale projects. The generation cost for distributed local solar PV would be higher because large scale installations benefit from cost reductions due to bulk purchasing of panels. Ground-mounted systems also benefit from significantly lower per-unit installation costs. Thus, a large, utility scale installation is cheaper than a reasonably large installation on the roof of a commercial building. Small solar PV systems mounted on the pitched roofs of single family homes are the most expensive way to produce energy from PV.
[33] This is consistent with the terms of MEA's contract with Shell Energy, which stipulates that MEA must pay Shell Energy a $39 premium for every MWh of RPS-eligible renewable energy. (See footnote 15 for an explanation of eligible renewable energy sources.)

cost escalation assumptions for PG&E results in a case where the CCA's costs are slightly less than PG&E's (Sansoucy, 2009).

Figure 9. Twenty-Year Levelized Energy Supply Costs of PG&E and SF CCA Portfolios



Note: "DIP" refers to San Francisco's Draft Implementation Plan in which the CCA uses 51% renewable energy.
Source: Sansoucy, 2009

The wholesale power prices shown in Figure 7 are set mostly by plants that have been in service for many years. These plants are mostly or completely depreciated and are able to sell power at a lower cost than would be profitable from a gas-fired power plant built today. In the long-run, as all LSEs must invest in new generation to keep up with rising demand and/or the retirement of aging power plants, new renewable facilities compete against new gas-fired facilities to provide the additional capacity.

The CEC publishes a report every two years on the levelized cost of new large-scale generation technologies. Table 1 below summarizes the costs for several key technologies from the most recent report (Klein, 2010). The table provides estimates for plants that commenced operation in 2009. [34] Table 1 allows comparison of costs across different technology types and different investor types. Costs differ by investor type because public entities, such as POUs or CCAs, generally have significant financing advantages due to their tax-exempt status, lack of need to generate profits for shareholders, and ability to finance capital projects with tax-free bonds.

The cost estimates in Table 1 reveal a couple of interesting findings. The estimated cost of producing renewable energy from 2009 projects is lower for independent power producers than it is for either IOUs or POUs. This exception to the general

[34] The values shown reflect all available federal and state financial incentives for renewable energy.

financing advantage that public entities possess is due to the suite of tax credits for renewable energy available from the federal government. Because the incentives are tax credits, they do not help lower the development cost for public entities, which pay no taxes. In effect, the federal tax incentives level the playing field between public agencies and private developers with respect to building renewable energy facilities.

In the short-term, private developers should be able to provide renewable energy at lower cost than public agencies. However, this does not represent a disadvantage for the EBPA's ability to match PG&E costs per renewable MWh because the EBPA can enter into power purchase contracts with the same pool of potential developers that would serve PG&E. It does mean that the EBPA will not benefit from a cost advantage by financing the construction of its own renewable facilities in the short-term. Note, however, that POUs retain a substantial cost advantage when constructing fossil-fired generation facilities.[35]

Table 1. Cost of Large-Scale Generation Projects in Service in 2009, $ per MWh

	Investor Type		
Technology Type	**Merchant Power Producer**	**Investor-Owned Utility**	**Publicly-Owned Utility**
Advanced Gas Combined Cycle	114	107	100
Coal Gasification	117	98	99
Biomass [a]	104	101	106
Geothermal, Binary	83	94	107
Solar, Parabolic Trough	225	228	272
Solar Photovoltaic	262	279	320
Onshore Wind, Class 3 to 4	72	78	81

[a] Note that the costs shown for biomass, geothermal, and wind energy appear to be optimistic compared to the Black & Veatch values shown in Figure 8. We do not know what accounts for this discrepancy.
Source: adapted from Klein, 2010

5.2.2 Long-Term Costs of Energy and Potential CCA Cost Advantages

The CEC report also provides estimates of the levelized costs for projects that commence operation in 2018, when the renewable tax incentives are assumed to have expired.[36] These estimates are shown in Table 2. It is possible that tax incentives for some of the renewable technologies will be renewed through 2018, but since the subsidies are intended to support new technologies until they are mature enough to compete with more established technologies, it is likely that many

[35] An alternative strategy to maintaining rate parity that the EBPA could explore is to utilize the advantageous terms of public financing to invest in its own gas-fired generation facility. The EBPA may then be able to generate gas-fired electricity at a lower cost than the independent producers that supply much of PG&E's electricity. The cost savings from the non-renewable portion of the EBPA's portfolio could help to offset the higher costs it is likely to bear by procuring a larger share of renewables.
[36] The exception is geothermal energy whose federal investment credit, according to Klein (2010), does not have a set expiration date.

of the renewable technologies that exist today will not benefit from the same level of support they currently enjoy. The CEC's analysis indicates that once the federal tax credits expire, projects financed by public agencies can provide renewable power at approximately 10% to 30% lower cost than projects financed by merchant developers or IOUs.

Table 2. Cost of Large-Scale Generation Projects in Service in 2018, $ per MWh

	Investor Type		
Technology Type	**Merchant Power Producer**	**Investor-Owned Utility**	**Publicly-Owned Utility**
Advanced Gas Combined Cycle	157	147	140
Coal Gasification	178	143	113
Biomass	160	148	128
Geothermal, Binary	129	137	125
Solar, Parabolic Trough	299	289	256
Solar Photovoltaic	306	295	262
Onshore Wind, Class 3 to 4	127	121	91

Source: adapted from Klein, 2010

5.2.3 Long-Term Costs of Natural Gas

The long-term price of natural gas is an important factor to consider because a large jump in the price of natural gas would improve renewable energy's competitiveness compared to gas-fired generation. It would also make maintaining rate parity more difficult for whichever electricity provider, whether PG&E or the EBPA, relies on more gas-fired power. Because gas-fired power provides the vast majority of generic power available in wholesale power markets in the western U.S. and Canada, whatever share of the EBPA's portfolio is not composed of renewable energy owned by or under contract to the EBPA will be composed almost entirely of gas-fired power. PG&E's portfolio consisted of approximately 47% gas-fired power in 2009 (PG&E, 2009). If that share remains fairly constant over the next several years, the EBPA will be more exposed to the risks of natural gas price volatility until its portfolio consists of 50% or more renewable energy. Although it is impossible to accurately predict long-term prices of natural gas, the Energy Information Administration's most recent Annual Energy Outlook does not project a significant increase until after 2020 (EIA, 2010c). These projections indicate that a large increase in natural gas prices is not likely to exacerbate the EBPA's difficulty in maintaining rate parity.

5.2.4 GHG Compliance Costs

A final factor to consider when assessing the likelihood of maintaining rate parity is the role that GHG compliance costs may play. Emitters of GHGs are likely to have to pay for GHG pollution in the next few years either due to a cap and trade program or a carbon tax. The requirement to pay for emitting GHGs will make fossil-fired power relatively more expensive compared to zero-GHG sources. Table 3 shows the

same generation costs as Table 2 but with a $30 per metric ton GHG compliance cost imposed on the coal-fired and gas-fired generation facilities.

Table 3. Cost of Large-Scale Generation Projects in Service in 2018 with $30 per Metric Ton GHG Compliance Cost, $ per MWh

	Investor Type		
Technology Type	**Merchant Power Producer**	**Investor-Owned Utility**	**Publicly-Owned Utility**
Advanced Gas Combined Cycle [a]	169	159	152
Coal Gasification [b]	204	169	139
Biomass	160	148	128
Geothermal, Binary	129	137	125
Onshore Wind, Class 3 to 4	127	121	91

[a] assumes a GHG emission rate of 0.4 metric tons per MWh
[b] assumes a GHG emission rate of 0.85 metric tons per MWh
Source: Klein, 2010 and authors' estimates

Because natural gas is nearly the only fossil-fired energy source in PG&E's mix and natural gas comprises 47% of its mix, PG&E is largely unexposed to the risk of high GHG compliance costs. In this regard, PG&E benefits from the nuclear and large hydro energy, in addition to the renewable energy, in its portfolio. Because the EBPA will have to rely on gas-fired power for most of its power needs, the EBPA's GHG compliance costs exposure is similar to its gas price exposure. Likewise, the EBPA would have to generate 50% or more of its energy from renewable sources to reduce its GHG compliance cost exposure to the level of PG&E's. Since CARB anticipates having a cap and trade program in place by 2012, GHG compliance costs will add to the EBPA's difficulty in maintaining rate parity.

While it may seem that a CCA would have a difficult time maintaining rate parity, the only currently operating CCA in California, the Marin Energy Authority, has recently secured a contract with Shell Energy North America to supply it with electricity at rates equal to PG&E's in its first year of operation. For more information regarding this contract see sections 2.2 and 4.2.4.

6 Financial Risk to the EBPA and City of Berkeley

In this section we discuss the types of financial risk to the EBPA and the City of Berkeley related to the implementation of a CCA. CCAs differ from traditional POUs in one critical aspect: POU customers are captive whereas CCA customers can opt out and return to IOU service. Due to this opt-out provision, the risk of large numbers of customers returning to IOU service threatens the viability of a CCA. If the EBPA is unable to maintain rates at or near PG&E's rates, increasing numbers of customers may opt out of EBPA service and return to PG&E. Customer attrition could theoretically result in a downward spiral in which higher cost resources built or under long-term contract to the EBPA are spread over an increasingly smaller number of customers until the EBPA is forced to dissolve. Financial risk to the participating cities arises if the CCA dissolves and if there are any funds spent by the

cities to implement the EBPA or any loans provided by or guaranteed by the cities that have not yet been repaid.

The Navigant business plan identifies three broad types of financial risks to the city:

1. pre-implementation expenses related to performing the necessary legal and regulatory steps to establish the CCA,

2. start-up costs and working capital necessary to hire staff and secure energy contracts to prepare the CCA for its initial retail sales, and

3. the longer-term financial liabilities from investment in generation facilities or long-term power purchase agreements that the city might bear in the event the CCA program is terminated (Navigant, 2008).

Navigant estimates that pre-implementation expenditures by the EBPA cities to adopt the necessary ordinances, conduct public meetings, select an initial electric service supplier and obtain necessary regulatory approvals are likely to range from $500,000 to $750,000. Navigant estimates Berkeley's share would range from $130,000 to $200,000.[37] These relatively small expenditures could be recovered quickly from EBPA rates, but if the cities undertake the pre-implementation activities and ultimately do not implement the EBPA, this money would be non-recoverable.

Start-up costs include hiring staff and contractors and covering other program initiation costs such as securing office space. Navigant estimates that start-up costs amount to approximately $3.3 million. As Navigant explains, the EBPA may be able to secure a line of credit to cover these initial expenses, but creditors may not be willing to extend credit without a loan guarantee by the participating cities. Navigant estimates that the start-up costs could be recovered within five years. As long as the EBPA retains most of its customers in the first five years, financial risk exposure to the cities should be minimal. If the cities guarantee the $3.3 million in start-up costs, Berkeley's share, based on its share of the EBPA electric load, would amount to approximately $660,000.

Navigant also indicates that nearly $14 million in working capital may be required to cover the initial round of power purchase agreements before revenues are generated. A large electric service firm could probably loan the working capital until it was recovered in revenues, but the cities might be able to secure more favorable interest rates by electing to guarantee the working capital. Berkeley's share of the $14 million, based on its load, would amount to about $2.8 million. Navigant acknowledges that the proposed financial arrangement would result in some risk to the cities' general funds if the authority is unable to repay the initial

[37] Recall that the estimates in the business plan include Emeryville as a participating city. Berkeley's and Oakland's costs may be slightly higher without Emeryville's contribution.

startup financing but asserts that this exposure would be limited to the amount of the financing explicitly guaranteed by the cities.

In its 2008 report, city staff noted that a private law firm had been retained by the City of Berkeley to provide a legal analysis of protecting the City from obligations to pay for EBPA cost overruns or debts. According to staff, the law firm concluded that the EBPA could be structured to place a financial firewall between CCA activities and the city's municipal corporation (DeSnoo, 2008). While setting up a firewall is possible, it is not clear that creditors will be willing to lend the large sums of money needed by a CCA to develop its own generating facilities knowing that a CCA's customer base is not absolutely secure. Bond markets may react by either requiring a higher rate of interest than a traditional POU would enjoy or by requiring the member cities to guarantee the debt. Note that if the EBPA constructs its own generation facilities, the facilities themselves are significant source of collateral. Thus, the cities might not have to guarantee the entire value of the bonds but only the difference between the resale value of the asset and the outstanding debt (Dame, 2010). If the cities agree to such an arrangement, they may only have to guarantee a fraction of the $190 million that Navigant estimates the EBPA would need to supply 10% of its power from an EBPA-owned wind farm (Navigant, 2008), but the Commission does not have enough information to estimate how large a guarantee would be required.

One approach that CCAs could explore to ensure a higher probability of retaining their customer base is to offer their own "rate parity" electricity product. The CCA programs in place or proposed by Marin, San Francisco and the East Bay have focused on offering a larger share of renewable energy than PG&E. If achieving the renewable goal is likely to lead to higher rates that may induce customers to opt out, the CCA could retain customers by offering its own lower-cost option that seeks to maintain rate parity with PG&E while meeting, or beating, the state's minimum renewable content requirement. Customers would be enrolled in a "medium-green" program by default but would be allowed to opt for either a "light green/rate parity" product or a "deep green" 100% renewable product.

7 Local Green Job Promotion

The Local Clean Energy Alliance produced estimates of jobs created by implementing a sample CCA in Oakland and Berkeley, as described below. For the purposes of this estimate, "local" jobs are defined as jobs created within the cities of Oakland and Berkeley. Additional jobs in the region may be created by other investments, such as developing wind resources in Alameda County's Altamont Pass or geothermal resources in the greater Bay Area.

Many existing local jobs in the electricity sector would remain under PG&E since PG&E would continue to maintain the local grid and provide meter reading, billing, and customer service. We do not expect that PG&E would experience any significant job losses from implementation of a CCA. PG&E also contracts with local businesses

and nonprofits to provide energy efficiency services. CCAs may have the opportunity to gain control of and spend local energy efficiency funds collected under the public good charge on customer bills within the service territory. In this case, the CCA can choose to continue to work with the same experienced local organizations.

The major opportunities for CCAs to create additional local jobs come from increased investment in energy efficiency and local distributed generation above the levels that would occur under PG&E's continued service. Determining the effect of implementing the EBPA on local job creation is challenging because it is difficult to estimate how many additional local jobs a CCA would create above those that already exist and would exist in the future under PG&E's service. Additionally, while the jobs created will be performed in the EBPA cities, they will not necessarily result in employment of EBPA residents unless the EBPA includes local hire requirements or preferences in its solicitations for efficiency and distributed generation services. Such requirements necessarily limit the number of firms that compete to offer these services and may therefore increase costs to the EBPA.

The table below provides estimates on the number of jobs produced per year for investment in one MW of energy produced or saved. While the direct jobs would be located in Berkeley and Oakland, some of the indirect jobs may be located elsewhere.[38] Because we have no basis for knowing where the indirect jobs will be located, we focus our analysis on the direct jobs.

Table 4. Direct and Indirect Job Creation from Energy Efficiency and Solar PV Projects

Type of Investment	Job Years Created/MW Installed	Indirect Job Years Created for Every Direct Job Year
Energy Efficiency	11	0.33
Solar Photovoltaics	7.41	0.90

Sources: Energy Efficiency direct jobs data is from Bell and Honea, 2007. Solar PV data is from the RAEL Green Jobs Calculator (RAEL, 2009). Indirect jobs data is from BKi Consulting, 2009. See references for complete citations.

To estimate a plausible scenario for local energy investments the EBPA may make, we used the resource portfolio proposed in San Francisco's CCA Draft Implementation Plan and reduced it by half to account for the EBPA's smaller load. San Francisco aims to achieve 107 MW of energy efficiency and 31 MW of in-city solar capacity by 2017; thus we used 53.5 MW of energy efficiency and 15.5 MW of solar PV for our calculations. Multiplying these values by their respective direct jobs factors yields approximately 700 job-years of employment. To convert that to the number of jobs, it is necessary to divide by the number of years over which the work takes place. We use the same assumption as San Francisco's Draft Implementation Plan, which anticipates installing the solar and efficiency capacity over the course of

[38] Examples of indirect jobs are jobs created by the purchases of materials to perform the work and the money spent on goods and services by those hired to perform the direct jobs.

six to seven years (2011 to 2017). Dividing the job-years by the years yields an estimate of 100 to 120 full-time jobs created. Whatever indirect jobs created that are located in the EBPA cities would add to our estimate.

In order to determine the incremental number of local jobs resulting from the CCA, the number of jobs added under business-as-usual PG&E service should be subtracted from the estimate above. Some of these jobs will occur anyway under PG&E's energy efficiency programs, private customers' investment in solar PV systems, and PG&E's proposed distributed 500 MW solar initiative (CPUC, 2010c). Calculating how much more solar capacity the EBPA is likely to produce depends on how much of PG&E's 500 MW, if approved, will be installed in the EBPA cities. Since the number of local jobs created under PG&E's service would depend on very rough estimates, the 100 to 120 range can be considered an upper range of additional jobs created by the EBPA.

8 Conclusions

Numerous factors govern the costs of generating electricity from renewable and non-renewable resources. These factors, such as natural gas prices, the cost of renewable energy technologies, the extension of federal renewable energy tax credits and possible future GHG compliance costs are impossible to predict with much certainty. Given current natural gas prices and renewable energy costs, it will be challenging for a CCA to quickly achieve the ambitious renewable energy goals envisioned in the EBPA business plan while maintaining rates comparable to PG&E's rates.

Before committing to the formation of a CCA, Berkeley and Oakland should perform an analysis of the long term cost of a variety of energy supply scenarios using different assumptions for the factors listed above. A realistic evaluation of the likelihood of meeting ambitious renewable energy goals while maintaining rate parity is essential. Based on this analysis, the EBPA should set renewable portfolio goals that seem achievable.

Over the long run, the financial advantages that the EBPA may enjoy as a public agency imply that the EBPA will likely be able to offer electricity, even with a higher share of renewable energy, at or below PG&E's rates. However, it will be critical for the EBPA to retain the bulk of its customers during the first several years of its existence, a period during which renewable energy is likely to cost much more than prevailing market prices of electricity.

A final factor that would favor forming a CCA is that it could allow Berkeley to remain committed to its environmental goals despite any backsliding at the state or federal level. The state legislature and state agencies have committed to an array of ambitious environmental goals in the electricity sector. These policies and programs reduce the scope for additional improvements to environmental performance in providing electric service. For example, if the minimum renewable

energy requirement rises to 33%, then the EBPA would have only 17% more renewable energy than PG&E in its portfolio rather than 30% more if the requirement remains at 20%. But state policies and programs are subject to change. Ballot measures or a change in administration could prevent the implementation of state-level policies currently underway. By forming or joining a CCA, Berkeley can help to ensure that its environmental goals are met, regardless of what occurs at the state or federal level.

Overall, CCA formation offers the potential to reduce environmental impact, increase public involvement in energy policy, and produce local green jobs. However, it is a difficult undertaking, requiring a large effort and entailing some risk. The City Council should evaluate whether the benefits outweigh the amount of effort needed. The progress of the CCAs in Marin and San Francisco over the next few years will help to shed light on this question.

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